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Collaborating for Industrial Development

Construction Processes in Interorganizational Fields

Trondheim, June 2004

Doctoral thesis for the degree of doktor ingeniør

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Preface

Sometime in the previous millennium, I became intrigued by the phenomenon of collaboration, and embarked on the winding road towards this volume. I am thankful that collaboration and supportive relationships have not only been my field of study, but also a characteristic of my travel along this road. This is the place to acknowledge those good people who have made the travel a better one, personally, socially as well as professionally.

Despite my persistent attempts for many years not to let the thesis-work influence on my family life, and in phases not even influence my work life, inevitably, the production of this volume must be recognized as a family endeavour. Above all others, I want to thank my wife Elisabeth for her support and reluctant willingness to carry much more than her load. As the manuscript has grown, so has the family. Thank you to Tobias and Hanna for being who you are, totally uninterested in PhD-work, and for reminding me of what matters most in life.

Work matters greatly. Dear Work Research Institute - AFI, quite a few people have strong opinions about you. As always, the critical voices tend to be the loudest. I want to thank you for your generosity and decency, for your learning environment and for all the opportunities available to us any time we feel up to taking them. Not least, I want to thank you for the extraordinary good work environment I have been fortunate to be part of for many years. Admittedly, you are all individuals, yet you are the “house”.

Working with talented people over many years in this house accentuates the questions of how I came to know what I know, and where the ideas came from. In well-functioning professional environments, it is often difficult to trace the origin of ideas and concepts – because they grow out of good conversations and mutual inspiration. Often we do not acknowledge this aspect of the intellectual process that leads to the coining of e.g. a term, a concept or a new approach. I know my learning process has benefited greatly from being a part of AFI, and I am indebted to several AFI colleagues for their sharing of ideas and experiences. Thank you.

Funding and institutional backing matter, too. AFI generously awarded me a four-years grant to get the work going. I suppose the intention was to get the work *finished*, but the process took a different route. Eventually, the national research program Enterprise Development

2000 provided me with a national agenda, a larger professional context and necessary economic backing. The current 10-year national program Value Creation 2010 has continued this role¹. With its focus on regional development through collaboration, it has created an inspiring context for getting this volume out the door, as well as providing possibilities for exciting new projects.

In order to finish a dissertation that addresses a core issue of an *ongoing* national research program, you need to start years ahead of that program. The problem is of course to know this early enough or have the sufficient luck. While luck and coincidence play a role, one person deserves particular acknowledgement in this case. My long time AFI colleague and friend Ragnar Johansen, now research director at the university college in Vestfold, brought me into the research field in Aust-Agder and made me aware of interorganizational development dynamics in regional settings. At that time very few others, if any, in our research tradition recognized this as an important action research issue. Even fewer were able to conceptualize the challenges and design adequate development strategies. This is the hallmark of Ragnar Johansen. He introduced me to social ecology as a way of thinking about complex social systems, and over the years he has repeatedly demonstrated this ability to very early identify important societal issues and to design approaches that jointly improve practise and knowledge production.

I want to thank my good friend and outstanding action researcher, professor Thoralf U. Qvale, AFI, for his never-ending generosity, support and helpfulness, which has meant much to me. Thoralf is one of the few leading national work life researchers who always, actively and with passion brings new researchers to our field, gives them possibilities, supports them and shares his vast experience with them. This has been very important for the development of AFI, and also for action researchers beyond the institute.

My excellent advisor, professor Morten Levin at NTNU in Trondheim, also deserves many thanks. In addition to being very patient, he has an ability to inspire my writing process even

¹ Value Creation 2010 is jointly financed by the Norwegian Research Council (NFR), the Labour Union (LO), the Confederation of Norwegian Business and Industry (NHO), the Norwegian Industrial and Regional Development Fund (SND), and the three ministries Local Government and Regional Development (KRD), Trade and Industry (NHD) and Education and Research (UFD).

when he gives me substantial critique. Giving people the beating they need and making them like it, is a very important quality for a professor who repeatedly designs and leads innovative PhD-programs. Morten`s role as the host for PhD-dissertations based on action research is of national importance.

My co-advisor, director Jon Hanssen-Bauer at FAFO, made sure the courses in my PhD study had high quality and relevance by designing them and providing the content. He also designed and ran the international summer school in action research in my field of study in Aust-Agder, which proved to be a stepping-stone for my dissertation work. As advisor and colleague Jon has greatly influenced my thinking on action research and collaboration. Jon`s inspiring ideas, suggestions and challenges have provided more than enough to reach for, far beyond this thesis. Thank you.

Another AFI colleague, Tian Sørhaug, director of AFI and later of the TIK centre at the University of Oslo, shared some of his creativity with me in a series of inspiring conversations during an intense phase of analysing and conceptualizing. His wit, wisdom and imagination would inspire any kind of intellectual work. Professor Bjørn Terje Asheim, now at the University of Lund, Sweden, gave valuable feedback on my chapter on regional development.

My good friends, professor Oğuz Babüroğlu of Sabanci University, Istanbul, and professor Rupe F. Chisholm of Penn State University, Harrisburg, are leading international scholars in the field of action research and social ecology. I have benefited immensely from our numerous conversations, and they have provided me with valuable international exposure, not least through our collaboration at several international conferences.

I also want to extend my thanks to professor Davydd J. Greenwood who generously hosted my stay at Cornell University in 1995.

Finally, I want to acknowledge my key field contact Arvid Johannessen who always had an open door, an open mind and a willingness to share. His contribution to this thesis is invaluable.

Henrik Dons Finsrud
AFI, Oslo, December 2003

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Summary

Industrial development at a regional level demands an ability to create productive cross sector collaboration. This thesis is about how such interorganizational collaboration can be constructed. Based on studies of three collaborative efforts taking place in the same region at the same time, I set out to answer the following main research question.

How can regional actors collaborate to support development in enterprises?

In the theoretical part of the thesis, I address the discourses on industrial development with an emphasis on the collaborative aspects. Three approaches that all heavily influence the current thinking and policymaking in this field are discussed. The first is what may be labelled the regional-development orientation associated with industrial districts and flexible specialization after Piore & Sabel (1984), mainly within the discipline of industrial geography. The second main contribution to the discourse on industrial development is the work of Porter (1990) and his followers. Typical for these two main contributions is that they circle around various collaborative constructs at a systemic or macro level (e.g. networks, industrial clusters) and in essence argue for the centrality of interorganizational collaboration in fostering industrial development. What they both lack, however, is considerations of *how* the desired collaborations can be created, i.e. they lack a development perspective that addresses the collaborative processes essential to practical development.

The third tradition or approach is associated with public planning for development. It takes the public actors as a point of departure in discussing how industrial development may be advanced. Within certain traditions of public planning associated with community development, a much clearer emphasis is put on broad regional participation and concrete means to involve various actors in collaborative planning efforts. I argue that in order to develop industry, a greater emphasis on the «how» is needed, and I question the adequacy of a planning logic in this respect.

The broad support for collaborative strategies, but inability to contribute beyond declaring its importance, leads me to the main theoretical chapter where I address the issue of

collaboration. Collaboration between organizations is viewed as a general approach to addressing shared complex problems, where industrial development is one such problem-complex. In conceptualizing collaboration, I give special attention to *social ecology* (e.g. Trist 1983) as a framework for interorganizational development. Organizing collaborative domains and collaborative processes are the two main foci of the chapter. I criticize the linear process models and develop the interactive dimension of collaborative processes as an alternative. This chapter ends with an expansion of the main research question into the following issues.

- 1) the organizing of collaboration,
- 2) the processes of collaboration,
- 3) the regional dimension of collaboration and
- 4) the role of public actors.

In part three of the thesis I present the case material covering 5+ years of development trajectories. The Joint Project, the Wood Centre and the Electronics Committee all have central features in common. All the three cases address competence development in enterprises, and they do it through collaboration between enterprises, the educational system and county representatives, however in clearly different ways. Moreover, the cases unfold during the same time period in the same county. These similarities give special access to the understanding of collaborative development processes by comparing across the cases.

Analysing and discussing the three development trajectories in part four of the thesis lead me to the last chapter, where my conclusions and contributions to the literature are presented. On the issue of organizing, several contributions to collaborative theory have emerged during the research process. I criticize the prevalent sequential and rather mechanistic contributions in the current literature, and I argue for a more dynamic and iterative understanding of organizational issues. In a regional landscape where legitimacy, the building of trust and the development of relationships are at the core of feasible strategies for change, roles, functions and organizational forms need to be understood in a relational and dynamic perspective. This includes regarding *convening* as an ongoing process throughout the lifespan of a collaborative effort, and to understanding the issue of organizing as a process of ongoing reconstruction, rather than a once-and-for-all construction of an organizational unit. As an alternative to the

prevailing process models, I have developed principles of *interactivity* to characterize dynamic and evolving collaborative relationships based on a democratic value stand.

I have developed the regional dimension of collaboration by introducing new concepts (*partial domain*, *sub-domain* and *triple connectedness*), as well as developing the meaning of previously introduced concepts (*infrastructure for change*). I suggest the concept of a regional *infrastructure for change* as the conceptual bridge between industrial geography, collaborative theory and an action research oriented approach to industrial development. While the study does not fully discuss the role of public actors, it clearly argues the importance of a proactive role, and discusses some dilemmas with such a role. I emphasise the importance of regional autonomy, the recognition of public-public collaboration a part of industrial development, and the challenge for public actors of moving back and forth between the two different logics associated with, respectively, bureaucracy and horizontal collaboration.

Part I: Setting the Scene

Chapter 1

Collaboration, Competence and Industrial Development

1.1 Focus of the thesis

This thesis is about interorganizational collaboration for industrial development. More specifically, the thesis deals with collaboration between enterprises and their relevant support infrastructure in a regional field, with the purpose of creating competence development in these enterprises. The thesis is based on studies of three collaborative efforts, all taking place during the same time period in the same county in Norway, Aust-Agder.

My main focus is on the *construction processes* of interorganizational collaboration, which means that I seek to address collaboration from a development perspective, i.e. how can it be done?

As I am going to expand on, it is at present recognized that advancing industrial development² at a regional level demands closer interaction between the regional actors, especially across public and private sectors. Put simply, industrial development has to involve industry, not only as passive recipients or victims of centrally developed policies, but as active participants in a continuous interactive process where industrial development is given meaning, direction, content and form by the relevant actors. This point of departure also presupposes that the public actors are able to play a role in regional industrial development. Both the thesis and much of the efforts in the field build on these basic assumptions.

This way of viewing industrial development leads to a concern with the construction of interorganizational collaboration. Pursuing the potential of collaboration is *not* a controversial

² "Industrial development" is used in a general sense referring to the development of enterprises in the private sector, and is not limited to e.g. industrial production at the exclusion of service production. In the literature, the term is often used interchangeably with "regional development" and "economic development". In Norwegian the term is "næringsutvikling".

point of departure, regardless of how underdeveloped it may be in certain settings. Rather it is a widely shared orientation in many academic circles, and is also prevalent in many societal change efforts. In recent years there has been a call for interorganizational, as well as intersectoral, collaboration to respond to contemporary economic, social and environmental challenges facing both public and private sector organizations. Various collaborative structures, ranging from public-private partnerships, coalitions, strategic alliances, joint ventures and clusters to a variety of inter-firm networks have been put forward as critical structural innovations designed to address the kind of complex, multidimensional problems that cannot be solved by any one single organization. Instead, it requires the coordinated efforts of several organizations. These problem complexes are in a sense never “solved”, but rather improved upon through collaboration. Industrial development can be perceived as such a problem complex. In the academic discourses and the public policies on industrial development, the major challenge is not any longer to argue in favour of collaboration, but to provide answers to *how* the desired collaboration can be constructed. As I shall return to in chapter 2, the dominating discourses on industrial development fall short of providing insight on this issue. The ambition of my thesis is to address this shortcoming and contribute with actionable insight on how collaboration may be constructed in regional fields.

My way in: Approaching the research issue

My involvement in the Aust-Agder setting started in 1990 when I took part in an action research project together with colleagues at the Work Research Institute (WRI). The project concerned developing a business park³ for small, high-competence-based enterprises. The idea behind the business park was to provide the small enterprises with a larger social and professional setting by utilizing the physical proximity to create close collaboration between them. This should help them to learn faster, more easily solve problems and create new business activities across the enterprises. The concept of the business park appeared to be one of the possible organizational constructs whereby enterprises could engage in a mutually supportive development trajectory.

³Longum Park outside Arendal consisted of 10 enterprises with a total of 75 employees from the start in 1989. Three years later it had 19 enterprises and 150 employees.

At that point WRI had 25+ years of action research experience from enterprise development, coupled with strategies for diffusion in order to achieve change on a larger scale. In other words, a central research issue was, and still is, the challenge of reaching beyond the single organization project to construct means by which development in a larger enterprise population may be supported. The present thesis addresses this challenge, and thus is placed in the research tradition of researching enterprise development on a larger scale.

From an initial focus on the internal dynamics in the business park, my perspective gradually started to include external relations, as they appeared to be decisive for the internal development. External actors included other enterprises outside of the park, as well as the political and administrative system at municipality and county level, because their priorities influenced the conditions for internal development in the park. Relating to the public actors of the area contributed to conceptualizing park development not only as an inter-enterprise issue, but as a question of industrial development. The collaboratively based business park provided a possible approach to supporting the growth of small enterprises, and thus actors in industrial development started to consider both the general learning, and the business park itself as an institution worth supporting.

The collaborative turn

It soon became evident that the belief in various collaborative ventures was not limited to this particular business park and the enterprises within it. As a consequence of being in the field, I became aware of other parallel collaborative developments in the county. In the private sector, three partly overlapping networks of enterprises had recently been formed. The Competence Ring South, the Agder IT-Ring and Maritime Forum were all established around 1990, and counted about 90 member enterprises altogether by 1993. These rings or networks of enterprises, i.e. primarily networks of top managers, had *competence development* as one of their core purposes. As I shall later return to, these networks were not the only new constellations of enterprises appearing in the early 90s, but clearly the most highly profiled ones. Thus, a picture emerged of an enterprise population eager to explore the potentials of collaboration, and especially trying to address the issue of competence development by this approach.

This collaborative turn among the enterprises was matched by the public actors. The national Parliament granted the county of Aust-Agder an experimental status for 5 years with increased autonomy in economic and administrative matters. The county administration and county council formed the “Free County Experiment”⁴ with the main purpose of improving industrial development in the county. This was to be achieved by increased collaboration between the various departments, collaboration with work life and the construction of a central fund at county level. When it came to the actual contents of industrial development, *competence* was identified as one of the central issues by the county politicians and administration. This view was undoubtedly based on signals from the enterprise networks mentioned above.

As a first step in this direction, the county administration commissioned a study from WRI. A research team, in which I took part, carried out the study. The task was to map out the competence system in the county, and how it interacted with work life. The project should serve as an input to the strategy development process at county level, and was designed with a conference that brought central actors together to debate the findings of the study (Finsrud et al 1993). Through this project, I was brought further into regional considerations and attained a broader overview of the actor setting and initiatives in progress. This access and knowledge of the field later became important in choosing the cases for this thesis⁵.

It became apparent to me that enterprise development on a regional scale is an issue of industrial development where public resources must be mobilized and utilized in a more systematic fashion. Furthermore, the broad agreement within both sectors that industrial development should address competence development as a focal issue, appeared striking to me. Both *collaboration* and *competence development* were terms “of good currency” in the field, but neither were at this point (1989-90) firmly established as central elements in the academic literature on economic or industrial development. Later, as we shall see below, this

⁴ See chapter 4 for a full account of the Free County Experiment.

⁵ Neither the business park nor the three larger networks mentioned are cases in this study. However, together they illustrate the density of collaborative efforts in a small regional field, which led me to go beyond enterprise networks and address regional collaboration in the early 1990s when the Norwegian action research community was mainly geared towards single enterprises and sector networks. From the year 2000, the national action research program Value Creation 2010 has placed a clear emphasis on broader regional collaboration through partnerships and development coalitions (Gustavsen 2001).

picture has changed. The very density of collaborative initiatives in this regional field also in a comparative perspective, was brought to my attention as we organized and ran an international summer school in action research in Aust-Agder in 1993. Bringing in colleagues from abroad as well as from Norway to investigate into various WRI-projects in the county, accentuated this particular dimension.

The overall picture thus portrays two parallel trends appearing at the same time; the emergence of private enterprise networks, and collaborative efforts between public actors. The Free County Experiment brought forward the third element, i.e. the collaboration *across* the public and private sectors in order to improve the quality of industrial development in the region.

This setting offered special opportunities for learning about how collaborative efforts may be carried out in order to support the development of enterprises, and as such was a continuation of our initial interest in organizing for change on a larger scale than the single organization. The issue, as it appeared to me at the time, was how the collaboration between these largely independent actors could be organized and carried out in ways that would actually be beneficial to the enterprises. This interest spurred me to embark on the journey towards this thesis.

1.2 Key issues towards the research question

What is the relationship between collaboration, industrial development and competence? In this section I shall give a first exploration of these issues and present the main research question.

Collaboration for industrial development

A first clarification is that industrial development in this thesis is primarily treated as a *regional*⁶ issue. Thus, regional industrial development may be a more accurate term. In line with most literature on the subject, these terms are used interchangeably throughout the thesis. Still, with a regional focus, the national level also plays an influential role with deliberate

⁶ The regional dimension applied in this thesis corresponds to the county level in Norway. The main rationale behind this is the existence of the political and administrative system at this level, as well as the social partners representatives and other key actors. The concept of "region" is discussed in chapter 2.

policies, or lack of such. Conditions for regional dynamics are for instance frequently created or obstructed at national level, and for any given demarcation of a particular region, important relations to other regions and to the national level will exist. Needless to say, industrial development may also be conceived at an international level, where multi-national development programs (e.g. EU-programs) and trade regulations are some of the key issues.

A second clarification is that regional industrial development in this thesis is not addressed in terms of fiscal and economic measures such as cost reduction, wage level or subsidies, nor adjusting laws and regulations, or improving the physical infrastructure, which are also relevant elements on the industrial development agenda, again mostly on a national level.

Rather, “industrial development” in this thesis is perceived as concerning the capacity for change, learning and innovation, and is approached from the view of developing the concrete enterprises in the region by conceptualizing this development as an *interorganizational issue*, i.e. concerning the direct relationships between (mainly) regional organizations⁷.

Studies of regional development dynamics and comparisons of regional policies have shown that these policies or strategies must be based on the particular conditions in each region; different regions demand different strategies (Deiaco & Nordström 1998, Kristensen 1994, Zeitlin 1992). The industry structure, the culture, the history, the physical and institutional infrastructure, climate, quality of living, migration patterns, competence of the workforce and the social networks, are some of the dimensions that distinguish regions from each other in terms of conditions for industrial development. This complexity illustrates that development strategies are most likely to fail unless they are carefully built on the particular context. National policies that treat all regions as if they were alike, will consequently be futile. This need for contextual policies implies that little can be said *in general* about the actual *contents* of successful industrial development efforts. However, a few general points about the *conditions* for creating the context-specific contents can be identified. At this point I shall only refer two very central ones.

⁷ In the language of growth theory, this may be classified as a form of endogen growth perspective (development from within) (e.g. Lommerud 1992, Onsager 1997), emphasizing knowledge and hence learning as fundamental to economic development (Borgen et al 1993), and partly associated with forms of a socio-institutional view where interorganizational dynamics play a key role (Amin & Thrift 1994, Cooke & Morgan 1993).

- *The creation of space and opportunities for local and regional initiatives.* Central planning and policies do not lead to positive development unless they are closely integrated with, and based on, regional initiatives. And unless the local and regional levels have the required autonomy in terms of financial resources and political elbowroom, such initiatives cannot be expected to flourish (Zeitlin 1992).
- *Broad regional participation.* A positive industrial development is not the work of the politicians alone, neither of the regional administration. To foster regional development, there has to be a broad participation of regional actors (Bennett & McCoshan 1993). Studies particularly emphasize the *direct* participation of enterprises as decisive for successful regional policies, as opposed to indirect participation through interest organizations (Deiaco & Nordström 1998).

The core of these two critical conditions is the need for *collective action* among regional actors both from public and private sectors. In other words, *interorganizational collaboration* becomes a focal issue for industrial development. This has been reflected in the early star-cases of Silicon Valley (e.g. Saxenian 1994) and the industrial districts of Emilia-Romagna (e.g. Piore & Sabel 1984), but the picture is now much broader, both in terms of types of collaboration and settings where this modus operandi is chosen. At present, a picture emerges where development within the European work life setting is increasingly pursued through collaborative ways of working (e.g. Ennals & Gustavsen 1999), illustrated by the proliferation of constructs like partnerships, coalitions and networks⁸. Thus, the understanding of collaborative processes in regional fields should become a core concern to industrial and economic development, both from a practical and academic perspective. This thesis aims at contributing to furthering this understanding, chiefly by addressing the issue of *how* such collaborative processes can be constructed and sustained.

⁸ Examples at the level of the European Union of how various forms of partnerships are being shaped as critical elements in developing tomorrow's worklife can be found in the EU Commission's Green Paper on "Partnership for a New Organization of Work". See also article by Allan Larsson, Director-General DG-V (Larsson 1999).

Competence as an issue in industrial development

If interorganizational collaboration is a central modus operandi in industrial development, then what should this collaboration seek to address? Again, this has to be locally and regionally decided in each case. A wide variety of concrete issues may be handled collaboratively, and correspondingly, the specific collaboration may take a variety of forms.

However, one theme seems to stand out in the debate on industrial development. Theorists in this field have during the last few years given increased attention to *the capacity for innovation* as fundamental to competitiveness (Isaksen 1997). In newer innovation theory, innovation is basically seen as an interactive learning process involving many actors (Lundvall 1992). Knowledge is here regarded as the most fundamental resource, and hence learning the most important process in modern economy. Thus, to create conditions conducive to such learning becomes a primary concern in industrial development. The regions expected to be successful are those who are able to organize learning processes between organizations on a regional scale, leading to the term *learning region* (Asheim 1995). From this perspective, learning or *competence development*⁹ emerges as a focal issue for industrial development.

This innovation-based argument coincides with what can be considered as a broader trend in work life at an international scale. One of the few overarching characteristics of work life development is the recognition that economic development is increasingly tied up with the competence of the work force, and the continuous development of this competence, i.e. the learning capacity. Most, if not all, industrialized countries are increasingly becoming *knowledge-based* economies, or even *learning economies* (Lundvall & Johnson 1994)¹⁰. Knowledge is viewed as essential to economic growth, and is even conceptualised as a most important “capital” for nations as well as for organizations (Stewart 1997). This is regarded as a global phenomenon. “It seems clear that the production, distribution and exchange of

⁹ The term “competence development” (in Norwegian: kompetanseutvikling) is used throughout the thesis in a broad and general sense because it is widely used in the field of study and in the public debate in Norway. This thesis is about collaboration, not about competence, knowledge or learning. Hence distinctions between these concepts will not be made.

¹⁰On the individual enterprise level, learning and knowledge have been important issues for some decades (e.g. Argyris & Schön 1978), but has gained increased attention throughout the 1990s (e.g. Easterby-Smith et al 1998, Moingeon & Edmonson 1996, Nonaka & Takeuchi 1995, Senge 1990).

knowledge is a crucial element of the global economic system on a scale that was never the case before” (Amin & Thrift 1995:4). A part of this is linked to the rate of technological innovations where new technologies are frequently introduced, widely available, and correspondingly, where existing technologies rapidly become obsolete. Continuous competence development is regarded as a necessity to keep up with this rate of change. Thus, competence development in a broad sense becomes a major issue for industrial development, an issue in which public actors must play a role (ibid.).

The redirection of public policies towards the competence area is emphasised by what is referred to as the globalisation of the world economy. The deregulations of finance, the power of multinational corporations and the widespread use of information technology associated with the globalisation of the world economy, implies that traditional measures in national industrial policymaking and practise are increasingly futile. Tax barriers, trade control, subsidies, monetary or credit policies, financial incentives to enterprises and other protective arrangements are easily copied or bypassed and do not represent any stable competitive advantages, if at all legal. In this context, supporting competence development appears as a central policy option for public actors.

Consequently, development efforts become geared towards this issue. An international example of the increased attention is the European Union “Objective 4” program for competence development in small enterprises and the 5-year, 620 million ECU “Leonardo da Vinci” program on vocational training (Leonardo 1999)¹¹.

At a national level we might consider that the competitiveness at large, and thus the employment level and social welfare, is linked to the individual nations’ ability to continuously improve the competence of the population, not least the competence of the people already taking part in work life. In other words, creating processes that support the competence development or learning in work life is a critical concern. This concern lies behind a national committee report on vocational training and competence development in work life (NOU 1997), the following white paper (KUF 1998) on what is referred to as the

¹¹ See also the European Union (1995) White Paper “Teaching and Learning - Towards the Learning Society”. The recent World Bank World Development Report 1998/99 on “Knowledge for Development” is another example of the present focus on knowledge as the foundation for development.

«competence reform», and the corresponding report to the parliament (KUF-committee 1999), which was passed on 19th of January 1999. Special emphasis is here given to competence development in small and medium-sized enterprises. Their limited individual resources, their collective large numbers, and their anticipated growth potential are brought forward as reasons for improving the support measures towards this group. In this brief picture of the national scene, it is also important to recognize that the main labour market parties, i.e. the Norwegian Confederation of Trade Unions (LO) and the Confederation of Norwegian Business and Industry (NHO) have been major actors in bringing competence development on the national agenda, and continue to be central in the ongoing debate on how the competence reform will be carried out in practise.

These are but a few of the indications of the increased focus on competence development at the national level in Norway. Numerous examples of conferences, research and development programs, projects and concrete development efforts can be added to this list. The main point here is that during the last few years we can observe an increasing attention towards this issue both in the academic literature, in international development efforts as well as in the homely political debate concerning industrial development.

These accounts show general trends and macro-oriented considerations regarding the growing importance of competence. Apparently, competence development can and should be addressed in many ways, both at enterprise, regional and national levels. Issues of legislation, labour market agreements, financial resources, utilization of R&D-resources and organization of the educational system are but a few of the headlines indicating the various approaches relevant to a national effort in this area.

Is all competence development useful?

In praising competence development one should have in mind that all competence development is not directly useful to the enterprise. The evaluation of the 5 years, 10 billion Swedish crowns Working Life Fund in Sweden, who created about 25,000 projects, showed that investments in competence development was only linked to increased productivity when the competence development was coupled with changes in the organization (Gustavsen et al 1996). This clearly demonstrates that individual skills or knowledge learned outside the work situation where they are to be utilized, do not automatically get used when the individuals

return to work. The work organization, the technology and/or the various systems must be adjusted in order for the newly acquired skills to be of use to the individual and to the organization (Eikeland 1999, Skule 1994).

However, this thesis does not deal with competence development as such. The focus of the thesis is collaboration that happens to be about competence development in enterprises. *Competence development* is used in a broad sense without specifying the topics or the desired learning dynamics. While both the topic and the pedagogy are essential to the actual outcomes for the individual and the enterprise, as well as for the larger systems, this study does not discuss various forms of learning and knowledge¹². My point of departure is that the particular contents and form of such development efforts has to be based on the needs of each individual enterprise and grow out of interaction with other actors in a process of clarifying the adequate issue, level, pedagogy, timing and cost in each case.

While the strategic relevance and internal organizational adjustments are of central importance to the actual benefit of competence development efforts, this thesis does not go into the individual enterprise and evaluate the connections between their chosen competence development efforts and necessary organizational changes. Neither does it investigate the *internal* processes in the enterprise by which the needs are defined. Rather, it focuses on the interorganizational processes by which the understanding of development needs are matured, concretized and brought into action through collaborative efforts. As I shall come back to later in the thesis, identifying the needs is not a straightforward task for most enterprises, but usually requires a longer process of clarification.

The main research question

The reasoning so far has placed collaboration as a central element in regional industrial development, and established competence development as a focal issue to collaborate about. The argument of this thesis is that in order to be useful, the desired competence development in the enterprises must be addressed in manners where the specific situation of the individual enterprise is the point of departure. This moves the focus away from centralized planning

¹² For broader discussions of knowledge and competence, see Eikeland (1997), Lahn (1995), Nordhaug (1998) and Uhlin (1996).

towards local and regional collaboration where concrete interaction takes place. This leads to the following main research question:

How can regional actors collaborate to support development in enterprises?

The research question will be further developed based on the theoretical discussions in chapters 2 and 3.

1.3 Outline of the thesis

This section gives a brief outline of how the thesis is constructed. The thesis is divided into four main parts. Part I consists of the chapter you have now read, which had the main purpose of introducing the reader to the topic of the thesis, present the research question and give an account of the academic context of this work.

Part II

Part II of the thesis, *Theoretical Discussions*, consists of chapters 2 and 3. In chapter 2 I address the discourses on industrial development with an emphasis on the collaborative aspects. Three approaches that all heavily influence the current thinking and policymaking in this field are here given attention. The first is what may be labelled the regional-development orientation associated with industrial districts and flexible specialization after Piore & Sabel (1984). A broader range of theoretical positions and concepts are brought to play within this discourse, but they are sharing the emphasis on the importance of the spatial dimension, i.e. the importance of the localities in which economic activity is carried out. The second main contribution to the discourse on industrial development is the work of Porter (1990) and his followers. This is a much narrower theoretical position, which almost exclusively relies on the conceptual framework developed by Porter under the heading of “the competitive advantage of nations”, i.e. not of regions or enterprises. While the interplay in the larger industrial systems is critical also in this perspective on competitiveness, the importance of place is not emphasized to the same degree.

Typical for these two main contributions is that they circle around various collaborative constructs at a systemic or macro level (e.g. networks, industrial clusters) and in essence argue

for the centrality of interorganizational collaboration in fostering industrial development. The considerations put forward are largely based on studies of successful examples, or to put it differently, “what it looks like when it works”. What they both lack, however, is considerations of *how* the desired collaborations can be created, i.e. they lack a development perspective that addresses the collaborative processes essential to practical development.

The third and last tradition or approach is associated with public planning for development. It takes the public actors as a point of departure in discussing how industrial development may be advanced. Within certain traditions of public planning associated with community development, a much clearer emphasis is put on broad regional participation and concrete means to involve various actors in collaborative planning efforts. I argue that in order to develop industry, a greater emphasis on the “how” is needed, and I question the adequacy of planning logic in this respect. Going from the «what» to the «how» leads us to the second chapter on theory, chapter 3.

Chapter 3 addresses the most central aspect of the thesis: collaboration. Collaboration between organizations is viewed as a general approach to addressing shared complex problems, where industrial development is one such problem-complex. In conceptualizing collaboration, I give special attention to *social ecology* (e.g. Trist 1983) as a framework for interorganizational development. Organizing collaborative domains and collaborative processes are the two main foci of the chapter. I criticize the linear process models and develop the interactive dimension of collaborative processes as an alternative. Chapter 3 ends with an expansion of the research question based on the discussions in chapter 2 and 3.

Part III

In Part III: *Organizing for development* I present the case material. Chapter 4 introduces Aust-Agder county, and explains the Free-County Experiment which is both an essential context as well as an integrated part of the following three cases. The three cases have some central features in common. All the three cases address competence development in enterprises, and they do it through collaboration between enterprises, the educational system and county representatives, however in clearly different ways. Moreover, the cases unfold during the same time period in the same county. These similarities give special access to the understanding of collaborative development processes by comparing across the cases.

In chapter 5 I tell the story of the Joint Project, a 5 years effort initiated by the county administration as part of the Free County Experiment. Chapter 6 gives an account of the development of the Wood Centre, an industry-specific service unit initiated by central actors within the wood industry. In chapter 7, the development of the Electronics Committee is portrayed.

Part IV

Part IV: *Analysis and conclusions* consists of four chapters. The analysis is based on concepts introduced in chapter 3. Chapter 8 focuses on organizing and chapter 9 on process issues. In chapter 10 I identify collaborative patterns at a regional level. Chapter 11 sums up the main findings and provides concluding considerations. The research methods are described and discussed in appendix A.

Part II: Theoretical Discussions

Chapter 2

Perspectives on Industrial Development

2.1 Introduction

The question of how regional actors can collaborate to support competence development in enterprises, is a question situated in the larger discourse on industrial development. In the previous chapter I argued that collaboration between regional actors is increasingly focused upon as a critical *modus operandi* in furthering industrial development. The purpose of this chapter is to investigate more thoroughly into the dominating schools of thought in industrial development to see how and to what extent they address the issue of collaboration. This is important in order to position the thesis in relation to the current discourses and policy developments in Norway. The chapter will show how the discourses are geared towards structural concepts where collaboration plays a central role. However, they rather consistently stay on a macro level and as such insufficiently address the crucial question of *how* these collaborative arrangements may be constructed. This accentuates the relevance of this thesis' analysis of discourses on industrial development, and leads on to the following core theoretical chapter on collaboration.

The academic field of industrial development appears diverse, but there are three main traditions that have particular relevance to the focus of this thesis. The first was initialised by the work of Piore & Sabel (1984), "The Second Industrial Divide", who re-introduced the concepts of industrial districts and flexible specialisation based on experiences from what is commonly referred to as the Third Italy. The second school of thought is closely linked to the work of Porter (1990) "The Competitive Advantage of Nations", in which industrial clusters and the diamond model are central. The third strand of thinking takes the public sector as the point of departure, and regards deliberate development fundamentally as an act of planning. Interestingly, these schools of thought have been poorly integrated and have ignored each other, despite the fact that they have long existed side-by-side as discourse formations addressing the same kind of problem.

2.2 The regional dimension and post-Fordism

The discourse formation concerned with the ideas of the industrial district, flexible specialisation and the regional dimension of industrial production, has a disciplinary focus on

economic industrial geography, but also draws on for instance economic sociology and industrial and regional economics. A large number of contributors participate in this discourse, and it is of course not feasible to cover such a broad discourse comprehensively within the limits of a brief chapter. In the following I seek to address the main aspects of this discourse as it has been developed the last decade by looking at what appears to be the more influential contributors both internationally and nationally. National contributors have a special relevance as they link the international debate to national conditions, and thus influence the domestic debates on suitable policies as well as on worthwhile research issues.

During the last one and a half decades we have witnessed an increasing emphasis on the regional dimension of industrial development. This debate has been closely connected to what is perceived by many as a fundamental change in the organisation of industrial production; the shift from Fordism characterised by mass production, to post-Fordism characterised by flexible specialisation¹³. Piore & Sabel's book "The Second Industrial Divide" (1984) has proved to be a path-breaking contribution in arguing that this shift is taking place. Their work has had a profound impact on research as well as on policy making in this field (Amin & Robins 1990:187). Their main message is that we are facing a radical shift from a model for industrial development based on mass production in large, vertically integrated firms, to a possible, and even likely, regime of flexible technologies, a highly qualified workforce and new forms of organising industrial production, both internally in the individual firm, and not least across firms in the form of networks.

This new, post-Fordistic form of production is characterised by vertical disintegration where production processes increasingly take place through cooperation between many and often small firms, each specialising in different parts of the value production chain. This form of production should give possibilities for flexibility, both in terms of shifting between different products and in terms of shifting the production volume. Through this, it is argued, networks of small, specialised firms can achieve competitiveness in producing quality products in small series for the international market (Isaksen 1993a). Thus, it is the system of smaller, independent firms that increases their competitiveness, not so much the individual firm.

¹³ See Amin (1994) for a good overview over the discourse on post-Fordism.

Further, it is claimed that in this form of production, the *region* or the local area gains increased importance as a locale for production because physical proximity is favourable for the necessary exchanges between the firms. Sabel even writes about “a renaissance of regional economies” (Sabel 1994:106). This implies that industrial development must be addressed at the regional level and based on the particular conditions in each specific region. Scott & Storper claim that “...the viability of contemporary flexible production agglomerations depends to a high degree upon effective institution-building and policy-making at the regional level.” (1992a: 16).

Whether it can be claimed that we are in the midst of a clear “divide” regarding organisation of industrial production as argued by Piore & Sabel, is subject to debate both on theoretical and empirical grounds. Other contributors argue that what we see is several parallel development trajectories, and an array of different concrete ways of organising industrial production. The general concepts as they are applied by Piore & Sabel are therefore too general and all encompassing, and thereby empty (Amin & Robins 1990). The debate about how distinct, general and unambiguous this shift is, and which definitions of concepts are most appropriate, do not, however, erase the broad agreement between researchers that since the late 1960s, we have witnessed the emergence of a number of production areas dominated by networks of small and medium sized firms.

Regionalisation or globalisation?

The claimed “renaissance of regional economies” referred to above is, however, not the only major characteristic of the recent evolution in the world economy. Parallel to regionalisation, we are also facing a stronger globalisation of the world economy where various aspects of industrial activity become less place specific than before (Amin & Malmberg 1994, Kanter 1995). Global corporations and conglomerates increase their influence on the development in various sectors and local communities. This globalisation is marked by an increased concentration of control and ownership, and the linking of firms into global networks rather than regional ones. Also within the global corporations there has been a process of decentralisation and splitting up of the production units into “independent” entities with network-relationships to each other. Therefore, at the same time we have a concentration of ownership and control, and increased vertical disintegration of production.

Through the concentration of ownership and linking of enterprises in international networks, globalisation may take the form of altering local ownership structures and moving critical decisions out of a local community or region. This creates a situation where the local enterprise is linked up to a multinational corporation in such a way that major decisions concerning the enterprise are made at a headquarter somewhere else, often not in the same country. What seem as viable strategies from a local perspective, may not be perceived as such from an international or global perspective, and thus the decisions to move, close down or establish new entities, enter new markets, change products, establish strategic alliances or other major strategic moves, may not correspond to local preferences. This dis-empowering dynamic may be viewed as undermining the importance of the particular locale.

However, even multinational corporations have to locate their production units somewhere. This brings us back to the qualities of the region or local community as a locale for industrial production. It is claimed that multinationals cannot solely rely on being global, but must become regionally embedded in their various locations in order to achieve competitiveness (Kanter & Dretler 1998). Rather than seeing them as opposing trends, we may see regionalisation and a globalisation of the world economy as complementary events.

How then are the parallel processes of globalisation and regionalisation connected? One of the connections between regionalisation and globalisation is to be found in the network construct itself. Regionally based networks are able to develop a competitiveness that allows them to compete in the international market and participate in international networks. In other words, regional collaboration creates the template or basis from which the firms gain strength to link up to international actors¹⁴.

The processes of regionalisation and globalisation may also have consequences for the role of the national state. Rather than understanding the world economy as a collection of national economies, it is now conceptualised as a mosaic of regional economies interacting with each other. It is argued that these dynamics reduce and change the role of the national state.

¹⁴ For a broader discussion of territoriality and globalisation, see Amin & Thrift (1994).

“In this new global-economic order, the ability of the nation-state to regulate its own economic affairs is diminished; on the one hand, intensified international competition and the interdependence have reduced the workability of national macro-economic regulation; on the other hand the proliferation of specialised Marshallian industrial districts as flexible production organisation advances means that much policy-making and institution-building today is likely to be most effective when directed not exclusively to sectors at the national level but to agglomerations with their geographically-specific production logics.” (Scott & Storper 1992b:22).

While most contributors agree that the role of the nation-state has changed in the era of regionalisation and globalisation, it is not agreed whether the role is *reduced* in a real sense. Based on arguments around the capacity for learning as fundamental to competitiveness, others conclude that the nation-state has a crucial role to play in assuring the continued development of the competence in industry (e.g. Amin & Thrift 1995).

Industrial districts and the concept of region

There is a great variety and vagueness in the use of the term “region”. According to the Encyclopædia Britannica (1988:1003), a “region” may in the social sciences be defined as “a cohesive area that is homogenous in selected defining criteria and is distinguished from neighbouring areas or regions by those criteria. It is an intellectual construct created by the selection of features relevant to a particular problem and the disregard of other features considered being irrelevant. (.....) Regions may be defined in terms of single or multiple features (....) The most common features in social science are a) ethnic, cultural or linguistic, b) climatic or topographical, c) industrial or urban, d) economic specialization, e) administrative units, and f) international political areas”.

Within industrial geography, where the importance of the regional level for industrial development is emphasised, a region may be defined as follows:

“A region (...) is constituted as any territorial aggregation of plants which partake of a common development trajectory, and often this will also involve some degree of overall regional co-ordination and governance. The plants within any given region may be geographically dispersed or agglomerated, and any one region may contain a multiplicity of agglomerations” (Scott & Storper 1992b:5).

This definition combines industrial, economic and administrative features, and appears as a rather elastic geographical term. It is currently used to denote geographical areas ranging from

a few municipalities to parts of national states, and for some purposes several national states may comprise a region. A region is seldom if ever taken to mean the same as a national state. Most often it defines an area somewhere between local community and the national state - or it is constituted by parts of different national states, together forming a geographical area that is meaningful in dealing with a specific trend, challenge, problem or issue. Here we touch upon one of the characteristics of this concept: the meaning of region depends on the issue at stake.

As noticed by the reader at this point, the regional dimension applied in this thesis corresponds to the county level in Norway¹⁵. The main rationale behind this is linked to the existence of the political and administrative system at this level, which play a central role in the collaborative efforts on which the thesis is based. While enterprises are typically indifferent to such county borders, politicians as well as government agencies have a tendency to focus on the development in “their” area, and thus the public actor setting gains a clear county dimension. This, however, does not imply that the county setting excludes actors from the outside or serves as a form of strict border. It merely provides a focus for the development efforts, and may serve as the basis from which essential links to actors outside of the region are established.

The “agglomerations” in the definition provided by Scott & Storper above, consist of cooperating small firms within the same or supporting industries, and may be termed *industrial districts*. They are said to represent the emergence of a new form of production within post-Fordism. The standard examples of industrial districts in the literature are areas in central and northeast Italy, often referred to as The Third Italy (e.g. Piore & Sabel 1984, Capecchi 1990), and the high technology area of Silicon Valley (Saxenian 1992, 1994). In other words, a *region* as it is defined here, can contain from none to several industrial districts. In the following pages, I shall explore further the conceptualisation of industrial districts as a model for industrial development based on cooperation.

¹⁵ Using the county level as a region corresponds with Nilsson’s (1998) use of the term in his division of Sweden into regions. Isaksen & Spilling (1996) have used a regional division of Norway corresponding to the national census bureau’s (Statistisk Sentralbyrå) 104 work market regions, which is on a level between the county and the municipality, i.e. each region in this division consists of more than one municipality. This shows that the use of the concept varies, and these uses of the term clearly relate to administrative units as the central feature.

2.3 Following Piore & Sabel: The quest for industrial districts

Looking for industrial districts

According to Sengenberger & Pyke (1992), three factors largely account for the appeal of the industrial districts to both researchers and policy-makers; i.e. their economic performance, as measured by export, employment, flexibility and innovation; their capacity for endogenous regional development, and their ability to sustain high wages and labour standards in the face of international competition. As we shall see later, the high-profile industrial districts are not doing that well. Nevertheless, a central question for industrial geographers following Piore & Sabel has been to what extent the so-called success stories of the industrial districts of the Third Italy can be transferred, copied, re-created etc. to other industrial areas in other countries as a potentially attractive model for regional development. What experiences can be transferred? What can be re-created elsewhere, and what must be regarded as results of specific historical, cultural and geographical processes? (Pyke & Sengenberger 1990).

Attempting to answer these questions has led to a preoccupation with looking for industrial districts outside of the Third Italy. This search is based on the idea that if they exist elsewhere already, their emergence does not depend on unique conditions in northern Italy, and hence they are possible to create in other settings. According to Zeitlin (1992), they are found in a number of places. Some of the examples put forward are West Jutland in Denmark, Småland in Sweden, Baden-Württemberg in Germany, Silicon Valley in California and Route 128 around Boston in the USA, and several regions in Spain, France and also in Quebec, Canada.

“The broader relevance of the industrial district as a dynamic form of economic organization has been confirmed by the discovery of successful counterparts in a wide range of sectors and regions outside the Third Italy.” (Zeitlin 1992:282).

Also among Norwegian industrial geographers there seem to be a preoccupation with industrial districts. A repeated concern appears to be whether or not various areas in Norway can be characterised as industrial districts, and then if and how these areas may develop in the direction of industrial districts with flexible specialisation. (i.e. Asheim 1992, 1993a, Isaksen 1993c, 1994). In other words, the ideas connected to the concept of industrial districts are also

regarded as being of relevance to economic and rural development¹⁶ in Norway, not least by this group of researchers.

So what is an industrial district?

The concept of “industrial district” was introduced by Marshall (e.g. 1919), but is further developed especially by Italian researchers. While the concept is commonly associated with the classic by Piore & Sabel from 1984, Brusco (1990:14) claims that Becattini reintroduced the concept to modern research on industrial organisation in 1979. According to Zeitlin (1992), Marshall originally developed the concept of industrial district with reference to British examples from the latter part of last century. The concept was reintroduced as a framework for interpreting the small-firm development in the central and northeastern regions of Italy, and has later been applied to other more or less successful industrial regions in Europe and elsewhere.

Giving a precise and undisputed definition today is seemingly not possible as researchers in the field are not in total agreement on this matter. Compared to some of the central international researchers in this area (such as Scott & Storper 1992, Piore & Sabel 1984, Zeitlin 1992), both Isaksen (1993a) and Asheim (1992, 1993b) argue for *more* strict and precise definitions of central concepts like Fordism, industrial districts and flexible specialization. With reference to Sayer (1989), Asheim argues that: “the trouble with concepts like Fordism, post-Fordism and flexible specialisation is that they are overly flexible and insufficiently specialised” (Asheim 1992:45). When the concepts are applied in describing and postulating meta-historic transitions, such as from the mass production under Fordism to the flexible specialisation of post-Fordism, the reality that the concepts are meant to describe becomes so heterogeneous that the concepts lose both their analytic and descriptive potential. Analytical precision, historical accuracy and empirical applicability can be achieved by using

¹⁶ In Norwegian: Næringsutvikling og distriktsutvikling.

narrow and precise definitions, Asheim claims¹⁷. However, the consequence of using narrow definitions is that it is not possible to argue neither empirically nor theoretically that the transition from Fordism to flexible specialisation has occurred (ibid. p. 46). Asheim even claims that Scott has misunderstood Marshall's idea of industrial districts (1993b: 4).

There seems to be agreement within this "narrow" tradition that industrial districts consist of a concentration of smaller firms within relatively small geographical areas. The firms are in the same or related industrial branches, and participate in local networks with a clear specialisation within each firm and extensive formal and informal cooperation between the firms (Isaksen 1993b: 17). A high degree of flexibility and efficiency is achieved in these production systems by the use of flexible, multi-use production techniques and skilled workers, combined with the collaboration between the specialised firms. This new form of production organisation is referred to as "flexible specialisation".

Again based on Marshall, the concept of an industrial district is separated into two so-called analytical dimensions, "external economies" and "agglomeration economies". External economies based on flexible production methods are a quantitative dimension and refers to the efficiency of the production system, obtained through the external division of labour within networks of firms. Agglomeration economies are a qualitative dimension, and refer to "factors concerning the quality of the social milieu of industrial districts" (Asheim 1992:54). I shall come back to this dimension later.

Adding to the network character of industrial districts is the lack of overly dominating firms. An important characteristic is that *a number* of smaller, independent firms deliver their products to customers outside the industrial district, thus preventing one single firm from taking the role of central strategic decision maker (Brusco 1990:14). In other words, the typical industrial district does not have one or a few large firms that function as "locomotives"

¹⁷ Deciding if an area qualifies as an industrial district seems not to be that easy. In one publication Asheim (1992:57) concludes that Jæren does not qualify as an industrial district. Later, the same Asheim (1993a:122) arrives at the conclusion that Jæren after all must be called an industrial district. In the former publication, Jæren was disqualified partly based on its limited size compared to the average industrial district in the Third Italy, which has from 1000 to 3000 firms with fewer than 20 employees (Brusco 1990:14). Partly, Jæren did not qualify because external economies were not quantitatively strong enough in the production system in Jæren. These "problems" seem to be overcome in the latter publication.

and strategic decision makers and have a set of suppliers. Isaksen is clear on this point in his definition of industrial districts: “There shall not be any large firms dominating in number of employees or in market power” (Isaksen 1993b:17) (my translation)¹⁸.

Reflecting on the various developments in the industrial districts of the Third Italy, and breaking with the conceptual framework of a “narrow” tradition, as well as the «discovery» of industrial areas with similar features elsewhere in the world, Zeitlin argues: “Despite its many valuable insights, the canonical model of the Marshallian industrial district now appears too rigid, too exclusive and too closely bound up with the experience of a particular time and place to accommodate convincingly the diversity displayed by contemporary districts both inside and outside the Third Italy.” (Zeitlin 1992:284).

He continues: ““In the face of these difficulties, it seems necessary to move away from a “thick”, “closed” model of the industrial district based on stylised account of a particular national experience towards a “thin”, “open” model capable of generating a variety of empirically observable forms.” (Ibid. p. 285)¹⁹.

Autonomy, organisational choice and common services: some policy implications

Summing up the various contributions to a book on industrial districts, Zeitlin (1992) argues that the decentralised structure of the districts characteristically poses two major institutional problems. These are the provision of common services, which are beyond the capacity of individual firms to supply for themselves, such as training, research, market forecasting, credit

¹⁸ As a consequence of the narrower definition of industrial districts, an additional term has been introduced. “New industrial spaces” refers to production areas that do not qualify as being industrial districts, but nevertheless consist of extended production networks. External economies based on flexible production methods create and maintain these new industrial spaces, while agglomeration economies have little importance. In other words, the economic advantages of business cooperation within an area is the driving force in forming an industrial space, while the interaction with the local community has less importance, it is claimed. Industrial spaces may have asymmetrical networks and dominating firms who are centres for strategic decision making. The cooperation between firms is often based on the relationships between managers who are part of the same professional group. The value base for this professional cooperation is relatively narrow, and not necessarily shared by other groups in the same area. This is different from industrial districts, where mutual trust and central values are more strongly embedded in the larger area (Isaksen 1994, Asheim 1993b).

¹⁹ See also the debate between Amin & Robins and Sabel, Piore and Storper in Pyke, Becattini and Sengenberger 1990: 185-237.

and quality control, and the resolution of conflicts among local actors that threaten to displace competition from product and process innovation to sweated wages and conditions. While these dilemmas are intrinsic to the general model of the industrial district, he argues that the institutional solutions may vary considerably in form, participants and effectiveness from one district to another. "It is this disjunction between common functional requirements and diverse institutional solutions which opens up a space for policy intervention in fostering the district's development." (Zeitlin 1992:285).

The key to the success of the industrial district, he continues, is that relevant local actors come to constitute a more or less formal policy network within which effective solutions to common problems can be jointly discovered. While no universal model of organisation can be identified, two generalisations emerge about the institutional requirements for the formalisation of cooperation within industrial districts. The first requirement concerns the autonomy of local government. "Only local authorities are in a position to acquire the detailed knowledge of the local economy and broker the social consensus among local actors needed for the effective provision of collective services" (ibid. pp. 288-289).

The second requirement concerns the role of collective actors. "The collective services often take the form of public goods to whose creation individual firms or workers may be reluctant to contribute however great their advantages for the regional economy as a whole. Hence the production of these collective services requires strong local interest organisations such as business associations and trade unions which are capable of internalising both their costs and their benefits." (ibid. p. 289). Experience shows that local and regional autonomy is no less important for such interest-group organisations than it is for government. Notably, it is claimed that the local or regional autonomy needs to be anchored in a suitable national framework of legislative guidance and support.

Weaknesses of industrial districts

The "industrial district" is an analytical construct with clear normative connotations illustrated by its influence on policies for industrial development. The driving force behind developing and applying this concept has not only been a desire to understand and explain, but also its claimed potential for *creating* competitive areas by providing principles for spatial industrial organization. Thus, the concept is used as a prescription for competitiveness. We then have a

debate *both* about the conceptual definition of the industrial district, *and* an empirically based debate about how these districts actually work and how they can be recreated elsewhere. As it turns out, areas that have been defined as industrial districts are not necessarily successful.

The research on industrial districts in Italy has been criticized for portraying an unrealistically positive image of the situation (Isaksen 1993b). Large firms are an important part of the business structure in many of the districts, and in many cases the large firms exploit their suppliers and their sub-suppliers to manage variations in product demand. Many of the sub-suppliers employ mainly women and immigrants from South-Italy and North Africa, and unskilled workers suffer bad working conditions and low wages. Skilled jobs in independent, smaller firms are mainly occupied by men. In addition, the economic performance and rate of innovation varies considerably (Harrison 1994). From our domestic sphere, an illustrating example is the analysis of the leisure boat industry and the electronics industry in Aust-Agder. According to Isaksen (1994b), the leisure boat industry qualified as an industrial district, but the industry was in heavy trouble with bankruptcies and closures at the time of study. On the other hand, the electronics industry did not qualify as an industrial district, but was and still is thriving, growing and profitable. In other words, being an industrial district does not necessarily mean success.

As has been made quite clear in recent years, industrial districts are not the solution per se, regardless of narrow or open definitions, and the more euphoric perceptions in scientific circles are fading. Recognising this, it appears more fruitful both theoretically and from a practical point of view to aim at developing the clearly underdeveloped dimensions of this body of locality-focused concepts, rather than arguing the case why certain regions should be included or excluded from the map of industrial districts. One such underdeveloped aspect of the industrial district is the community dimension, i.e. the social and institutional structure in which the enterprises are embedded. This is particularly relevant to our discussion, as it focuses upon the broader interorganisational relations that are increasingly understood as critical to the development dynamics of industry.

2.4 There is more to it: struggling with the community dimension

Adding to the controversy over definitions based on size and the role of larger companies, is the struggle to get a good “footing” in the milieu- or community dimension. This is obviously

a central feature that is hard to grasp with the prevailing concepts among industrial geographers. Reflecting on the relationship between firms, Brusco emphasises that “they share a series of values and knowledge so important that they define a cultural environment; and that they are linked to one another by very specific relations in a complex mix of competition and co-operation” (from Asheim 1992:53). Pyke & Sengenberger stress the social dimension further:

“A characteristic of the industrial district is that it should be conceived as a social and economic whole. (.....) That is to say, there are close inter-relationships between the different social, political and economic spheres, and.... The success of the districts, then, lies not just in the realm of the “economic”. Broader social and institutional aspects are just as important” (Pyke & Sengenberger 1990:2).

If broader social and institutional aspects are just as important as the immediate economic effectiveness of small firm networks as production systems, then developing useful concepts capturing this milieu or community dimension should be a major concern in understanding the dynamics of industrial districts and their possible re-creation elsewhere, that is, their actual relevance as an alternative model for regional economic regeneration.

Agglomeration economies

Among industrial geographers and others interested in industrial districts there are different ways of addressing this dimension. Getting a hold on the “industrial atmosphere”, as Marshall called it, seems more problematic than describing the production system as such. Asheim and Isaksen follow the path of “agglomeration economies”. In their conceptual language this represents the qualitative dimension of industrial districts, as opposed to the quantitative dimension. Agglomeration economies refer to the specific territorial, socio-cultural aspects of the collocation of smaller, collaborating firms. In addition to relationships between firms, agglomeration economies also include the relationships between the firms and the (local) community. Becattini describes this dimension saying, “community and firms tend to merge” (1990:38). Attitudes, values and cultural denominators in «dense» environments *can* contribute decisively in the development of industrial districts, it is claimed. “The close community relationships are also thought to play a part, with other cultural and political factors, in preserving local consensus and common values, and promoting social compromise” (Pyke & Sengenberger 1990:6).

Three factors of agglomeration economies are especially important; 1) knowledge and skills, 2) innovations and diffusion of innovations, and 3) transaction costs (Asheim 1992). The “industrial atmosphere” or milieu created by the collocation of many small firms in the same industry can lead to the creation of special, often tacit, professional knowledge and skills, insights and attitudes in the general population, or for instance the development of an entrepreneurial spirit. The industrial atmosphere can increase the possibilities of smaller firms to acquire the knowledge and skills needed to support the imitation, adoption and diffusion of innovations. Technological and organisational innovations are often a continuous process in the systems of small firms, where good ideas and solutions are quickly adopted by nearby firms, and through that are applied in new contexts often leading to further innovations. “Good” or “high” agglomeration economies will contribute to lower transaction costs through geographical and cultural proximity between firms, where extensive informal contact and mutual trust will facilitate diffusion of information about markets, technological developments, raw materials, components etc. (Isaksen 1993b).

A shift of focus: From industrial districts to learning regions

Of the three factors of agglomeration economies Marshall originally introduced, knowledge, innovation and transaction cost, *innovation* has taken on increased attention among some industrial geographers in the form of a “growing interest in regional innovation systems” (Asheim & Isaksen 1996:2). Innovation is understood as a process of interaction between firms and their environment, a process referred to as “interactive learning”. Interactive learning is “a fundamental aspect of the process of innovation” (Lundvall 1993:61). Interactive learning involves not only the firm and traditional competence providers like universities, R&D institutions etc. as in the traditional linear conception of innovation, but also supplier and customer relationships, firms in other branches, various service and support agencies, finance institutions etc. In short, the whole production structure and the institutional infrastructure in which the firm is embedded are included in the notion of a “regional innovation system”. “In a learning economy the competitive advantage of firms and regions is based on innovations, and innovation processes are seen as socially and territorially embedded, interactive learning processes.» (Asheim & Isaksen 1996:7). Such an «interactive innovation model...is greatly facilitated by geographical proximity and territorial agglomeration” (ibid. p. 39).

The increased focus on learning and innovation seems to have added a new dimension to the discussions on regional development. Soon, however, we are again reminded of the excellency of industrial districts: “The best examples of territorially embedded, regional innovation systems are networking SMEs in industrial districts, which build their competitive advantage on localised learning processes.” (Ibid. p. 13). Thus, the focus seems to have shifted somewhat from a broader “regional economic development”-focus and a narrower “is this an industrial district?” focus to a focus on the processes of learning and innovation as some kind of a broader interorganizational cooperative effort. With the emphasis on learning, the desired development of industrial districts is then conceptualised as moving towards a state of “learning region”, marked by «the formation of flexible learning organisations both at an intra- and inter-firm level» (Asheim 1995:18). This turn among some industrial geographers brings their discourse right into the core argument of this thesis: the need for collaboration to foster learning processes or competence development. Notably, this turn among some industrial geographers also implies an increased emphasis on the normative aspects. While the industrial district is claimed to exist and can be described and analysed, and is used normatively by some contributors, the “learning region” is at this stage an idea, a vision, an attempt to coin what is believed to be a core to industrial development, and hence it is clearly normative.

Following Storper & Scott (1995), Asheim & Isaksen conclude their reflections around an interactive innovation model by suggesting “the kind of policy approaches which are:

- a) context-sensitive, i.e. concerned with the embeddedness of industrial practices in specific contexts and regions,
- b) production-systems oriented rather than firm-oriented; and
- c) directed towards the ongoing adjustment capacities of regional economies, rather than once-and-for-all implementation of so-called best practices.” (Asheim & Isaksen 1996:39).

While these suggestions are consistent with much of the policy recommendations that emphasise localised development and learning dynamics, they provide limited guidance as to how “learning regions» may actually be created. Fostering the desired collaborative interaction that may support the learning capacities of firms still remains a black box within this particular view of the industrial district.

The embedded firm

An alternative approach to the milieu dimension of the industrial district is the «embeddedness approach», following Granovetter's conception (e.g. 1973, 1985). According to this view, the firm is seen as embedded in the local social fabric of the district. Through functional interdependency between firms of similar as well as of different branches, research and educational institutions, trade associations, consultants, various public agencies, other specialised service providers, the political system etc., the fate of an individual firm is tied to the performance of the district as a whole.

“Embeddedness refers to the fact that economic action and outcomes, like all social action and outcomes, are affected by actors' dyadic relations and by the structure of the overall network of relations. The structural aspects are especially crucial to keep in mind because it is tempting to slip into the “dyadic reductionism” that is prevalent in (for instance) Williamson's (Williamson 1975, 1985) transaction-cost approach” (Grabher 1993:4).

Williamson's neo-institutional economics, as well as classical and neo-classical economics share a conception of action and decision as carried out by atomised actors in a buyer and seller relationship. The analysed pair of individuals is abstracted out of social context; it is atomised in its behaviour from that of other actors and from the history of its own relations. The embeddedness approach, on the other hand, focuses on the relationship between the exchange partners in the social context and in history, rather than concentrating on the isolated act of exchange.

Starting out with the notion of the embedded firm, Grabher and his colleagues soon narrow it down to forms of industrial networks, mainly focusing on interfirm linkages, but also including the wider institutional infrastructure around the firms. Embeddedness then becomes a question of the nature of these networks. The network forms, in the thinking of Grabher and colleagues, share four basic features: *reciprocity*, *interdependence*, *loose coupling* and *power*. Reciprocity refers to the form of exchange which in networks is neither of a market nor a hierarchical nature, but which rather entails indefinite, sequential transactions within the context of a general pattern of reciprocity. The typical pattern would be to create indebtedness and reliance with a long-time perspective, rather than to expect immediate payback as in a pure market relation. The second feature, interdependence, sets the network system of exchange apart from a market relation with a high degree of independence on the one side,

and on the other side a hierarchical system with high degree of dependence. Through interaction over a long-term perspective, there develops a mutual adaptation between the exchange partners. Trust, reputation and even friendship become parts of the relations, and consolidate these relations. Mutual orientation evolves as well, implying a set of more or less explicit rules that are formed, reinforced, and modified through interaction. A mutual orientation is manifested in a common language and shared views regarding central aspects of the partners' area of operation and cooperation.

The third feature is loose coupling. The networks in this view are aimed at benefiting from the "strength of weak ties" to preserve some autonomy of the exchange partners, and hence, prevent them from being locked into specific exchange relations. "Loose couplings within networks affords for favourable conditions for interactive learning and innovation", it is argued (Grabher, 1993:10). As such, the networks constitute a more or less stable framework for interaction and communication without necessarily involving formal legal long-term obligations (Lundvall 1993).

The last general feature Grabher puts forward is power. "The mutuality in the processes of adaptation and framing of decisions, must not be confused with symmetry. It is inaccurate and misleading to characterise networks solely in terms of harmonious collaboration and concord" (Grabher 1993:11). Asymmetrical relations are not the exception, rather the rule. Håkansson and Johanson in the same volume even regard "power as a necessary ingredient in exploiting interdependencies" (1993:48).

How then, is this understanding of embeddedness brought to bear on the interorganisational relations and dynamics of an industrial district or a regional field? Grabher's main point in this volume is the "embeddedness dilemma" or the weakness of strong ties, obviously building on Granovetter's "the strength of weak ties" (1973). Close relationships or "strong ties" between industry, the regional government, associations and supportive institutions might evolve into a hindrance to economic, political and cultural innovation, as was the case in the Ruhr area, according to his analysis. "Too little embeddedness may expose networks to an erosion of their supportive tissue of social practices and institutions. Too much embeddedness, however, may promote a petrification of this supportive tissue and, hence, may pervert networks into cohesive coalitions against more radical innovations." (1993:25).

To use the terminology of Argyris and Schön (1978), too much embeddedness, i.e. only strong ties, might limit the system to single-loop learning and prevent it from a needed self-questioning ability, double-loop learning, thus serving to keep it on the wrong track too long. To achieve a self-questioning ability and maintain a capacity for learning and adaptability, the social and industrial system needs sufficient *redundancy*. This redundancy, Grabher argues, exists in loosely coupled networks. Loose couplings increase the learning capacity of networks by creating opportunities for sharing the learning experiences of cooperating partners, learning that result from their exchange relations with third parties. Conversely, tight networks would risk «groupthink»-effects and over time suffer from insufficient external input, and also lack the extra capacity for handling radical change because of limited slack or redundancy in the network. Hence, supporting the development of loosely coupled networks in ways that encourage redundancy becomes one important policy implication.

Such support can be taken on by developing or transforming the regional institutional infrastructure into a support system for such loosely coupled networks, networks they themselves become parts of. The term “institutional infrastructure” refers to a wider array of regionally located institutions that provide support or services to enterprises. One central group is institutions involved in transfer of information and know-how, institutions that in one way or another are involved with enterprises regarding their knowledge or competence development, learning, innovation or whatever label seems appropriate. With reference to his research in the Ruhr area, Grabher suggests that transforming such an infrastructure into an effective support system for loosely coupled networks depends on two basic conditions. These conditions are *connectivity* between the supporting institutions, and *resisting the streamlining* of this infrastructure. The first condition refers to the need to link the institutions. The number, variety and individual quality of the institutions are insufficient for creating a good support infrastructure. “Only when these institutions are linked together do their individual information supplies and problem-solving capacities add up to a support infrastructure with a high level of redundancy. Connectivity creates a much greater degree of cross-connection and exchange of information than may be needed at any given time. It is exactly this kind of redundant institutional infrastructure that seems appropriate for the initiation and support of loosely coupled networks.” (Grabher 1993b:274).

The second basic condition Grabher puts forward is the need to resist streamlining of the

infrastructure according to a narrow economic logic of efficiency. Formation of new regional institutions and the thickening of the regional infrastructure easily leads to an economically motivated push to rigidly streamline this structure in order to reduce overlapping responsibilities and problem-solving capacities. Such a streamlining may have counterproductive effects, Grabher claims. Drawing upon his colleague Herrigel's work on Baden-Württemberg, the most successful regional economy in Germany, he quotes: "the fragmented, overlapping and seemingly redundant character of the public and private institutional network... is, paradoxically, the most efficient way to provide services to decentralised production" (Herrigel 1993:232).

Grabher's embeddedness approach seems to lead us part of the way, but does not sufficiently help us to grasp the contents of social relations, the dynamics of collaborative processes and the ways in which social structures constrain or facilitate economic action.

2.5 Porter and his diamond: rivalry as the driving force

Diamonds for everyone?

The other high-profile approach to industrial development has grown out of the field of business strategy and is based on the work of Porter "The Competitive Advantage of Nations" (1990). Porter's work seems to have gained broad attention in a number of countries (Porter 1998), and has influenced the way industry and policy makers alike think about the competitiveness of their particular locality, be it a nation, a region, state or city. As indicated by the title of the book, Porter initially aims at the nation as the entity for discussing how competitiveness is created, but according to himself, his framework can also be applied at other levels (1998:xxi). Judging by the numerous studies based on his diamond model and the idea of industry clusters throughout the 1990s, such a wide application has also been the case in practice.

Reve (et al 1992) "Et konkurransedyktig Norge" started the wave of so-called "Porter studies" in Norway. Public authorities at various levels and institutions with policy ambitions in this field have commissioned studies covering from a couple of counties down to small communities (e.g. Odda municipality with 8000 inhabitants in 1995) and thus created a flourishing market for researchers. Some examples are Halvorsen et al (1994) on Vestfold county, Helland-Olsen et al (1995) on the two Agder counties and Johnstad (1995) on the

Oslo-region, to mention a few. Towards the end of the 90s, the almost overwhelming attention faded away as most areas and industries have had their Porter study. However, a new Porter-based study was presented again this year, about a decade after the first (Jakobsen & Reve 2001). If nothing else, the broad financial backing of the study shows that this way of understanding industrial development still has broad legitimacy among major national institutions and companies²⁰. As such, it is an alternative to the social economic perspective of the Ministry of Finance and appears “micro”-oriented compared to this. Nevertheless, I argue that the policy recommendations and conceptual apparatus still are too “macro” and represents an underdeveloped development perspective when it comes to how we may actually create the desired diamonds and clusters. I shall return to the critical comments below. First, however, an introduction to the main elements in Porter’s thinking is provided.

The diamond model

Porter claims that to understand a nation’s competitiveness or productivity one must focus not at the economy as a whole, but on specific industries and industry segments. Thus, “The basic unit of analysis for understanding national advantage is the industry” (Porter 1990:73). The competitive advantage of the industries will subsequently add up to the competitive advantage of a nation.

As with the later tendencies within industrial geography, Porter bases his framework on the centrality of *innovation*. Competitiveness and economic growth are achieved through innovation in enterprises, or “firms” as they are labelled in the traditions of strategy and economy. Innovation is defined broadly, and “include both improvements in technology and better methods or ways of doing things” (1990:45). In other words, competitiveness is not explained in terms of exploiting natural resources or cheap labour, gaining economies of scale or favourable interest- and exchange rates. The opening sequence in his Harvard Business Review article states his point of departure.

“National prosperity is created, not inherited. It does not grow out of a country’s natural endowments, its labour pool, its interest rates, or its currency’s value, as classical economists insist. A nation’s competitiveness depends on the capacity of its industry to innovate and upgrade.” (Porter 1990b:73).

²⁰ The new Porter based study has been financed by four ministries, SND, NFR, NHO, NIF, HSH and a number of large enterprises.

The question then becomes what makes industries innovate? Based on a four-year study in ten industrialised nations, Porter claims to have captured the driving forces of industry-wide innovation, and thus national competitive advantage, in four determinants together forming the “diamond”.

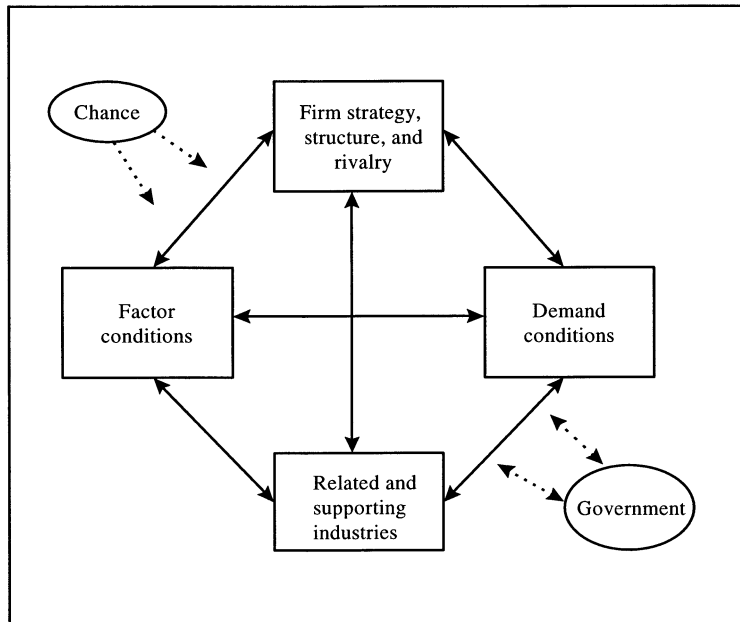


Fig. 1: Porter's diamond model (Porter 1990:127)

1. Factor conditions

This determinant contains “factors of production”, often associated with natural resources, land, labour, capital, infrastructure, etc. Contrary to the doctrines of classical economy, Porter claims that in advanced economies, the critical factors of production are not inherited, but are instead *created*. The most important factors are those that involve sustained and heavy investment and are specialised. These are the factors that are most difficult to imitate or replicate, as opposed to basic or general factors (land, cheap labour, natural resources etc.) that are either easily accessible through global strategies, or simple to circumvent through technology. Examples of specialized factors are skilled human resources and a scientific base. In other words, knowledge and technology are viewed as key elements in creating a nation's competitiveness. But any knowledge will not do. A generally highly educated work force is insufficient in creating competitive advantage. The competence has to be highly *specialised* to

an industry's particular needs in order to support competitiveness. Abundance of factors such as cheap raw materials or labour generally leads to inefficient or wasteful use of these resources, and the pressure to innovate becomes too weak. In other words, sustained competitive advantage is achieved through advanced and specialised factors of production, and the *continuous improvement* of them. This demands the "presence of world-class institutions that first create specialised factors and then continually work to upgrade them" (Porter 1990b:78).

2. Demand conditions

In Porter's theory, the nature of the *home demand* is vital to create the necessary pressure to innovate and improve. By having demanding, sophisticated customers, the companies gain a clearer or earlier picture of emerging buyer's needs, and keeping up with such customers pushes the companies to innovate faster. The size of the home demand is thus less critical than the character of this demand is. The basic logic here is that tough challenges create competitiveness through the pressure for innovation. The idea is that companies start by addressing their *home* market, and thus the character of the home market is important. This is probably a fair picture when the home market is the USA. A problem of scale arises when smaller nations are analysed with the same emphasis on the home market. For small countries, the market may not be within the same nation. Still, the market may be demanding and advanced, and spur innovation. One example of such a mismatch is the analysis of the Norwegian aluminium industry (Reve et al 1992). This highlights that Porter's model is developed without including any resource-based export economies in the case-material; all the ten case countries in "The Competitive Advantage of Nations" are mature, manufacturing-based economies.

3. Related and supporting industries

The third determinant of national advantage concerns the presence or absence in the nation of supplier industries and related industries that are internationally competitive. These are industries that provide the necessary input and/or share for example common technologies, customers and distribution channels, or provide products that are complementary. Close working relationships between producers, suppliers, end-users etc. create favourable conditions for innovation and upgrading. Physical proximity may support the development of

such relationships with “short lines of communication, quick and constant flow of information, and an ongoing exchange of ideas and innovations” (ibid. p. 80). It follows that industries are typically competitive where clusters of related and supporting industries are geographically concentrated, making the interactions closer and more dynamic.

4. Firm strategy, structure, and rivalry

The last determinant concerns the conditions in the nation governing how companies are created, organised, and managed, and the nature of domestic rivalry. A nation’s social norms, values and attitudes towards business influence the way in which firms are organised and managed, and these varies widely among nations. Porter makes the point that no one managerial system is universally appropriate, and that competitiveness thus results from the particular match between these managerial and organisational aspects and the sources of competitive advantage in the particular industry. This determinant includes the individual motivation to work and expand skills. “A nation’s success largely depends on the types of education its talented people choose, where they choose to work, and their commitment and effort” (ibid. p. 81).

Together with the national circumstances and context in this determinant, Porter has placed emphasis on the role of domestic rivalry. The nature of competition and domestic rivalry has a fundamental impact on the competitiveness. Local rivals provide a powerful stimulus to the creation and persistence of competitive advantage. Competition with firms in foreign markets is not a substitute for competing with domestic rivals. Domestic competition automatically cancels any shared advantages that derive from being in the home nation, and forces companies to move beyond those basic advantages to create more sustainable advantages. Together with geographical concentration, domestic rivalry is regarded as the most important single factor influencing the competitive advantage of an industry. Porter’s theory of innovation can thus be summarised in these two factors: pressure and proximity.

The diamond model has a systemic nature; each determinant influences the others. In addition to the four determinants, Porter introduces the two variables “Chance” and “Government” to explain the development of competitive advantage. These two variables influence each determinant for better or worse. While Chance is difficult to plan for and risky to rely on in

building strategies for industrial development, the role of the public sector is somewhat more under direct influence. The role of government in Porter's model is through influencing the four determinants, i.e. indirectly influencing the conditions for competitive advantage. The question then becomes how this "influencing" can be done. The perceived role of government in Porter's model will be further commented on below. First, the concept of "cluster" needs to be explored.

The cluster: a key to competitiveness

Along with the diamond, the most widely used conceptualisation from Porter's work is probably that of the *industrial cluster*. In his studies, Porter has observed the phenomenon of clustering, a phenomenon "so persuasive that it appears to be a central feature of advanced national economies" (ibid. p. 149). He has observed that "A nation's successful industries are usually linked through vertical (buyer/supplier) or horizontal (common customers, technology, channels etc.) relationships." (ibid. pp. 148-49). In these relationships, benefits flow forward, backward, and horizontally, and once a cluster forms, the whole group of industries becomes mutually supportive. The idea is that one competitive industry helps to create another in a mutually reinforcing process, and participation in these (complete) clusters speeds up the innovation processes. What is an industrial cluster, then? Porter does not provide a clear-cut definition. Instead, he talks about the nature of the relationships, interconnectedness between industries and the interchange within clusters. "Information flows freely and innovations diffuse rapidly through the conduits of suppliers or customers who have contact with multiple competitors. Interconnections within the cluster, often unanticipated, lead to the perception of new ways of competing and entirely new opportunities. People and ideas combine in new ways." (ibid. p. 151). Notably, this is not described as processes of cooperation, but rather types of exchanges facilitated by proximity. As a consequence, Porter does not directly advocate the development of cooperative relationships, a common misinterpretation of his work.

The concept of the industrial cluster can be understood as an expansion of the third determinant in the diamond model; Related and Supporting Industries. While remaining imprecise as a concept, it provides a further step (from the diamond) in understanding of the participants and dynamics of an industrial environment, and emphasises the importance of this overall industrial environment to the competitiveness of the industries and firms within it.

Cluster formation is put forward as a characteristic of competitive industries, to the degree where “National competitive advantage resides as much at the level of the cluster as it does in individual industries.” (ibid. p. 152).

How are the clusters created, then? Porter does not advocate direct, active strategies directed towards cluster formation, but views the formation of clusters as a result of the systemic dynamics of the diamond model. Developing the diamond may eventually lead to well functioning clusters. The corner of the diamond through which government may play an important role in reinforcing an already emerging cluster, is considered to be the determinant called Factor Conditions. Creating specialised factors, for instance in the form of specialised apprenticeship programs, university technical institutes, training centres, data banks, and specialised infrastructure, is put forward as beneficial for cluster formation. In general, it is recommended to encourage and support many localised efforts rather than relying on a few centrally chosen ones.

Clusters and industrial districts

Notably, the cluster concept resembles the concept of the industrial district, which has a focus on localised production networks backed by a supporting infrastructure. The two concepts share the focus on the interconnectedness among firms and their “supportive and related industries”, a form of environmental perspective. Compared to the logics of the industrial districts, Porter put less emphasis on the production dimension and more emphasis on how the formation of clusters support innovation. Later developments in the debates among industrial geographers also emphasise how the industrial district with its “territorial agglomeration of economic activity” provides a favourable context for innovation-based economies (e.g. Asheim 1995). As far as I have been able to discover, Porter’s work was not discussed before the middle of the 90s by the industrial geographers, despite its high international profile. Some of the first contributions are Asheim (1995), Asheim & Isaksen (1996) and Staber et al (1996).

An interesting point here is that Porter does not discuss the concept of industrial districts, nor flexible specialisation in his 800-pages book. He does not even refer to the seminal work by Piore & Sabel (1984), published six years before “The Competitive Advantage of Nations”. This appears somewhat strange when we consider that Porter provides lengthy accounts of

industries in Emilia-Romagna and other north-Italian areas, the “cradle” of industrial districts. In other words, these two main discourse formations did not pay any attention to each other for a rather long period of time.

Government involvement and competence development

Porter argues strongly that in the age of globalisation, the home base and the nation state does not become less important, but *more* important. As innovation is the core to sustained competitiveness, and innovation is regarded as highly localised processes facilitated by the dynamics in the diamond, it brings the government, the state or the public sector back as an important actor. Government plays a prominent role in international competition, he claims²¹. How? Government’s proper role is as a catalyst, challenger and encourager, the role is inevitably *partial* as well as *indirect*. Government policies should be directed towards *creating an environment* in which companies can gain competitive advantage, rather than contributing directly to the economic performance in the form of subsidies, tax barriers or other forms of direct help. Such direct governmental policies will erode the necessary impetus to innovate, and in the long run be counter-productive. Nevertheless, in recent years it seems that Porter regards some sort of assistance as positive. In an Academy of Management debate in 1997 he stated that “developing competitive advantage becomes a question of developing public services in localities”. He continued by making a strong statement for the centrality of localities in fostering competitive advantage, and was immediately welcomed as “rediscovering the spatial dimension” by his co-presenters²². This view is not strongly articulated in his earlier work (1990).

Porter discusses a broad array of possible ways of influencing the development of the diamond, depending on the particular context. Here we shall limit the focus to how he deals with competence development as essential to industrial development, or competitive

²¹ This view on the importance of the home base is contrary to the one advocated by the secretary of labour in the Clinton administration, Robert B. Reich (1990, 1991), who claims that the multinational corporations neither want nor need a home base. The appropriate national policies, according to Reich, should then focus on creating highly trained technicians and managers, “symbolic analysts”, in order for the nation state to become an attractive location for companies of any nationality. For a critique of Reich as well as of Porter, see Lazonick (1993).

²² Debate following Porter’s lecture in the session “Knowledge capitalism: Competitiveness Reevaluated”, Academy of Management Conference, August 11th, 1997, Boston. Personal notes.

advantage, as he phrases it, and public-private partnerships as the institutional arrangement to bring this forth.

In terms of the diamond argument, government should work indirectly through improving the four determinants in the diamond, and has a particularly important role to play vis-à-vis the Factor Conditions, the box where Porter has placed competence. This is presumably where we would find his position on the core issue of my thesis, public-private collaboration for competence development.

Porter recognises that education and training are decisive in national competitive advantage, and links this to the role of government. “Education and training constitutes perhaps the single greatest long-term leverage point available to all levels of government in upgrading industry” (ibid. p. 628). As we have touched upon earlier, the basic and general education provided by the education system is necessary, but is not sufficient to support competitiveness. Specialised competence with direct relevance to the particular industries is what it takes. Consequently, one of the patterns he has observed in his research reveals that for this training and education to take place, industry will typically link up to knowledge institutions. “Many of the most successful industries we studied in every nation had established strong ties with universities and technical schools” (ibid. p. 630). Moreover, successful firms invest heavily in ongoing in-house training through industry associations or individually. Associations provide a way to achieve a critical mass even if individual firms are small. Apart from buyer-supplier cooperation, this seems to be the only form of inter-*firm* cooperation, i.e. through independent entities such as trade associations, that Porter recognises as potentially beneficial to competitive advantage.

The issue of *public-private* cooperation gains little attention from Porter, at least in these terms. His main message and dominating logic is competition, rivalry and an indirect support from government. Maybe this is partly because the higher education and research system is not part of government in his thinking, as they are most often private institutions in the USA. In the Norwegian context, the educational actors are primarily part of the public system. Only in vague terms, he opens up for cooperation between government and industry. Consider the following quotations:

“..the most significant factors for competitive advantages are advanced and specialized and inevitably tied to industries or groups of industries. In the industries we studied, the most important factor creation involved firms, *though sometimes in collaboration with government entities.*” (ibid. p. 627, italics mine)

“Both government *and* industry must invest in factor creation. The process of factor creation benefits greatly from the proximity of clear economic interest. Without it, the factors created are insufficient, inappropriate, too late, or too generalized.” (ibid. p. 627)

The point Porter makes here about government and industry jointly investing in factor creation (i.e. competence development), *sometimes in collaboration*, seems to be the closest he gets to viewing industrial development as an issue for cross-sectoral collaboration. The main picture is that government do their things and industry does theirs. The process by which the collaboration is brought about is not dealt with in the works of Porter.

Are we digging for diamonds? Some critical remarks

Porter’s high-profile contribution to the discourse on industrial development at the beginning of this decade created widespread attention and apparently gained numerous followers, not the least from industry itself²³. Some critical voices were heard, questioning various aspects of Porter’s theory, but they were seemingly overpowered with ease by the sheer activity level of the various governmental, industrial and academic actors applying his ideas²⁴.

While the critique voiced in those years could barely be heard, the present silence around his theory is maybe the sharpest critique. To my mind this reflects the insufficient ability to act on basis of his ideas; after the analysis, the concrete actions are still a major challenge. Before I comment further on my own perspective it is worth mentioning that Porter’s ideas of national competitiveness have not gained universal praise, even if at some point that was the impression. Yetton et al (1992) provide a rather harsh critique of Porter’s theory. As Porter himself has done (see Porter 1998), they apply his diamond model to Canada and New Zealand, and in addition to Australia, and arrive at conclusions that are somewhat different

²³ In Norway, the Norwegian School of Economics and Business Administration (Norges Handelshøyskole) has been the leading Porter environment. Apparently, industry representatives took the initiative to the Norwegian Porter-study (Reve et al 1992).

²⁴ In Norway, the national research foundation, two ministries, the NHO and LO and a number of companies financially supported the two-year, NOK 6 million Porter study, involving 35 researchers. This in turn spurred a number of studies at county level throughout Norway during the following years.

from Porter's. Yetton et al (1992) conclude that:

- a) Porter has not articulated a general theory of national competitive advantage. Rather, it is a theory about the competitive advantage of firms and some types of industries within nations. Moreover, the theory does not apply well to all types of economies. "The theory, as conceived and applied, (...) emerges as most relevant to mature, manufacturing-based economies." (ibid. p. 21). The relevance to resource-based economies and industries is thus weaker.
- b) The theory is not proven and must be regarded as a set of hypotheses. They state that "One would have to conclude that if Canadian industry were a test of the diamond, the theory would fail" (ibid. p. 26). Yetton et al claim that Porter overlooks obvious aspects of Canadian industry and competitive performance without questioning the initial "theory" he is applying.
- c) These hypotheses are poorly suited *both* for understanding national competitiveness *and* as a foundation for formulating industrial policy recommendations for Canada, New Zealand and Australia.
- d) "Porter's work say little about either the dynamics of creating a diamond, or which type of firms might seed it, how they might merge, or their subsequent pattern of growth, and the factors vital for that." (Yetton et al 1992:33)

Competence development and innovation

My first comment on Porter's model concerns the role of competence development and innovation. Compared to the present focus on knowledge-based economies and the modern understanding of innovation as interactive learning processes, Porter appears to put limited emphasis on knowledge creation and learning, despite his basic view on competitive advantage being based on the centrality of innovation. Moreover, competence development is not directly linked to innovation in his accounts. The reason for this appears to lie in Porter's understanding of the processes of innovation. It seems that Porter's conceptualisations are still too much coloured by the traditional economic view on knowledge as an "input-factor", and that his mainly economic understanding of innovation misses the point by stopping at "pressure and proximity" as the central conditions behind innovation. In his accounts of why

clusters are favourable to innovation, he mentions that innovations are easily *diffused* in these environments, but not that they may actually be *created* through the network relationships. Innovation thus remains an intra-organisational issue poorly connected to the processes of learning.

We then have a setting where Porter on the one hand highlights how interactions with other organisations stimulate innovation through pressure and proximity, and on the other argues for the importance of learning and knowledge as fundamental to competitiveness. But he does not link these two phenomena by regarding innovation as a learning process. “Learning” thus remains in a “back-seat” position together with a bundle of other important factors. To be fair, the newer understanding of innovation stemming from new institutional economics was not widely published at the time (e.g. Lundvall 1992). But Porter also keeps innovation and competence development separated in later works (e.g. Porter 1998), and seemingly regards competence as a resource that has to be put to use to assist the development of industry. A recent example of this is Porter’s involvement with the utilisation of business schools in the USA in revitalisation of inner cities. In his view, business schools represent one of the greatest resources available for inner-city business development²⁵ - using students and faculty as well as alumni as resources for the business community. This might be a fruitful utilisation of the competence and resources in the business school system, but it also resembles a traditional, sequential and research-based understanding of the innovation process, where someone “has it”, and disseminate it to others who need it. Maybe it is not a diamond after all? Maybe it is just some boxes?

Rivalry, not collaboration

The second comment concerns the balance between competition and collaboration, or rather Porter’s emphasis on rivalry. While he continuously stresses that innovation occurs best and fastest in clusters of companies of related and supporting industries, he warns against cooperative research and development projects (Porter 1990b:89), as well as alliances (ibid. p. 92), as it creates mediocrity rather than competitive advantage. The primary function of the

²⁵ Michael E. Porter’s presentation “New strategies for inner-city economic development” in the Academy of Management symposium “Determining the Competitive Advantage of an Inner City: Using University Resources to Assist Distressed Urban Areas”, Boston, August 11th 1997.

clusters is therefore not collaboration, but simply increasing the pressure for innovation by rivalry and pressure from customers, competitors and suppliers. In other words, the collaborative dimension of innovation that other researchers emphasise as critical (e.g. Lazonick 1993, Lundvall & Johnson 1994) is not recognised by Porter²⁶. He therefore also misses the point of collaboration, both inter-firm and public-private. The only element of collaboration that sneaks into his competitive framework happens to be the focus of this thesis; industry and public actors collaborating on competence development. As such, Porter is not arguing against this position, but his contributions are rather meagre. It follows that the development perspective offered by Porter gives few clues as to *how* to develop clusters and forge collaborative relationships. That is not his intention, either. The belief in the power of competition and market mechanisms shines through. A radically different perspective on industrial development is provided in the next section.

2.6 Public planning for development

In the various accounts of industrial development given so far in this chapter, public actors are repeatedly given a role to play. While the first discourse formation emanated from industrial geography and took the importance of place or locality for industrial activity as the point of departure, the second perspective focused heavily on competitiveness and rivalry as the driving forces. Both perspectives acknowledged the importance of the local or regional industrial *environment* to the competitiveness of the enterprise, and subsequently the importance of a public sector that is able to contribute to constructing such favourable environments.

The third, fairly influential perspective on industrial development in the Norwegian context takes the *public sector* itself as the point of departure. Improving on the conditions for industrial activity is recognised as a concern at various levels in the public system. How public actors can go about supporting industrial development, as other development issues in society, is conceptualised within a framework of *public planning*. In this view, public planning is a precondition for public action. Planning is regarded as the process that links

²⁶ Lazonick (1993) provides a broader critique of Porter's lacking recognition of the importance of cooperation, partly based on a re-interpretation of Porter's own work.

what you know, i.e. knowledge, to what you will do, i.e. action. Although not giving a full account of public planning theory, this section explores the recent developments in public planning that address regional collaboration for industrial development.

Planning traditions

Public planning is a rather eclectic field. Various forms of economy, sociology, policy science, political philosophy etc. form the disciplinary bases for engaging in the various forms of public planning. As such, public planning draws on a broader field of disciplines than the two perspectives discussed above. A brief look at the main traditions of planning is provided below as a context for understanding that present planning exists both as a positivistic, linear and rationalistic science, but also as highly participative, non-hierarchical and bottom-up strategies for societal development.

Friedmann (1987), an influential scholar in this field, claims that there are four major traditions of planning theory. These are policy analysis, social reform, social learning and social mobilisation. Textbooks in the Norwegian setting also take these categories as the point of departure (e.g. Amdam & Veggeland 1991, Amdam, R. et al 1995). The tradition of *policy analysis* is marked by instrumental, rationalistic and causal thinking. Neo-classical economics, systems analysis, operations research and policy science are disciplines associated with this tradition. Core dimensions of this tradition are the formulation of goals and objectives, identification of alternatives, consequence analysis, rational decisions, implementation and feedback. In other words, this tradition carries an overall linear and technical orientation and has a clear anchorage in positivism, at the same time as it is centralised, top-down and expert-driven.

Social reform shares the traits of being top-down, centralised and expert driven, and is rooted in macro-sociology, institutional economics and political philosophy. The foundation of this tradition is a belief in the application of scientific knowledge to public affairs, hence only experts are sufficiently knowledgeable to participate in this form of planning. Representative democracy, human rights and social justice are central values among the authors of this tradition, and they focus especially on three areas: the promotion of economic growth, the maintenance of full employment, and the redistribution of income. This tradition is also largely instrumental, and has clear similarities to policy analysis, but advocates a pragmatic

incrementalism where small steps are taken based on learning from previous steps. Within Norwegian social democracy, this tradition has had a large influence as the foundation for political decisions and political governance (Amdam & Veggeland 1991). Elements of both policy analysis and social reform are very much a part of the present public system. However, newer trends point in a more participative direction.

“The traditions of social learning and social mobilization seem to be especially pertinent today” (Friedmann 1987:75). Contrary to the centralised and rationalistic public planning in the two first traditions, these two last traditions represent decentralised and action-oriented planning, infused by participation and negotiation strategies. According to Amdam & Veggeland (1991), one can identify a development from a rationalistic, top-down, central planning in the first decades after the second world war, through a negotiation-based central planning in the 1970s, to a decentralised negotiation-based planning associated with social learning and social mobilisation from the 1980s.

The tradition of *social learning* mainly departs from theories of organisation development applied at a more societal scale. It focuses on overcoming the contradictions between theory and practice, where the basic standpoint among its theorists has been that knowledge is derived from experience and validated in practice, and is therefore an integral part of action. Knowledge then emerges from an action-reflection cycle, in which experiments lead to new understanding through learning, and this new understanding is then applied in the continuing process of action and change. Dialogue and direct participation by those affected by the planning is central to this tradition, as are non-hierarchical relations, commitment to experimentation, tolerance for differences, negotiation and conflict resolution.

The core of *social mobilisation* can be summarised by “direct collective action from below”. Its historical roots are in Marxism, utopianism and anarchism, but today it more typically draws on theorists like Habermas and Freire (Friedmann 1987). This tradition, also called “radical planning”, deals with how to mobilise people to take responsibility for the development of society, and it builds on the social learning tradition. Planning here appears as a form of politics, conducted without the mediations of “science”. Emancipation is often presented as the ideological goal. Within the planning community, it is this tradition that has

emphasised development work. “The learning society”, “bottom-up planning”, “self-help” and “mobilisation” are key terms in the tradition of social mobilisation.

Mobilising for strategic planning

In the EU, large parts of the regional development efforts (governed through the Structural fund) demand that local actors create partnerships and develop plans in order to get financial support. The prevailing regional development theories in the EU emphasise local responsibility and mobilisation, collaboration between public and private actors, a comprehensive, territorial integration of various public sectors - and *planning* to make this happen. In the process of adapting to EU standards (through EØS), Norway will have to apply similar principles (Amdam 1996b). The Free-County Experiment that has a central role in the case material of this thesis²⁷, is a forerunner for such development in the Norwegian context.

A conception of planning close to the present ideas of the EU is termed “strategic and mobilising planning” by Amdam (1995), one of the central writers on public planning in Norway. This form of planning is especially based on theories of social mobilisation and social learning, but also contains elements drawn from the more rationalistic traditions. Forms of strategic planning have been broadly used at county and municipality levels throughout Norway in the early 1990s as a chief means of handling development challenges. It is therefore of particular relevance to our discussion.

The national government has encouraged municipalities and county administrations to use strategic planning for local and regional development, and at times also demanded that such planning should be undertaken before central funds would be released. Strategic planning has been regarded as an important political activity, involving as many actors as possible in active dialogue on the development challenges of a local community or a county. Strategic planning is usually regarded as a (more or less) continuous process, but with linked, overlapping and rotating strategic plans at least every fourth year. The need to involve large numbers of actors at the same time makes it infeasible to organise it as a *literally ongoing* planning process. Actors

²⁷ See chapter 4 and 5.

are rather mobilised for a shorter and more intense period of time for creating a new, joint strategic plan for the community²⁸.

What is such a strategic planning process like? According to Amdam & Veggeland (1991), the elements of a strategic planning process might resemble that of the rationalistic policy analysis above, but the principles and the participation is different. Key elements are analysis of the environment and the community, goal setting, identifying action strategies, linking long-term perspectives to medium and short-term perspectives, and attempting continuity through rotating and overlapping plans. The key differences are linked to how this is done and by whom, i.e. through a participative process, attempting a bottom-up mobilisation that seeks to assure relevance, commitment and ownership among the relevant actors. This may take the form of practical, local development efforts, mobilising various groups and individuals in the process of strategic planning. The methods of mobilisation and organising the process then becomes the task for the planner or initiator, while the actual contents is provided by the participants themselves. Such strategic and mobilising planning where rationalistic elements co-exist with participative work forms may be conceptualised as a combination of communicative and instrumental rationality, and the mobilisation understood as an empowerment process (Amdam, R. 1997). In Habermasian terms, this leads to *discursive democracy* as a focal concern, and hence creating discourses that involve as many actors as possible in a systematic way becomes a central trait of this planning activity. However, as Amdam refers from his practical experience, “the thinking and acting in the public and private sector is heavily dominated by the instrumental rationality” (ibid. p. 18). Not least the public national level refrains from communicative involvement with the regional and local policy-making processes, and thus represents a great hindrance to integrative development dynamics between levels, as well as limits the scope for regional self-reliance.

This planning model developed by the Amdam brothers includes what they term strategical, tactical and operative planning, where the rationalistic and instrumental elements increase as

²⁸ Traditional strategic planning as a form of strategy development for *businesses* is criticized by Mintzberg (1994). His discussion of strategic planning in this context has only a few overlaps with the public planning tradition mentioned here, for instance the use of the old SWOT analysis as a tool. Mintzberg does not discuss forms of planning that focus on broad mobilization, collective and continuous learning processes in a broader institutional setting, but mainly confines his critiques to deterministic, centralized planning.

the planning goes from strategic to operative. The strategic discourses deal with the more fundamental questions of values and a desired future. Discourses on tactical planning deals with conflict resolution and the creating of implementing structures like networks and partnerships between actors from the voluntary, business and public sectors. The discourses on operative planning are of a practical nature, often understood as part of the implementation itself. Collective learning and evaluation is the last element in this model, and these elements are all geared towards the formulation of *planning documents*, the manifestations of organised development in a political and public setting.

How is the model carried out in practice? Based on action research and concrete development efforts in Norwegian municipalities, a methodology based on these principles has been developed (Amdam, R. 1997). Elements in this methodology are establishing a project organisation, and use of larger, open meetings, various conferences, workshops, meetings, brainstorming sessions, project groups and a form of planning tools called «workbooks». These methods are applied in settings for local community development *in general*, in which industrial development may or may not be identified as one of the chief issues²⁹. How, then, is the public role perceived within strategic and mobilising planning?

The proactive role of public actors

Traditionally, public actors have the role associated with bureaucracy, where rights, rules, allocation of resources, distance to the user, equal treatment and control, are central elements of the logic. This way of functioning corresponds to the linear, top-down, rational planning of policy analysis described above. Drawing on the work by Bennett & McCoshan (1993), Amdam (1996b) argues that public actors must take on a role as *developers* in the more participative planning traditions. Such a role demands initiative and entrepreneurship rather than passive adaption to rules, close collaboration with many actors instead of distant relationships to well-defined user-groups, bottom-up grounded formulation of needs instead of centrally decided priorities, selective emphasis on feasible development opportunities rather than overall equal treatment, involvement in open, participative processes rather than pre-defined and highly controlled activities, etc. These characteristics are associated with planning

²⁹ See also Levin (1988, 1993) on local mobilisation and network building for industrial development.

as social mobilisation (Friedmann 1987). Often, these conflicting demands must be handled within the same agency or department. Since both logics or roles must co-exist within the same system, this poses a particular challenge to public actors. Bennett & McCoshan (1993) characterise the indicated role of the developer as “proactive”, and argue the need for development from a reactive role to such a proactive role, in order to achieve a positive regional development³⁰.

Comments on planning for industrial development

While the planning field is diverse and contains different traditions, all of the contributors selected here argue for a bottom-up, mobilising logic in the development of local communities and regions. This implies an active public role, public-private collaboration and a focus on locally grounded development efforts. A few comments on each of these elements seen from a planning perspective are warranted.

The proactive role: a balancing act

Amdam (1996b) convincingly argues that public sector officials should obtain a *proactive* developmental role, they have to become *developers* as well as being administrators and regulators. This stance supports the idea of this thesis where public actors take an active part in the collaborative efforts. A question becomes how the desired proactivity can be created and sustained with planning as the dominating logic?

The literature on planning departs from the premise that public actors must plan in order to act, so the question becomes how this planning can be undertaken. Within the proactive view, public actors (planners, or political or administrative leaders) must take initiative and provide leadership in these activities, where other actors, such as enterprises and other organisations, are *invited* in to participate. This participation is emphasised within traditions of planning as social learning and social mobilisation, or as “strategic and mobilising planning”, as Amdam phrases it (1995).

³⁰ Not only planners argue for an active role of the public sector. Bennett & McCoshan (1993) do not discuss the role of public actors from a planning perspective, but base it on a broader discussion of development challenges in the British society. Another example is Levin (1993), who describes a role of public actors as network brokers in constructing collaborative efforts for industrial development.

A critical question becomes what the nature of ownership, commitment and mutuality is if public actors remain in the leading position throughout a development initiative? When the issue is the development of industry, industry itself has to be closely integrated in all stages of the process. There is a very real risk that an overly proactive role by public actors will leave the industry as reactive participants.

In my view, the desired proactive role by public actors needs to be carefully *balanced*, so that the other actors are not forced into a reactive role that undermines ownership and commitment. This is a particular important point in discussions of practical approaches to industrial development. In my experience, public actors, or non-enterprise actors in general, frequently find it difficult to act proactively *and* leave the process open enough for the concerned enterprises to develop the needed ownership.

Public-private collaboration

The organising of collaborative constructions in the form of building partnerships across public and private organizations is claimed to be important (Amdam 1995:330). Cross-sectoral partnerships are understood as important “implementing structures”, and hence they should be planned for. In the view of Amdam, “there are too few dialogues, alliances, partnerships, networks etc. between the sectors and the between the levels in the political power structure” (Amdam, R. 1997:19). When comparing Ireland and Norway, Amdam (1996b) concludes that the desired partnerships that form the basis for regional development of this sort is under-developed in Norway. A major challenge is thus to develop collaborative structures that are able to address the particular regional development issues in a comprehensive manner. These collaborative structures must seek to achieve an integration of various public functions and policy areas in the region, as well as to involve the private actors directly, i.e. both industry and other relevant institutional actors. Amdam here phrases the core issue of my thesis: construction of regional collaboration. Apparently, development theories emanating from the field of public planning, backed by the overall regional policies of the EU, heavily underpins this focus.

If collaboration appears as a core issue to public planners, one would expect further investigations into the various aspects of collaboration, such as the development processes and alternative structural conceptualisations, in order to gain a better understanding of how

the desired collaborations may be constructed. Apart from discussing the role of various public actors, often limited to the confines of a strategic planning process, the planners do not seem to follow their own challenge on this issue.

Development as an act of planning: a poor fit?

In the planning traditions emphasised here, mobilisation and broad regional participation are central to the way development is perceived. This is thought to guarantee a non-expert, non-top-down development logic with local ownership. But this mobilisation is geared towards a process of *planning*. In other words, development becomes a question of planning. Planning is defined in a way that nearly makes us think that development *is* planning. Planning becomes the all-encompassing framework for social action. For instance, when “....tactical planning can be used to organize partnerships between the private, public and voluntary sector” (Amdam, R. 1997:8), organising becomes a matter of planning rather than an open, interactive construction process. But what if the task is not primarily one of planning, but rather one of development where horizontal collaboration is a core aspect? To what extent do you actually plan a fluid, interactive construction process involving many organisationally independent actors? Here we seem to be at the outer borders of the planning perspective.

2.7 The missing conception of construction processes: a summary

In this chapter, I have examined the three most influential perspectives on industrial development. I have discussed the various contributions with an emphasis on how they address the issue of collaboration, the role of public actors, their understanding of the learning dimension of industrial development, and finally the view on development provided by each perspective. In the contributions we have touched upon above, some elements stand out as particularly relevant in the context of this thesis.

The industrial geographers

A regional perspective apparently leads to considering a number of *collaborative* constructs that support industrial development. In fact, collaboration stands out as a key dimension of the competitiveness of localities. For instance, the very idea of the industrial districts builds on the notion of (collaborative) production networks between small firms, which together create a system capable of flexible specialisation. Moreover, it is argued that development of these production systems heavily depends on a collaborative interaction with a supportive

infrastructure, which in itself is a collaborative construction.

Therefore, collaborative constructs are not seen as isolated, independent entities. On the contrary, the wider *social fabric* of the localities is understood as important to the development dynamics. “Industrial districts (...) refocus attention on the critical role of “social organization”. They lead us to emphasise such things as non-hierarchical organisations, autonomy, co-operation, local and regional networks, competent entrepreneurship, and differentiated industrial structure.” (Sengenberger & Pyke 1992:7). As a part of this fabric or environment, *public* actors are perceived as important contributors to industrial development, mainly by partaking in policy networks and through assisting in constructing the relevant support infrastructure. This is often understood as “common services”, i.e. various services tailor-made to the needs of a specific population of enterprises in an area. As with the overall emphasis on collaboration, these ideas are particular in contrast to the ideas of Porter.

The role of public actors and the concrete design of the particular support infrastructure have to emerge as a result of local interaction, and not as a result of a top-down instalment of pre-defined organisational structures or support measures. “If local cultures and traditions are as important as many analysts suggest, policy interventions should be conceived in a way that reflects and builds upon local forces, for it is the local social milieu which defines whether policy initiatives are benevolent or not.” (Kristensen, 1994.) This implies local and regional autonomy, both in government and among collective actors such as employers’ confederations and trade unions.

Then what should the collaboration be about? Some contributors highlight *learning* as a focal issue. Departing from an old point about the centrality of innovation to the industrial district, newer innovation theory has conceptualised innovation as an interactive learning process. Hence, learning has become an interorganisational issue, as opposed to an issue for the individual firm or for the educational system. This leads to a concern with a locally based institutional infrastructure that supports innovation and learning among firms.

As hopefully apparent by this short recapitulation of the main points, it appears that within the broad tradition associated with the industrial district, considerable support for the theme of

this thesis can be identified. Key aspects like collaboration, public sector involvement and institutional infrastructures for learning can be found among the wide range of contributions. However, the contributions reviewed do not take the next step into investigating *how* such a “learning region” with a locally based institutional infrastructure may be constructed. This challenge is the main focus of this thesis.

The Porter-school

The second perspective here discussed is the influential work of Porter. At first glance, Porter’s perspective with its emphasis on the role of government and the formation of industry clusters may indicate an orientation in line with this thesis. Closer examination of his work, however, reveals that the interaction among a wide set of actors in his “industrial clusters» is *not* based on a collaborative logic, but solely on a purely logic of competitiveness, i.e. competition and rivalry are the core elements in his conception of development. This point is of particular interest because followers of Porter tend to conceptualise the formation of clusters and the dynamics within the clusters as a collaborative issue. They may be correct in doing so, but not because it is in line with Porter’s thinking, but because such interaction by necessity entails collaborative elements. Lazonick (1993:4) even claims that “A closer consideration of Porter’s own evidence suggests that domestic cooperation rather than domestic competition is the *key* determinant of global competitive advantage”. In other words, the very interpretation of Porter’s studies is fundamentally challenged. As argued above, the “blindness” towards the collaborative dimension of interorganizational relations is linked to Porter’s limited understanding of how innovation happens. Consequently, the Porter perspective does not seem to contribute much to the collaborative orientation of this thesis, but rather appears as a competing perspective in this respect. Notably, the important role of government is also not exercised through collaboration, but rather through complementary investments. Correspondingly, Porter’s understanding of the interorganizational milieu dimension remains simplistic compared to some of the contributors within a regional perspective on industrial development.

The planners

The main contribution from the planning perspective is to establish the public sector as an independent, (potentially) proactive actor, i.e. as an active and direct participant in regional development efforts, as opposed to being a reactive, bureaucratic adaptor to rules concerned

with material infrastructure and the even distribution of rights. While both the perspectives provided by Porter and industrial geographers claim that public actors play an important role for the competitiveness of localities and firms, they portray an *external* view of public actors. Planning theory takes an *internal* perspective, and discusses public actors as proactive developers. The newer forms of planning are portrayed as participative processes involving various regional actors, i.e. development is attempted through forms of collaboration. However, in this perspective, development becomes an act of planning, almost to the extent where development *is* planning. The construction process becomes heavily planning-biased, and aspects such as organising for development through forging collaborative relationships, maintaining a processual view and a balanced participation among regional actors, appear underdeveloped in this perspective.

Conclusions

The discussions of these three perspectives have revealed *support* for my emphasis on public-private collaboration in regional contexts as one of the core issues in industrial development. The thesis is thus firmly situated in the discourse on industrial development. However, even if collaboration is regarded as a core issue, these strands of thinking have very little to contribute when it comes to the essential question of *how* collaboration is constructed. I have shown that the perspectives have an *underdeveloped* or even missing conception of the *construction processes* of the desired collaboration. I argue that this is a major weakness of the current literature, and this is where I place my contribution.

Situating the “how”-question in the larger debate on industrial development this way, leads to the challenging question of *the role of public actors*. The role of public actors must clearly be a part of the “how”-answer when public-private collaboration is established as a core issue in regionalized industrial development. One of the particular research questions of this thesis is therefore: *What characterizes the role of public actors in collaborative industrial development?* A summary of the research questions is provided at the end of chapter three.

While academic writers in the discourse on industrial development may not have addressed the issue of *how* collaboration can be constructed, other academics have been concerned with interorganizational collaboration on this level for some time. Our next step is therefore to

move to the question of collaboration in particular, and thus eventually seek to enrich the discourse on industrial development by providing insight into the processes of collaboration.

Chapter 3

Interorganizational Collaboration

3.1 Introduction

In the introduction chapter I established learning or *competence development* as one of the central aspects in work life development. Hence, *industrial development* has to address this particular issue. In the previous chapter I discussed three perspectives on industrial development that have developed during the last two decades. Apart from the strictly competitive perspective offered by Porter (1990), it appears that various forms of *collaboration* are regarded as the chief constructs by which industrial development challenges must be addressed at local and regional levels. This includes the challenge of achieving a necessary capacity for competence development. The collaboration argued for should be based on locally anchored processes of a bottom-up character, and in these localized processes, various actors from the *public sector* are regarded as important co-actors in direct collaboration with industry. The way in which this is to be done, and what the actual collaboration entails, is only rudimentary dealt with within the discourses on industrial development.

The challenge emerging from this discussion is thus to begin to answer the question of how we can develop collaboration between a wide set of public-private actors in a regional setting so that it supports the learning capacity of concrete enterprises? To answer this question, central aspects of collaboration must be conceptualised within a developmental perspective. This is the aim of the present chapter.

The chapter starts with a general discussion of why organizations collaborate, and what is meant by the term collaboration. Concepts pertaining to the organizational aspects of collaboration are then introduced within a framework of social ecology.

In the last part of the chapter I develop a new perspective on collaborative *processes* centred on the principle of *interactivity*. The chapter ends with an elaboration of the research question based on the theoretical discussions.

3.2 Collaboration: Why and what?

As many writers point out, a wide range of collaborations are currently taking place. They address a number of issues, and appear in a variety of settings. Correspondingly, collaboration is increasingly being emphasized as an important alternative for handling of the various challenges organizations face today (Gray 1989, Hardy 1994, Westley & Vredenburg 1997). This is linked to a growing recognition of organizations as *open* systems that are in constant interaction with their environments, i.e. they are embedded in network relationships with other organizations that they more or less actively relate to in order to handle both operational and developmental tasks. This pertains both to private and public sector organizations, as well as voluntary organizations.

Why do organizations collaborate?

The primary reason for collaborative efforts may be found in the nature of the challenges or problems. A general starting point in explaining why organizations can and should collaborate, is recognition of the fact that many societal problems are too complex, extensive and many-sided for an organization to deal with alone. In this thesis, these problems will be termed *problem complexes*³¹. Examples of problem complexes are unemployment, industrial/economic development, environmental issues, youth crime, poverty etc. Despite an almost global nature, these, and similar issues, have their concrete meaning in concrete settings, and may thus be addressed as local and regional phenomena as well as national and international ones.

These problem complexes demand concerted action by several organizations or institutions in order to move them in a desired direction. Whereas local manifestations of societal problem complexes might find their resolutions in a limited local setting, due to the magnitude and complexity of many societal problems, “moving in a desired direction” or “improving” is the realistic ambition, rather than “solving” the problem in a traditional sense. Gray (1989:10) has suggested the following characteristics for problem complexes.

- The problems are ill defined, or there is disagreement about how they should be defined.

³¹These kinds of problems have been referred to as “messes”, (Ackoff 1974), “problematiques” and “meta-problems” (Chevalier 1966).

- Several stakeholders have vested interests in the problems and these are interdependent of one another.
- These stakeholders are not necessarily identified *a priori* or organized in any systematic way.
- Among the stakeholders there may be a disparity of power and/or resources for dealing with the problems.
- Stakeholders may have different levels of expertise and different access to information about the problems.
- Problems are often characterized by technical complexity and scientific uncertainty.
- Differing perspectives on the problems often lead to adversarial relationships among the stakeholders.
- Incremental or unilateral efforts to deal with the problems typically produce less than satisfactory solutions,
- Existing processes for addressing the problems have proved insufficient and may even exacerbate them.

Collaboration may be motivated by the simple recognition that parties have a shared interest in solving a problem that none of them can address alone, but where the problem is hardly of a societal problem complex type. Strategic alliances and joint ventures between private firms may be examples of this. In these instances the collaboration is typically not linked to a wider societal problem complex, but may be motivated by profit considerations for a few firms, i.e. in the form of such as market penetration, innovative capacity, financial strength etc. While these firms choose collaboration as a part of their profit-maximizing strategy within a purely competitive framework, this does not imply that organizations involved in improving on problem complexes are doing this out of social obligations or generosity. They, too, are involved because they think they can gain something from it. But how can we expect individual organizations to get involved with societal problem complexes? The main point here is that the particular problem complex is local. It has a concrete reality as well as a general meaning, and the problem as it is perceived locally can be seen as a microcosm of a major societal problem.

While some international issues must be handled primarily by international collaboration, other issues shared across nations must find their concrete resolution and development dynamics in a more local or regional setting. One such issue is the problem complex addressed in the three cases here, i.e. the issue of competence development in working life. While competence is an international concern (see e.g. European Union-programs), it has a concrete expression in local settings. It is concrete enterprises that experience the need for a strengthened competence level. This does not exclude the fact that collaboration between national and international institutions may very well be needed to further the issue.

What is collaboration?

With reference to both a social science encyclopaedia and a social science dictionary, Roberts & Bradley (1991:211) claim that *collaboration* was introduced as a term in social science by Emery & Trist (1972). Whether or not this is the case, the fact remains that interorganizational collaboration as an explicit field of study has not received broad attention among social scientists, though steadily, new scholarly contributions are published (recent examples are Huxham 1996a, Vangen 1998, Westley & Vredenburg 1997). Still, the works by Trist is a major point of reference in this field, followed by Gray (1989), who provided the first *comprehensive* discussion of interorganizational collaboration in this tradition³².

The topic of collaboration must, however, be seen in a wider social science context. By involving related issues, a radically different image appears. Rather than being a small discourse, the broader picture reveals that various phenomena related to collaboration collectively represent a major orientation towards interorganizational issues. This is something that has gained increasing attention during the last two decades. Networks (e.g. Alter & Hage 1993, Ebers 1997, Nohria & Eccles 1992, Piore & Sabel 1984), strategic alliances (Contractor & Lorange 1988), collaborative alliances (Gray & Wood 1991),

³² Other traditions have provided important contributions to related issues. For many, Axelrod's (1984) famous work on cooperation comes to mind when the list of seminal works are concerned. Axelrod is coming from a game theory perspective, and focus on individuals who pursue their own self-interests. The prisoner's dilemma is the point of departure for Axelrod's reasoning, and the successful tit-for-tat decision rule for playing the prisoner's dilemma is often associated with this work. The actual tit-for-tat strategy was not formed by Axelrod, but suggested by one of the contestants in a computer tournament he arranged. As it may appear, what Axelrod means by cooperation is not identical to what we here mean by collaboration, and moreover, Axelrod is not concerned with the interorganizational dimension of cooperation. His work is therefore by necessity not comprehensive in that respect.

partnerships (Hutchinson 1994), clusters (Porter 1990), joint ventures (Kogut 1988), associations (Knoke 1990), coalitions (Gustavsen 1998) and consortia are all terms that refer to forms of interorganizational relationships, and various disciplines now approach this field with their different perspectives. Adding to the complexity, the terminology means different things both within and across the disciplines, and some of the terms are used interchangeably. For instance, both a cluster, a partnership and strategic alliance may be understood as a network, while a strategic alliance may be a partnership, a coalition may have the form of a joint venture, and so on. Fundamental to this typology, however, is that, in one way or another, all of these have to do with collaboration, i.e. collaboration is the core phenomenon.

So what is collaboration? No single, commonly accepted definition of collaboration exists today. Despite efforts to arrive at shared definitions, writers tend to use the term in various ways. In putting together two edited volumes of *The Journal of Applied Behavioural Science* on collaboration, Wood & Gray (1991) reflect: “we found a welter of definitions, each having something to offer and none being entirely satisfactory by itself” (Wood & Gray 1991:143). Huxham makes a similar remark in putting together an edited volume about collaboration. “There seems to be little consensus in the field about how the terms are used”, and “There is great deal of variety - and hence confusion - in understanding of the meaning of it” (i.e. of collaboration) (Huxham 1996b:7).³³ One way to incorporate the different ways of viewing collaboration is to provide a broad and open definition, which by necessity is neither very informative nor precise. This may be the fruitful approach in a very diversified setting. Another alternative is to try to extract the essence out of several definitions and form a new and presumably better definition. The first alternative is used by Huxham, who formulates the lowest common denominator in her sample as follows:

“Collaboration is taken to imply a very positive form of working in association with others for some form of mutual benefit. The concern is with collaboration between organizations.” (1996b:7).

“Collaboration between organizations» in principle covers the range *from* one individual in an organization working together with one individual from another organization, *to* situations

³³ A good review of collaboration literature is provided by Vangen (1998).

where larger parts of many organizations work together, and where the collaboration is institutionalized to the point where individuals are interchangeable in the collaborative. It is always individuals who collaborate, even when we talk about interorganizational collaboration. Organizations do not act, but the people in them do. In order to distinguish on the one hand between individuals who work together within an organization, or in the sole capacity of being individuals outside of an organizational context, and on the other hand collaboration across organizational boundaries, the term *interorganizational collaboration* is used. In interorganizational collaboration, individuals primarily participate in the capacity of representing their organizations, but also participate based on their competence and capacities as individuals. The terms *collaboration* and *interorganizational collaboration* will be used interchangeably in this thesis.

In contrast to Huxham, Wood & Gray chose the other alternative, and propose the following definition based on contributions from several authors participating in the special issues:

“Collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain” (Wood & Gray 1991:146).

Notably, whereas Huxham’s ambition was to show the magnitude and explore the various conceptions of collaboration, Wood & Gray’s ambition was to move towards a general theory of collaboration. Thus, they needed to focus on a more specific version. While I do not share that ambition, Wood & Gray’s version will serve as the definitional point of departure in this thesis. Their definition introduces to this thesis a couple of terms that will be used throughout, and thus require a few comments.

Firstly, we have the term “stakeholder”. A stakeholder is an actor with an interest (a stake) in the problem complex. Stakeholders include in principle all individuals, groups or organizations that are directly influenced by actions taken to improve the problem complex (Gray 1989:5)³⁴. *Who* to involve and *how* to involve the relevant stakeholders in the process become a critical issue in collaborative efforts. Secondly, the definition introduces the concept

³⁴ The term *stakeholder* is used in a similar sense by Ackoff (1974). See also Eden (1996).

of “domain”. This will be elaborated in section 3.3.2. For now, the term “domain” can be thought of as the set of stakeholders that become joined through a common problem or interest (Gray 1985).

Collaboration, cooperation and coordination

In clarifying what collaboration is and is not, two closely related terms need to be commented on, namely *cooperation* and *coordination*³⁵. According to Gray, “they do not capture the dynamic evolutionary character of the phenomenon” (Gray 1989:15), but often occur as part of the process of collaborating. That is, collaborative processes may include both cooperation and coordination, but also seek to encompass a purposeful, creative and evolving dimension.

Collaboration can be thought of as an evolving forum for addressing a problem. Typically, collaboration progresses from “underorganized systems” (Brown 1980) to more tightly organized relationships characterized by concerted decision making among the stakeholders. Thus, collaboration is essentially an emergent process rather than a prescribed state of organization, as is often indicated by *cooperation*.

While *coordination* can be reduced to a matter of division of labour in the form of “I do this and you do that”, and does not in itself imply the creation of something new, *cooperation* is more closely related to collaboration. However, “sociologically speaking, *cooperation* is more appropriate for denoting a single round of joint (reciprocal) purposeful interaction in the manner of Axelrod’s (1984) tit-for-tat conception, whereas *collaboration* is best reserved for the more complex social form....as a more evolved, elaborated social relationship” (Roberts & Bradley 1991:225).

3.3 Organizing the collaborative domain

The question of how regional actors can construct collaborative relationships has an important organizational component. As the actors come together and jointly start to construct a pattern of collaborative interaction, these organizational actors do not only remain separate organizational entities, but also co-create a new organizational form. The organizational form

³⁵ The terms *cooperation* and *coordination* appears in Websters’s Encyclopedic Unabridged Dictionary of the English Language (1983), while *collaboration* does not.

created at any given point highly influences the possible outcome of collaborative efforts. Given the importance of the formation of new entities, a conceptualisation of the organizational field and the organizational forms created is thus warranted.

In this section I introduce the central concepts of a certain perspective on interorganizational collaboration termed *social ecology*. This perspective offers a view of interorganizational fields as *domains*, while the organizational entity often constructed within these domains are termed *referent organization*. The introduction of these concepts makes it possible to discuss organizational forms and development strategies at the interorganizational level.

3.4 Social ecology

The core concepts and terminology introduced in this section were developed within a particular perspective on interorganizational collaboration termed *social ecology*³⁶. The idea of a social ecology was developed by Emery and Trist (e.g. Emery and Trist 1965, 1972, Trist 1976, 1983), and researchers are still contributing within this framework. (E.g. Babüroglu 1988, 1992, 1996, van Beinum 1993, Chisholm 1998, Gray 1989, 1996, Hardy 1994, Inskip 1992, Pasquero 1991, Westley & Vredenburg 1997, Wright & Morley 1989.) Notably, an edited volume on the evolvement of social ecology has recently been published (Trist, Emery & Murray 1997).

³⁶ A confusion of terms exists here. While Emery & Trist (1972) used social ecology as the term, Trist (1977) later introduced the concept of organizational ecology to more clearly focus on the organizational dimension (though the term was also briefly used by Emery & Trist 1972). This use of organizational ecology must not be confused with population ecology introduced at the same time (e.g. Aldrich & Pfeffer 1976, Hannan & Freeman 1977), which is also called organizational ecology (Hannan & Freeman 1989, Baum 1995). Population ecology refers to biological evolutionary theories concerned with the evolution of organizations and environmental selection processes. The focus is on rates of organizational founding and failure and creation and death of organizational populations as key sources of increasing and decreasing diversity (Baum 1995). A critique of the population ecology perspective is provided by Astley (1985), who presents an alternative, but also evolutionary based community ecology-perspective. See also Astley & Fombrun (1983) for a distinction between population ecology and Emery & Trist (1972) social ecology, where it is clear that the latter is not using a biological analogy. Still, Astley & Fombrun themselves (mis-) use the term social ecology in this article as a bio-ecological analogy.

The term organizational ecology suggested by Trist in 1977 thus appears less well suited today, as the term is frequently confused with the more well known biologically evolutionary population ecology/organizational ecology-term. In stead, the term social ecology that Emery & Trist used in their 1972 publication is the label used by writers in this field for the Emery-Trist conceptualisations on the interorganizational level. Social ecology is a part of what may be referred to as the "Emery-Trist systems paradigm" (Babüroglu 1992).

Social ecology has also been the framework for action research programs on interorganizational development undertaken at the Work Research Institute in Oslo since the 1970s. Examples of this are the ship research and oil research programs³⁷. These social ecology inspired programs are often given little attention in *overviews* of the historical development of Norwegian work life change efforts, and social ecology may thus be regarded as more esoteric than deserved. A few words on these programs may serve to put social ecology in to a more proper perspective.

The Ship Research Program is a well documented and much referred to example of an industry-wide action research program carried out at the Work Research Institute over a 10-year period, starting in the late 1960s (e.g. Johansen 1978, Roggema and Thorsrud 1975, Thorsrud 1981)³⁸. The program ran in the early years of the conceptual development of social ecology, and used this framework in a general rather than in a specific sense. Development strategies were formed based on the recognition of the *interdependencies* between actors in this particular industry, which meant that changes of the individual ship organization had to be integrated with changes in a larger part of the industry. Fundamental improvements of the ship organization as a sociotechnical system (Herbst 1997/69) demanded new physical designs of the ships, new regulations, a new multi-disciplinary education of the crew members etc., and thus involved actors from ship, firm and industry levels, and included the educational system, seamen's unions, ship owners' association, shipyards and government directorates. Improving on this whole system meant designing processes that allowed for recognition of mutual interdependencies and learning across organizational boundaries. These are key features of social ecology. This brief example gives a flavour of how the socio-ecological perspective with its emphasis on interdependencies informed change strategies that eventually involved all major parts of an industry.

A more recent example of how a socio-ecological perspective has been applied to work life change efforts is the Norwegian Work Life Centre³⁹ (Brundtland 1989, Hanssen-Bauer 1991,

³⁷ See extensive documentation of the oil research program at the WRI by for instance Qvale (1985, 1987) and Hanssen-Bauer (1990).

³⁸ More recently, Walton and Gaffney (1991) describe this Norwegian industry-wide program quite extensively as an action research involvement, though only briefly touching upon the theoretical framework that governed the change efforts.

³⁹ In Norwegian: "Senter for Bedre Arbeidsliv", abbreviated SBA.

Qvale 1989, 1991). The Norwegian Work Life Centre was a 5-year change program (1988-1993) initiated and financed jointly by the Norwegian government and the main labour market organizations. The purpose of the program was the promotion of productivity through the application of participative methods for change in private and public enterprises. Its origin lied in the “Brubakken” Royal Commission that reported in 1985 on the further development of Industrial Democracy (NOU 1985). The program ran about 85 projects that involved contact with 350 to 400 enterprises, government departments and others, and received a favourable evaluation (Davies et al 1993). As a research-supported development program, the Norwegian Work Life Centre was a forerunner to the research programs Enterprises Development 2000 (Gustavsen 2001) and the present Value Creation 2010.

The organization and its environment

The idea of a social ecology grew out of a recognition of the increasing complexity of many societal problems, forming “messes” (Ackoff 1974), “metaproblems” (Trist 1983) or problem complexes that no single organizations can improve on alone (see also 3.2.1), nor can they be successfully handled through hierarchical and bureaucratic logics (Trist 1983). This renders interorganizational collaboration as the viable path towards improvement of these issues. As a practical consideration, the handling of problem complexes may stand by itself as a basis for interorganizational collaboration. Emery & Trist integrated their understanding of the nature of societal problems with theoretical reflections about the relationships between the organization and its environment. They created a typology of environments, ranging from the stable and predictable to the unstable and unpredictable.

Emery & Trist argued for the appearance of a new, fourth type of environment that they coined “turbulent environment” in their widely quoted article “The Causal Texture of Organizational Environments” (Emery & Trist 1965)⁴⁰. Turbulence as a phenomenon has been adopted by other writers and popularised to the extent that “turbulence” has become an everyday and every-man term (e.g. Toffler 1970). Emery & Trist argue that the deepening interdependencies in society, and the higher environmental connectedness is contributing to

⁴⁰ A fifth environmental type was developed by Babüroğlu (1988) and termed “vortical environment”, which refer to stalemated settings. Emery referred to a fifth environmental type as the vortex environment (Emery & Trist 1972), but never developed the type beyond this point.

the instability and unpredictability, where the single organization is more tightly connected to the larger environment and thus becomes more influenced by, or vulnerable to, both intended and unintended actions by others. In 1965 Emery & Trist argued that the larger environment in which the individual organization is embedded, had already at that point developed towards increasing complexity and speed of change, in relation to earlier periods. At certain points the organizational environment reaches a level of contextual commotion and unpredictability, where the “ground” moves as well as the organizational figures. This situation is termed *turbulence*, and contributes to the occurrence of problem complexes that the individual organization is unable to meet. Notably, turbulence is not a permanent state, but occurs in some environments at some points in time⁴¹. Regulating and reducing this turbulence requires collaboration by groups of organizations in a self-regulating, non-bureaucratic manner. According to Trist, this self-regulation within interdependence must be of a democratic nature, and the core values in the socio-ecological perspective are those associated with participative democracy. In the words of Inskip, “Social ecology is a democratically-based, value-driven and learning-focused philosophy of social change” (1992: 384).

According to these socio-ecological principles, interorganizational collaboration represents the viable *alternative* to organizational forms that further bureaucratic principles and extend central power and hierarchical forms throughout a domain. “There is no overall boss in a socio-ecological system, though there is order, which evolves from the mutual adjustment of the parts, who are the stakeholders. Any overriding purpose which emerges from their sense of being in the same boat would depend on their arriving at a shared understanding of the issues.” (Trist 1983:271).

The ecological emphasis in this thinking implies raising the unit of analysis from the single organization to the population of interdependent organizations and institutions, and realizing that they are in fact interdependent. Recognizing the interdependence between organizations, i.e. between an organization and its environment, is basic to social ecology. Organizations and their environments are complementary; they determine each other. Consequently, the unit of

⁴¹ Mintzberg (1994:203-209) makes an arrogant and ridiculing critique of the idea of turbulence, but misunderstands Emery & Trist (1965) as describing a permanent environmental condition covering all aspects of society.

change is not the organization as such, but the organization in and with its environment. Changes in single organizations are interrelated with changes in their environments - single organizations find themselves in tightly woven relationships with other firms, government regulatory bodies, central training institutions, labour organizations and so forth. This means for instance that problems associated with organization development and work redesign cannot be tackled effectively at the level of a single enterprise, but must be dealt with at the interorganizational level. This leads to addressing social change at the level between the single organization and the society as a whole, where *interorganizational collaboration* becomes a focal point.

Social ecology thus refers to the organizational field created by a number of organizations, whose interrelations compose a system at the level of the field as a whole, and the overall field becomes the object of inquiry (Trist 1983).

3.5 The concept of domain

Trist introduced the concept of *interorganizational domains* (1983)⁴² as a term referring to the organizational field composed by stakeholders, i.e. organizations, who are joined around some mutual interest or issue. This concept of interorganizational domains has provided a popular framework for many contributions in the field of collaboration (Vangen 1998), and together with the term “stakeholder” it forms a widely shared terminology among writers in the field of interorganizational collaboration.

The domain concept represents a shift from a focus on the single organization to the field as a whole, as well as a shift from a transactional environment perspective, as is common in much of the literature on business strategy and firm networks (e.g. Miles & Snow 1994), to a contextual environment perspective.

“The term *organizational domain* means the opposite of what Evan (1966) means by the term *organization-set*. This views an organizational field in terms of a focal organization, whereas the term *domain* views the focal organization in the context of the organizational field, which now becomes the object of inquiry.” (Trist 1985:168).

In other words, an organization-set perspective is concerned with the relationships between a focal organization and its transactional environment, (also referred to as *task environment*) i.e. the other organizations with which it directly interacts, whereas an organizational domain perspective takes into consideration the *contextual environment* of the individual organization, i.e. organizational relations beyond the immediate transactions of the focal organization. “The various organizations which compose the organization-set of a focal organization have relations with other organizations, which overlap in their relations with still others and others still again. These have only indirect relations with the focal organization. The field of these interwoven indirect relations constitutes the contextual, as distinct from transactional, environment.” (Trist 1976:251). The wider organizational field is interrelated in the sense that actions and decisions made by organizations in the wider contextual environment will influence what goes on in the transactional environment, which will influence the focal organization itself. Development efforts at this level, it is argued, must therefore take into consideration the contextual environment.

According to Trist, interorganizational domains are functional social systems of which the single organization is a part, and the domains occupy a position in social space between the society as a whole and the single organization. In this conceptualisation, domains are cognitive as well as organizational structures, and have boundaries, direction and identity. Domains are based on “acts of appreciation”. Appreciation is a perceptual, conceptual and valuing process that melts together judgements of facts and judgements of value (Vickers 1965 in van Beinum 1993). The term “problem domain” thus combines an appreciation of a problem complex with a set of stakeholder organizations related to it.

Domain construction

Within social ecology, the concept of domain is both a descriptive, analytical and change-oriented term. It is change-oriented in the sense that a core aim is to develop or construct such domains according to principles of social ecology. Trist suggested five aspects of what he calls domain formation. These are:

⁴² Domain is used in a similar sense as early as Emery & Trist (1965), though without the qualifications presented in Trist (1983).

1. Making a shared appreciation of the meta-problem
2. Acquiring an acceptable identity for the domain
3. Setting an agreed direction for a development pattern into the future
4. Overall shaping as regards boundaries, size, etc.
5. Evolving an internal structure from stakeholder accommodation (1983:274).

He goes on to identify four processes that have been found to be important in the development of emergent domains. These are network initiatives, search conferences, design of a suitable referent organization, and convening of the extended social field (Trist 1983). The processes termed *network initiatives* and *convening of the extended social field*, will be discussed as part of the process of convening in 3.6. The *search conference* is a very effective method for bringing stakeholders together and forming a shared appreciation of the problem complex, developing a mutual understanding and agreeing on a direction for development. This particular method will not be discussed in this thesis⁴³. The *referent organization* will be discussed extensively below in 3.7. Here I shall seek to develop the idea of domain construction further by departing from reflections on stakeholder participation and expanding on the domain concept itself.

Introducing partial domains and sub domains

In the construction of interorganizational domains, the composition of stakeholders must be carefully addressed (Gray 1989). This is not limited to the initial up-start, but the stakeholder composition must be re-addressed throughout the life span of a domain. Modifications in purpose or focus render new stakeholders as important participants, or changes in the environment indicate the need for re-assessing the stakeholder composition. Exclusion of critical stakeholders can seriously hamper the collaboration and have negative consequences for the possible outcomes of the collaboration. However, domains may also in some instances function very well without the full range of stakeholders participating (Selsky 1991, Sharfman et al 1991).

⁴³ A number of publications address the search conference method. Some examples are Babüroğlu (1996), Babüroğlu et al (1996), Emery (1993), Emery & Emery (1978), Emery & Purser (1996), Weisbord (1992).

I shall expand this point further. Not only may a partial stakeholder composition work well. I argue that addressing partial domains may actually be *the* fruitful development strategy when the issue is concerned with industrial development in a regional context. The total domain of regional industrial development will contain so many actors and relevant issues that addressing the whole domain in one collaborative approach will be infeasible. A partial-domain approach becomes almost self-evident when one starts to «unpack» the population of enterprises. We face a diverse setting where types of industry, physical location, size of enterprises, technological level, differences in development needs and the number of enterprises in itself call for partial approaches that are able to meet the specific conditions and needs of particular groups or networks of enterprises.

Thus, with a regional perspective in mind, I argue it will be helpful to think in terms of *sub domains* and *partial domains*, and establish the relationship between these terms.

Addressing a partial domain means we are dealing with a part of the larger domain, which have roughly the same concern. *Partial domain thus refers to a stakeholder set.* The term sub domain refers to the situation where a problem complex may be understood as consisting of a set of sub-problems. Dealing with the overall problem complex may require the identification of sub-problems and corresponding sub domains. *Sub domain thus refers to the problem complex.*

As an illustration of these distinctions, a concern about the unemployment in a region may be the overall problem complex that a number of stakeholders share, and together they may form a domain. The problem complex of unemployment may be addressed in various ways according to the understanding of what the remedy may be. Some would think that attracting new enterprises to the region would be the solution, and may form a sub domain around that effort. Others will argue the need for a long-term educational perspective, and thus form a sub domain around the development of the regions' educational institutions. Some will have the belief that it is merely a macro-structural and fiscal phenomenon, and those may remain passive and not constitute an active part of the regional domain, or they may develop a strategy for influencing national decision makers. Still others will argue that reducing unemployment is a question of addressing industrial development, i.e. supporting the development of the enterprises in the region. This again opens up for a range of possible

strategies, where one is to focus on competence development of the workforces. In this way, an overall problem domain may be constituted by, or lead to a number of sub domains, in which the line of reasoning for instance may go from unemployment via industrial development to the competence of the workforce, as is the situation in one of the cases in this thesis.

As there will be a large number of enterprises and a correspondingly larger number of employees that are the target group for improving the competence level, addressing the whole domain will be practically impossible. An approach addressing partial domains may thus be necessary, which is not a sub domain “under” the competence heading, but a part of it. Such as different branches, varying competence needs, the sheer size of the competence-domain etc. render this as the feasible approach. A partial domain construction does not by necessity imply that important stakeholders do not participate, but may simply mean that other stakeholders form other partial domains, each pursuing their particular version of the problem complex without having conflicting aims. Partiality would imply that there is a larger domain of which the partial domain is a part. Situations with one single domain where important stakeholders are excluded would not be partial, but may rather be termed an incomplete or selective domain⁴⁴.

By opening up the domain concept in this way, we can better see regional competence development in terms of multiple partial domains, with differing issues at different levels of abstraction, from the overall strategic to the concrete and directly enterprise-relevant conversations. Partial domains have the potential of handling the overall issues in ways that secure greater relevance for the participants. The smaller settings where the actual, concrete needs of the particular enterprises are in focus, may also be beneficial to the development of ownership and commitment.

With the partial-domain approach, it becomes an issue how to sufficiently integrate these partial domains in order to allow for mutual adaptation, the spreading of ideas and learning

⁴⁴ The term is used somewhat differently by Hardy (1994). In discussing various forms of under organized domains, she uses the term “partial domain” referring to a situation where the values are shared, but potential players are excluded, in the meaning of “being kept out”. Wood & Gray (1991) also talk about partiality in the meaning of domains with less than the entire stakeholder set participating.

across (partial) domains. Once involved in collaborative efforts, stakeholders tend to participate in more than one domain, and overlapping participation in various partial domains will contribute as integrative mechanisms. It is especially worth noting that public actors with designated roles in this area seem to appear in numerous settings. In addition, several measures are available by which partial domains can be linked. Conferences, workshops and exchange of information are but a few examples.

The developmental focus then becomes one of developing partial domains with a view to how these partial domains interact, overlap and jointly form a broader collaborative infrastructure that can support the development efforts of the region's enterprises. This infrastructural point is further elaborated in 3.9 where I establish the first rudimentary link between regional concepts from industrial geography, the collaborative concept of domain and the action research tradition. First, however, the domain concept needs to be specified further.

Domains and networks

The relationship between domains and networks may need a little clarification, as they are both regarded as important constructs in this setting. "Networks constitute the basic social form that permits an inter-organizational domain to develop as a system of social ecology" (Trist 1983:279). In social ecology, networks are understood as non-hierarchical, voluntary, unbounded social systems at the level between organizations. Networks may be constituted across levels and sectors (public/private) as well as within, in order to facilitate development of common ground and coordination of resources. Trist continues: "Networks provide channels of communication which are fluid and rapid. They travel through the social ground rather than between institutional figures. They cross levels and cover the range from private to public. They bring the most unexpected people into relevant contact so that nodes and temporary systems are formed which becomes levers of change." (1983:280)

In other words, domain formation relies on network relationships between potential stakeholders, and carries on the voluntary and non-hierarchical aspects of networks into a more *focused*, organized setting geared to joint action. While the network is perceived as unbounded, as stakeholders are always linked to other organizations through both strong and weak ties

(Granovetter 1985), the domain has a specific focus and identity with a corresponding stakeholder set, and thus is in this sense bounded. In practise, recognizing who are within or outside of a particular domain may not be a clear-cut affair, as the perception of participation and of the problem complex itself may vary from stakeholder to stakeholder (Vangen & Huxham 1998). We may then picture a domain as a form of focused and, as we will come back to later, more tightly organized network with the ambition of improving on a problem complex through joint action. Network relationships may then exist within the domain, as well as extending outside the domain, as one and the same stakeholder may very well participate in various problem domains, and also have network relationships that are not focused on a particular problem area.

By using the concept of domain and reserving the term network for the basic and in principle unbounded social structure, instead of extending the meaning of network into all kinds of interorganizational relationships, I am able to distinguish focused, purposeful social structures from unfocused, potentially activated relationships. Moreover, it allows me to conceptualise a regional field in terms of interlinked sub- and partial domains. This in turn makes it possible to discuss inter-domain relationships, multiple referent organizations and considerations of the nature of a regional infrastructure for change.

3.6 The convener

In order to initiate a process of domain construction, someone typically starts to formulate the problem complex and how it applies in the concrete setting, and someone starts to bring stakeholders together around a rudimentary understanding of the problem. These are crucial functions in the early formation process. The two functions of voicing a problem complex and bringing stakeholders together, may be carried out by the same or different actors, and may be simultaneous or separate in time. In Trist's original thinking, proactive individuals with networking abilities initiate the domain formation process (1983, 1985).

“Networks are initiated by proactive individuals who create new role space around themselves.....In such individuals new appreciations of emerging meta-problems originate and build up as they interact with other network members who tend to form a selectively interdependent set. They learn the art of walking through walls. Without carriers of this kind, it is difficult to see how the process of appreciative restructuring can either take place fast enough or go far enough to permit emerging domains to be

organized in time and on scale that will allow the oncoming meta-problems to be contended with.” (Trist 1983:280).

In Gray’s conceptualisation (1989, 1996, Wood & Gray 1991), the person or organization who bring potential stakeholders together to start the process of domain formation, is termed the «convener» - as the primary function is to convene the actors around an emerging understanding of a shared problem. This may be understood as a further conceptual development of the observations Trist made about the role of proactive individuals, «networkers». Initiating the formation process by raising the problem issue - and later convening relevant stakeholders, may not be done by the same person or organization. Further, the convener may or may not be a stakeholder of the problem domain, the convening can be undertaken by one or more stakeholders, and the role of convening may alternate among actors/stakeholders throughout the life of collaboration. In other words, convening is more a matter of *function* than of one designated actor. This should be kept in mind as we for simplicity’s sake will refer to this actor as the *convener* in the following, and not continuously repeat these modifications.

Attempts have been made to identify the convener’s role and characteristics. According to Gray, the individual(s) or organization(s) who attempts to convene a problem domain must have:

- convening power, that is the ability to induce stakeholders to participate,
- legitimacy among the stakeholders, who must perceive that the convener has the authority to convene the domain,
- an unbiased, even-handed approach to the problem domain, to prevent the convener from losing credibility in the eyes of the stakeholders,
- appreciative, envisioning, and processual skills, meaning that the convener must «appreciate the potential value of collaborating», and must be able to «envision a purpose to organizing the domain» and establish a collaborative process and context,
- the ability to identify all relevant stakeholders, who must have legitimacy and thus be perceived by others to have the right and the capacity to participate in the collaboration. (Wood & Gray 1991:150, from Gray 1989).

The “convening power” or influence the convener has on the stakeholders of the domain may not only be based on formal authority or control over resources attractive to the potential stakeholders, even if this is clearly one type of authority base for such an intervention. A convener may possess *informal* authority such as that based on position and influence in an informal network, expertise and knowledge with respect to the problem domain, or credibility among the stakeholders of the domain. In my experience, a group is sometimes formed to achieve this level of authority in order to convene the larger domain. This may be seen as a stepwise convening process, where visionary individuals take the initiative, and then form a group as a basis for convening the other stakeholders. The convener may take on his role at his own initiative and interest, or he may be invited in by the stakeholders to assist in the process.

The convener may function as a *guarantor* for the process, where the parties trust the convener, but not each other or the purpose sufficiently. The convener then, by his presence, “guarantees” for the process in terms of fairness, usefulness or trustworthiness of the other stakeholders.

How and by whom the initial convening is carried out, is often regarded as crucial to the success of the collaborative effort. In chapter 2 I argued for a proactive role rather than a reactive or passive role for public actors in creating collaborative efforts in regional settings. This leads me to raise the following questions: If various forms of public-private collaboration are promising constructs in furthering industrial development, does that mean that public actors should take on a convening responsibility? If so, what are the critical aspects of such a public convening function? The cases in the following chapters will provide material for a further discussion of this issue in chapter 8.

As I shall further explore below, the initial convening of stakeholders may be followed by the identification or construction of an organizational form designed to carry out functions on behalf of the domain; a referent organization. Once a referent organization is identified, one of its critical functions will be to convene the other stakeholders, though not excluding convening initiatives from the stakeholders themselves.

Organizing at the domain level

When organizations work together, this work is *organized* in one way or another, regardless of how rudimentary, informal or changing the organizing is. We may understand organizing as a process where people jointly give meaning to a form of interaction between them. In my view, organizing on the interorganizational level has to do with a) how the domains are conceptualised and formed by the various stakeholders, b) how the problem complex is defined and redefined, and c) what kind of integrating roles and mechanisms that are constructed to take care of the issue of shared concern. In other words, organizing concerns a) which tasks are carried out by whom, b) the roles and relationships between the stakeholders, c) the routines they jointly form to regulate these roles and relationships (Nelson & Winter 1982) and d) the organizational forms chosen to accommodate the prevailing routines and ideas of what the tasks are.

Compared to most traditional organizations, organizations on the interorganizational level tend to be more fluid, less stable and robust, and more vulnerable to changes in the environment. It becomes even clearer than with traditional organizations how these organizational forms exist through the continued meaning construction of the constituencies - and how they have to be repeatedly reconstructed to exist at all.

While obviously important to the stakeholders, the core activity of the collaboration is most often not the same as the core activity of the constituting organizations, i.e. the constituencies. At least most of the constituencies have their main tasks and attention directed somewhere else. The enterprises have their production as a core focus, the educational institutions may at one level give priority to traditional, full time students, while at another the professors pursue their individual interests. Public institutions will have their clients as their focus, bureaucratically initiated and controlled task structures, and are more or less linked to the political system and its shifting priorities. This creates a setting where most participants have their joint activity as a secondary task, and thus ownership and commitment over time to the secondary task becomes a special challenge. In these, in a sense vulnerable, settings, which are in principle voluntary and non-hierarchical with few formal control mechanisms, *institutionalising* an organizational form or a structure becomes critical for sustaining the collaborative effort.

This has led theorists to argue that successful collaboration demands some form of structuring, institutionalisation or organization at the domain level in order for the process to result in action, which may transform the problem domain in a desirable direction. As most problem complexes are not easily resolved and thus will have to be worked at for a longer time (otherwise they were not problem complexes), a collaborative construction will need to maintain its existence over time. Institutionalisation or organization at the domain level therefore works to sustain the collaboration. Also with regard to the initial investments in terms of time, energy, attention, emotions, financial resources etc. that are required in a collaborative process, a certain level of sustainability is desirable.

Various terms are offered for this domain level organization. Brown (1991) uses the concept “bridging organization”, Burns (1981) and Inskip (1992) talk about a “network agent”, and Metcalfe (1974, 1976) uses the term “network organization”. The most widely shared and used conceptualisation made by one of the pioneers in this field is *referent organization* (Trist 1976), which is also the term used throughout the thesis. In the following I shall explore the concept of referent organization, and seeks to clarify the relationship between this concept and other similar concepts, as indicated above.

3.7 The referent organization

In 1977 Trist suggested the term *referent organization* for the domain level organizational entity, and further developed the concept in his much referred to 1983 publication. The term *referent organization* is developed from the concept of reference groups, and its primary tasks are associated with regulation, not operation. According to Trist, there are several varieties of referent organizations, and such organizations are of critical importance for domain development,

“There are two broad classes of domains which are complementary; those which display some kind of centring in terms of a referent organization, and those which remain uncentered and retain a purely network character....they are not in themselves purposeful....Once, however, a referent organization appears, purposeful action can be undertaken in the name of the domain.” (Trist 1983:275).

To be acceptable, the referent organization must not take over the functions of the constituent organizations, yet to be effective it must provide appropriate leadership. The way Trist

conceptualises referent organizations is by defining three broad functions. These are regulation, appreciation and infrastructure support. Regulation implies setting the ground rules, determining the criteria for membership, maintaining the values from which goals and objectives are derived, undertaking conflict resolution, and sanctioning activities. This of course is not done by the referent organization as some form of dictum, but in close interaction with the stakeholders according to values associated with participative democracy. The second function is appreciation of emergent trends and issues, and the working out with the constituent organizations the desirable future and modifying practise accordingly. The third broad function that Trist proposes is to take care of infrastructure support by mobilizing resources for the domain, and develop a network of external relations. A staff is necessary to perform these functions, but the staff must be prevented from taking over too much of the initiative, the job and the central decisions. "The importance of regulation by stakeholders can scarcely be overemphasized" (Trist 1983:271).

How the interaction between the referent organization and the constituencies is organized thus becomes an important matter. While in many instances there will be a separate staff that carries out the day to day work on behalf of the domain, ways of involving the larger stakeholder set at a regular basis must be secured. Of special importance are decisions regarding the future of the domain, but due to ownership and commitment, participation by stakeholders should probably not be reduced to a few events of special importance. Indeed, the other extreme is not feasible. For practical reasons, all stakeholders in a large domain cannot participate effectively at the same time and in all kinds of issues, which means a representative system must be considered. Smaller domains may find it possible to frequently involve all stakeholders directly. Ways of involving the stakeholders in a larger domain may have many forms. For instance, a representative system may take the form of a board or council with elected members with close contact with the referent organization, it may have project groups composed by stakeholder representatives according to their interests, and larger meetings, workshops or conferences may be deliberately designed to keep the essential conversations going. All of this must of course be supported by substantial information. An important issue, especially in a representative system, will be to prevent the domination by the powerful stakeholders, and to minimize manipulation by special interest groups.

Forms of referent organizations

There are several varieties of referent organizations. In one variety, one of the constituent organizations becomes the referent organization. In another variety, a new organization is created for this purpose by the members of the domain. Further, referent organizations may be created by mandate, i.e. set up by for instance the Government with a mandate to play a certain role in a particular domain, or they may be voluntary, i.e. created or appointed by the voluntary stakeholders of the domain. The referent organization may be an established entity in society (e.g. the labour union and the employers confederation) or emerge as its role and form develops, and there may be one or more referent organizations in any particular domain. Combinations of these traits create a variety of referent organizations, some of which may serve to conserve rather than innovate, they may be bureaucratic and hierarchical, or they may be non-bureaucratic and operate according to democratic principles. Some referent organizations may become obsolete, as the appreciations on which they are based are no longer relevant, or their way of functioning is counterproductive to the desired development of the domain.

While many forms of referent organizations exist, Trist argues that the desired referent organizations are those who conform to democratic values, are non-bureaucratic and do not extend central power and hierarchical form throughout a domain, but work to foster self-regulation of the domain rather than becoming imperial or remaining ineffectual. These principles are called socio-ecological, and imply the centrality of interdependence. Faced with the current problem complexes, Trist argues for the increased need for consciously designing suitable referent organizations conforming to these socio-ecological principles, rather than relying on spontaneous appearance of referent organizations. “This will make them more purposeful, more able to learn from their failures and successes, and more able to seize opportunities”, Trist maintains (1983:281)

Within these socio-ecological principles, many different organizational forms may still be suitable, i.e. the principle of organizational choice still applies (Trist et al 1963). The point of departure in each situation should be a consideration of the tasks or functions that should be taken care of, which are not universally given, followed by considerations about suitable organizational solutions in the particular stakeholder context. The main point here is to look beyond the obvious idea of creating a small entity that takes on all of the referent functions.

Various functions and tasks may be handled by some of the stakeholders alongside the activities of an established referent organization. This can for instance be the convening of the domain, establishing links to external actors to attract funding or other resources, and generally taking domain initiatives. The particular organizational form can vary from a well defined, separate organizational entity with their own employees, to a set of functions handled informally by a number of stakeholders who are tied together only in rudimentary forms of organization.

Multiple referent organizations – a viable strategy?

There are many domains in which more than one referent organization are present. Trist (1983) briefly warns against such situations that may lead to, or in itself reflect polarized domains, lack of shared appreciation and action in different directions. This is true when the referent organizations, or rather organizations that are carrying out one or more referent functions, are not coordinated or well enough connected, and address the same domain. In other words, more than one referent organization is not negative per se, but only insofar as it leads to fragmentation rather than coordinated action⁴⁵.

The level at which a domain is defined influences the extent to which it is feasible and sometimes even necessary to operate with multiple referent organizations, and correspondingly sub domains or partial domains, as I suggest. Whether a problem complex is conceived as a local problem involving only a few stakeholders, or as a regional, national or international problem involving larger number of stakeholders, naturally influences the stakeholder set and the appropriate organizational forms. For example, the problem complex

⁴⁵ Based on studies of refugee systems as under organized domains, Hardy (1994) calls into question the two taken-for-granted assumptions that organization is preferable to fragmentation, and that collaboration is preferable to conflict in all settings. In my view, while it is true that organizational forms and institutionalised arrangements may be unproductive, and conflict may be constructive and propel change, this does not mean that more conflict is better or that increased fragmentation is a viable development perspective. In a concrete situation, an organizational form or institutionalised norm may be counterproductive, and therefore a comparatively more fragmented domain may be able to arrive at better solutions, as Hardy exemplifies. Does this imply that fragmentation is better? Hardly. Rather it draws attention to the dysfunctions of the particular organizational form and the prevailing norms of the domain. Truly, if the main focus is on the entrance process of new stakeholders, an under organized and fragmented domain may give easier access than an organized domain. The political dynamics associated with new stakeholders joining the domain and challenging the established values, the purpose of the domain and altering the established power relationships may result in attempts at keeping new stakeholders out. The issue of access should, however, be balanced with the ability to arrive at some concerted action, which in most cases will be severely hampered by fragmentation.

of unemployment may be considered both an international problem, e.g. within EU, as well as a problem within the various nations. Still, it is also a problem complex that needs to be addressed by regional and local actors in order to pool resources and find concrete solutions to the problem as it appears in that locale, and thus various domains may be formed. This highlights that the problem complex may take on different meanings and provide different action opportunities in the various settings. Addressing for instance unemployment and economic regeneration as an international issue does therefore not imply that it is infeasible or worthless to address the issue in a local community, for instance as Trist did in his Jamestown-project (Trist 1986). A relevant question here is whether the efforts to combat unemployment are reduced to a situation where the various regions and nations collaborate internally to compete externally, rather than fundamentally solve the overall problem of unemployment.

Collaborations that involve actors from several nations have been termed “supraorganizational” collaborations by Pasquero (1991). She defines these types of domains as “networks of referent organizations” (ibid. p. 38). In other words, the overall domain may have many referent organizations that each are organized, integrative mechanisms at a sub- or partial domain level. The size of the domain, physical distances and cultural differences as well as the specific contexts in which stakeholders operate, are all factors that may result in a need for multiple referent organizations. However, Trist’s point about making sure that this situation does not lead to an increasingly fragmented domain withstands. The question and challenge in such a situation becomes how to integrate the referent organizations in order to avoid a polarized field where actions proceed in different directions, or where the polarization paralyzes action altogether.

I argue that in a local or regional setting a problem may be fruitfully handled by organizing sub domains or partial domains, as discussed in the section on domains. Especially when the problem complex is one of joint development efforts with a low conflict level, rather than e.g. conflict resolution, partial domains and thus *multiple referent organizations* may very well be beneficial to direct participation and the development of ownership. These smaller and more focused domains have the potential of relating more directly and explicitly to the way the overall problem complex is perceived in the particular stakeholder context, and thus initiate actions that better address these particular challenges. When the overall problem complex is

one of competence development in work life in general, as in this thesis, the definition of what competence means in a particular enterprise context, makes it a) possible to actually involve enterprises as active stakeholders because they see the link between the issue and their own existence, and b) develop concrete solutions that meet the particular needs of the enterprises.

In some instances, one single referent organization for the entire overall domain will simply not suffice as the sole integrative mechanism, but will necessitate organizing at lower levels. A “referent organization of referent organizations” will thus be a better conceptual alternative in such a situation. Lacking this overall integrating organization, one or more of the multiple referent organizations may take on referent functions on behalf of the entire domain, or *other* stakeholders of the domain may step forward and contribute to advancing a shared appreciation in order to integrate the larger domain. Several measures are available to integrate and coordinate multiple referent organizations and stakeholders. Stakeholder overlap between the domains is maybe the single most effective integrative mechanism, but can be supplemented by permanent arrangements such as joint forums or committees and systematic exchange of information, or more ad hoc arrangements such as conferences, workshops, the use of media, etc. The need for domain level integration will vary from context to context, and such integrative efforts should be made only to the extent that they benefit the development of the overall domain.

This discussion shows how my introduction of sub domains and partial domains opens up the discussion on suitable referent organizations beyond the one-domain-one-referent-organization idea. Construction of meaningful sub- and partial domains with various suitable referent organizations may then be a better way of phrasing the issue, and for the overall domain it becomes a question of a suitable referent *structure* consisting of interrelations between these various referent organizations and their domains.

When does the referent organization appear?

Trist’s emphasis on the referent organization and limited attention to the role of the initiator or convener, i.e. the central actors *before* a referent organization is formed, has been interpreted as if Trist has a too extensive concept of referent organization (e.g. Inskip 1992:47). It is argued that he places it too early in the domain development process and largely ignores the role of the convener. Contributors like Burns (1981) and Gray (1989) take the position that a

referent organization appears only in the *last stages* of domain development, whereas the convener (Gray) or a network agent (Burns) is the central actor during the greatest part of the development process.

This of course depends on what are defined as the “last stages”. Gray’s process perspective curiously ends at the point where the collaborative is about to actually do something about the situation, and does not contain any further action steps based on experiences gained, no recycling back to her suggested critical issues etc. In short, her implementation phase, as it is called, ends with the task of considering the need for a referent organization. This delimitation of a collaborative process does not correspond well with the very basis for the collaboration, namely the focus on complex, many-sided problems. If the problem complex is of such a nature, it will hardly be solved or sufficiently improved by a single round of “implementation”, but will require continued efforts over a longer period of time, where the stakeholder set may be recomposed a number of times, the purpose adjusted and new concrete actions agreed upon etc. Thus, both the short term perspective and the linearity and sequentiality of her 3-phase process model, where phase follows upon phase in a linear fashion and stops at the point where the referent organization is considered, seems unrealistic in terms of reflecting real development processes. In stead, Gray’s short process perspective better resembles a conflict resolution situation, where the problem is more or less solved when the negotiations are over and a written agreement is crafted. I will come back to Gray’s process model in the section on collaborative processes. A third point to highlight in this discussion is the oversimplification that referent organizations appear at a certain stage in the process. In reality, organizational forms may appear at all stages of domain formation, even sometimes as the very starting point, where after the constructed referent organization will be reconstructed as the domain develops.

As for Burns (1981), his 5 stages of domain formation are strongly oriented to early development, and the “structuring” appears as the final stage⁴⁶. With such short process perspectives, the whole point of a continuous process of reconstruction is missed. I contend

⁴⁶ Burns’ 5 stages of domain formation are Recognition, Latent Formation, Articulation, Functional Integration and Structural Elaboration. As in Gray’s process model, the last stage is concerned with organizing of the domain in the form of a referent organization, and his process model thus in the same way does not discuss the role of the referent organization in the further development of the domain.

that the issue of suitable referent organizations must be given a much more central role in the understanding of collaborative efforts.

3.8 Alternative concepts

Within the discourse on interorganizational collaboration, several concepts have been introduced to grasp the organizational entity that takes on functions on behalf of the larger domain, i.e. as the referent organization does. In the following, the most relevant concepts will be discussed.

The network agent

Burns introduced the concept of the “network agent” as the central organizational entity in *early* domain development, a concept further developed by Inskip (1992, 1994). In their thinking, the network agent is an established entity in a community-planning network with a general role of initiating and organizing collaboration around problem areas that are in the process of being recognized. In other words, the network agent exists, or should exist, prior to domain development in community settings, and seek to play an important role in the initial formation of collaborative domains. They view the desired network agent as “a distinct class of community governance organization” (Burns 1981:77)⁴⁷.

Burns reserves Trist’s concept of referent organization to the management and further development of the domain, and proposes that a network agent may evolve into a referent organization⁴⁸. His position is that “referent organizations are essentially, if not wholly, the result of domain formation rather than active agents in the formative process.” (Burns 1981:232). He admits that “In practise the distinction between these two organizational types

⁴⁷ Levin (1993) suggests a role as “network broker” for public actors in forming networks for economic development. This role consists partly of convening and initiating network constructs, partly in nurturing them until a self-sufficient stage appears, where after he suggests that the network broker pulls out. This network broker may in some respects be similar to the more developed idea of the network agent proposed by Burns (1981), but does not entail for instance the role of a jointly created referent organization controlled by the constituencies.

⁴⁸ In terms of the sequence of ideas and concepts, a short commentary is necessary. While Burns (1981) is an early contributor in this field, he was influenced by the works of Trist, including the central article by Trist in *Human Relations* in 1983, which apparently was presented as a paper at the Academy of Management conference as early as in 1979, and was thus integrated in the discussions in Burns’ 1981 thesis.

may be more difficult to establish.” (ibid. p. 234). This difficulty is illustrated in his own work and noticed by Inskip (1992:52). She argues convincingly that one of the three network agents Burns describes is more adequately identified as a referent organization. In addition, it appears that the second network agent Burns describes has existed for 28 years. Is it then only a network agent for the early phases of domain formation? If so, it should have been able to withdraw from the domains it has contributed to establish over the years. This argument from Burns seems inconsistent.

The way Burns develops the role of the network agent, the network agent functions as a referent organization in established domains, and simultaneously as a network agent in emerging domains. This raises the question of when the domain is “established” and how we can identify the transition from domain formation to ongoing management and development of the domain. Is that when a referent organization is formed and takes over the work, which the network agent previously carried out? How do we then understand situations where the referent organization is established almost as the starting point of domain formation? Furthermore, one may assert that if there is no or *little* recognition of the problem complex, there will hardly be enough support for establishing the organization that Burns proposes. And when the problem complex is so *widely* recognized that stakeholders choose to set up an organization that may support the domain formation, we are already in the role of a referent organization. Moreover, there is nothing which says that a referent organization established by the member organizations in the process of organizing a domain, cannot at a later stage play a leading role in identifying a new, shared problem area and thus contribute to establishing another domain. As such a referent organization would function as a network agent” in Burns’ terms or a “convener” in Gray’s terms. But then what is the particular use of the “network agent” concept?

One may focus on the particular challenges of the initial formation of a domain, i.e. the tasks and functions that are typically carried out. While this is a good point, many of the tasks identified in the models of Gray and Burns will have to be done over and over again as the domain develops. This appears to be one of the important shortcomings in their processual views. Another use of the network-agent concept, or rather the suggested role, may be the desire to put on the agenda a new, institutionalised way of carrying out community governance. One problematic issue with such a general concept of network agent is the

difficulty in achieving good enough legitimacy in all relevant domains in the community, so that it can play a central initiating role in the actual problem areas that emerge. As the network agent will not be competent and experienced in all problem domains, its centrality and legitimacy as a convener, to use Gray's term, may be strong in some domains, but weaker in others. With a more peripheral role, the functions may then become supporting initiatives from other conveners in the form of some infrastructure support, giving advice on collaborative issues, assisting in organizing the particular domain, helping out with formalities etc. In such a role, one may picture the network agent as a public actor that could assist in the task of deliberately designing appropriate referent organizations, as Trist (1983) suggests is an important task.

Another problematic issue with a generalist network agent is that of stakeholder control. Burns (1981) and later Inskip (1992, 1994) propose certain characteristics of the ideal network agent, where the point of departure is that it is an organization, not an individual. It has a size ranging from 2 to 12-15 people, a flexible, project-oriented task structure, strong leadership in a collaborative style and has a high level of independence from sponsors and constituents to permit maximum autonomy (Inskip 1994:19). While a level of independence and autonomy from other community institutions and strong stakeholders may be important in order to maintain legitimacy and a balanced position in the domain, the emphasis on maximum autonomy from the domain itself is a point opposite to that which Trist makes. Trist argues that ownership, responsibility and control should remain with the constituencies. By focusing on maximum autonomy, the network agent may risk ending up by having too much responsibility and control, taking on too much of an expert role, and thus re-instating the element of hierarchy and centralized control that collaborative regulation on the domain level seeks to avoid. Autonomy versus the other stakeholders in the domain may also contribute to reducing the qualities of the solutions, the legitimacy of the actions taken and the ownership among the stakeholders. It should instead be a case of securing *maximum* autonomy in relation to politicians, governmental institutions and funding sources outside of the domain, and at the same time securing *minimum* autonomy versus the particular domain.

As we have seen, the "referent organization" also exists in the conceptual set-up presented by Gray and Burns, but their main focus is on the initial phase of domain formation, where they use the term "convener" and "network agent", respectively. This has reduced their discussion

about the role and design of the referent organization to a minimum, in fact practically made them overlook the issue. Again, I argue for a longer time perspective on collaborative endeavours, which bring the referent organization back to a central position, while at the same time recognizing the importance of the initial convening of the domain, i.e. the role of the convener(s).

The network organization and the bridging organization

In 1974 Metcalfe introduced the term “network organization”, a term also used by Hanssen-Bauer & Snow (1996) in their analysis of the now rather well documented Norwegian enterprise network Nordvest Forum (see e.g. accounts in Chisholm 1998, Gustavsen 1998, Hanssen-Bauer 1998). The thinking behind such an organizational entity and its role in the formation of a domain is quite similar⁴⁹ to that of the referent organization, though less well developed. “The distinctive feature of a network organization is a concern with creating the environmental conditions of mutual understanding and trust conducive to interorganizational cooperation” (Metcalfe 1976:341). Metcalfe regards collaboration as an issue of social integration, and discusses appropriate strategies based on four types of integration; cultural integration, normative integration, communicative integration and functional integration. The way he describes the role of his network organization (1976:341), it resembles the referent organization-concept. However, the term “network organization” creates a semantic confusion between the concept of an individual organizational unit as a mediator, facilitator etc. within an organizational network, and the concept of that organizational network itself. This unnecessary confusion disqualifies the concept as a well-suited term.

Brown (1991) uses the term “bridging organization”, which resembles the referent organization. The way he uses the term, it covers a wider array of organizations that in various ways serve to bridge groups of individuals, institutions and organizations, across levels and sectors - in efforts to work on development issues. Brown’s main reference point is work with

⁴⁹ In contrast to Trist, Metcalfe claims to have an organization-set perspective in discussing interorganizational collaboration (1976). His main focus is thus on various strategies available for the focal organization in order to adapt their (transactional) environment to their own needs, rather than responding to situational demands. However, he ends up by arguing for an organization-set perspective that takes into consideration the wider network in which the focal organization is embedded. In other words, he argues for a contextual environment perspective without using the term. Notably, Metcalfe seems to have introduced his concept of a network organization first, and Trist (1977) refers to his work without acknowledging the similarity.

poverty issues in developing countries, but his concept of bridging organization also includes cross-sectoral partnerships in industrialized countries constructed to collaborate on problems which none of the constituencies can solve alone. In other words, a setting similar to the theme of this thesis.

In the narrower conceptualisation of Westley & Vredenburg (1991:68), the bridging organization “is historically separate and distinct in terms of resources and personnel from the “island” organizations it seeks to link”. Thus, it is not created by the stakeholders in the domain as a referent organization may be, but exists and operates as a stakeholder itself, in addition to negotiating bilaterally with key stakeholders in order to “bridge” the gaps between them.

“As a central actor among diverse constituencies, the bridging organization potentially has great influence over events. It can be a conduit for ideas and innovations, a source of information, a broker of resources, an negotiator of deals, a conceptualise of strategies, a mediator of conflicts.” (Brown 1991:812). Brown suggests that bridging organizations can play key roles in building local organizations, creating horizontal linkages, increasing grassroots influence on policy, and disseminating new visions and organizational innovations - all aspects that are crucial to sustainable development.

In his description of the various roles bridging organizations may take, he covers the roles described as “network agent” by Burns (1981), “convener” by Gray (1989) and “network organization” by Metcalfe (1976), as well as includes the “referent organization” by Trist (1983). This may be putting everything into one concept, but the main contribution in the context of this discussion may be regarded as opening up to recognize the great variety of contexts in which a form of bridging organization may play an important role, and thus the great variety of appropriate organizational forms and roles fitting the different contexts.

The development coalition

The last alternative concept I shall here draw attention to, is the *development coalition*. The concept is increasingly being applied within the Scandinavian action research community.

Development coalition as a term was reintroduced by Gustavsen in association with the Norwegian Enterprise Development 2000 program⁵⁰ (e.g. Gustavsen 1998, Gustavsen et al 2001). In this context, the meaning of development coalition is a «form of broader networks of enterprises» collaborating on developmental issues through the exchange of experiences - assisted by researchers (Gustavsen 1998:436). In other words, «development coalitions» in this thinking are networks where the primary purpose is the internal development of the member enterprises. The internal development of each member enterprise is supported by an exchange of experiences on development issues. This exchange is facilitated by researchers organizing a range of arenas for discourses or dialogues between the member enterprises. “Development coalitions become a complex set of discourses on a number of arenas where problems are identified, ways of dealing with them established, strategies and approaches decided on, processes carried through, and results evaluated.” (Gustavsen 1998:438).

A broader meaning

The way the concept is being used by Gustavsen it primarily becomes a constellation of enterprises with researcher support. While such constellations may be important to develop, its precise demarcation takes the attention away from considering the relevance of a broader collaborative framework where a wider range of actors may be relevant in addressing the developmental needs of enterprises. If one applies a regional perspective on the development strategies as I do in this thesis, a range of public and semi-public actors become important actors in development coalitions.

A broader and more general version of the concept was presented by Metcalfe in the mid 70s (Metcalfe 1976). “Developmental coalitions become necessary when a specific task or project requires the concerted action of a number of separate organizations” (ibid. p. 339). In Metcalfe’s exemplification, “forming a developmental coalition can take the form of facilitating cooperation between government, management and unions in promoting economic development” (ibid. p. 341).

⁵⁰ In Norwegian: Bedriftsutvikling 2000 (BU2000). BU2000 lasted six years (1995-2001) and encompassed close to 100 researchers.

To be able to advance development approaches in a local or regional setting with the direction of some form of “infrastructure for change”, I argue that it is necessary to return to the wider definition as used by Metcalfe. I want to open up the concept to encompass a wider set of relevant regional actors who have a role to play in supporting enterprise development. The consequence of this view is the possibility of constructing broader and also more diverse development coalitions that address a wider set of issues pertaining to the development of enterprises, as I have argued elsewhere (Finsrud 1998).

In a more recent publication, the concept of development coalition is expanded even further by Ennals & Gustavsen (1999:57). “...such coalitions can be formed on many different levels, ranging from small workplaces via smaller and larger networks and regions, and to whole nations.”. The authors even explore to what extent the idea can be applied at a European level. While the concept is kept at a fairly unspecified level covering almost all collaborative efforts, Ennals & Gustavsen emphasise that relationships within the coalition are essentially horizontal. These relationships “constitute channels through which information flows, experiences are compared and new solutions are worked out, through extracting the best out of a broad range of experiences and ideas.” (ibid. p. 57). This is achieved through means of dialogue.

The idea of the development coalition is thus closer to the concept of domain than of the referent organization. It resembles a social field of individual and organizational actors that collaborate on joint development issues. Put simply, if several actors collaborate on development, you have a development coalition. How the coalition is organized and managed, which is the main aspect of the referent organization, is not dealt with in this conceptualisation by Ennals & Gustavsen (1999). Therefore, it does not substitute the idea of the referent organisation. The “development coalition” is an easy accessible term and serves to communicate an important aspect of social organization, namely collaboration for development. This is an important quality, and it makes the term directly useable at the initial stages of practical research and development work, as well as on a research-policy level. The latter is clearly demonstrated in the new, 10-year research and development program “Value Creation 2010”⁵¹, where the concept has achieved a focal position. However, at its present

⁵¹ In Norwegian: “Verdiskapning 2010”.

stage of development, the concept is in itself so open and general that it provides only a general framework for summoning actors to the table. It offers little or nothing in terms of addressing the issue of organizing, nor does it offer a framework for analysing and understanding a larger social field. Based on the above comments and the argument and purpose of this thesis, I choose to use the conceptual pair of domain and referent organization in this thesis.

The research question on organizing

If, as it is argued above, the referent organization plays an important role in establishing and managing collaborative efforts, central questions become how referent organizations may be constructed, and what the role and function of the referent organizations are. Together with the question of convening of stakeholders, this set of questions constitutes the organizational research question: *What are the organizational conditions for constructing a collaborative domain?*

3.9 Addressing the regional dimension: An infrastructure for change

If one accepts the potential role of public and semi-public actors in supporting enterprise development through cross-sector collaboration, the question not only becomes one of creating single collaborative efforts that can be successful and the source of important learning. An additional question becomes how this can take on meaning in a local/regional context and be extended beyond the single collaborative effort to address a larger part of the (potential) domain? The aim is therefore not only to link a few local enterprises to each other and a competence institution through a project in order to support their competence development and rate of innovation, but to *continue* this construction process in the direction of an increased learning and development capacity for the larger locale. How can we conceptualise this idea and ambition of a learning and innovation capacity of a larger scale?

Scholars in industrial geography have introduced the concept of the *learning region* (chapter 2) in an attempt to focus the importance of learning for industrial development (Asheim 1995). Successful regions are anticipated to be those who are able to organize learning

processes between organizations on a regional scale, hence learning regions. A learning region is basically a region that is able to support the learning processes of its enterprises. The concept, or rather the image of the learning region is coupled to the notion of regional innovation systems (e.g. Asheim & Isaksen 1996), where innovation is understood as interactive learning processes among a larger number of enterprises and their support structure. «Interactive» in this context basically means that it is not a linear transfer of knowledge from someone to someone else, but rather a process of joint learning based on processes going back and forth between several actors in an industrial setting. But how can such a learning region be constructed? What more can be said about a region where enterprises ideally innovate, change and learn faster based on some kind of interaction? This interaction surely has to be organized and initialised in some way? Or do we wait and hope it happens by itself? So far the industrial geographers have left the concept at a very indicative level, and beyond trying to link the “open” concept of development coalition to the discourse on learning regions (Asheim & Pedersen 1999), very little has been done to expand on the nature of learning regions and how they can be brought about. This is where our understanding of collaborative constructs and processes may bring the discourse forward.

A fruitful approach to this challenge is to focus on the collaborative constructs whereby the desired learning, change and innovation may be supported. Taken together, the domains of the Free County Experiment and the three cases of this thesis may be understood as representing an *emerging regional structure* that seeks to support industrial development. This structure consists of interorganizational relationships that are communicative by nature, and may be conceptualised as an *infrastructure for change*, an idea introduced by Gustavsen (1998). I suggest that a learning region should be understood as a region with a well functioning infrastructure for change. Moving towards a learning region thus entails developing an infrastructure for change. Further, I argue that such an infrastructure for change will have to consist of partial domains and sub domains that are sufficiently connected to produce the necessary learning dynamics. This is the conceptual bridge between industrial geography, collaborative theory and an action research oriented approach to industrial development, represented by Gustavsen. However, the idea of such a collaborative infrastructure has not yet been developed in any length, but merely suggested as an image to move towards. In order for this conceptual “bridge” to be of any value, the idea of an infrastructure for change needs to be

better developed. Therefore, a core research question in this thesis becomes: *What are the characteristics of a regional infrastructure for change?*

3.10 Organizing in collaborative fields: a summary

In this section on the organizing of collaborative domains, I have presented the conceptual apparatus of social ecology, and discussed various alternative conceptualisations. I have developed the concept of domain by introducing the new idea of *sub domains* and *partial domains* in order to better handle the inter-relatedness of various problem complexes and of stakeholder groups. This contribution to theory on collaboration provides a better conceptual framework for understanding and intervening in regional change efforts. It opens up for addressing necessary inter-domain relations, and draws attention to multiple referent organizations and referent structures as governing mechanisms in loosely coupled, interorganizational domains.

Further, the discussion has led me to choose the term *convener* for the individual, group or organization that brings the stakeholders together in order to form a domain. The term *referent organization* is chosen for the organizational entity that takes on functions on behalf of the domain. I have given the referent organization a more central role in understanding collaboration than what is argued by for instance Gray (e.g. 1989). The main research question developed from the issue of organizing is the following: *What are the organizational conditions for constructing a collaborative domain?* Three sub-questions details further what the main question addresses:

- *What are the critical elements of convening the stakeholders of the domain?*
- *How may the referent organization be constructed?*
- *What are the roles and functions of the referent organization?*

In this chapter I have claimed that the concept of an *infrastructure for change* is the conceptual bridge between industrial geography with its idea of a learning region, collaborative theory with the concept of domain, and an action research oriented approach to industrial development. Developing an infrastructure for change is a way of moving beyond the single collaborative effort and addressing the regional dimension of collaboration. Hence, the second research question developed in this chapter is: *What are the characteristics of a regional infrastructure for change?*

3.11 Collaborative processes

The formation of collaborative domains might develop from rudimentary connections and ideas about a problem area, to, in some cases, an organized domain with a purpose, a shared sense of direction and a stakeholder set that collectively are able to improve on the issues or the problem area they address. In other words, their collaboration goes through a *development process*. This process is of special interest from a perspective of intentional change; if one is to foster interorganizational collaboration as a development strategy, an understanding of the nature of such a process will be necessary. How then can we view the process phenomenon?

According to Ring & Van de Ven (1994), relatively little scholarly attention has been devoted to studying the developmental processes of interorganizational relationships. Instead, research has largely focused on antecedent conditions or the structural properties of interorganizational collaborations. While this may be true, Ring & Van de Ven limit their world to the management literature and institutional economics where the focus has been on transaction cost or agency theory in the field of business relationships. Thus, they omit contributions on process issues from other fields or discourse formations, such as those concerned with cross-sectoral collaboration (e.g. Burns 1981, Gray 1989).

Process models: The problem of stages, steps and phases

Accounts of collaborative processes have had a strong tendency towards portraying the processes as sequential and linear in the form of stages, steps and phases⁵². Examples are e.g. Burns (1981), Cummings & Worley (1997) and Gray (1989, 1996). With the central position Gray has in the field of interorganizational collaboration, a closer look at her processual thinking is relevant.

Gray argues that the issues of importance in collaborative processes “conform to a general sequence of phases regardless of the nature of the problem under consideration” (1996:61)⁵³.

⁵² Van de Ven & Poole (1995) characterize such a theory of change as a form of life-cycle theory, in which the prescribed order is based on an imminent logic inherent in the developing entity. In their classification of change theories, a social constructivistic perspective is categorized as a type of teleological theory in which the purpose or goal is the final cause for guiding movement of an entity.

⁵³ Gray’s process model with the sequential phases thus follows a logic classified as a life-cycle model by Ven de Ven & Poole (1995).

These phases are 1) a problem-setting phase, 2) a direction-setting phase and 3) an implementation phase. During these phases, a set of issues must be handled. “There remains a fundamental set of issues that must be addressed in the course of any collaboration” (Gray 1989:56). These issues are presented in table 1.

Phase 1: Problem setting	Phase 2: Direction setting	Phase 3: Implementation
•common definition of problem	•establishing ground rules	•dealing with constituencies
•commitment to collaborate	•agenda setting	•building external support
•identification of stakeholders	•organizing subgroups	•structuring
•legitimacy of stakeholders	•joint information search	•monitoring the agreement and ensuring compliance
•convener characteristics	•exploring options	
•identification of resources	•reaching agreement and closing the deal	

Table 1: Gray’s 3-phase model of the collaborative process
(from Gray 1989:57)

While the initial thinking in Gray’s model was that one phase had to be completed before the next could start (Gray 1985, 1989), this has been modified in the later version of the model (Gray 1996). Based on a critique by Inskip (1992), Gray explicitly recognizes that “not all collaborations proceed through these phases in sequence, and the phases are not necessarily separate and distinct in practise. Overlapping and recycling back to earlier issues that were not addressed may be necessary” (1996:61,62). In loosening up her model, Gray is turning back to an interpretation of the phases more in line with her own key theoretical source for the process model, namely McCann (1983). McCann (1983:178) proposes about the phases that “they are open-ended and continuous in the sense that they are never complete”. This step is not fully taken by Gray, as she maintains the argument that the critical issues identified in her 3-phase model must be adequately addressed to achieve success in collaborative efforts. In other words, if they are not addressed sequentially, which still appears to be the ideal, they must surely all be handled at some time. More nuanced conceptions of sequentiality are provided by Burns, who argues for his 5-stage model, but recognizes that “the transitions from one stage to another are hard to sort out in practise. As often as not the features of more than one stage are co-present in the social field” (1981:224). Cummings & Worley (1997) also advocate a 4-stage model, but recognize the iterative dimension by establishing feedback loops between the stages.

Portraying development processes in general as sequential phases with critical issues that must all be handled, may be overly simplistic and mechanistic. Such a linear conception of development dynamics runs the risk of not capturing the dynamic, circular or iterative nature of such processes. My experiences with collaborative efforts correspond better with the understanding articulated by Chisholm (1998). He points out that the development processes are not “neat and tidy” in a rational, planned and sequential or linear way. Rather the process is disorderly, non-linear, informal and serendipitous.

In Gray’s view, returning to address an issue again, or addressing it out of sequence, is a less than ideal process. Returning to earlier issues may happen because they were not properly addressed the first time. In other words, the recycling is a result of a poor job or incapacity earlier in the process. When Gray recognizes that “overlapping and recycling back to earlier issues that were not addressed *may be necessary*”, it appears not to be desirable and not typical. In my experience, overlapping and recycling is rather typical; issues are *often* handled in parallel or simultaneously, and earlier issues are commonly returned to. I further suggest that recycling back is not necessarily the result of incomplete work at earlier stages, but rather reflects processual learning and dynamics, i.e. the gradual development of the collaboration.

The time perspective

The gradual development of collaborative efforts becomes clearer when one study longer-term collaborations. Collaborations that exist over a longer time period go through transitional phases, and issues need to be addressed again and again. This is not because of poor work in the beginning, but because new stakeholders join or old stakeholders leave the collaboration, creating the need for a re-evaluation of some of the core issues. As the nature of the problem complex may change, maybe even due to the efforts by the collaboration, so will the stakeholder mix, the purpose, the possible solutions and the way of organizing the collaborative efforts have to be re-evaluated. To sustain a collaboration, it takes an *ability* to reformulate the purpose, the problem area, look out for possible alternative solutions, and restructure according to changes in context, stakeholder setting and their priorities, financial possibilities, tasks, etc. Collaborative efforts largely appear as an ongoing process where the issues are iteratively and simultaneously handled. It is not as a one-shot thing where the process after the first implementation is reduced to merely carrying out what has been

decided. Sustained collaborations must have an ability to continuously learn and adapt - in close interaction with its constituencies.

Gray's, as well as Burns' focus is on the early life of a collaboration, or on short term collaborative efforts, and her process model stops after the first implementation phase. This may explain why the iterative or circular dimension is not present in her model; i.e. they are less apparent in a short time period. However, many collaborative efforts exist after the first implementation phase. Not all collaborations should seek for eternal life and should be terminated when the shared problem has reached a satisfactory level of improvement. Other collaborations should attempt at continued existence, as many complex problems are not handled as one-shot issues, but demand repeated attention over longer time to improve. Moreover, establishing a well functioning collaboration is such a resource-demanding effort that creating sustainability and a capacity for renewal is meaningful. Trust-building takes time and develops based on concrete experiences with the other stakeholders to the point where stakeholders sometimes will have to make repeated attempts at collaboration before they succeed, and the learning from previous collaborative attempts will influence the next attempt. For instance, the relative importance of the issues and the time spent on them will vary according to previous experiences. Attention to certain issues might for instance be based on the perceived reason for a previous failure or success, for that matter. Due to earlier work, some issues might even be settled before a new collaboration starts, such as «common definition of the problem» and "legitimation of stakeholders" among old partners, and other might be irrelevant, such as "Monitoring the agreement and ensuring compliance" in an informal, ad hoc and highly voluntary collaborative setting. This does not mean that the various elements in Gray's model are irrelevant, but the model should be reshaped to better reflect the dynamic and iterative nature of the processes.

Summing up this modification of Gray's 3-step process model suggests that:

- 1) Processes are more often than not non-linear both in terms of direction and in terms of the iterative handling of critical issues.
- 2) Some issues should be dealt with several times, not necessarily because they were poorly dealt with the first time.
- 3) Some issues are handled simultaneously.

- 4) Some issues may never be handled explicitly or are irrelevant to the particular collaboration.

Therefore, rather than a number of issues that ideally should be handled in sequence, a more adequate conceptualisation seems to be to regard the various issues as *issues for consideration* in an ongoing, iterative, open-ended process. A similar approach to the process issue is advocated by Huxham and Vangen⁵⁴. Instead of suggesting phases or steps, they deal with collaborative processes as a collection of themes, and instead of addressing the process per se, they set out to explore the themes and the relationships between the themes in order to gain the necessary «flexibility» in dealing with collaborative process. In other words, they attempt to avoid the rigidity posed by models that offer particular sequences. By the collection-of-themes approach, they escape a sequentiality and linearity that they find do not exist in the collaborative efforts they have studied (Huxham & Vangen 1996a, 1996b, Vangen 1998, Huxham 1996a).

This view also corresponds to the suggestion by Westley & Vredenburg: “perhaps collaborative theory would be strengthened by defining the process more loosely and experimentally as a configuration of elements” (1997:382). However, Westley & Vredenburg (1997) misinterpret Trist (1983) as arguing for “sequential stages” (ibid. p. 383). Instead, Trist suggests a *set of processes* is important in the development of emergent domains. Thinking in terms of a set of processes is qualitatively different from arguing the case of sequential stages. The processes which Trist suggests as important are:

- Network initiatives
- Search conferences to foster appreciative learning
- Design of suitable referent organizations
- Convening of the extended social field.

These are processes and process issues that will be non-linear, overlapping, interrelated, and they will be repeated and will be of a continuous concern, rather than a stage following upon a stage in a sequential manner. For instance, neither network initiatives nor convening of the

⁵⁴ Also Hanssen-Bauer (1998) stresses that the elements identified to be of importance in the development process of a regional learning network should not be interpreted as a neatly staged linear process.

extended social field is something that will be done once and for all, but rather as a continuous concern. Not even designing a referent organization is a one shot affair. The form and function of the referent organization will typically develop over time as the domain itself develops. New stakeholders, adjustments of purpose, changes in available resources etc. will influence the way the referent organization is constructed. The sequential logic that Westley & Vredenburg criticize, however, is very much present in the work of one of the most high profile scholars in the field of collaborative studies, i.e. Gray (e.g. 1985, 1989, 1996). Gray builds on the work of Trist, but, as we know, advocates a highly sequential 3-phase process model. Curiously enough, Westley & Vredenburg (1997) avoid criticizing Gray for being sequential, even if they frequently refer to her publications.

Phases? Yes and No

Are all conceptions of phases, steps and stages then too simplistic, naive and mechanistic? I contend that in analysing a particular case, it may be appropriate to characterize the process in terms of various stages or phases as a *descriptive and/or analytical* tool to highlight shifts in the development trajectory. The problem with phases and steps arises the moment these phases are transformed, or generalized into a *prescriptive* model that should apply in other settings, and especially so when linearity becomes the dominating logic.

3.12 The interactive dimension of collaborative processes

A process is not only a matter of listing issues that stakeholders need to address in the course of a collaborative effort (Gray), or identifying critical themes pertaining to processes, such as collaborative fatigue, collaborative inertia, naivety, maturity etc. (Huxham & Vangen), but it is also a question of *how* the stakeholders go about addressing those issues or handling aspects or critical themes.

A basic element in collaborative processes is the *interaction* between the stakeholders. As we recall, Wood & Gray (1991:146) explicitly included this aspect in their definition of collaboration:

“Collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain”

However, in coining the definition of collaboration as being an interactive process, Wood & Gray limit the explanation of interactivity to stating that:

“We use the term *interactive process* to indicate that a change-oriented relationship of some duration exists and that all participating stakeholders are involved in that relationship.” (Wood & Gray 1991:149)

This basically boils down to something like «everybody is involved over some time», which is not a very elaborated conception of what interactivity means. A more specific interpretation is offered by Roberts & Bradley in the same journal, who state that an interactive process means “..sustained reflexive (self-critical) interaction among the participants.” (1991:212). Their focus is thus on systematic self-assessment, where the stakeholders are evaluating what they are doing, and how they are doing it, recognizing that due to inevitable and unanticipated difficulties, “virtually all aspects of the process are open to constant re-examination and re-evaluation” (ibid. p. 212). While a reflexive capacity may also be important in collaborative efforts, I view this as a desirable state, but not as the defining dimension of interactivity. In my view, you may have an interactive process without self-critical reflexivity, but you will not have self-critical reflexivity for the stakeholder set as a whole without having an interactive process.

In my view, *interactivity* can be viewed as the core of what collaborative processes are about. It is through interaction that common ground is identified, new understanding emerges and organizational structures and action steps are decided upon. Hence, the *characteristics and qualities* of the interactivity will have consequences for how the development trajectory unfolds and what kind of outcomes the collaborative effort leads to. Therefore, it becomes important to identify the characteristics of this interactivity.

In the context of this thesis the question becomes: what should characterize the interactivity of public-private development partnerships? Different types of collaborative efforts with different purposes and different sets of actors are likely to emphasize somewhat different qualities of interactivity. A strategic alliance between two multinationals with focus on marketing, a production network between small enterprises and a conflict resolution effort between environmentalists, local government, community organizations and industry are likely to benefit from different types of interaction between the actors. The characteristics

suggested in the following will therefore not necessarily apply to all types of collaborative efforts. This may also be an explanation why «interactivity» has been left at a very general level by Wood & Gray (1991). Their ambition is to construct a general theory about collaboration, encompassing all varieties, and hence aspects of a more specific nature applying to one type of collaborations may not find room in their theory.

From linear to interactive process logic

A first point of clarification is the *overall logic* inherent in understanding of collaborative processes as interactive. The important realization here is that an interactive logic is largely incompatible with a linear conception of development processes. An interactive logic will focus on the participatory dimension and the need for a continuous reconstruction of structure, content and process as a consequence of the learning that takes place among the stakeholders. This leads to both iterative, parallel and overlapping processes. An overall linear logic on the other hand, presupposes an ability to plan in advance, often the few planning for the many, and then act according to the plan in a sequential manner. If development processes are approached with this linear logic, the necessary conditions for interactivity will most likely not be present.

This point may be of special relevance to collaborative efforts involving actors from the public system. As will be apparent below, an interactive process is based on a different logic than the linearity of traditional planning, bureaucratic systems and hierarchical relationships, elements that are abundant in the public system. Therefore it becomes a special challenge to foster interactivity in cross-sectoral collaborations. A linear logic in its most extreme form is characterised by a process, which moves along one line and in a way where step follows upon step in a logical pattern. While this is not seen in real-life situations, it still remains the dominating logic, and often takes the form of an ideal that actors pursue. For instance, a linear logic typical to traditional public administration will generally a) aim at planning the process from start to end, b) not emphasise broad participation at all stages, and c) regard the process as ideally sequential, largely predictable, and well structured.

Most interorganizational processes turn out not to be like this ideal (e.g. Chisholm 1998). In contrast, an interactive process as I define it will rather tend to be open-ended, non-linear, iterative, and indeed often «messy» with parallel and overlapping processes. Instead of

viewing such a circular and open process as a case of bad planning, poor administration or incompetence in the area of collaboration, it is rather the ideal itself that is off the mark. While linear dimensions also have their legitimate, effective and functional roles to play in collaborative efforts, such a linear logic will provide a poor point of departure for understanding and intervening into the inherently dynamic and complex processes at the interorganizational level. As an example, development of ownership, trustful relationships and adequate organizational forms will greatly benefit from a certain level of interactivensess.

“Interactive” is thus not only a contrast to “reactive”, as argued by de Jong (1996), where for instance some participants react to ready-made designs or proposals from other participants. It is also in contrast to a linear logic of development processes. In this line of reasoning, an interactive logic corresponds to a proactive role by all the participants rather than the reactive role common in public administration. While public actors increasingly should take on a proactive role, as argued by for instance Amdam (1996b), I claim that this must be balanced in regard to other actors, so the public actors do not take over too much of the initiative and control, and by that reduce the role of the other stakeholders to a reactive one.

Admittedly, a linear logic is not limited to the public system. It is closely connected to the general logic of hierarchy and bureaucracy that we all know so well, and we find it in all sectors. Applying a linear logic is therefore often tempting and very easy, but will run the risk of severely hampering a collaborative effort. Just to refer to the very general characteristics of public administration given above, it seems reasonably clear that a) centralized, detailed planning in these complex systems is futile, or even by necessity impossible (e.g. Mintzberg 1994) as it entails premature closure of the designs of both structures and processes, b) lack of participation will reduce ownership among the stakeholders and correspondingly reduce the qualities of the solutions decided upon, and c) the ideal of sequentiality seldom appear in reality. Hence, development efforts should not be designed as if they where linear, nor should one attempt to make them linear. On the contrary, development efforts should deliberately be designed to allow for interactivity to develop. I stress this point, because, as we have seen above, theories of interorganizational collaboration tend to present sequential, stepwise process models where linear logic prevails.

While the recognition of social change processes in general as being non-linear is quite broadly recognized, it is rarely phrased in terms of interactivity. In stead, terms like “iterative”, “parallel”, “overlapping” or “messy” are used. Recent contributions in innovation theory emphasise innovation as a basically *interactive* learning process rather than a linear process, which is research-based, sequential and technocratic. (Lundvall 1993, Lundvall & Johnson 1994). Another exception is from action research in the field of organization development. Based on comparative case studies, Gustavsen (et al 1991) argue that development strategies based on an interactive logic out-perform approaches based on linear logic.

Gustavsen (et al) state that “In an interactive approach, all levels and areas of the enterprise are participating in the change process. The processes are integrated through dialogue-based interaction» (1991:329). Furthermore, each participating enterprise collaborates with other ones in order to exchange experience and learn from each other. An interactive change strategy is in their conceptualisation characterized by a broad approach creating a number of interrelated processes with their own dynamics, and these processes are horizontally interconnected by means of dialogue.

3.13 Main characteristics of interactive processes

As we have seen so far, very few writers on interorganizational collaboration have addressed the issue of interactivity, and then only superficially or rudimentarily without spelling out the main characteristics of such a process. Some even talk about interactivity, while at the same time advocating a linear, sequential process model (e.g. Gray 1996). It therefore seems highly pertinent to develop a richer conceptualisation of what interactivity means in an interorganizational setting. In the following, I shall outline the main characteristics of an interactive process as I see it applied in an interorganizational setting. The suggested characteristics are based on my own practical experience⁵⁵.

Interactivity has to do with the nature of participation at the interorganizational level. A special concern is the relationship between the referent organization(s) and the rest of the

⁵⁵These ideas were first introduced in Finsrud (2000).

stakeholders. Though briefly, Trist stressed this point in his attempt to sum up intervention strategies for interorganizational domains.

“A point of special importance is the need of the referent organization to remain in sensitive contact with the extended social field of the domain. The referent organization cannot make too much of the going itself. The domain community must become part of the learning-appreciation process, and must be convened at critical junctures.” (Trist 1985:192).

Gray, who has explicitly built on the works of Trist (e.g. Gray 1989), seems to have downplayed this issue in her accounts of collaborative processes. Stakeholder interaction has largely been reduced to a question of who should participate, with the corresponding realization that all stakeholders may not participate to the same extent or at the same time in the process. This can both be the result of the number of stakeholders, and of their particular interests. With large number of stakeholders, issues of representation and participation at different points of time must be considered in order to arrive at manageable sizes. As the collaboration matures, stakeholders may seek to get involved in some issues of special interest to them, while not participating in other issues. It can be argued, as Trist does, that major decisions for the collaboration still necessitates broad participation.

However, we need to get beyond this level of reflection on participative issues, summarized as a) “make sure you talk to them often”, b) with a large number of stakeholders, everybody cannot be present at the same time, c) everybody may not participate to the same extent on all issues. A first clue to the characteristics of an interactive process can, curiously enough, be found among Gray’s (1989) extensive use of cases to illustrate various aspects of collaboration. She reports a successful public-private collaboration where the success is attributed to the careful attention given to process issues throughout the history of the collaborative. Principles of participation, ownership and equality were continually incorporated into the design and conduct of meetings between the stakeholders, and special attention was devoted to the permeability of the process to allow for continual infusion of new ideas and energy. Furthermore, linking cross-stakeholder discussions to planning processes within the stakeholders’ constituent organizations was also regarded as a critical factor. In other words, these were principles for how the interactivity was designed in this example.

The characteristics

In the following, seven characteristics of interactivity in cross-sectoral collaboration are suggested.

1. Interactive processes are *open-ended*.

The first characteristic of interactive processes is that they are open-ended. This means that little if anything is pre-defined or pre-structured, i.e. there is something to be interactive about, rather than reactive. Attempting at creating interactivity as a core *modus operandi* implies that neither the process nor the structure can be pre-defined or specified. There is a risk, especially among planning-oriented initiators or conveners, of going too far in designing the collaborative effort before the stakeholders are involved. This is linked to the crucial matter of securing ownership, or “anchoring” the effort well among the stakeholders from the very beginning.

2. The process, structure and contents are *jointly* created by the stakeholders.

The process, structure and contents are jointly created by the stakeholders, and then repeatedly recreated. This implies that these matters should not be left for instance to a centralized unit, a strong stakeholder or an external expert. To borrow a term from Elden & Levin (1991), interactivity implies designing for the “co-generation” of both process, structure and contents. Initially, this is the responsibility of the convener, who has to carefully design the first steps of the process to allow for interactivity to develop. In addition to contributing to ownership and commitment, the joint creation of the contents, structure and process assure the continued relevance and quality of these issues.

3. Interactive processes are *conversational* rather than consisting of monologues.

The word “interactive” in its normal use means that there is some form of communication going back and forth between the actors, i.e. it is not a one-way communication, or a *series* of

one-way communications. Thus, an interactive process will be *conversational*⁵⁶ rather than consisting of a set of monologues, statements or “messages” from one party to the other. All too often interaction between enterprise representatives and public officials is reduced to giving one-way statements to each other in the form of explaining a new support program with its rules and regulations, giving declarations about what the industry «needs» at the present time, or communicating reactions to earlier proposals. While this type of contact may be functional at times as a part of the public-private interface, I argue it is insufficient in forming concrete collaborative efforts where the purpose, among other things, is to develop mutual understanding, ownership and create learning opportunities where the actors may learn from and about each other. Stressing the conversational aspect of interactive processes corresponds with the idea of interactive learning (Lundvall 1993) where the discourse between the actors is regarded as crucial. Interactive learning is seen as a fundamental aspect of the process of innovation, which again brings interorganizational relations into focus.

4. Interactive processes focus on the development of *common ground* rather than negotiation of formal contracts.

While contracts often play an important role in regulating commercially oriented business relationships between firms (Ring & Van de Ven 1994), they will hardly support a truly interactive process in the kind of developmental settings we are discussing here. A negotiating element is likely to be present in the latter parts of a process, for instance connected to discussions about allocation of resources and implementation, where tasks and follow-up activities have to be decided upon. Initially, however, the negotiation element is often played

⁵⁶ “Conversation” is here used in an everyday, dialogical sense, as a verbal process going back and forth between two or more participants, i.e. as something different from a monologue. In the work by Ford & Ford (1995) on the various forms and roles of conversations in producing intentional change in organizations, a broader meaning of conversation is used, including monologues as a form of conversation (ibid. p. 546). Ford & Ford (1995) introduce four distinct forms of conversation, which are conversations for initiating, understanding, performance and closure. This leads to a focus on the ideal sequence of these forms, or sequence effectiveness. This again requires analysis of transcribed “live” conversations, according to the authors. I remain doubtful to whether pursuing the best sequence of conversational forms is a fruitful approach, at least when dealing with large-scale change efforts. Nevertheless, my research has not been carried out at that level. While the *various forms* of conversations are not the main issue in this thesis, conversations in general are regarded as a central mechanism or medium in the interorganizational change processes reported here. Rather than the specific sequences of particular conversational forms, the focus is here on how to organize for conversations to take place. Therefore, rather than applying the terminology suggested by Ford & Ford, I choose to use a meaning of the term more in line with everyday language. “Conversation” is chosen as the general term rather than “dialogue” to avoid confusion with the ideal of democratic dialogue (Gustavsen 1992:3) or other qualifications of what a dialogue is and is not.

down at the benefit of finding common ground for concerted action. This interaction will typically be of an informal nature where the focus is on creating something new and building trust through experience and mutual understanding, rather than negotiating for scarce resources, focusing on conflicting views and solving issues of trust through formal contracts. Negotiations, at least in a Scandinavian setting, are reserved for the more formal parts of the process of collaborating.

Written agreements may in some instances serve as a collective memory and contribute a certain robustness to the collaboration. As individuals and organizations may be replaced by others as the collaboration evolves over time, these documents provide a record, which can be looked back on. Rather than being a question of complying with a contract, the joining of new members may initiate a new conversation around purpose, suitable organizational forms and relevant actions to be taken. In any case, by representing collective memory and serving as stepping-stones for further development, contracts or written agreements should support, rather than substitute, continued conversations between the stakeholders.

A similar view on the role of contracts and development of common ground is advanced by Doz & Babüroglu: “Common ground is likely to be a precondition for the implementation of flexible, incomplete contracts allowing specific commitments. In fact, the stronger the common ground between the collaborators, the more incomplete their contracts can be.” (1997:12). Even in commercial business relationships, Ring & Van de Ven propose that “Informal psychological contracts increasingly compensate or substitute for formal contractual safeguards as reliance on trust among parties increases over time.” (1994:105). Notably, in the logic proposed by Ring & Van de Ven, a process between firms *starts out* with a focus on negotiations and subsequent formalization of agreements in contractual forms, and eventually loosen up as trust evolves. In voluntary, cross-sectoral developmental collaborations that seek to become interactive, this would seldom be a fruitful starting point.

Conversational interaction is by some viewed as a process of negotiated order (e.g. Gray 1989, Nathan & Mitroff 1991, O’Toole & O’Toole 1981). This is based on a conceptualisation put forward by Strauss (1978).

“Negotiation... refers to conversational interactions among collaborating parties as they try to define a problem, agree on recommendations, or design action steps. In this way they create a negotiated order.” (Gray, 1989: 25)

The negotiated-order perspective must not be confused with negotiations in a contractual sense, as used by Ring & Van de Ven (1994) in their process model. Gray seems to be applying both types of “negotiations” in her account of collaborative processes, and her somewhat rigid process model has a contractual bias that for many practical purposes in development-oriented efforts is less well suited. This is at least the case in the Norwegian context. The last issue in her process model is “Monitoring the agreement and ensuring compliance”. The central question behind this issue is “How do we figure out assets, legal obligations and compliance with contracts?” (Gray 1996:64). In forming collaborations in the Norwegian setting, such a formal contractual view would be inappropriate, as it would suggest as an initial starting point that the stakeholders are not trustworthy, and thus correspond less well with the focus on building trust among voluntary participants. It is possible that her model is coloured by her focus on resolving conflicts and incorporating business relationships into the model, and as such reflects the difficulties of merging all types of collaborations into one model.

5. Interactive processes are *non-bureaucratic*.

Following one of Trist’s major concerns, interactive processes are non-bureaucratic. This is also linked to the previous point where I suggested that conversational interaction is not primarily a matter of negotiations and forming of contracts. Rule following, formalizations, the establishment of various systems, specialized functions, written communication etc. is largely incompatible with an interactive mode. When the collaborative starts to incorporate bureaucratic forms in its way of functioning, interactivity will wither as the systems, the rules and papers replace the conversations, power tend to be centralized and ownership and commitment will be poorly maintained.

6. Interactive relationships respect the value of the other and are typically of a *horizontal, participative nature*.

The relationships between the actors in an interactive process are typically of a horizontal or equal nature, and even when there are large power differences between large and resourceful

public departments and small enterprises, the interactive relationship is one that respects the value of the other. Interactive processes are therefore associated with participative democracy.

7. Interactivity should be sustained as *modus operandi*

Finally, I suggest that interactivity is not a one-off thing, but must be sustained as the central or core mode of operating. While not all participants may participate all the time and on all issues, due to interest or the sheer number of stakeholders, mechanisms must be found to convene all stakeholders on issues important to them. Sustaining interactivity implies a search for a form of institutionalisation of interactive processes, an institutionalisation that does not imply rigidity and a fixed way of being interactive, but has the ability of reconstructing itself to find new ways of interactivity.

Reasons for pursuing interactivity

Pursuing interactivity characterized as above contribute to five important aspects of development processes. These have partly been evident in arguing for the seven characteristics above, but the following will help to highlight and summarize. An interactive process will:

- 1) Be a way of *assuring relevance and quality* of the development efforts. By close and continuous interaction the likelihood of arriving at an output that meets the needs of the enterprises is greatly enhanced.
- 2) Contribute to maintaining *ownership and commitment*. As an interactive process is by nature a process where the parties are involved - in principle on equal footing, this involvement strongly enhances ownership. Ownership plays a role both in transitional phases (2) and in the ongoing process of reassuring relevance and quality (1).
- 3) Be instrumental in *critical turning points* for the collaboration. Over time, collaborations will repeatedly need to redefine their purpose, redesign their organizational form, and modify and develop their ways of operating. Successful transitions like these rely on a close relationship between the constituencies and the collaborative body that is established to undertake action on behalf of the domain. Securing the interactive nature of the development process implies that the secretariat, the project group, i.e. the referent organization, or other central stakeholders, must be careful not to take important developmental steps on their own, but keep in close contact with the rest of the stakeholders. The moment the collective organization, originally formed to take care of

various functions on behalf of the domain, becomes too much of an actor in its own right, a hierarchical element is introduced into the domain, and relevance and ownership is at risk.

- 4) Contribute to *trust-building*. As it is a setting for joint control and equality, direct interaction around key issues give enhanced knowledge about and an understanding of each others' viewpoints, it may reduce chances of misunderstanding and suspicions of hidden agendas, it provides personal face-to-face experiences and experiences from joint actions out of which trust may evolve.
- 5) Be beneficial for *learning* among the stakeholders. Through their interaction, stakeholders may gain important and even necessary insight into each others' conditions and experiences. Public stakeholders need to acquire knowledge about the work life they set out to support, and the enterprises may benefit from a better understanding of the possibilities and limits of the public system. The enterprises frequently benefit from discussing developmental issues with each other, and in relating to enterprises, public actors themselves are often in great need of extensive knowledge about their own system in order to provide good services. A linear, closed and pre-specified process leaves limited room for these kinds of learning opportunities.

In addition to these five, partly interlinked, reasons of a more operational nature, one may add a 6th motivation based on a value stand. The characteristics of interactivity suggested above can all be placed within a value framework of *participative democracy*, and as such align with e.g. the value base of the majority of Scandinavian action research.

On the basis of this conceptualisation of collaborative processes, a central research question becomes: *What are the critical elements characterizing collaborative processes?* Two sub-questions details this:

- *To what extent are the collaborative processes characterized by interactivity?*
- *How does the degree of interactivity influence the development trajectories and the outcomes of the collaborative efforts?*

3.14 Collaborative processes: A summary

In this section I discussed and criticized contemporary process models for their linearity, and suggest a different approach by characterizing interactivity. The proposed characteristics are

summarized in the table below. The main research question emanating from the section on process-issues is presented immediately above this summary.

1. Interactive processes are **open-ended**: little if anything is pre-defined or pre-structured.
2. The process, structure and content are **jointly** created by the stakeholders.
3. Interactive processes are **conversational** rather than consisting of monologues.
4. The process focus development of **common ground** rather than the formal contractual aspects of collaboration.
5. Interactive processes are **non-bureaucratic**.
6. Interactive relationships respect the value of the other and are typically of a **horizontal**, participative nature.
7. Interactivity should be **sustained** as a *modus operandi*.

Table 2: Proposed characteristics of interactive processes

3.15 Research questions

The topic of this thesis is the construction of collaboration between public and private actors to foster industrial development. The initial research question I presented in chapter 1 was:

How can regional actors collaborate to support development in enterprises?

I have now introduced a conceptual apparatus that allows me to develop a set of more focused research questions. In order to answer the question of how to construct collaboration in a regional setting, four main issues have to be addressed. These issues are 1) the organizing of collaboration, 2) the processes of collaboration, 3) the regional dimension of collaboration and 4) the role of public actors. These issues have been identified and developed in the previous theoretical chapters.

The issue of organizing (1) must deal with *convening* of the stakeholders, and the construction and functions of the *referent organization* in its *domain*. On the issue of process (2), the meaning of *interactivity* is the focal point. The regional dimension of collaborative industrial development (3) is addressed by using the concept of an *infrastructure for change*. Finally, the

role of public actors (4) in regional collaboration is underdeveloped and needs to be addressed. The research questions are as follows:

1) What are the organizational conditions for constructing a collaborative domain?

- What are the critical elements of convening the stakeholders of the domain?
- How may the referent organization be constructed?
- What are the roles and functions of the referent organization?

These questions are discussed in chapter 8.

2) What are the critical elements characterizing collaborative processes?

- To what extent are the collaborative processes characterized by interactivity?
- How does the degree of interactivity influence the development trajectories and the outcomes of the collaborative efforts?

These questions are discussed in chapter 9.

3) What are the characteristics of a regional infrastructure for change?

The question is discussed in chapter 10.

4) What characterizes the role of public actors in collaborative industrial development?

The question of the role of public actors cuts across issues of organizing, processes and regional infrastructures. Hence, discussions of the role of public actors appear in all of the chapters 8 through 10, and are summarized in chapter 11.

Part III: Organizing for Development

Chapter 4

Introducing the Context

4.1 Introductory comparisons

To assist the reader in comprehending the following cases, this brief chapter first presents an overview over the general characteristics of the cases, and then gives an account of the immediate context in which the cases happen.

The three cases in this thesis are from the county of Aust-Agder in the southern part of Norway. All three cases are about how public-private collaboration may be constructed in order to support competence development in enterprises. Or, put differently, they are cases about how regional actors collaboratively organize for development. The three cases are: The Joint Project, The Wood Centre and The Electronics Committee. To give a general overview over the cases, an introductory comparison is given in table 3 below.

As the table shows, the three cases unfold in the same region; they address the same overall purpose, take place in the same time period, and have some overlapping actors. Yet, they are quite different in terms of their development trajectories and their organizational forms. One was a project, one became a service centre, and the third is a committee. The larger Joint Project was terminated, while the more modest Wood Centre and Electronics Committee still continues. They address different industries, were initialised by different actors, and have led to different results. This combination of similarities and differences provide a basis for analysing across the cases, and hence gives opportunities for identifying learnings beyond the single case. The cases are told in the next three chapters. However, before we turn to the cases, I will address their shared context. All the three cases take place under the regime of what is called “The Free-County Experiment”. The Experiment provides an important context for the cases, and thus an introduction to the Experiment is needed.

Similarities	The Joint Project	The Wood Centre	The Electronics Committee
Main purpose of the collaboration	Competence development in enterprises	Competence development in enterprises	Competence development in enterprises
Main categories of participants	Public support system, industry and competence institutions	Public support system, industry and competence institutions	Public support system, industry and competence institutions
Location	The county of Aust-Agder	The county of Aust-Agder	The county of Aust-Agder
Time period	The 1990s	The 1990s	The 1990s
DIFFERENCES			
Main participants	County departments, regional NHO & LO, HF-B, county politicians, managers and employees, competence institutions.	Enterprise managers, county agency, county departments, upper secondary school.	Employment Office, managers and employees, upper secondary school.
Conveners	County dept. and regional NHO & LO	Enterprise manager	Employment Office
Type of industry	All industries	The wood industry	The IT industry
Number of enterprises	71	51	7
Organizational form	Project	Centre	Committee
Duration & Status	1992-1997 - Ended	1988-1998 - Continuing	1991-1998 - Continuing
Outputs	-Training in 71 enterprises -Collaborative experience among a larger number of regional stakeholders.	-100 craft certificates + 100 in the process. -Linking to R&D -Various projects for the member enterprises. -Influencing school system -A permanent service centre for 51 enterprises with 1200 employees.	-Training in 7 enterprises -Influencing school system -Model diffused to other industries. -Ongoing forum for 7 enterprises with 1200 employees.

Table 3: Introductory comparisons between the three cases

4.2 The Collaborative Turn in Public Sector: The Free-County Experiment

The Free-County Experiment was born in a period of great belief in local democracy, decentralization, delegation, coordination and local responsibility in the late 1980s (Amdam 1996a). There was recognition that improved public services increasingly had to be based on local and regional mobilization, and that detailed governance from state level had its severe shortcomings, if at all possible. Industrial development in a broad sense stood out as an area where decentralization from state level and integration at county level could contribute to strengthened regional development. The administrative and political county level had few means by which they could carry out a regional policy because most of the important public means were controlled by central government and governmental institutions at county level. In

addition, actors at both national and county levels recognized that the enterprises support system was fragmented with numerous uncoordinated public initiatives directed at supporting enterprises on a variety of issues.

In this context the Ministry of Local Government and Labour invited initiatives from the counties to try out new ways of coordinating state and county policies and activities in the area of industrial development. The idea was that the counties should take the initiative, define the content and manage the experiment, while the state level should provide the necessary changes in rules and regulations. As one of two counties, Aust-Agder was granted the status as free county in early 1989⁵⁷. However, a number of issues regarding the relationship between state and county levels remained unsolved until the summer of 1990, when the experiment started for real. After having been prolonged twice, the experiment was finally terminated as a success at the end of 1995 after about 6 years of experimental status.

The Free-County Experiment was primarily an attempt to create collaboration at county level around the issue of industrial development. According to the evaluation of the Experiment, the attempt was very successful (Amdam 1996a). The main idea was to integrate and coordinate policies for labour market development, education, industrial development and rural development, all areas regarded as relevant for industrial development. Thus, the corresponding county departments took part in the Experiment; the Employment Office and the departments for Education, Industrial Development and Agriculture⁵⁸. Of these, the Department for Industrial Development has played the leading role, with the head and the deputy head of the department as key promoters of the Experiment.

The purpose of the Free-County Experiment in Aust-Agder was expressed as follows:

“to achieve a better political, administrative and economic coordination of the available means in the areas of industrial development, rural development and labour market development, and contribute to reduce the unemployment in both a short and long term

⁵⁷ The other free county in matters of industrial development was Nordland.

⁵⁸ The Employment Office (in Norwegian: Fylkesarbeidskontor) and the departments for forestry and agriculture are state departments at county level, while the departments for education and industrial development are county departments and as such part of the county administration and governed by the County Parliament.

perspective. [This means] a more effective utilization of resources, a higher service level and contributions to enduring and profitable employment” (my translation, *Etatsjefsutvalget 1992:6*).

Money counts

The main innovative act to achieve this was the establishment of a single fund for industrial development at county level with a corresponding political and administrative structure. The fund was comprised of various economic resources previously used in Aust-Agder for industrial development purposes by a number of actors. Due to their sizes, funds for various training purposes previously administrated by the labour market system played an especially important role (the so-called AMO- and BIO-funds)⁵⁹. There were no additional resources provided as part of the experiment, and large parts of the funds came with clear specifications regarding spending, giving narrow room for manoeuvring⁶⁰. Nevertheless, the “free” money in the fund provided an important foundation for collaboration as it represented opportunities for policies and actions; something to collaborate about.

Gathering all the available funds in one fund at county level was one of the strategically important choices made by the political and administrative system in Aust-Agder. In the start-up phase, substantial effort was put down to establish rules and procedures for spending of the joint funds, including setting up an administrative and political structure. As the various funds came with their own rules attached, new rules and procedures had to be developed to reflect the new economic situation where decision-making was placed at county level instead of being partly nationally decided, partly delegated to various agencies and departments. An example is the merging of funds for training of employees, the so-called “BIO-funds” originally administrated by the county Employment Office, with funds for rural development, “DU-funds”, traditionally administrated by the county departments. Removing the previous sets of rules and procedures, often nationally decided, demanded setting up a new set. The Free-County partners thus developed new specifications that allowed for greater flexibility

⁵⁹ In 1992 the fund amounted to 142 millions, of which 60 millions were AMO- and BIO-funds traditionally administrated by the Employment Office. “AMO” is an abbreviation for “work market training”, referring to training of unemployed, while “BIO” stands for “in-company training”, and refers to training of employees in companies (*bedriftsintern opplæring*).

⁶⁰ The total fund for industrial development ranged from NOK 115 millions to NOK 150 millions a year in the free-county period.

regarding what to support, and labelled this arrangements the “BRO-funds”⁶¹. The BRO-funds played an important role regarding the Free-County partners ability to support competence development in enterprises⁶².

Creating political and administrative collaborative bodies

The Free-County Experiment had an important economic dimension, but was foremost a *collaborative* experiment where new, more flexible and task oriented ways of working were developed across public departments and across levels. The economic coordination through the joint fund was primarily important because it provided the structural glue that made the Free-County partners organize their efforts collaboratively under the heading of “industrial development”. The collaborative work practice were to a certain extent reflected in formal restructuring of the political and the administrative apparatus within industrial development, but the typical approach in the experiment was not to *replace* the existing formal structure, i.e. merging and splitting of departments, redefining areas of responsibilities and budgets etc. - and in that sense replacing the existing (power-) structure, but to *add* collaborative structures and work forms to the existing structures.

In conjunction with the set up of the fund for industrial development, some major organizational measures were taken both in the political and the administrative spheres (see fig. 2). The political responsibility for the Free-County Experiment and for the use of the joint fund was designated to an extended political board, the Board for Industry and Employment⁶³, who had extra political representation from other relevant political committees, and also had representatives from the Social Partners and the Free-County departments.

⁶¹ Abbreviations in Norwegian: BRO: “Bedriftsrettet Oppl ring”, a regionally adapted support programme better reflecting the regional needs and the available fund structure. DU: “Distriktsutvikling”, national funds directed towards rural development.

⁶² Creating the BRO-rules was done as part of what was called “the Nordic Project”, a 2-year project initiated by the labour market system with the explicit intention to use training as an active means in regional development. The Nordic Project was the template from which the “Electronics Committee” started, a story told in the third case in this thesis.

⁶³ In Norwegian: “N rings- og Sysselsettingsstyret”.

On the administrative side, the heads of the participating departments formed an “Executive Committee”⁶⁴ with a corresponding “Collaborative Forum” for the deputy heads. The deputy head of the Department for Industrial Development took part in both fora, and thus secured the functional link between the two. These collaborative bodies played an important role in forging real collaboration and coordination between the Free-County partners. The deputy heads provided operative leadership through their Collaborative Forum, and “in practice they were the true leaders of the experiment” in the first couple of years (Amdam 1994b:22). They took responsibility for getting new procedures in place in order for the new collaborative arrangement to function, and on a continual basis handled concrete operational matters regarding the fund at their weekly meetings. Here they handled applications and agreed on priorities and further treatment in the administrative system, and through that contributed to bridging between the various departments. Already in the initial phase these operational matters were running smoothly, while there was no strategic leadership, neither from the oversized Board for Industry and Employment, nor from the department heads (Amdam 1994a).

The third element in the coordination of the administrative apparatus was the establishment of 5 “district development teams” spread out in the county. These teams were established with the main purpose of achieving better integration among public actors on a district level, a level between the municipality and the county administration. The district development teams are composed by representatives from the Employment Office at county and district levels, from the departments for Industrial Development and Education, and relevant representatives from the municipalities. Often this has been industry developers from the municipalities. The county level representatives participate to provide an operative link between the two levels, securing consistency and providing information about and access to county level resources, for instance link to the industrial fund. The district development teams have worked to coordinate activities among these actors with respect to their work on industrial development, attempting to make the interface to the enterprises closer and more effective. This includes supporting competence development efforts in enterprises and providing quick and efficient

⁶⁴ In Norwegian: “Etatsjefsutvalg”.

administrative handling of applications or requests for financial support. The teams have had their own financial means, and have supported projects and allocated funds in their districts.

In the original structural arrangement the Department for Industrial Development was placed hierarchically above the rest and given larger formal influence over the joint fund in an attempt to command coordination. This was after a while perceived as a hindrance for collaboration, as it was a poor system for encouraging consensus building and voluntary efforts. It was especially problematic that the Department for Industrial Development in this construction practically had taken over the administration of large funds provided by the state-owned Employment Office. Consequently, the Free-County partners abolished this hierarchical structure and established a structure and procedures that relied more on voluntary collaboration between formally equal departments. In late 1992 the Executive Committee reconstituted itself and the department heads started to take strategic and administrative leadership in the Experiment.

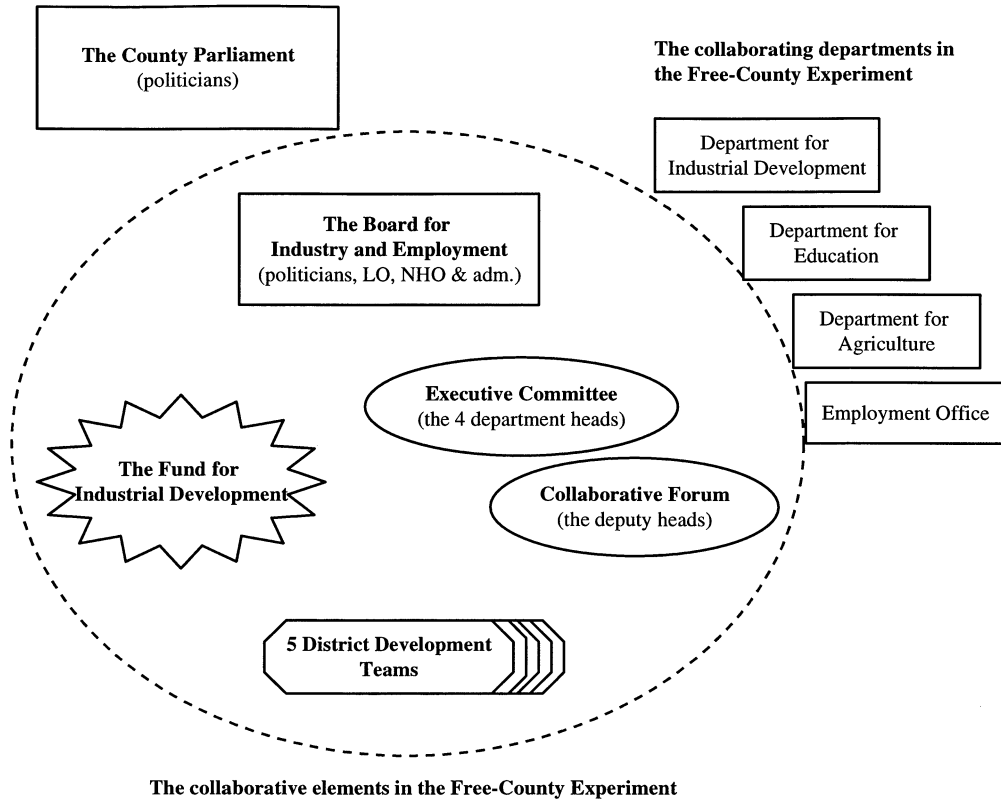


Fig. 2: The Free-County Experiment: Actors and main structural elements

Involving enterprises

A basic recognition among the Free-County partners regarding how to achieve a better industrial development was that they had to develop a much closer, direct relationship to the enterprises in the region. This was expressed as a specific aim for the Free-County experiment. An arms length, indirect relationship was seen as insufficient in creating industrial policies and actions that would actually meet the needs of the enterprises. The public actors would have to rely more directly on inputs from enterprises in crafting relevant support measures, and also base their development efforts on direct commitments from concrete enterprises. Direct interaction through enterprise visits and various encounters allowing for conversations should provide important learning opportunities for the public actors in order to gain sufficient insight into the situations of the enterprises, and subsequently to *demonstrate* this insight in order to become a recognized partner among the enterprises. Of

course, becoming more of a respected and relevant development partner for the enterprises also would demand a capacity for action.

This intention was expressed in initial policy documents for the Free-County Experiment. A relevant question to ask is therefore to what extent this intention to relate more directly to the enterprises succeeded? An indicator deserves to be mentioned already at this point before we go into the specific examples of the public-private interaction. Already halfway in the experiment period, in the spring of 1993, a research team evaluating the experiment concludes that the goal of developing a close relationship between enterprises and the Free-County partners seems to have been realized (Amdam 1994b). This conclusion was based on questionnaires to the enterprises. Notably, this is even before the extended collaborative effort, which is the core of the first case: The Joint Project.

Chapter 5

Organizing for Development I: The Joint Project

5.1 Introduction

In its initial phase, this first case on creating public-private collaboration is about getting the public actors off the ground with respect to relating directly to industry. The collaboration between the county departments as briefly described above, created the ground from which the Free-County partners found themselves able to engage in developmental conversations with industry. Subsequently, industry representatives and enterprises entered into the process that led to competence development efforts in 71 enterprises⁶⁵.

5.2 Recognizing the need for a strategic plan

After two years of operation the Free-County Experiment was still lacking a strategic plan to give directions for how to spend the industrial fund. So far the focus had been placed on establishing the formal structures and the rules and procedures regarding the fund. Some sort of strategic plan connected to the fund had been anticipated from the very beginning of the Experiment, but after an unsuccessful attempt early on (Boye 1990), this work had not been prioritised.

Clearly influenced by the external evaluation by Amdam et al (1992), the Executive Committee consisting of the heads of the participating departments took the initiative to develop a strategy for industrial development during the fall of 1992. In their report, the evaluation team points to the lack of an overall strategy and vision for the Free-County Experiment, comparing Aust-Agder with the other experiment-county, Nordland, who was ahead on this issue. The emphasis on strategy was further strengthened by a report by WRI available in late 1992 (Finsrud et al 1993).

⁶⁵ This story has greatly benefited from the extended documentation provided by the field itself. From the initial phase and throughout the Free-County Experiment the county administration has produced a set of documents presenting the prevailing strategies and central decisions. Practically all documents that have been part of the Joint Project have been collected in two volumes (Johansen & Sundtoft 1996a and b). In addition, the evaluation of the Joint Project by Johnsen & Velde (1996), a master thesis in sociology (Velde 1997) and numerous reports from the team evaluating the Free-County Experiment (e.g. Amdam 1996a) have also provided important inputs, ideas and verifications supplementing my own conversations with actors in the field.

In a situation where the continuation of the Experiment was up for decision 92/93, the Executive Committee seemed eager to follow up on the recommendations put forward by the evaluation group, undoubtedly also seeing the need and relevance of strategy development themselves. As the Executive Committee writes in their report to the County Parliament, the evaluation has made the heads of the Free-County departments realize the urgent need for developing a strategy for industrial development (Etatsjefsutvalget 1992:7).

Aust-Agder was not the only county embarking on the strategy-route in the early 1990s. On the contrary, Borgen et al (1993) writes that most counties by that time were working on strategic plans for industrial development, so it was actually some kind of national trend at the time. Typical for these efforts is that they were based on broad regional participation and mobilization, involving both county agencies, municipalities, the social partners and industry in the planning process. In other words, integrating a number of actors was a core element in this approach, however done differently from county to county. This joint strategy approach were partly due to a growing realization that the fragmentation, or lack of integrated efforts both within public sector and across the public and private sectors were a major obstacle for a better industrial development. This understanding of the problem coincided with a rising unemployment from 1988 and onwards, pushing on central actors to act. In addition, strategic plans for industrial development had been made at municipality level since the middle of the 80s, and probably also contributed to the attention now given at the county level (Borgen et al 1993).

Narrowing down the focus

Based on the recommendations put forward by the Executive Committee, the County Parliament on December 8th 1992 formally decided that strategy development should be given priority in the Free-County Experiment, and that the strategy work should focus on the three areas Competence Development, Internationalisation and Rural Development (Etatsjefsutvalget 1992).

In other words, the programmatic areas to focus on had already been identified during the fall of 1992. The Executive Committee was leading, and actually did most of this work

themselves, eventually involving central politicians in the discussions and clarifications prior to the decision making in the County Parliament.

Why were these three areas chosen? In retrospect, the department heads describe the choices as “natural at the time”, and refer to inspiration from other counties and common trends, as well as their own experience. Some of the members of the group had just worked together on the so-called “Nordic project”, a 2-year project initiated by the labour market system and headed by the Employment Office. The explicit intention was to use training as an active means in regional development. The basic idea in the Nordic Project had been to achieve a more effective use of public funds through collaboration between county level departments and the Social Partners, an idea quite similar to the Free-County Experiment⁶⁶. This shared collaborative experience around the subject of industrial development through in-company education and training, was an important reference point and stepping stone for these efforts in the Free-County Experiment. As the leader of this project, the Employment Office demonstrated its role as an important actor in competence development.

If we look further at how the Executive Committee was composed, “competence development” does not appear as a surprise. The Department for Education, who administer the education system at county level, clearly has this as its main area of interest. The Employment Office spends a vast amount of money training and retraining people as part of the unemployment policy, with increasing funds in times of high unemployment. The competence oriented “AMO-funds” and “BRO-funds” where some of the available funds for the Free-County Experiment, but available only under conditions that they were used for competence building purposes. In other words, the regulations following the various “sums” comprising the joint fund, as well as the departments participating in the Executive Committee, gave clear indications of this program area.

Competence development as an important factor in industrial development was widely accepted and non-controversial, to the point of being a catchword. According to Borgen et al (1993) “competence development” in one way or another was an important element in almost

⁶⁶ See also the third story about the Electronics Committee in chapter 7.

all of the strategic plans they examined in their study. Being a vague and rather general term, it can contain a wide variety of developmental efforts, and in one sense becomes an almost empty term. The more specific understanding of competence development among the actors in Aust-Agder becomes clearer through the concrete development efforts they organized as a result of the collaborative process. In accordance with the philosophy of inviting the enterprises in to participate in defining what industrial development should mean, it has largely been up to the enterprises themselves to give concrete content to the term. However, the concept of competence is not the central focus of this thesis, but rather the organization of the collaborative process leading to an improved handling of developmental needs.

The second program area suggested by the Executive Committee was “Internationalisation”. Like competence development, internationalisation or export was one of the most typical elements in this kind of strategic plans at the time (Borgen et al 1993). With small home markets, and in some industries in the early 1990s even declining home markets and increased foreign competition, it was regarded as increasingly necessary that Norwegian enterprises sold their products and services on the international market. To achieve growth, or just to maintain volume and secure jobs, internationalisation was seen as a viable development path. The Executive Committee argued that the public sector could and should play a role in strengthening the capability of local businesses to export their products and services. Again competence development and training were central elements in the perceived role by the public actors, but also ideas like shared export offices etc. were put forward initially.

This program area was introduced and championed by the Department for Industrial Development, or more specifically, by the department head. He used his personal network among business managers to check out the idea, and received supporting feedback. Later, a group of managers joined in the strategy development group to give concrete content to this effort. The enterprise group Maritime Forum counting about 30 members in Aust-Agder had exchange of experience from international work as their core activity, so the county administration seemed to be in tune with the interests of industry on this topic.

Supporting internationalisation was also in line with national policy, and among others the Norwegian Export Council⁶⁷ gave advice and later supported the development financially.

The third proposed program area was Rural Development. Rural development has a long time standing in national and regional policies as a measure for maintaining a dispersed settlement pattern, which imply making it possible for people to have a job and an income in rural areas. Rural development has traditionally been equated with supporting underdeveloped rural areas with limited industry, often dominated by farming and fishery, through various financial incentives and support measures. Some of the funds going into the Free-County Experiment were previous rural development-funds. A program on rural development was probably politically necessary to get the proposed strategy document through county parliament, and was probably more in line with the interests of the Departments for Agriculture and Forestry than the two other program areas. This program area will not be further elaborated here.

To sum up, neither of the proposed strategic areas were radical issues in the Norwegian setting, and given the participating departments and the fund structure in the Free-County Experiment, they were not surprising either. Still, this developmental and competence oriented view of industrial development represented an alternative to an industrial policy focusing on cost reduction - with a defensive, protective, subsidising policy at its core.

Since the fund structure and the composition of the Executive Committee in itself highly influenced the choices of program areas, the more fundamental choices appear to have been made earlier on, in designing the Free-County Experiment. Competitiveness and thus employment was to be pursued, not through a cost reduction path with subsidies as the main vehicle, but through a development orientation, coordinating and pooling resources and bringing together the five departments on the issue of industrial development. Bringing in the Department of Education and the Employment Office as central members in the process in itself reflects the perceived role of competence in an increasingly knowledge based work life. Industry in the Agder-area had already begun to take competence seriously as a development issue, forming the three enterprise groups the Competence Ring South, the Agder IT-Ring and

⁶⁷ In Norwegian: "Norges Eksportråd".

Maritime Forum around 1990, counting about 90 members altogether in 1993. These rings or groups of enterprises, i.e. primarily the enterprise top managers, had competence development as one of their core purposes.

The Executive Committee actually sketched 5 alternative program areas in their document to the County Parliament, strongly suggesting to choose only 3 of them. The other proposed program areas were “Development of enterprise networks” and “Supporting of specific branches/industries”. Elements of these ideas were later incorporated into the other 3 areas.

5.3 Program development: A team based approach

After the formal sanctioning in the county parliament and the prolonging of the Free-County Experiment throughout 1995, the process of giving content to the program areas began in early 1993.

A previous attempt by a group of central county politicians to create a “Strategic plan for Industrial Development” early in the Free-County Experiment had led to few results. This previous plan was written by a consultant with 6 politicians as a steering group (see Boye 1990). Following the mode of data gathering, analysis, strategy formulation with industry input and a finishing evaluation by the steering committee, who had no comments, the document seemed to lack clear ownership among the actors crucial for the execution of such a plan, i.e. the involved county departments and key external partners. Displaying many of the ideas and principles that later were carried on in other settings, the strategic document was of a general nature without clear priorities and lacking the link to concrete action plans.

Defining the three areas to focus on up front was the critical move by the Executive Committee to secure that something was given priorities above all the rest of the possible areas to give attention. It was stated in the Free-County Experiment application of 1988 to the Ministry of Local Government and Labour that a more positive development in Aust-Agder should be achieved by focussing on the strong sides (Etatsjefsutvalget 1992:10), in other words make priorities, not support everything, and furthermore build on the areas that have growth potential, as opposed to support the weak, (which earlier had been a much more legitimised role for the public sector). However, so far in the experimental period the signals from the political level still pushed towards prioritising everything, i.e. nothing in reality. This

conflict of aims and lack of focus created a problematic working situation for the county administration (Etatsjefsutvalget 1992:10), and thus spurred their efforts in the making of the new strategic plan.

After the program areas were established as a strategic focus, the strategy process itself was the next element in creating a plan that should overcome the weaknesses of the previous attempt. Rather than having external consultants or one single department preparing a strategy document, creating a strategic plan was seen as a development work involving the departments and external partners (Etatsjefsutvalget 1992:8). In order to arrive at an output characterized by better coordination between the departments and stronger collaboration with industry, as was one of the main intentions in the Experiment, the process itself had to reflect this intention. Therefore, a cross-sectoral team for each program area was formed, with the mandate to operationalize the given area, develop projects with concrete action plans and budget consequences, and define specific areas of responsibility for executing the projects. A rather ambitious time frame was given for this work. After getting acceptance on the main areas from the County Parliament in December 1992, the strategic plan should be finished in time for the County Parliament assembly in early June 1993, i.e. about 5 months later.

Program area: Competence development

The team developing this strategic area was headed by the deputy head of the Employment Office, and on the administrative side consisted of one central representative from her own office and from the departments for Industrial development (the head) and Education. In addition two representatives from the NHO, one from the LO and the dean of the regional college participated, adding up to 8 participants (Etatsjefsutvalget 1993:16). The Employment Office was anticipated to have the clearest ownership to this issue through its dominating economic contributions, and thus was assigned the role as managing institution of this strategic area. In addition, it was regarded as especially important to anchor the Free-County Experiment as well as possible in the state-owned Employment Office.

The strategic plan had to meet the June deadline in the county parliament to be passed, and therefore the work involved only the team of 8 in order to be sufficiently effective under these time constraints. Representativeness by the stakeholders had to be pragmatically handled. The county agencies aiming at integrating their efforts were adequately represented, whereas the

competence milieus were scarcely represented and no direct industry representative participated at this stage, leaving it to the Social Partners to represent industry on the employer and employee sides. Notably, the Social Partners also participated in the permanent Board for Industry and Employment and in the County Committee for Occupational Training⁶⁸, and therefore were regarded as natural partners in strategy development in this area. As we shall see later, industry was brought more directly into the process in the next phase.

Input to the strategy process

A double challenge was expressed by the strategy team: On the demand side, the enterprises have difficulties clarifying and communicating their own needs for competence development and make use of the possibilities already available. On the supply side, the competence suppliers have difficulties both in getting hold of the expressed needs, developing offers fitting these needs and communicating their offers to the industry (Etatsjefsutvalget 1993:7). A report by a research team from WRI (Finsrud et al 1993) served as an important input in clarifying the challenges facing the competence program. The report (commissioned by the Board for Industry and Employment) was partly of a fact-finding nature, partly identified challenges and partly discussed and suggested alternative actions. The focus in the report was on the interface and interaction between the competence milieus and industry in the county, and described a fragmented situation. The small and medium sized enterprises had only little contact with the competence suppliers. The smaller the enterprise, the less they used consultancies, educational institutions, R&D and the other supporting actors in the county. The competence suppliers and the wider support structure appeared uncoordinated, partly overlapping and partly out of focus in their competence profile, and mostly with an arm's length relation to industry. The report suggested several measures in an integrating and collaborative direction. The draft version of the report was extensively discussed at a conference a few months before the strategy teams started their work. The conference was held in November of 1992, and gathered central stakeholders from industry, competence milieus and administration at county and municipality level, several which later joined in the

⁶⁸ In Norwegian: "Yrkesopplæringsnemda".

strategy teams. The report by AFI was referred to extensively in the documentations following the strategy proposal (appendix to Etatsjefsutvalget 1993).

The main goal for the Competence Development Program was stated as:

“Increased competitiveness in small and medium sized enterprises by means of competence development” (my translation) (Etatsjefsutvalget 1993:16).

Among a handful of actions suggested by the strategy team, one of the most important was aiming at starting concrete training efforts in enterprises. Instead of suggesting a thorough analysis of what the needs of the industry “really” are, and then later on attempting to “answer” to these needs - as in a traditional linear mapping-analysis-action logic, the strategy team proposed a more interactive, dialogical approach. Central in their thinking was the use of conferences, bringing together enterprises, competence suppliers and others from the support structure. The intentions was both to raise the consciousness among enterprises concerning the role of competence as a competitive factor, to map the needs expressed by the participating enterprises in a dialogue with the suppliers, and eventually to commit the actors to joint development projects. These efforts should be concentrated around industry branches aiming at finding common training needs among several enterprises. The use of conferences was chosen undoubtedly because the LO representative had extensive experience in running such conferences. Later, he was the central figure in running these conferences.

In the planning document prepared for the County Parliament, the regional LO and NHO-representatives together took on the responsibility for implementing the conference-part of the strategic plan. This was the initiation of a unique partnership between the Social Partners and the Free-County departments, a partnership I will come back to below. The overall responsibility for the Competence Program was in this first proposition assigned to the Employment Office, who also contributed the largest funds on training to the joint fund.

Program area: Internationalisation

The head of the Department for Industrial Development headed the group on internationalisation. With a background from industry, he strongly believed in involving industry directly in the process, both because of their knowledge and experience in the field of

internationalisation and because of the need to anchorage any effort in concrete enterprises. Testing the idea among a few leading enterprises up front served as an initial test of the interest among industrial actors for this issue, and further gave valuable input to the group regarding what internationalisation is about, and what kind of support measures that were regarded as useful.

The program team on Internationalisation had 9 members, and were composed of 4 managers from industry with export experience, a researcher from the regional research institute, Agder Research, a lecturer from the regional college, Agder College, a consultant from the semi-public Aust-Agder Enterprise Consultancy⁶⁹, one representative from the Employment Office (the same who participated in the program team on Competence Development and later took over the responsibility for the Electronics Committee, the third case of this thesis) and two from the Department for Industrial Development, including the department head who chaired the group (Etatsjefsutvalget 1993:34).

The team felt the need for additional input from the export oriented enterprises in Aust-Agder, and commissioned a survey from Agder Research. The survey was carried out among the members of the Competence Ring South, the IT-ring, Maritime Forum and among participants at the yearly convent for NHO Aust-Agder. Due to extensive overlap between these rings and fora, the total amounted to 60 enterprises. The survey aimed at collecting the enterprises views on the national export-supporting organizations and their measures to avoid overlaps and to be responsive to local needs. The survey also focussed on which factors that inhibit the enterprises international activities, and which measures that could increase these activities.

The limiting factors that came out of the survey were financial capital, human resources, market knowledge and language. The most important wishes from the enterprises were 1) financial support for market surveys, 2) financial support for an export focussed employee, and 3) competence development.

⁶⁹ In Norwegian: "Aust-Agder Bedriftsrådgivning".

The main actions proposed by the team were measures that addressed the enterprise's motivation and qualifications for international work. Supporting collaborative efforts among SMEs and establishing a resource group of experienced people were also among the suggestions. The team strongly advised that one full position was dedicated to carry out the program initiatives.

All in all, this program initiative seemed to be well anchored in the enterprises and based on their own interests and understandings of the processes of internationalisation. Initial check out, representation in the program team and a survey among the enterprises seemed to be a good foundation for designing a program that should address the internationalisation issue.

National support

Just before the end of the strategy formulation process in Aust-Agder, a national Parliament Report on regional development was launched by the Ministry for Local Government and Labour in late March of 1993 (St.melding nr. 33, 1993).

The Parliament Report (which is a formal document from the Government to the Parliament) addressed industrial development, and gave support to the main direction in the strategy work in Aust-Agder. Among its main points were:

- increased financial support to the small and medium sized enterprises to give them conditions comparable to their European competitors (referring to EU),
- increased emphasize on competence development,
- not only supporting the rural areas, but also cities,
- heavier focus on fewer projects

The Parliament Report further stated that the county level shall continue to play a central role in industrial/economic development, and it argues for the need for a better local and regional collaboration, already giving credit to the development in Aust-Agder as an example. This was drawn upon in the final formulations of the Strategic document, and contributed to legitimising the choices made in the plan put forward.

Democracy strikes back: Stumbling in political power play

Notably, this new strategic effort was initialised and run by the county administration, as opposed to the earlier attempt by a group of central politicians. Such a strategic plan has to be sanctioned by the county parliament as part of the democratic control. As the initial document was sanctioned in December 1992, the actual strategic plan was due for sanctioning in June of 1993. The strategy teams worked hard to meet the deadline, and there were informal checking with the political establishment along the way to secure that the plan was passed in Parliament. The county administration and other involved stakeholders expected the plan to go through, but a stakeholder group obviously thought otherwise. The politicians stopped the plan in Parliament (8th of June), claiming it was not well enough prepared and had to be further developed. This official excuse was not widely believed at the time. Rather, central actors saw this as a part of the power play between the politicians and the administration. This interpretation was later supported by the fact that the plan was passed in October with only one modification: change of responsibility for the Competence Development area from the Employment Office (state owned) to the Education Department (county owned). Otherwise the plan was identical. A small adjustment compared to the critique put forward in June, the change in responsibility nevertheless was a disappointment to the Employment Office, who had important economical and personnel resources for the implementation of the Competence Development program. Since the beginning of the Free-County Experiment it had been an issue to integrate the state owned Employment Office fully because the Department was part of another power structure and in joining in had to give up autonomy regarding spending of considerable funds. Setting the Department somewhat on the sideline in the Competence Development program later turned out to slow down the final execution of the program.

A part of this conflict went public earlier that spring. The head of the Department for Industrial Development was cited by a journalist in the local newspaper characterizing the old plan made by the politicians as useless and stated that it had been in the drawer for 3 years, which relevant actors obviously knew and quietly accepted. Stated publicly, it was taken as a provocation by the involved politicians, and created a tense situation. The upcoming proposal for a new Strategic Plan was used as payback time, causing 4 months delay in addition to reduced momentum and enthusiasm. Regaining momentum and getting the organizational structure in place took some more months, which brought the process to early spring of 1994, about 9 months later.

In the launching process of the Strategic Plan from late spring 1993 and onwards, the head of the Industrial Development Department felt squeezed out, and left his position in early fall that year, first on an education sabbatical, later to become an “ordinary” employee of the department before he returned to a management position in industry. The deputy head took over the management position in the department.

5.4 The Joint Project

The Social Partners taking responsibility: A unique partnership

Already during the strategy formulation in early 1993 the idea to link up to the Social Partners at national level emerged. The first step was to picture the regional Social Partners as active participants in the implementation phase of this county-initiated effort. In discussing the concrete content of the strategy for Competence Development and attempting to bringing the strategy down to a set of actions, the regional LO and NHO saw a role for themselves as active contributors in the implementation phase. As one informant bluntly put it: “LO and NHO are involved in almost everything down here, but it is all meetings, and beyond that nothing”. Now they saw an opportunity to contribute in the doings of what they were frequently talking about. The LO-representative of the strategy team had been working on HF-B⁷⁰ sponsored projects earlier, and during the planning phase made contacts with the national HF-B secretariat to check out whether they would be interested in supporting the efforts they were planning in Aust-Agder. The feedback on consecutive contacts was positive, leading up to a formal application in early 1994. This led to a new construction in the Norwegian setting; a combination of collaborative enterprise development (HF-B) and public development work - forming a unique partnership between Aust-Agder county administration, the Employment Office in Aust-Agder and the Social Partners through HF-B⁷¹. Thus, two collaborative arrangements, the HF-B and the Free-County Experiment, joined to create a third, the Joint Project. Fig. 3 below attempts to illustrate this.

⁷⁰ HF-B is a collaborative unit at the national level between the Norwegian Employers Confederation (NHO) and the Labour Union (LO) dealing with enterprise development.

⁷¹ This was a new developmental partnership in Norway, and also represented a new developmental strategy for the HF-B. From its start in 1982, the HF-B supported individual enterprises directly through scholarships to employees and financial support to running of conferences. From 1990 on, HF-B developed a branch-oriented strategy, working with specific branches through their national organizations. Involving the county actors in a regional strategy where enterprises, regional branches/industries and the regional support structure participated, was a new step in the evolution of HF-Bs development strategy.

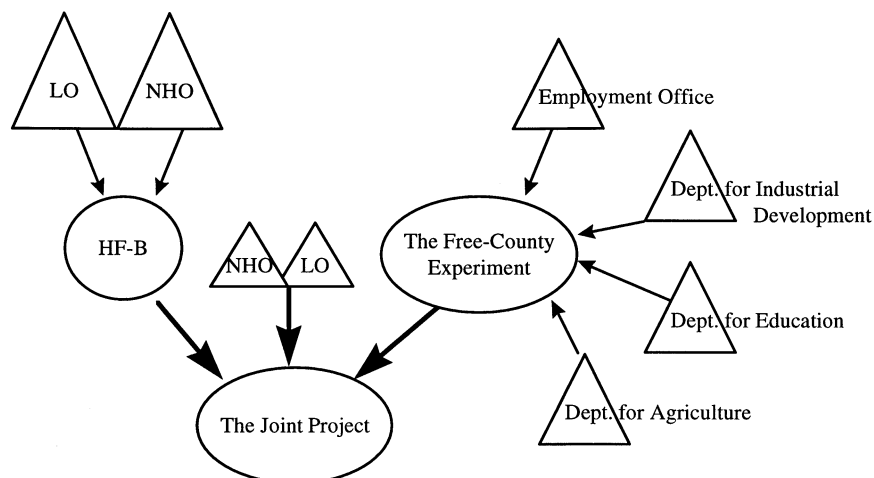


Fig. 3: HF-B and the Free-County Experiment create the Joint Project

The idea to take an active role clearly influenced the actual content of the strategic plan. The use of conferences with broad participation from both employees and management was a central means in the development thinking of the HF-B, and the regional LO-representative on the strategy team had extensive experience with this conference methodology. Consequently, approaching the enterprises through conferences was suggested as one of the central elements of the strategic plan. This provided both a legitimate link to the HF-B developmental thinking, and a role to play for the regional Social Partners. Jointly the Social Partners took on the responsibility for carrying out the first part of the implementation of the strategic plan (Etatsjefsutvalget 1993).

Launching the Joint Project: The transition from strategic planning to project organization

Developing the idea of the Joint Project and pushing it through to realization was done by an informal work group consisting of two from LO, one from NHO and an officer from the Department for Industrial Development who were appointed “free-county coordinator” in conjunction with the shift of department head. He was also the secretary of the Executive Committee. In other words, none of the department heads were central in forming the Joint

Project. One of the LO-representatives was the former participant in the strategy team, whereas the other LO-representative was the regional LO-secretary. The NHO-representative was the regional director, also a member of the strategy team. As mentioned before, both of these sat on the political Board for Industry and Employment who had the overall responsibility for the Free-County Experiment.

During the summer of 1993, i.e. before the strategic plan was formally sanctioned in October, the LO-representative wrote a memo on development conferences (Johansen 1993)⁷² where he suggested a 3-step process with a “strongly motivating part, the actual execution (of the mapping conferences, my comment) and a close follow up”. This 3-step thinking was a further elaboration of the strategic document, and was adopted by the informal work group preparing the Joint Project in the spring of 1994. Eventually the three steps were termed phase 1, 2 and 3. LO and NHO had the responsibility for the first two phases, while the Free-County partners had the responsibility for following up the expressed needs for competence development in the last phase. These were the main elements of the Joint Project.

During the spring of 1994 the work group had meetings with the HF-B secretariat, and got the impression that the possibilities for getting support were good. HF-B was willing to support the conference-phases under the precondition that the Free-County itself contributed half of the budget for these phases⁷³. In addition, HF-B wanted to merge the Competence Development Program and the Internationalisation Program in the mapping phase with the purpose of “gaining the possible synergies inherent in developing the competence necessary to meet the ambitions on export activities” (my translation)⁷⁴. This was not a new idea for the work group and the Internationalisation Program. In any case, this was included in the application to HF-B. The application from Aust-Agder was accepted by the HF-B board in June 1994⁷⁵, with formal project start 1st of August. Both the co-financing and the joining of

⁷² Johansen, Jan (1993): ”Kompetansehevingsprosjektet” 12.08.93 in Johansen & Sundtoft (1996a).

⁷³ The total budget for the two conference phases was suggested to be 1.440.000,-. Strategy document for the Joint Project, in Johansen & Sundtoft (1996a). As it turned out, the total amount was closer to 1 million from each of the two parties. Letters from HF-B (HF-B granted 330 + 635) in Johansen & Sundtoft (1996a).

⁷⁴ Letter of 06.04.94 from HF-B, in Johansen & Sundtoft (1996a).

⁷⁵ Letter from HF-B of 01.06.94 granting the first part of the total budget. In Johansen & Sundtoft (1996a).

the two programs were accepted by the Board for Industry and Employment⁷⁶ three months earlier.

The initial idea in the Internationalisation program was to continue the work through the established strategy group and reach out to enterprises through established networks or direct invitations. When the Joint Project came up with the conference strategy, it was perceived as a good idea also for the Internationalisation program, and a rational way to work with both internationalisation and competence development once they had established contacts with the enterprises. Central elements in the way internationalisation was to be promoted were to assist the enterprises in developing the necessary competence to approach new markets abroad. In other words, competence in a wide understanding of the term was a shared interest between the two programs.

Specifying the Joint Project further

In the process of forming the Joint Project, the work group had produced a document outlining the phases 1 and 2. This document contained preliminary programs for the motivation and mapping conferences, and also argued strongly for the need for a project coordinator to run the activities. In this document, it was planned to run 13 one-day motivation conferences for different branches, corresponding to the 13 basic courses in the upcoming reform of the secondary schools, Reform 94. According to the proposed program, and also later the actual programs, the motivation for competence development was to be generated by extensive presentations from the various Free-County Partners, informing the managers and employees about the available support system in the county⁷⁷.

The following mapping conferences was designed as a 3-days event with enterprises, i.e. both managers and employees, discussing their development needs with each other across enterprises as well as internally, with the intention of generating concrete plans for development projects in the individual enterprises. Notably, the idea was to generate enterprise development projects, not limited to competence development. As usual in these

⁷⁶ The Board for Industry and Employment, case 2025/94, March 16, 1994, in Johansen & Sundtoft (1996a).

⁷⁷ Strategy document for the Joint Project, in Johansen & Sundtoft (1996a).

kinds of conferences, the main working mode was to use groups with various compositions over the days.

As mentioned above, establishing the Joint Project was done by this work group with no clear involvement by the various departments who had the responsibility for the follow up phase, phase 3. The department heads were merely informed about the progress, and little, if anything, was done to prepare for the third phase. After the Employment Office was kicked out by the county politicians in the fall of 1993, the Department for Education had the formal and overall responsibility for the Competence Development Program. The Joint Project turned out to be the major activity under the Competence Program, but notably, it was only one of several efforts.

Organizing the Joint Project

The way the Joint Project was organized from its early pre-history until its termination turned out to be important for understanding the various obstacles the project ran into. Thus, a brief overview over the main organizational characteristics is necessary.

Through its different phases the Joint Project ran through various organizational forms. Starting with the Executive Committee defining the areas to focus upon, the process was carried further by the cross-sectoral strategic teams who did the strategic planning. The transition from the strategic plan to the actual Joint Project was done by an informal work group trying to forge a collaborative relationship with HF-B, the regional Social Partners and the Free-County Experiment. After arriving at the Joint Project itself, another structure emerged.

A broad steering group for the Joint Project was set up. The construction was a result of a merging of the two strategy teams from Competence Development and Internationalisation, supplemented with HF-B representatives. This created a rather large group with representatives from the departments for Industrial Development, Education, the Employment Office, the LO-secretary, the NHO director, 2 from HF-B, the regional college, Agder Research, Agder Enterprise Consultancy, the project coordinators for the Joint Project and

some enterprise managers. At the most the meetings in the steering group seem to have gathered about 18 people⁷⁸. The head of the Education Department chaired the steering group as responsible for the Competence Development Program, while the officer from the Industrial Development Department, who were secretary of the Executive Committee, had the task of being the link between the Joint Project and the Executive Committee and the rest of the Free-County activities (Johnsen & Velde 1996).

As we remember, the overall administrative responsibility for the Joint Project, as for all the activities in the Free-County Experiment, was held by the Executive Committee consisting of the 4 department heads from the Employment Office, Industrial Development, Education and Agriculture.

⁷⁸ Minutes of Meeting, April 29, 1996, in Johansen & Sundtoft (1996a).

Collaborating stakeholders	The main collaborative units	Main tasks
Department heads	The Executive Committee	Strategic choices Adm. responsibility for the Free-County Experiment
Employment Office Industrial Development Education NHO, LO Agder College	The Strategy Team	Strategic planning
LO and NHO Free-county coordinator	The informal work group	Transition to Joint Project
LO and NHO Industrial Devt.	The project group	Motivation conferences - phase 1 Mapping conferences - phase 2
Employment Office Industrial Devt. Education	The FreeCounty partners	Training programs - phase 3
LO and NHO Free-County partners HF-B Competence inst. Enterprise managers	The Steering group	Overall steering of the Joint Project

Fig. 4: Stakeholders and collaborative units in the Joint Project

On the operative level a project group with «project coordinators» was established to run the phases 1 and 2. The role as project coordinator was split in two and manned by the LO-representative with previous HF-B experience and a “new” NHO-representative with business experience as well as being a county politician. From the start the LO-representative put in 70 % while the NHO-representatives was hired for 20 %, later increasing to 60 %. In addition, the former head of the Industrial Development department continued his work with the Internationalisation program, and joined the project group from the start in August 1994 until the following spring of 1995.

Due to employment stop in the county administration in this period, the project coordinators could not formally be employed there. Therefore the regional NHO took the employment responsibility, and consequently the LO-representative turned out to be employed by the NHO for the duration of the Joint Project. The operative project group was located at the NHO office at the county administration building, which gave short distances to the departments for Industrial Development and Education, as well as easy access to the NHO-environment.

For phase 3, when the enterprises should have concrete assistance in arranging their training efforts, there was nothing organized from the county administration's side. This was partly due to the shift of responsible department when the Employment Office was taken off the case. This situation caused problems, as we shall see later.

Time	Course of events
1992	The Executive Committee defines the strategic areas, County Parl. accepts in December.
1993	Team develops the Competence Development Programme, conferences introduced as a method. LO and NHO participate. June: Strategic plan not accepted in County Parliament. Conflict politicians vs. adm. October: County Parliament accepts identical strategic plan, but removes the Employment Office as responsible department for Competence Development.
1994	Informal work group develops the Joint Project with HF-B. August: The Joint Project starts formally. Project group and steering group established. Regional LO and NHO starts the work with implementation phases I and II. October: First motivation conference.
1995	January: First mapping conference. Spring/summer: LO/NHO-frustration over lacking follow-up by the Free-County departments. August: Employment Office contribute 1/2 man-year for follow-up activities. Training efforts starts. 31.12.95: The Free-County Experiment terminates as planned.
1996	March: Manning in implementation phase III increased to a full manyear. The idea about a Joint Project II develops, focus on institutionalizing. The Joint Project formally ended, work with enterprises continues throughout 1996. September: Evaluation report by University of Oslo. November: Application to HF-B and Aust-Agder county adm. for a Joint Project II. December: The Board for Industry and Employment supports the application.
1997	June 1997: HF-B turns down the application for a Joint Project II.

Fig. 5: Course of events in the Joint Project

5.5 The conferences

Motivating the enterprises - the first learnings

A point of departure for the Joint Project was that the enterprises were not sufficiently “motivated” for regarding competence development as an important element in their competitiveness. Judging by the design of the motivation conferences, “motivation” was rather a matter of “lack of information”, and thus giving information would presumably increase the motivation among the enterprises.

To give a flavour of the conference experiences, I will give an account of the first sequence as an example. In October of 1994 the first motivation conference was held for a mix of IT-, mechanical- and radio/TV-branches. 23 enterprises with 38 representatives participated. From 12 of the enterprises only the manager came, despite the invitation was sent also to the employees. From the support system the participation was massive. 26 people from various departments and competence institutions showed up at the conference⁷⁹. The enterprise participants were taken through a day with about 15 presentations from the support system, and were practically drowned in information. The LO-project coordinator commented:

“They knew less when they left than when they came, and they were de-motivated rather than motivated by that day”.

After this experience the design of the motivation conferences were modified with less information and more time for the participants to talk together in smaller groups. However, the concept of motivating through conferences was continued throughout the Joint Project.

As it turned out, not only the amount of information was overwhelming and not well tuned to the audience, but also the content had an undesirable bias. Already after the first motivation conference the project partners recognized they had oversold the possibilities for economic support, creating expectations among the enterprises that turned out to be unrealistic. The focus on money had overshadowed the focus on competence, and in their view gave an incorrect picture of what role the public support system could play. This problem continued throughout the motivation conferences despite attempts at adjusting the “selling” of the public support system. There was agreement between the Free-county partners and the LO-NHO project coordinators running the conferences that the enterprises got too high expectations. Who was to blame, however, was a matter of dispute between the parties. What to tell by whom, how to tell it, and the status of “money” versus what should be the real content of the conferences, namely the development needs of the enterprises, was not sorted out well enough. Also, the emphasis on general enterprise development versus training did not come across as intended by the project group; to most enterprises the conferences were about competence development in terms of various training efforts. In retrospect it seems that the

⁷⁹ I participated at the conference. Figures from Johansen & Sundtoft (1996b).

project could have benefited from a clearer information strategy and better coordination between the project coordinators and the public actors on this issue.

Moving on to concrete mapping of training needs

The mapping conferences were a modified version of the dialogue conferences (e.g. Engelstad 1995, Gustavsen 1990) with alternating group work and plenary sessions throughout 3 days, or more precisely, one evening and 2 full days. The groups were differently composed from group work to group work to allow for various experiences to be exposed to each other, and in this case ending with a session where the representatives from the same enterprise focussed their own concrete needs and planned the further work. This was the general design for the mapping conferences. As for the motivation conferences, the enterprises were strongly encouraged to send both employer and employee-representatives to the conferences. This was one of the prerequisites for getting support from the HF-B. At the mapping conferences the enterprise-representatives were asked to continue the joint discussions about their training needs when they got back to the enterprises, and report back the training needs to the Joint Project. Except asking the enterprises to continue the joint discussions, little was done to secure the process in doing this homework, regarding such as broad participation, the link to strategy and broader ownership in the enterprises.

Starting the mapping phase

After the first motivation conference, invitations to the first mapping conference were sent out. None of the enterprises responded. To get enterprises to join, the project coordinators phoned and partly visited the enterprises. A postponed mapping conference for the IT/mechanical/radio-TV-group was arranged in January of 1995 with 11 enterprises, all with at least two representatives. The conference was judged as successful by the project coordinators, both socially and professionally, backed by evaluation by the participants⁸⁰. The result was that as much as 63 “needs” were reported back to the system from the 11 enterprises (Johansen & Sundtoft 1996b). This was a surprisingly high number, and at this stage was perceived as a very good result.

⁸⁰ Every mapping conference was followed by an evaluation by the participants, and total scores for various aspects of the conferences were calculated after the last conference. The results were generally good. (See Johansen & Sundtoft 1996c).

The motivation and mapping conferences continued for various branch-constellations. Recruiting enterprises to the mapping conferences went easier as the word spread out among the enterprise managers, and a growing number of training needs were reported back to the project group. Together with the largely positive evaluations given by the participants after each conference, this created a sense of good progress and successful work on the operative level by spring of 1995.

At this stage the Joint Project also got positive attention from HF-B. At a conference in Stockholm in February 1995 arranged by the Social Partners from the Nordic countries, the Joint Project was presented as HF-B's network-star-case. The project coordinators and the Free-county coordinator presented the Joint Project, and received positive feedback and attention.

The requests for competence development made by the enterprises was of a heterogeneous nature with large variation in terms of level, topic area and duration of the courses requested. Typical requests were basic PC-use, language, quality assurance (ISO 9000), logistics, sales and marketing, middle management training, HMS/internal control, craft-courses (the so-called §20-courses) and various technical topics (Johansen og Sundtoft 1996c).

As the content of the reported needs became clearer, critical comments were voiced. It turned out that the expressed needs were in the form of requests for courses on a rather basic level, i.e. a level that could be handled by upper secondary level institutions⁸¹. This also meant that few requests were of an enterprise development-nature. In addition, very few requests were related to internationalisation. To some of the stakeholders on the support side, this was a bit disappointing, for instance for the higher-level competence institutions such as Aust-Agder Enterprise Consultancy and Agder College. The lack of more general enterprise development projects was not in accordance with the expectations by the HF-B, while the Department for Industrial Development was disappointed by the lack of internationalisation-requests. The regional LO and NHO held the opinion that the enterprises themselves had to define their

⁸¹ In Norwegian: "Videregående skole".

development needs, and that this was one of the main points with the chosen conference method.

Despite the critical comments made by members of the Steering Committee, the motivation and mapping conferences continued through to early 1996 with approximately the same designs.

Overall numbers

By mid 1996 there had been arranged 6 motivation conferences and 8 mapping conferences. By joining branches at the conferences, 10 of the planned 13 branches were covered (Velde 1997:56)⁸². The motivation conferences gathered 63 enterprises of which 31 enterprises dropped out after the motivation conferences despite intensive follow up from the project coordinators. As many as 28 “new” joined for the mapping conferences, also due to their dedicated work (Johnsen & Velde 1996:14). All in all 60 enterprises participated at the mapping conferences (2 participated twice). The 8 mapping conferences gathered each from 3 to 15 enterprises with 10 to 31 participants from the enterprises.

Out of the 60 enterprises that participated in the mapping conferences, 13 did not report any training needs and dropped out of the program (Johnsen & Velde 1996). This reduced the number to 47 enterprises with 119 participants. These enterprises reported back over 200 requests for training to the project group.

	Motivation conferences	Dropping out	New joining	Mapping conferences	Dropping out	Remaining
Number of enterprises	63	31	28	60	13	47

Table 4: Number of enterprises in the implementation phases 1 and 2
(after Johnsen & Velde 1996)

⁸² The mapping conferences addressed the following branch-constellations (number of organizations at the mapping conferences in parentheses): IT/radio-TV/mechanical (11), travel & tourism (15+10), food (5), wood (3+7), chemical (3) and transportation (9).

5.6 Concrete competence development in enterprises

Who takes the ball? Stumbling in follow up

When the enterprises started to report back concrete training needs after the mapping conferences, it was time for the third phase, the follow up. This turned out not to be planned for in any detail, and the three departments Education, Industrial Development and Employment Office did not seem to agree on where personnel resources for this final effort should be taken from. Initially it was not even the idea to assign specific personnel, but handle this as part of daily operations. After the summer of 1995 there was still not any follow up organized from the Free-County partners, and the enterprises started to phone the project coordinators, impatiently asking what was happening. The LO and NHO-project coordinators then started to push on the Free-County departments to make them meet their obligations. This created a tense relationship.

After a lengthy period, an officer from the Employment Office was assigned the task of handling the follow up of the Joint Project. He was put on only half time, starting in the fall of 1995. He was the “enterprise-officer” of the Employment Office, and was already heavily involved with other projects as part of the Free-County Experiment⁸³. For the Joint Project, he was located together with the project coordinators, who continued the conferences parallel to the follow up. An officer from the Industrial Development department should take care of the internationalisation part, also on half time. As it turned out, very few internationalisation initiatives were reported back from the enterprises, and soon he was occupied with other tasks and never got really involved with the follow up work.

Among the project coordinators from the first two phases, the frustration increased throughout the last part of 1995 due to too little manning provided by the Free-County departments. This view was very clearly shared by the enterprise-officer doing the work in phase 3. The requests for training continued to pour in, and several enterprises complained to the LO and NHO-coordinators about the slow follow up. It turned out that the Department for Industrial

⁸³ The Competence Development Program that led to the Joint Project also had other activities regarding competence development in enterprises. The enterprise-officer from the Employment Office had the responsibility for one of these, the further improvement of the district development teams. These teams should provide a closer enterprise contact and quicker administrative handling of applications for financial support.

Development did not get any such complaints, so the view on what was going on differed among the partners.

The so-called steering group for the Joint Project had no authority to decide on increased manning, and functioned more like a forum for discussions. The decision making power on this issue was in reality with the Executive Committee, but they were not strongly integrated in the Joint Project structure and activities at this point. Subsequently the pressure was put on this committee to find a solution to the manning problem for phase 3. The Education Department had the responsibility, but was dependent on both the Employment Office and the Department for Industrial Development to come up with both manning and financial resources. The Employment Office was still market by the decision to take them off the case as responsible department, and was of the opinion that the county departments now had the initiative and the main responsibility for phase 3. Both in terms of subject area, i.e. training of employees organized according to branches, and in terms of practical administrative handling of the economic contributions to the enterprises regarding these training efforts, the phase 3 of the Joint Project was highly relevant to the Employment Office. This led them back into the centre after lengthy discussions in the Executive Committee.

At the same time as these negotiations regarding organizing phase 3 took place, the Free-County period came to an end at 31.12.95. The joint fund was split up, and the county should go back to national rules and regulations regarding for instance funds for training purposes. Also, the budgets were considerably lower than before, especially due to lower unemployment and hence smaller budgets for the Employment Office. Under these changing circumstances the solution became that the enterprise-officer from the Employment Office was put on 100 % from March 1996, but employed and paid by the county departments.

Later, the departments admitted that the progress on manning and financing had been too slow, and the pressure put on by the LO and NHO in a sense was necessary at the time (Velde 1997:75).

From requests to actual training: An effort in organizing

All in all well above 200 competence development needs came out of the mapping conferences. This was the task facing the enterprise-officer when he started to organize the

concrete efforts. Many of these requests were similar, and could be addressed by organizing training efforts involving employees from several enterprises. The initial task then consisted in contacting the enterprises, checking their continued interest and the concrete numbers of employees they wanted to participate in the particular competence development effort. Deciding on the appropriate *level* and the *form* of the training (e.g. daytime, evenings, weekends), and arriving at an acceptable *timing* for the course in order to match production needs, involved not only the various enterprises. Also the competence provider had to be brought in on this, and the enterprise-officer would assist in identifying a relevant competence provider that was also acceptable for the enterprises.

These efforts in coordinating the different enterprises soon exceeded the capacity of the single enterprise-officer. The volume of work slowed down the speed by which he was able to organize and coordinate new trainings and handle the large and still growing demands adequately. To handle this capacity problem, he came up with an idea that he termed "The Coordinating Enterprise". The enterprise that had the largest number of employees in a course was asked to take on a coordinating function and become the Coordinating Enterprise for this competence development effort. The enterprises accepted this task, and after the initial coupling of the participating enterprises, they organized the training efforts themselves in collaboration with the competence provider. This meant the enterprise-officer could move on to start the next training effort.

Bringing enterprises together around common training needs and largely giving them the responsibility for organizing the practicalities, also contributed to establishment of training offices or training rings in several branches. Establishing such training rings was a policy pursued by the Employment Office in general, and this particular side effect was one of the few examples of institutionalised collaboration coming out of the Joint Project.

Not all the requests made in the mapping conferences could be neatly grouped together, but consisted of only a few employees. Achieving a sufficient volume of employees was essential to cost effectiveness, and this led the enterprise-officer to approach new enterprises to fill up the courses. This turned out to be a successful approach, and through direct contact he managed to mobilize 24 new enterprises to fill up the courses. This added up to all in all 71 enterprises participating in the training activities of the Joint Project, notably with very

varying numbers of employees from each enterprise. Roughly 60 % of the total costs of the training/development were covered by the Joint Project, i.e. through the Free-County BRO-funds. All in all, phase 3 amounted to 5-6 millions NOK (Johansen & Sundtoft 1996c:4).

What happened to Internationalisation?

After the mapping conferences it turned out that very few of the needs reported back was linked to internationalisation, almost everything was defined in terms of requests for courses training the employees and middle managers on a rather basic level. At the conferences, the possibilities in the internationalisation-area were presented by representatives either from the Norwegian Export Council, Aust-Agder Enterprise Consultancy or from the Internationalisation program in the Free-County Experiment. The offers were partly to partake in export programs, partly to get direct financial support from the Free-County fund to carry out export activities. Still, these types of requests were almost non-existent at the conferences.

In retrospect, the project coordinators recognized that it was not a good idea to integrate the Internationalisation Program in the Joint Project. To achieve an adequate level of discussions around internationalisation, they should have had top management and marketing people at the conferences, rather than lower level managers and employees. Partly it also reflects that going international is by far a more complex issue than asking for a course. Given the participation at the conferences, the output was inevitable, the project coordinators reflected. Nevertheless, the output was disappointing to the actors promoting the Internationalisation Program.

5.7 Attempting a permanent collaborative structure

While some of the initiated development projects were still running, the Joint Project was formally ended by mid 1996 and the evaluation report was published late September 1996, about 2 ½ years after the Joint Project started (Johnsen & Velde 1996). After this massive effort with 17 conferences and training and development efforts in 88 enterprises, no follow up or institutionalisation was planned for. The issue was raised during the spring of 1996 and referred to in memos from meetings in the Joint Project. "It would be a disaster if the project is not continued, the actors are in place" (my translation), it was stated in the minutes from a

meeting with all participating actors in the Joint Project⁸⁴. In their view, the relevant actors were participating in the collaboration, there was a relatively close contact with the enterprises and industry-organizations, and quite a few learnings had been made in the project so far. This was a situation that had to be utilized. But a new application to HF-B had to wait for the evaluation report scheduled for September.

During the summer and fall the need for a continuation and what it should imply matured, and by November the regional LO-secretary and the NHO-director sent an application to HF-B and to Aust-Agder county administration⁸⁵ asking for a 2-year continuation of the Joint Project (Stokken & Gramstad 1996). Central to the proposed continuation was a recognition of the lack of a more permanent structure or organizational form to take care of the need for continuous discussions in and between enterprises about their development needs, primarily in terms of competence development - and organizing a system to meet those needs, including competence suppliers and support means administrated by the county departments. Based on the experiences with the rather large superstructure in the Joint Project, simplifications were proposed. A new dimension was that the regional LO and NHO should be the leading actors in a new Joint Project.

How to organize more permanent collaborations?

According to the LO project coordinator, the idea for how to institutionalise this collaboration around competence development was taken from the Electronics Committee, see chapter 7 of this thesis. The Electronics Committee had existed since 1991, and was composed by production managers and employees from the leading information technology (IT) producers in the region and representatives from the relevant IT training institution and the Employment Office. Through conversations in the committee they generated tailor-made training programs to meet the needs of the enterprises. The LO and NHO and other Free-County actors wanted to develop this model further and develop training committees in each enterprise and on branch level. These committees should have both management and employee representatives, and serve as a permanent body for discussing training and development needs in the

⁸⁴ Minutes of meeting, the Joint Project, April 29, 1996. In Johansen & Sundtoft (1996a).

⁸⁵ The Free County Experiment was terminated by 31.12.95.

enterprise, as well as across enterprises. The proposed continuation of the Joint Project should put heavy emphasis on supporting enterprise-internal committees (and idea who by the way was anchored in the central agreement between the Social Partners, where they talk about training committees in the enterprises in chapter 16) - and develop further or establish branch-committees with broad participation. The idea was that the step from training to more general enterprise development that they did not make during the Joint Project, should be taken through the continuous conversations in these committees.

Parallel to this, the enterprise-officer from the Employment Office, who did the work in phase 3, planned to start what he termed "The Network Project" with the intention to diffuse the Electronics Committee-model to other branches (Rygh 1997). At this point, in 1996, he also took over his department's work in this committee. The proposed continuation of the Joint Project was to collaborate closely with this effort.

Changing context

The general situation in Aust-Agder was somewhat changed since the start of the Joint Project. Firstly, the Free-County experiment was terminated as planned at 31.12.95. This meant that the central, joint fund ceased to exist and the various funds were withdrawn to their respective departments, and the BRO-construction was also ended. The unemployment were also back at a low percentage, leading to reduced AMO- and BIO-budgets for the Employment Office, and thus reducing the available "free" funds for competence and development purposes radically. In this context, the Employment Office should play a more modest role in the continuation.

Unsuccessfully attempting a second collaboration with HF-B

The central Education and Industrial Development departments as well as the Employment Office contributed in preparing for the applications who was formally send from LO and NHO to the two co-financing partners from the initial Joint Project. The Board for Industry and Employment decided to support the continuation in December 1996 under the precondition that HF-B also continued their support. However, the HF-B turned out to be more reluctant. Meetings were held and documents exchanged, but the HF-B secretariat hesitated to support a continuation of the Joint Project. They claimed that this type of development work was outside the frames of the HF-B. Instead they suggested that the Aust-Agder actors made

contact with the newly started national research and development program Enterprise Development 2000 (ED 2000) in which HF-B played a central part. The regional research institute, Agder Research, had just started their work as part of ED 2000. The HF-B suggested that the regional partners in the Joint Project explored the possibilities for collaboration with Agder Research. Meetings were held with Agder Research, but nothing came out of it. As it turned out, Agder Research had a different focus in their research, and very few overlapping enterprises with the Joint Project.

Several reasons were put forward for not supporting the continuation. In addition to being outside of the HF-B frames, the project proposal was not concrete enough and lacking a new take on the issues that were revealed in the evaluation⁸⁶. Especially the weak participation-element in phase 3, the varying usefulness reported by the enterprises and the fact that most of the efforts turned out to be basic training and not enterprise development in an HF-B sense, probably made the HF-B less enthusiastic. This last point is confirmed in the evaluation report where it says that the emphasis on basic training was not in line with HF-B expectations (Johnsen & Velde 1996:31). The coordination problems regarding the county actors taking over the operative work in phase 3 also contributed to some scepticism. The Aust-Agder actors on their side felt they had taken this into consideration in their proposal with LO and NHO in the driver's seat and a smaller and to the point super-structure in the project. As it were, the HF-B turned the application down.

When the HF-B decided not to continue their support, the project who was supposed to be led by the regional LO and NHO was terminated. In other words, the attempt at institutionalising the collaboration on competence development was unsuccessful.

However, two other initiatives must be recognized in this respect. The smaller and less ambitious "Network Collaboration"-project initiated by the enterprise-officer of the Employment Office was started and ran throughout 1997. This Employment Office-project partially fulfilled the Joint Project-ambitions on the industry level by establishing Collaborative Committees in several branches. This will be further elaborated as part of case

⁸⁶ Letters of 10.02.97 and 07.04.97 from HF-B to LO in Aust-Agder.

3, the Electronics Committee. The other institutionalised collaboration addressing competence development was the 5 District Development Teams. As we remember from the introduction about the Free-County Experiment, these teams were permanent collaborative units between public actors attempting a closer contact with enterprises, especially on competence development matters. Thus, the more permanent collaborative apparatus handling competence development issues was improved in this period, if not so much as a consequence of the Joint Project.

Chapter 6

Organizing for Development II: The Wood Centre

This is a story of how small enterprises together can address their developmental needs through collaboration with public actors. The case portrays the development trajectory from the initial recognition of the need to collaborate to the establishing of a service organization; the Wood Centre. The collaborative construction of this centre is a joint public-private effort to address developmental issues by creating an institution bridging organizations and sectors.

6.1 Competence to the foreground

Starting to address a shared problem

In 1987 a handful of managers in the wood industry started to discuss the lack of professional training of carpenters in the region. The wood industry had established an employers association some 40 years earlier⁸⁷, and this group of managers, or rather the core members of this association, raised the concern about the competence level among the work force and recruitment problems in relation to the perceived future demands confronting this industry. As in most other industries, new technology, demands on quality and flexibility, product innovations and a general emphasis on change were recognized as a part of the future. An understanding of the increased demands the industry would have to face in the years to come, led this group of managers to assess the quality of their workforces as well as the supply of new employees to the industry. The overall picture confronting the group of managers was that most of their employees were unskilled workers, carpentry had a low status among young people and local educational institutions did not run any basic training in that profession at the time. The lack of well-trained people had been a typical situation in this industry for a long time.

⁸⁷The regional employers association for the wood industry is called ATRESA (Agder Trevarefabrikkers Sammenslutning). ATRESA is organized under NTL (Norsk Trevareindustri Landsforening) which again is a part of BL (Byggvareindustriens Landsforening), again a part of NHO, the Norwegian Employers Confederation. According to the secretary of ATRESA today, ATRESA was established in 1946.

This rather meagre situation led the small group of managers to take on a new responsibility and a more active role in strengthening the competence base of the industry. Previously, the traditional division of labour implied that the education system handled the training with an arms length relation to the industry, and on-the-job training had been sufficient to achieve the desired level of quality and productivity. The enterprises, few in numbers and small to medium sized, realized they had to involve the public sector in their effort to improve the competence level of the industry. On their own they did not have the capacity or the economic resources to run a larger training effort over years. The enterprises in this industry are typically small. While the largest member enterprise has 240 employees, 2/3 of the enterprises have less than 20 employees⁸⁸.

The first step the managers took was to involve the dean of the local upper secondary school and the head of the county Department for Education in this discussion. As a response to the recruitment issue, a class in carpentry was set up at the school two years later. «It was probably the first time a local industry-group approached the educational authorities at county level with this kind of concrete request, and it turned out to be a very smooth and pleasant process», one of the key managers recalls.

The Training Ring

To address the need for increased professionalism in the work forces, a “Training Ring in Carpentry” was formed, initially consisting only of the founding 6-7 enterprises. The ambition was to organize a larger effort to train their unskilled employees to the level of craft certificates⁸⁹, a training over 4 years. The Training Ring was formally founded in 1988, but it took a couple of years before they seriously started the process to establish such a training effort. Initially the work was done by the enterprise managers themselves, involving the entrepreneurial-minded dean of the local upper secondary school, as well as the manager of

⁸⁸ Figures based on the total member base of the Wood Centre by February 1998.

⁸⁹ In Norwegian: “fagbrev” (jfr. vocation training - fagutdannelse).

the local AMO-centre⁹⁰. These turned out to be key actors in the following process. The county vocational training office was also involved in the start up phase, assisting with the formalities related to craft certificates. However, it soon became evident that the workload called for resources beyond what the busy enterprise managers were able to put in. A secretary was hired to help organize the activities, assist the enterprises in establishing indentures and take care of the communication with the county agencies and other authorities. In the beginning, the secretary worked for the Training Ring two days a week, and gradually increased this to a full position as the need for his services grew.

In the training system they developed, the apprentices sign a 4-year indenture with their enterprise, and enter into a process with theoretical training once a week in the evening over a 2 year period, and go through a practical training in their own workshops, if needed supplemented with training in other enterprises in the Ring due to different machinery. One of the obstacles in the beginning was to get enterprises and individuals to accept the 4-year indenture or training contract. The employers were unfamiliar with these long-term commitments, and some of them worried about available manpower during the training and the pay consequences. The employees were concerned with their status as some sort of trainees, and were worried about pay in the training period as well as after. With respect to pay, almost all of the enterprises have followed the centrally negotiated arrangement with a pay increase of 4 kroner an hour for employees with a craft certificate. This, of course, was an important motivating factor for the employees.

Mobilizing the enterprises took some efforts, and the secretary of the Ring, the manager of the AMO-centre and some of the founding enterprise managers toured the relevant enterprises and held information meetings. It was especially important in this part of the process that the central managers in the initiative participated in meetings with the enterprises and worked

⁹⁰ The AMO-centres (the abbreviation in Norwegian means Work Market Training centre) are traditionally running courses for unemployed people with the intention of qualifying them for employment. AMO-centres have also taken a role in training people already working with the intention of helping them to maintain their jobs. Before 1995 the AMO-centres were owned, run and financed by the state through the employment offices. After 1995 the AMO-centres are placed under the county department for education and normally organized as a part of an upper secondary school. The employment offices are committed to buy a minimum volume of courses for 3-5 years after the reorganization to secure operations. The employment offices of course also provide the unemployment benefits for unemployed attending these courses. In Aust-Agder there are 3 AMO-centres. The AMO-centre referred to here has been working with the wood industry on training issues for several years.

actively to persuade reluctant enterprises. According to the «founding fathers», the informal network between the managers, partly based on the formal connection through the employers association, was an important basis for the founding of the Training Ring and inclusion of new members. In other words, the roots of the collaboration lie in a long-term relationship. Involving these enterprises and organizing the training and financing took some time, and the first 45 apprentices from about 12-14 enterprises started in 1992, almost two years after the work to get indentures started, and four years after the formal establishment of the Training Ring.

The secretary of the Ring administrated the training program, while teachers from the upper secondary school were hired in to do the training courses in the evenings. The classes were held at four different locations to reduce travel distance for the apprentices. Thus, the teachers came to the apprentices, not the other way around. This was in itself a small innovation, which at times was hard to accept for the Department for Education because expenditures increased due to smaller and more classes and higher travel costs at “their” end of the system. Nevertheless, as the managers repeatedly claimed, the total amount of travelling was reduced, and furthermore, physical proximity was regarded as a necessity in order to make workers sign on to spend their evenings over a long time period. Running the training in only one place would have caused some of the apprentices to travel up to 200 km one way to attend the evening courses, a totally unrealistic arrangement. Still, spreading the courses in this manner took some repeated negotiations, which was solved by bringing in an additional funding source. Organizing the training around the needs of the apprentices in this way and not according to traditional educational thinking, reflects a locally adapted and enterprise driven development as opposed to a centrally and bureaucratically defined approach. Naturally, the construction relies on both responsive educational actors and flexible funding sources.

Notably, the start-up of the Training Ring was after the Free County Experiment⁹¹ had started. The experimental status gave the county agencies increased opportunities regarding spending of funds, which allowed them to take on a more responsive and flexible role in meeting the demands of the enterprises. The status as a Free County Experiment also put increased

⁹¹ See chapter 4.

expectations on the county administration and politicians, both from the Ministry and from the population. As we remember from the first case about the Joint Project, the Experiment was evaluated by a research team as it developed. Finding ways to fight unemployment and support local industry were major concerns. Therefore, initiatives by enterprises related to this agenda were particularly welcomed in this period.

Organizing and financing the Training Ring

The Training Ring was a membership ring with a board of five managers and a secretary to take care of the operational activities. To get maximum financial support, the Training Ring was formally two rings, one for Aust-Agder and one for Vest-Agder. In all practical situations it worked like one Ring. They had two boards, but the same chairman and secretary, and they held joint board meetings.

There is a national established arrangement for financial support to training rings like this. The support is calculated based on the number of apprentices. The more apprentices, the less money pr. apprentice. Dividing the number in two thus gave higher level of support. In addition, the Training Ring got an installation grant from the Free County fund. The enterprises pay a symbolic annual membership fee of 500 NOK. Each enterprise gets an amount pr. apprentice pr. month from the state to compensate for the extra administrative work in connection with the apprentices. In the Training Ring, the secretary took care of parts of this work on behalf of the enterprises, and thus collected a part of their compensations as a service fee. These amounts created the financial basis for running the Training Ring.

The first modifications

In 1992 a national mapping took place to assess the need for craft training. The wood industry in Aust-Agder found that 17 % of their employees were skilled and 10 % were under education. In other words, 73 % were unskilled⁹². As a result of this detailed mapping, the Training Ring defined its goal to be 80 % skilled workers by the year 2000, a rather ambitious goal.

⁹² Figures from the manager of the Wood Centre.

News of an upcoming national reform in education at upper secondary level⁹³ made the Ring, i.e. the leading enterprises, realize that their initial limitation to carpentry was too narrow. A broader base would make it relevant for more enterprises to join in, create a larger volume and thus strengthen the economic base for the Training Ring. Consequently, they expanded the scope to include all wood related certificates, and changed name to “The Wood Ring”. This reorientation proved to be fruitful. After the start-up of the first 45 apprentices in carpentry, more and more enterprises in this industry wanted to join. New training programs were started in other wood-related professions, and by 1994 the Ring counted 25 member enterprises.

On the path towards a service organization the initial establishment of the Training Ring was an important first step. As we shall see, the Training Ring becomes integrated into the centre, and the training activities represent the financial backbone of the centre, as it slowly began to take on other developmental tasks with additional funding. Thus, the work to establish the Ring can be understood as the first step in the process towards a service centre.

6.2 The birth of a service organization

Broadening the scope

Parallel to the start-up of the apprentice training in 1992, one of the leading enterprise managers started to develop the idea of a service organization for the wood industry. In conversations with the manager of the local AMO-centre, which at the time was co-located in the same building as the enterprise, the idea emerged that the enterprises could do more through collaboration than merely training the employees. Training the employees to the level of craft certificates was important, but did not address all the developmental needs of the industry. Their initial ideas was that a centre could be the local link to central institutions, provide a wider range of services and continue to organize competence development on higher levels and new areas. The vision was to create “a hub for the wood industry on Agder”, as the two managers expressed it.

The entrepreneurial and in these matters influential deputy county-mayor was involved and supported the idea, and funding for a feasibility study was made available from various

⁹³ Reform 94.

sources in 1993. The Department for Industrial Development and the Employment Office made the major contribution, but also the municipality, the Wood Ring, two local employers associations and a national employers association for the wood industry participated in funding the feasibility study, adding up to 250 000 NOK (Raen 1994). At this point in time the unemployment rate in the county was among the highest in Norway, and in 1993 it was still increasing (Fylkesrådmannen 1995). Additionally, the national markets for the construction industry⁹⁴ were very low (Econ 1997: 30,31), creating weak market situations for the wood industry as well. This was perceived as difficult times, and both public actors and industry representatives were looking for measures to remedy the situation⁹⁵.

The feasibility study was organized with a project group and a steering group. The project group was composed of the central actors so far in the Wood Ring, namely the dean of the upper secondary school, the manager of the AMO-centre and the secretary of the Wood Ring, in addition to a project leader with good knowledge of the industry. This project leader later became employed at the centre. The steering group reflected the broader scope of the centre with representatives from the whole value chain from the forest owners to the finished wood product. The two county agencies funding the study also had representatives in the steering group. After visiting about 45 enterprises, half of them twice, and collecting input from other similar institutions, the feasibility study concluded with a suggestion for organizing and funding the centre and proposed activities to meet the expressed needs of the wood industry in the region.

⁹⁴ In Norwegian: "Bygg og anlegg".

⁹⁵ Parallel in time to the centre-effort, the county administration and the construction and wood industry had also launched a collaborative export initiative towards former East Germany to address the lack of market more directly. 44 enterprises and the two Agder-counties were shareholders in the export organization they formed; "Agder Trade". 14 of these enterprises were also members of the Wood Centre or the Ring. The County politicians and administration played a central role in initiating and partly running Agder Trade. After a period with feasibility study, delegations to Germany and organizing Agder Trade, the general assembly of Agder Trade in March of 1993 (at the time of the feasibility study for the Wood Centre) took the decision to actually start this export collaboration in a concrete sense. This included setting up an "Agder Haus" in Rostock and hiring a manager to run the operations in Germany. At a point in time the Wood Centre was supposed to be the home base for Agder Trade. This ambitious attempt ran into a series of problems, and was finally terminated in 1996 as a failure.

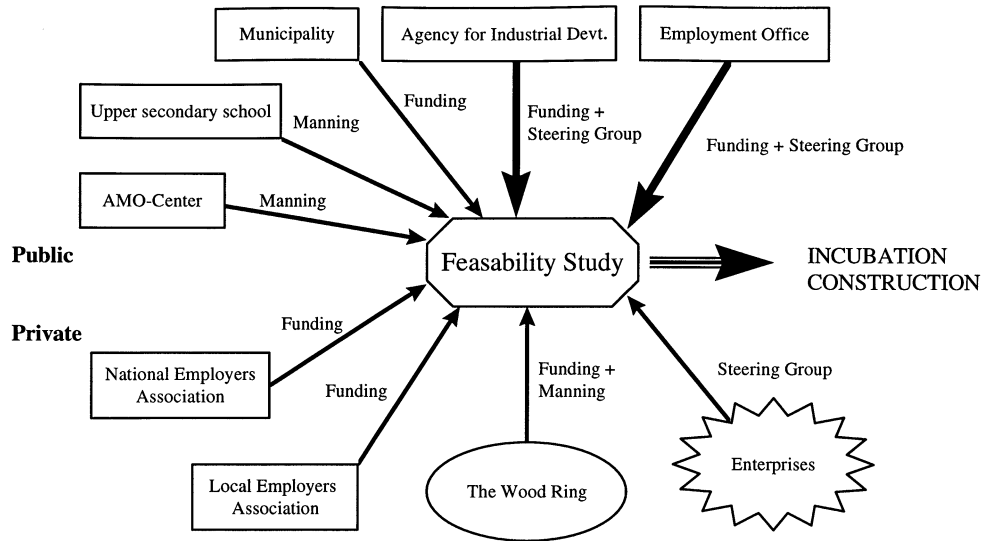


Fig. 6: Partnerships in the feasibility study

Organizing for incubation: A hybrid construction

Notably, taking the step from the Wood Ring towards a centre-idea intensified the public-private partnership. Not only was the generation of the concept or idea a collective effort in the first place, an effort that created a sense of ownership among key actors. Also in terms of manning of the project- and steering groups and in providing economic resources, the effort was a cross-sectoral partnership.

Whereas the industry representatives in the project group (though not being enterprise people directly) played the central role in working with the enterprises, visiting other relevant institutions and writing up the feasibility study, the public sector representatives very much played a crucial role in arriving at concrete solutions. The dean of the school and the manager of the AMO-centre, who were driving forces in starting the process, also were in positions to influence the outcome. As we shall see, the upper secondary school and the AMO-centre plays an important role in the organizational form that was constructed for the three years of incubation period they anticipated.

While the ambition was to arrive at an enterprise-controlled and self-financing unit after 2-4 years, it was regarded as premature to establish such an independent organization right away.

Both in terms of scope of activities, where they anticipated a gradually build up of services, and in terms of financial footing, where they would have to rely largely on public support for the first three years of operation, a more modest build-up phase was regarded as realistic. The project group searched for an organizational solution that would make the entry or establishing as cheap as possible, and at the same time secure a close relationship with the public actors while maintaining an enterprise control over the operations. These seemingly diverse intensions found their organizational solution in a new, creative hybrid organizational form as a part of the local upper secondary school. The Wood Centre was defined as one of seven departments under a new work life oriented training unit at the school⁹⁶. While administratively and economically being part of the educational bureaucracy, the Wood Centre had a User Assembly consisting of all the enterprise members and a User Board of 4 enterprise managers and one employee representative, who where to decide on the actual activities of the Centre. The dean is regarded as vital in making this arrangement possible. A central actor stated, «with a strict interpretation of rules and regulations, this construction was probably impossible». At least it was tricky to maintain with plenty of potential pitfalls.

“Our” AMO-manager was appointed to the position as manager of the new Wood Centre, sharing office with the secretary of the Wood Ring and drawing upon teachers at the upper secondary school and other resource persons on a project basis. Notably, a close collaboration with the Wood Ring was a premise in the centre-concept. In this construction the Wood Centre could draw upon administrative services from the school, which would make the running of the Centre cheaper and simpler. Avoiding the costs of establishing an independent entity was also one of the benefits in this start-up phase. Additionally, in the position as a unit in the school’s department structure, the Centre could take on some publicly funded training activities “to provide a basis for the primary activities of the Wood Centre, namely enterprise- and industry development” (Raen 1994:14) (my translation). As stated in the feasibility study, “this organizational form is proposed mainly for practical and economical reasons” (Ibid. p. 14).

⁹⁶ This unit was called SEKON (abbreviation for Centre for competence- and industrial development), and was co-established by the Labour Market Office and the Department for Education. SEKON included the activities previously handled by the AMO-centre. This construction is a variation of the “resource-centres” that have been established at many upper secondary schools.

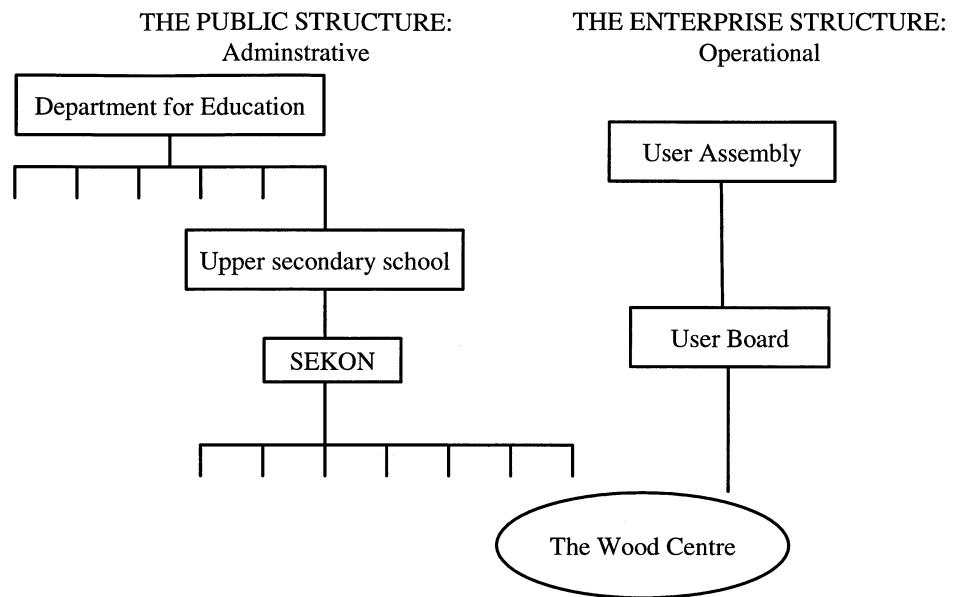


Fig. 7: The Wood Centre in a hybrid structure

The role of the centre

Already in the feasibility study there was a clear recognition that close contact between the Centre and the enterprises was fundamental to the operations and thus to the existence of the Centre (Raen 1994:8). Close contact in this case implies personal, direct and frequent interaction between the Centre representatives and the individual enterprises. Firstly, with small and medium sized enterprises with small administrative capacity and limited experience with development work, one cannot expect the enterprises, i.e. the managers, to be active customers at an arms length distance, to express their developmental needs clearly and in form of a request to the Wood Centre. Thus, a basic realization was that the Centre people must know the enterprises so well that they can take initiatives. Secondly, trusting that the people at the Centre have something to contribute was seen as a necessary prerequisite for the enterprises willingness to engage in developmental efforts and acquiring a more active attitude towards the Centre. Developing such a trustful relationship in this case demands a personal

and direct relationship where the Centre representatives can evolve and demonstrate insight into the enterprises and their situations and subsequently demonstrate results.

Mode of operation

A central mode of operation throughout the Centre's 4 years of operation (pr. 1998) has therefore been that the Centre people frequently visit the enterprises and emphasize personal contact with both management and employees. At the enterprises they discuss problems and opportunities and assist in internal mapping or assessments, and through conversations grounded in sufficient knowledge about the enterprise, define developmental issues that can be handled through the Centre. The task for the Centre is then to organize this developmental effort. This may include such as getting more enterprises to join in the effort if desirable, investigating into possible financing alternatives, identifying the right external partners, including R&D, education or other professional capacities, and find a way to fit these components together into a viable project. This activity of being a project-creator has certain entrepreneurial aspects, while in the operational phase of a development project the Centre typically will take an administrating role.

With this emphasis on personal interaction, trust building and of course ability to deliver results, the qualities of the people at the Centre becomes a crucial point. As the enterprises themselves through the board decide who should work at the centre, they have a fair chance of attending to this point, as they seem to have been doing by choosing «proven» individuals that were already known and involved with the industry.

To foster an active use of the Centre and develop it to become a local and available point of contact, proximity was also seen as an important factor. The Centre was therefore located in the area with highest density of wood industry.

The linking institution

The overall purpose of the Wood Centre is to be a hub for the wood industry on Agder, and contribute to increased profitability and competitiveness of the member enterprises (The Wood Centre 1997). To be a "hub" in this respect implies to take on a linking function in several directions. One of the main ideas behind the centre was to be a link or bridging institution between the enterprises and the public/governmental agencies, especially the

Agencies for Industrial Development and the Employment Offices in the two counties. The Free County agencies in Aust-Agder funded the feasibility study, and the agencies in the neighbouring Vest-Agder joined in the financing of the establishment and first years of operation.

The benefit for the enterprises of this function is to get a better overview and access to public support and funds. It was anticipated that a more active use of public resources could contribute to the development of the enterprises. The benefit for the agencies should be that they get a coordinating actor in the wood industry to work with in developing effective support measures. Instead of relating to individual enterprises, the Wood Centre represents a larger number of enterprises, and can be a partner in reaching more enterprises in a well-grounded and coordinated manner - in ways that does not disturb competitive relationships or in other ways appear unfair. To emphasise that establishing the Wood Centre was also in the interest of the agencies, the Centre was presented as a joint effort between the enterprises and public authorities in the feasibility study. This partnership was made even more explicit through the actual co-funding of the first 3 years and the hybrid organizational position of the Centre.

The other main linking function of the Centre should be to facilitate contacts between the enterprises and research and development institutions, consultants, competence centres and individuals, and in that way assist the enterprises in attaining the competence they need. The Centre should function as an easy access, first point of contact for the enterprises, where questions and tasks could either be solved at the Centre, or the Centre could help to identify more qualified partners on the specific issue. Furthermore, the Centre should contribute to dissemination of new R&D results to the enterprises in effective ways, and also work to spread information to the enterprises about what happens within the industry as well as linking the enterprises more directly together.

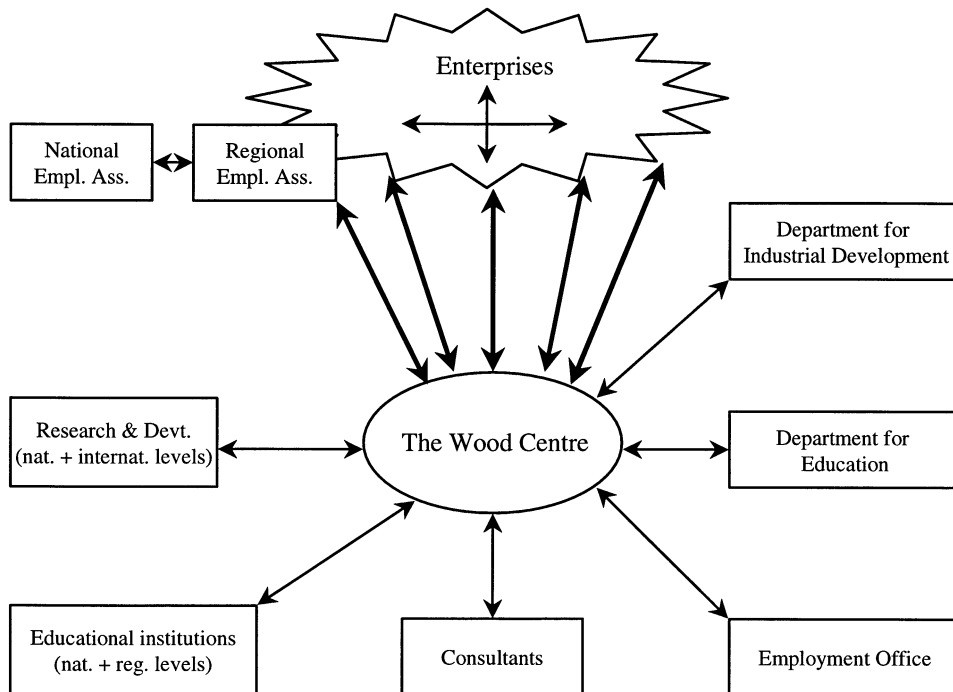


Fig. 8: The Wood Centre as a linking institution

From the start in 1994 the founders had the ambition to establish expertise and capacity in the Centre to carry out wood-specific research and development tasks for the enterprises. This turned out to be too big a mouthful, both in terms of acquiring competence and financing this type of activity. For one thing, equipment would represent a substantial initial investment. The survey or investigation carried out in the feasibility study revealed a wide variety of needs for wood-specific professional services, and did not present a coherent picture of a particular R&D-area the Centre should focus on. Thus, the ambitions were modified to a role where the Centre assists the enterprises in locating the right partner for R&D-projects.

Aside from wood-specific issues, the main development areas identified in conversations with the enterprises were competence development, product development and quality assurance in a wide meaning of the term. The competence development needs were both in the form of craft certificates and in more tailor-made courses for one or more enterprises. Product development could for instance mean new ways of utilizing timber and introducing new types

of woods. Quality assurance included ISO-9000 certification and implementation of “Internal Control”-systems⁹⁷, as well as various more concrete quality improvements such as reducing errors in production, developing better work procedures, securing adequate training of new employees etc. The Centre thus aimed at organizing training and development projects for both individual enterprises and for groups of enterprises.

6.3 Becoming independent

The hybrid construction where the Wood Centre was a part of the public/governmental structure while the enterprises should decide on the activities of the Centre, was a difficult balance to walk. Rules and regulations in the public system did not always smoothly coincide with rational modes of operation from an enterprise perspective. For instance, being a part of the education system, there were formal requirements that employees should have pedagogic competence. This requirement did not always coincide with other qualities regarded as important in working with the wood industry. Likewise, rules stated that new people could not be hired when there was free capacity in the upper secondary school system. This made it difficult for the Centre to hire the people they saw fit for the task at hand. A flexible interpretation of rules and regulations of this kind created a workable solution for the Centre for a period. When the dean of the upper secondary school, the co-founder and main guarantor for this construction, left his position, this kind of tensions increased and pushed the Centre towards independence from the public system. Notably, establishing an independent service organization was the intention from the beginning. As the Centre-manager stated; “this was a help to get us started, it was never the intention that it (the hybrid structure) should last forever”.

Ending the incubative construction

After a process of about a year the Centre became an independent membership organization in May of 1997, 3 years after its founding. The Wood Ring formally merged into the Wood Centre at this point, creating a membership base of 51 enterprises with a total of

⁹⁷ From 01.01.95 all Norwegian enterprises are instructed to have an Internal Control System in place. The Internal Control System is a set of procedures to secure that Health, Environment and Security in the enterprise is adequately handled.

approximately 1200 employees⁹⁸. According to the manager of the centre, as many as 46 of the enterprises are active members in the sense that they participate in training programmes and/or commission services. The Centre is manned by two full time, and as before draws on individuals on a project basis. The superstructure with an annual member meeting and a board of five including one employee representative is kept from the incubation phase.

Time	Course of events
1987	First initiative by enterprise managers, recognizing a shared problem. Linking up to educational authorities.
1988	The Training Ring was founded with 7 member enterprises. Focus on carpentry.
1989	A class in carpentry started at upper secondary school
1990	Starting to develop a 4-year training system and recruiting more enterprises. A few enterprise managers, the dean and the manager of the AMO-centre is the core of the collaboration.
1991	A secretary for the Ring was employed.
1992	The first 45 apprentices from 12 enterprises start their 4 years of training. Teachers hired in for evening classes. Ambitious goal formulated: 80% skilled workers by year 2000. Expanding scope to all wood-related skills, changing name to "The Wood Ring". Idea to create a service organisation for the wood industry.
1993	New training programmes are starting, new enterprises join. Feasibility study started for a possible Wood Center.
1994	The Wood Ring has 25 member enterprises. The Wood Centre established in a hybrid structure at the upper secondary school, starting a 3 year incubation period being partly public, partly private. Overlapping memberships between the Ring and the Centre.
1995	Other development projects are started in the member enterprises. The Centre as a linking institution.
1996	
1997	The Wood Centre becomes independent, and the Ring formally merge into the Centre. 51 member enterprises with 1200 employees. 2 employees at the Centre.
1998	Ideas of new projects and issues to address are continuously developed in close interaction with the enterprises.

Fig. 9: Course of events

⁹⁸ Figures of February 1998 based on telephone calls to each enterprise.

Achievements: The training

Organizing and administrating training for craft certificates is still the main activity of the Wood Centre, taking about half of their capacity. This activity is the economic backbone of the centre. By the end of 1997 about 100 employees have completed their training for a craft certificate, while a little less than 100 from 39 enterprises are still in the process. Almost all of the member enterprises are certified as apprentice-enterprises in their crafts, which means that their machinery and operations allow for a complete round of practical training according to the specifications for the various craft certificates. The ambitious goal set in 1992 of 80 % craft certificates by the year 2000 will probably not be met with this large number of enterprises of which 2/3 have less than 20 employees, but the Wood Centre will not be very far off the mark. The steady supply of new apprentices and new enterprises joining the Centre more than 5 years after the training started, is a good indication for the Wood Centre that they are on the right track. Maybe is the pace they have now well suited to the sizes of the enterprises; for small enterprises to have most of their employees on this long term training is probably too demanding on their production, and thus a more gradually build up of the qualifications may be more feasible.

So what do the enterprises get out of investing in more qualified people? Does this lead to more efficient, flexible, change oriented enterprises? This question will not be fully answered here, but left with a few indications. The continuous interest in qualifying employees is an indication that the enterprises value the training their employees get. As the market situation for the wood industry has changed to the better from the mid-1990s, there has been a radical increase in production volume among the member enterprises, according to the Centre. This has only partially been met by new employments. Mainly, the ability to tackle this increased production, that is the increased capacity, is due to higher competence and thus flexibility of the workforce, it is claimed. As we know from other sources (e.g. Gustavsen et al 1996), for training of employees to be useful to the enterprise, the increased competence has to be reflected in some sort of organizational change.

According to the Centre, some of the enterprises are not concerned with organizational change, while others are very concerned. Generally, the largest of these medium sized enterprises seem to lead the way. They restructure and rationalize their productions to become more effective, often with the help of external consultants. One enterprise manager tells that

they have changed to a group-based organization where smaller groups of employees are collectively responsible for quality and output. This reorganization was made possible because of the increased competence. With daily and weekly production feedback, he claims that the employees are much more interested in how the production goes than they were earlier. The communication in and between the groups is different than before, and the new organizational form combined with increased competence in the workforce has increased the capacity substantially and improved the quality.

The impression the Centre-people get from their contact with the enterprises and their employees is that the employees seem more concerned with their own work situation after going through the vocational training. They have different demands, come up with suggestions for improvements, and reportedly discuss production instead of soccer in the breaks. This also puts a pressure on the manager, who in some of the smaller enterprises is not very much higher educated.

Achievements: Other projects

The Centre aims at being an actor the enterprises can call and ask about anything. They will not be able to answer directly on all the questions, but they can help the enterprises in finding an answer or solution to the problem. This open approach to the various needs of the enterprises results in a wide variety of smaller and larger projects. Examples of smaller projects for individual enterprises are assistance in designing a staircase to a church and making a brochure for export of doors to Germany. In these instances the Wood Centre helped the enterprises to find the right competence. A larger project has been to organize the participation of 9-10 enterprises on larger national and international exhibitions. The Wood Centre coordinated the enterprises and designed a joint stand, a service the enterprises commissioned. This has so far been done twice on an annual Norwegian exhibition⁹⁹ and once in Denmark.

Another project involving several enterprises is the “chip-project”. Quite a lot of the enterprises in the wood industry have a problem with getting rid of their chips. This concern

⁹⁹ The exhibition “Bygg Reis Deg”.

was raised with the Wood Centre, and they put in considerable effort in finding a solution. The result is that the Centre and a group of enterprises have made an agreement with a refuse disposal plant that can use the chips in their composting. A professional chip-transporter has been hired to handle the transportation, and what was earlier a waste problem is now generating income for the enterprises. As the usefulness of this arrangement has become evident, more enterprises are joining in.

The Wood Ring and the AMO-centre was already running a 2 year ISO-9000 project for a group of 8 enterprises at the time of establishing the Wood Centre. This project was spurred by an attempt to start exporting construction-related wood-products to Germany. The ISO-9000 project was organized with bi-monthly joint enterprises meetings, with a consultant working with each individual enterprise between the meetings, as well as running the meetings. The necessary procedures were developed by the enterprises themselves with assistance from the consultant. Training of the employees on issues pertaining to the various procedures was a central element in this approach. This training took part both at the individual enterprise and at the joint meetings. Exchange of experience between the enterprises was the primary purpose of the joint meetings, with the dual aim of stimulating progress as well as to improve the results through learning from others. Based on the successful experiences with this approach, the Wood Centre was later asked to run a similar process for a group of 15 non-wood enterprises that had identified this as a developmental task through their participation in the Joint Project.

In addition to the concrete training- and project-output, the Centre experiences a set of other achievements or results as well. As consequences of their quite successful operations and existence over a 4 year period, they feel they have gained a good position vis a vis other relevant actors. Firstly, public/governmental institutions with money seem to regard them as a trustful and attractive partner. Based on their first years of relatively close collaboration with public actors, personal relations and a good track record has established a level of trust. The relationship with public actors is one of the central roles of the Centre in their position as a linking institution, and is important to maintain. In their new, more independent situation, the relationships with public actors will have to be consciously nourished. Clearly, the incubation period and the close interaction between the actors in the phase of establishing the centre, has proved to be a good start in building these relationships. Secondly, they feel their standing or

reputation in the wood industry is satisfactory. They experience that they are increasingly being used by their member enterprises, and they have also become what they call “nationally visible”. The centre concept has spread, and Wood Centres are now established in two other counties, and more are working with the idea.

Future directions

As mentioned above, the initial ambition to create a centre with competence and machinery to take on R&D-tasks is put aside as unrealistic at the time. A few other issues the Centre-people feel they have not accomplished well enough yet is bringing general information from R&D to the enterprises, creating a meeting place for the managers and thus linking enterprises directly to each other, and the ambition to coordinate and integrate along the value chain has so far not been given enough attention, though there has been some activity on the issue. This brings us over to future ambitions for the Centre.

Mainly the Centre aims at continuing in the same areas as they operate in today, that is with an emphasis on competence and facilitator of various projects, in which they link enterprises and external resources. In the nearest years the craft certificate training will continue, but they are now looking to initialise competence development efforts on higher competence levels, on new areas and with new groups in the enterprises. “It is very important that the enterprises don’t stop after they have improved the most basic level”, one enterprise manager stated. “They must continue to develop their competences. Still we are lacking behind when it comes to issues like CNC-machinery, logistics, surface treatment in general and spray work in particular, not to say how to organize the enterprises effectively”. Management training is also a recognized need, but so far it has been difficult to operationally and find a way to realize. A planned first step is to create a management forum, an informal meeting place for no. 1 managers where they can exchange experiences, get input on specific issues and start to discuss developmental needs more systematically and subsequently generate joint projects. The Centre regards competence development in one way or another as a never-ending task. The challenge will be to be in tune with the needs of the enterprises and be able to respond and deliver.

Chapter 7

Organizing for Development III: The Electronics Committee

This is the third case on how public-private collaboration may be constructed in order to facilitate competence development in enterprises. It is a case about a modestly sized, loosely organized forum that addresses the training needs of a group of enterprises from the IT-industry. Initiated by the Employment Office, the forum is a meeting place where funding sources, competence providers and enterprises together generate tailor made training programmes. After its 6 years of existence, this mode of organizing cross-sectoral collaboration now diffuses to other industries in Aust-Agder. The diffusion reflects the need for organizing this interface into what I call a collaborative space based on conversations among the stakeholders.

7.1 A public sector initiative

Originating in Nordisk Ministerråd, the Directorates of Labour in the Nordic countries started a 2-year project in 1990 referred to as “the Nordic Project”, with the dual purpose of improving their work to provide jobs for the unemployed and strengthening the competence level in industry. The vision was to use training as an active means in regional industrial development (Svendsen 1991). This was to be achieved by an integrated use of funds for training unemployed and funds for in-company training¹⁰⁰, coupled with collaboration with other actors at the county level, such as the county departments and the NHO and LO. An important reason for this attempt at creating a more active, development-oriented role for the county employment offices¹⁰¹, was the unemployment problem, increasing since 1986-87. The more traditional role of employment service, assisting unemployed to find enterprises and vice

¹⁰⁰ The Employment Offices administrates both types of funds, referred to as AMO- (Labour Market Training-) (arbeidsmarkedsoppl ring) and BIO- (In-company training-) (bedriftsintern oppl ring) funds.

¹⁰¹The (county) Employment Office is not a part of the county administration and thus not under the formal influence of the County Parliament, but is directly in line under the national Directorate of Labour, which again is under the Ministry of Labour and Administration. At the municipality level there are “district employment services” (arbeidskontor), reporting to the county Employment Office. With capital letters, Employment Office is referring to the specific employment office in Aust-Agder.

versa, was increasingly being recognized as insufficient in this period of increasing unemployment. Also the main means in addressing the unemployment problem, the so-called AMO-courses, were seen as too passive and insufficient. The AMO-courses were short courses to train unemployed people in order to improve their employability. In the late 80s these courses were generally of too low quality, both in terms of professional level, duration and subject. They were poorly linked to the needs of industry, which in itself reduced the likelihood of employing the people who had been trained. Too often the AMO-courses had the sole result of keeping the unemployed activated. Despite considerable improvements of the AMO-courses, the employment offices participating in the Nordic Project still believed there were a lot to be gained by a better coordinated and active approach to competence development (Svendsen 1991).

Thus, the main pillars in the new approach by the labour market system to be tried out in four counties was a) to regard competence development as an important means for regional development, b) to take an active role towards industry and c) to collaborate with other actors. From the earlier passive role, the employment offices now attempted a shift towards a more development-oriented role where they should take initiatives and actively participate in generating training efforts based on the needs of concrete enterprises (Amdam 1992). (At least a little part of the Employment Office should try out this new mode of operations.) This was to be done in collaboration with the departments for education and industrial development and the Social Partners.

The Free-County Experiment and the Nordic Project

Like the Free-County Experiment in Aust-Agder, who started for real in 1990 and thus were established at this point, the national Nordic Project attempted at establishing cooperation and voluntary coordination between “independent” agencies and departments as its primary mode of operation. The general thinking behind these collaborative efforts thus were quite similar. In an initial phase this was seen as a reason not to choose Aust-Agder as a project site; they were already doing it, and had more free resources than other counties. This was turned around to become a particular good reason for choosing Aust-Agder: The fertile ground for such an initiative was seen as a strength, as it increased the likelihood of a successful project. Thus, Aust-Agder was chosen as one of four Norwegian counties for the Nordic Project.

While the Free-County Experiment took inter-department collaboration as the point of departure and had a broader and at this point less specified approach to what regional development should mean, the Nordic Project had a clear focus on competence and set out to organize collaboration around this issue. As we know from the first case in this thesis, competence later became one of the main issues in the Free-County Experiment as well.

To secure integration with the Free-County Experiment, The Nordic Project in Aust-Agder was defined as a development effort under the Free-County-heading. A project group for the Nordic Project was carefully composed to take care of this dimension, as well as taking into consideration the personal styles and collaborative attitudes of the members. Again, the actor set or domain for these issues is relatively small and transparent in Aust-Agder, especially on the public side, so the central actors tend to know each other directly or have knowledge about each other through personal networks.

In addition to the project manager from Arendal District Employment Service, the project group was composed by:

- a head of a district employment service,
- the deputy head of the Department for Industrial Development,
- an officer from the Department for Education (later a coordinator in the Free-County system and employed by the Dept. for Industrial Development),
- the manager of the county office for occupational training¹⁰²,
- LO and NHO representatives (Svendsen 1991).

All of these organizations were central stakeholders in the Free-County Experiment, and some of these individuals were or later became central in the Free-County Experiment themselves. The deputy head of the Department for Industrial Development was already in a central position in the Experiment, and later he became the head of this department. The officer from the Department for Education became a coordinator of the Experiment, and the LO-representative played a central role in implementing the Competence Development

¹⁰² The county office for occupational training was an independent entity at this point. In 1998, the county office for occupational training is an integrated part of the county Department for Education. In Norwegian: "Yrkesopplæringskontoret".

Programme described in the first case. This overlap of roles, both parallel and sequential in time, of which this is only one small example, undoubtedly contributed to carrying on ideas and experiences and linking and coordinating various efforts. The collaborative experience gained through the Nordic Project, as well as the emphasis on competence, later fed back to the Free-County Experiment as they started to develop a strategic plan for industrial development. The key individuals in this process reported that an important background for putting competence development up as a central issue in regional development also in the Free-County Experiment, was their joint work with these ideas in the Nordic Project.

Both the Free-County Experiment and the Nordic Project were initiated in the form of invitations from national actors and presented as opportunities for experimental work, and not as forced-upon regulations or directives. The Ministry of Local Government and Labour invited the counties to apply for a Free-County status, granted in full to only two counties. The Directorate of Labour, which was also under the Ministry of Local Government and Labour, invited the Employment Offices to try out this collaborative approach, granted only to 4 county Employment Offices.

The approach in the Nordic Project was to make a “strategic plan for qualification directed toward industry in the county”, but also to generate a set of concrete projects. One of these projects was the start of what became the Electronics Committee.

Recognizing the need to involve enterprises directly

While the four Nordic Projects in the country had slightly different foci, the Aust-Agder version focused on collaboration between industry, educational institutions and the Employment Office to improve the work market training so that it would better meet the needs of industry. Close contact with concrete enterprises, as opposed to indirectly through branch organizations and the social partners, were increasingly seen by Aust-Agder actors as instrumental in generating useful enterprise development efforts and a meaningful role for the public support system.

A problem in supporting industry has been that organizing training efforts around only one enterprise and not the other is regarded as unfair and not acceptable. To avoid a situation where the public system directly supports one enterprise and thus interfere with the

competitive relationship, the tendency has been to treat everybody equally and at an arms length distance by only working indirectly towards whole industries or branches. This traditional mode of a) collecting information and analysing the training needs in a branch or a larger number of enterprises, b) then create training programmes based on this analysis, and c) invite industry to send their employees to the courses - has been recognized by the county actors as an insufficient way of supporting competence development in industry. The time span from collecting information about the perceived needs of industry to a presentation of training offers has often been too long, and the offers did not seem to fit the needs after all. The needs may have shifted, and the courses or training offers were mostly of a general and not of a tailor-made type. Trusting that the public system had anything to contribute was also an issue in itself, and both the time and the quality and fit of the training programmes offered would often discourage the enterprises to pursue such a competence development effort. Clearly, it is also the case that parts of industry have not been very active in addressing the competence development issue, and often enterprises possess a low level of insight into their own competence needs.

However, there seems to be a qualitative difference between viewpoints on general needs for an enterprise or a whole branch in the years to come, and answers to a question more of the sort «what are your training needs now and in the near future, and how can we organize a joint training programme to meet these need?» The latter tends to be answered with a different level of commitment and concreteness, which brings it closer to the action that is the very goal of such an effort, namely actual training of employees. This was the sort of dynamics that some of the central actors were after. To avoid supporting only individual enterprises through this form of direct conversations, the public actors found their solution by attempting to address the level between the single organization and the whole industry, namely groups or networks of enterprises. This group, network or branch approach seems to have started to appear around 1990, and was quite clearly spelled out for instance in the initial strategy document for the Free-County Experiment of 1993 (Etatsjefsutvalget 1993).

7.2 The Electronics Committee starting as a project

Based on the joint realization of the need to get directly involved with enterprises, a concrete enterprise project under the Nordic Project-heading was started in 1991. The intention was to try out a way of organizing collaboration on a concrete and practical level. The collaboration

should be able to generate tailor-made training efforts involving several enterprises. If it worked satisfactory, the intention was that the arrangement should continue after an initial project phase. The more specific idea was to establish a forum or group with employees, management and representatives from the Employment Office. The Employment Office was at this point eager to support in-company training, i.e. training of people still working, instead of just training unemployed. As an alternative to waiting until people got unemployed before they got any assistance, the idea was to help people to keep their jobs by strengthening their competencies to become more flexible and attractive employees. This would also increase the likelihood of a more profitable enterprise and thus reduce the chances of layoffs.

The financial opportunities for the Employment Office to take such an active role towards in-company training was initially the so-called BIO¹⁰³-funds, which were rather generous at the time due to the unemployment level. The Free-County status also opened up for further improvements of the fund structure by allowing for regional modifications to the rules that governed spending. This leads to the construction of the BRO-funds, a construction undertaken as one of the projects under the Nordic Project-heading. The BRO-funds were dedicated to training of employees (as opposed to unemployed) and were a regional “invention” with flexible rules, leaving more up to local and regional actors to judge the quality of development projects instead of detailed rule-following. The regional BRO-funds were put together by two other types of national funds, the BIO-funds and the DU-funds, originally with a specific set of rules regarding spending. The BIO-funds were traditionally administrated by the Employment Office, while the DU-funds were administrated by the Department for Industrial Development. The Free-County status made this arrangement possible for the period of the experiment, i.e. throughout 1995. The BRO-construction provided a basis for public actors in Aust-Agder to engage more actively in development activities.

Choosing a branch approach

In establishing a concrete collaboration with industry on competence development, the project group of the Nordic Project was faced with the question of which enterprises to address. The

¹⁰³ See footnote No. 100.

scope of the project was not large enough to accommodate every enterprise or base the participation on a general invitation, so the effort had to start with a smaller entity. The project group assumed that addressing branches would increase the likelihood of the enterprises having similar needs for competence development, and thus make it easier to design relevant courses with enough participants. With this branch-orientation as a point of departure, the next question was which branch to start with. Two branches appeared as obvious candidates. Both the IT-branch and the leisure-boat-branch were significant branches in the county, and at the same time they were weakly organized as branches with little internal collaboration. Thus, an effort to organize collaboration by setting up a competence committee would in itself make a contribution on the branch level, and not compete with other branch-organizations. Whereas the leisure-boat-branch consists of a number of smaller, independent producers, the IT-branch has some of the larger enterprises in the region. One of the most well known was the Ericsson plant, which already participated in one of the other sub-projects under the heading of the Nordic Project. Thus the contact was already established on the competence issue, and as the IT-enterprises responded immediately on the preliminary contacts that were made, the Nordic Project set out to establish collaboration with the IT-enterprises.

A small contextual remark might be relevant here. While the IT-industry until this point not had been able to organize joint training rings or training centres with a practical, down-to-earth approach, the industry had organized a broad network on top management level called the “Agder IT-Ring” with about 35 members at this point. This larger group of enterprises was rather heterogeneous, as “information technology” as the common denominator allows for a wide range of activities. The Agder IT-Ring also had competence as one of their core concerns, but was geared toward broader discussions, exchange of experience between the managers, supplemented by inputs from outside resource persons, and the like. In other words, the Agder IT-Ring was not attempting at generating concrete training efforts the way the Electronics Committee was, and as one informant stated, the Electronics Committee was regarded as a “very important supplement to the IT-Ring”.

Addressing the production level

It was soon decided that the training should address the production level in the enterprises. From the enterprises point of view this level was in the greatest need of strengthening their competences to keep up with recent developments in production technology and quality

demands. From the Nordic Project's point of view several reasons supported a focus on the production level. For once, this was the member group for the LO. Production workers also represented the largest number of employees and thus was the group where the public actors could «help» the largest number, a reason with good currency among the public actors. Addressing production also had its reasons from an unemployment perspective. Production workers were the first to drop out in times of downsizing or other major restructurings in the industry, and the workers with the lowest competence would typically go first. Competence development were seen as a way to help them keep their jobs by being more attractive employees during changing and challenging times, and also to give them a better chance of getting a new job in case they were laid off. In addition, production was the competence level most accessible for the main body of the unemployed, i.e. potential employees, and thus represented a potential area for "consumption" of unemployed in better times¹⁰⁴. Being in close contact with the enterprises on this issue was desirable as it opened up for such as specialized training of unemployed to match the specific demands of an enterprise. This link to future employment possibilities was especially important to the Employment Office.

Which enterprises to include?

In composing the committee, similarity in production was emphasized. Similar production would increase the likelihood of finding shared areas for competence development across the enterprises. In addition the participating enterprises could not have a direct competitive relationship as this was assumed to hamper collaboration. At least the competition would have to be of such a nature that the intended collaboration about competence development of production workers was not affected. Naturally this was checked out with the enterprises

Both the number of employees in need for training and the anticipated potential for future expansions were reasons why the three largest producers of electronics, rather than the smaller, were asked to participate in the committee. These were Ericsson, ABB Nera and

¹⁰⁴ The unemployment rate in the early 90s was regarded as very high by Norwegian standards, reaching its peak in 1993 with a national average unemployment rate of 6,0 %. (Statistics Norway, 1997). This number does not take into consideration the large number of people on various public support programmes. Addressing this issue was a major societal concern that drew a lot of public attention.

Kitron¹⁰⁵. Even if the IT-sector in the region counted a larger number of enterprises, these few larger firms were the electronics *producers*, and represented the vast majority of the employees. However, helping the big and not the small was a concern among the initiating actors, who nevertheless settled for the few and the big in trying out this new way of organizing collaboration. This concern led to an expansion of the Committee some years later.

The Employment Office also included Agder Produkter, a sheltered enterprise¹⁰⁶ where parts of the employees were on vocational rehabilitation. This enterprise worked closely with the Employment Office on the rehabilitation, and besides the competence issue, one of the intentions behind including Agder Produkter in the committee was a hope to get more commercial orders from the other enterprises as an effect of closer contact and better knowledge about Agder Produkter.

The enterprises' motivation to join the Electronics Committee was primarily based on economic considerations: it was too expensive to do all the required training by themselves. Both the collaboration with the other enterprises sharing the costs of joint courses, and the economic support available through the Employment Office was attractive in this respect. Secondly, joining in with other enterprises would give them a much stronger voice on competence matters in relation to educational institutions, political authorities and other relevant parties, a voice they successfully used.

Organizing the Electronics Committee

The general idea behind forming the group was to bring enterprise representatives together and explore their shared needs for competence development. Based on expressed joint needs, the group should design tailor-made training programmes where the Employment Office contributed the organizing effort and access to public economic support. The project manager very consciously invited the production managers of the enterprises to participate in the group,

¹⁰⁵ The four enterprises that joined the Electronics Committee from the beginning were Ericsson, Kitron, ABB Nera and Agder Produkter. The production unit of Ericsson was sold in 1997 and continued under the name of Sonec with 282 employees. ABB Nera became Nera over the years, and subsequently became a part of Kitron in 1997. The Nera-unit had 120 employees and Kitron 330. Agder Produkter has two units, adding up to 364 employees. This adds up to 1096 employees. All figures by February 1998.

¹⁰⁶ In Norwegian: "Arbeidsmarkedsbedrift".

not for instance the director of personnel or the CEO. It was regarded as essential to the dynamic of the group that the participants knew the needs of the production workers as well as possible, and also were in the position to make decisions regarding who, how many and when employees could be taken out of production to attend courses. Naturally, this would be linked to the concrete work planning and knowledge about the workload ahead. Alternative representatives were assumed to need to go back and check with the production manager anyway, then without having him to participate in the discussions.

As an effect of the participation by LO in the project group, two employee representatives were also invited to participate in the competence committee. It was assumed that the majority of the training efforts would be directed towards the shop-floor level, and thus input from this level in the discussions in the committee was regarded as highly relevant.

The initial composition of the Electronics Committee thus was the project manager from the Employment Office, one production manager from each of the four enterprises, and two employee representatives.

The role of the public officer

The project manager from the Employment Office took on the role as a secretary and coordinator of the Electronics Committee, and chaired the meetings. In many instances he was also the main organizer. It was regarded as problematic if one of the enterprises should have a leading position, so this impartial role taken by the project manager was seen as instrumental in making the Committee function. He kept minutes of meetings, sent out information and calls for new meetings, and functioned as a point of contact for the enterprises when they saw the need for a new meeting or if anything was unclear regarding the ongoing courses.

In the meetings he would contribute with information about the available public funds that could be utilized in connection with the proposed training efforts, and in that way contribute in the search for practical solutions in designing the various courses. His knowledge about the whole public system, i.e. not only the available means from the Employment Office, became an increasingly important dimension to his role. He thus served as a link to the rest of the public support system. As the Free-County Experiment progressed parallel to the existence of the Electronics Committee, the officers from the Employment Office, who changed over the

years, reported that they gained increased knowledge about the total set of means available through their participation in collaborative settings with the county departments. In other words, a spin-off from the collaborative efforts in the Free-County Experiment was the increased ability to represent the whole public system in discussions with the enterprises.

Initially the project manager from the Employment Office was the link to the competence providers. After a meeting where concrete needs had been expressed, he would take them to the most relevant competence institution where he would communicate the needs, discuss the possible ways of organizing the courses, and bring this back to the group. After the first few meetings it became clear that most of the proposed trainings would involve one specific competence institution, the Agder Maritime Technical School. Instead of repeatedly going to the head of the training centre at the school to discuss these matters, he was invited in as a permanent member of the Electronics Committee. The Committee now counted 8 members.

In fig. 10 below the stakeholders and their primary input to the Electronics Committee are visualized. The enterprises come to the collaboration with their training needs. The public support system, i.e. the officer from the Employment Office, contribute financial support and administration of the Committee. The competence institutions contribute the needed competence in the form of qualified personnel to train the employees.

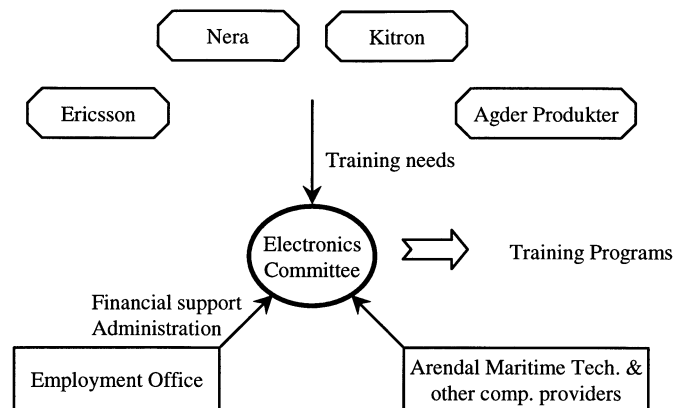


Fig. 10: Stakeholders in the Electronics Committee from 1992

7.3 What have they been doing?

Mode of operation: workshops

The main mode of operation in the Electronics Committee has been to arrange *workshops* where all the members jointly have generated training programmes or courses. This mode of operation has been maintained throughout the now 7 years of existence. The functioning of the Electronics Committee can be characterized by the following key words: need-based, result-oriented, conversational, informal and low-cost.

Need-based and result oriented

From the start it has been a central concern from the initiating actors of the Nordic Project, not least the Employment Office, to demonstrate usefulness to the participating enterprises, and not spend time on unnecessary meetings. Thus, the Electronics Committee has attempted to ground their activities in the needs of the enterprises in the sense that workshops have been arranged on the basis of concrete interests or needs reported by the enterprises, and not based on for instance a pre-defined schedule or administrative issues. This logic has implied irregular time intervals between the gatherings of the Electronics Committee, ranging from less than a month to several months. At times the next meeting would be scheduled at the present workshop, while other times one of the enterprise representatives would contact the officer from the Employment Office, reporting the need for a training effort. The officer

would then contact the other members and arrange for a workshop. Some times the officer would also take the initiative and make contact with the enterprises inquiring into their situation and possible training needs, and in that way mobilize the enterprises to meet.

In addition to taking the expressed needs as a point of departure, it was of course crucial for the existence of the Electronics Committee to demonstrate a capacity for generating actual training programmes meeting these needs. The enterprises would evaluate the usefulness of the Electronics Committee based on this ability. One would imagine that failure to meet these requirements most likely would lead to withdrawal of the enterprises, a situation that has not occurred.

Conversational

The workshops have not been a negotiating setting where give-and-take has been the dominating mode, neither a bureaucratic setting where rule-following, formalities and procedures have dominated, but rather a *conversational* process of an exploring and solution-seeking nature where the participants jointly have generated a design for a concrete training effort at the end of a workshop.

At the workshops the conversations would typically depart from an expressed training need from one or more of the enterprises, followed by an exploration of the desired skills, why the training was important now and what it should achieve in the enterprise. Similar needs in the other enterprises were checked out, often leading to discussions about what the training should be about, and how this might or might not fit the competence at the school. Possibilities for financial support from the public system were explored, and the concrete organizing of the training effort were sketched.

Most often details regarding time, place, the exact number of employees attending the course, etc., would be handled after the workshop in direct conversations between the involved enterprises and the competence provider. At times the very content of the course would also be extensively discussed in a period after a course-generating workshop. The production managers would then go into a discussion with the teachers, assuring that the content of the course would meet the needs of the employee-group as well as possible. Such as new production technology, new products or increased quality demands or specific problems in

production would often be the basis from which the production managers would argue their needs and attempt at defining a suitable design of a course.

The courses initiated in the workshops would be run as projects with a specified financial package, a time frame or exact schedule, and a specified content and participation.

At times the courses had to be arranged within a rather short time from the need was identified. Even if the need was identified well in advance, the enterprises occasionally were not able to specify when the training best should be phased in with the variations in production. The best time to arrange the courses was when the production volume went down, and that could happen with relatively short notice, for instance due to changes of orders from customers. This was a special challenge to the manager of the training unit at the Arendal Maritime Technology School. Organizing training efforts that involve teachers with their own schedules and main activities elsewhere, is a demanding task. I will return to this issue below. The enterprises were encouraged to plan ahead to avoid the difficulties of unavailable teachers, but a longer planning horizon was hard to establish for the enterprises because the problem of predicting phases of low production, and because the actual need sometimes was hard to settle. Often the training needs were linked to new production contracts and orders coming in, orders for new products that called for new skills, or just shifts in the production volumes of existing products that demanded internal reorganization of the production personnel. Before the contracts came in, the enterprise would not know the needs exactly. After the production contracts had arrived, the enterprises were usually in a hurry.

Informal

The Electronics Committee was from the start experienced as an informal forum where a small group of people with mutual interests were getting together to make things work. Quite soon it showed that the “chemistry” between the 8 members were good, and the group established a friendly, trustful, informal, but still result-oriented style of conversation. The representative from the Employment Office would chair the workshops, but in a very informal manner, allowing for loosely structured workshops. The structuring elements of the Electronics Committee-workshops were the minutes of meetings and the agendas. The rest would be an open conversation. The importance of the informal or friendly style was highlighted by the participants. “That’s why it worked so well”, one informant reflected. The

small size, lack of conflicting areas and the experience of achieving results brought the group closer together and contributed to the development of good social relationships, which again stimulated the working conditions in the group. The Electronics Committee did such as going out on town together before Christmas, and they even took the ferry to Denmark at one occasion, combining work and pleasure. The representative from the Employment Office illustrates the positive experiences from the Committee: "I really enjoyed being in the group, I learned a lot and had a good time."

Low-cost

There were no direct costs associated with running the Electronics Committee except for the time put in by the participants. No administrative costs, no expenses for hiring rooms, etc. The employment officer was a project manager for the Nordic Project on 40 %, and managed this sub-project within this time frame. As such one can say that the Employment Office contributed to the running of the Committee. For the school representative, who was the head of the training unit at the school, participating in the Electronics Committee was not an extra burden; rather it was an effective way of doing his job.

In running the courses the BRO-funds played a central role. As we remember, the BRO-funds were a regional construction made possible through the Free-County Experiment, and composed of BIO-funds and DU-funds. Both the Joint Project and the Electronics Committee thus benefited from this fund-arrangement. The sizes of the available funds were subject to political decisions, especially the BIO-funds would fluctuate in correspondence with the unemployment rate. In the early 1990s the unemployment was high, with a correspondingly generous size of the BIO-funds.

In co-financing the training efforts with the enterprises, the public side would on average contribute about 60 % of the cost for teachers, localities, equipment etc. by using the BRO-funds. Other support measures from the portfolio of the Employment Office were also utilized, such as the so-called "stand-in arrangement" which gave enterprises stand-ins for employees attending training.

The training

Initially, the idea from the project group in the Nordic Project was to increase the number of craft certificates in “service-electronics” in this branch, but from the start the enterprises communicated other, more pressing needs. The project manager recalled:

“We chose to start with the concrete short term needs, but were in agreement with the enterprises that we should move on to §20-courses after a while.”

The first course generated by the Electronics Committee was basic training in the use of personal computers. This was a very pressing issue for the enterprises, as use of computers in the production sphere was on its way in at that time. The Employment Office thought that the enterprises should have been able to handle this specific training need on their own, but the potential for further training into other areas seemed good, and also nothing seemed to happen if the Employment Office did not contribute. At least this was the impression held by the project manager, so they decided to support this training effort after all. About 100 employees from the four enterprises participated in the PC-courses.

The second course they started was on foreman development. This was a 3-weeks course with about 40 participants. The two main issues covered were use of computers in daily work and how to be a manager of shop-floor workers. Similar to the shop-floor workers, use of computers was new to the foremen, and as always, the foreman role was in transition and partly under pressure. The production managers started out by communicating the general need to do something with the foreman level in an Electronics Committee meeting. A rough idea about the content of such training was brought to 3 upper secondary schools¹⁰⁷ by the project manager. This issue was not of an exclusively technical character, and thus other competence institutions than the Arendal Maritime Technological School were relevant providers. Because of the public co-financing of the training efforts, in principle there had to be an open invitation to all the regional competence institutions to bid for the contracts. When there were any doubts that Arendal Maritime Technological School was the only regional competence provider on a particular issue, the other alternatives were invited in.

¹⁰⁷ The three upper secondary schools collaborating on this training effort were Barbu Videregående skole, Arendal Yrkesskole and Arendal Maritime Tekniske skole.

After the contact between the production managers and the teachers was established, the production managers went into direct discussions with the teachers independent of the Electronics Committee, specifying the content of the course. The result was that the 3 upper secondary schools collaborated in arranging the 3 weeks course, with a strong ownership to the course by the production managers, and financial support from the public system.

Subsequently, the Electronics Committee started so-called §20-courses leading to craft certificates as service-electronics. Most of the lowest level employees in this industry are women, often doing assembly work. Unskilled workers took these courses that brought them up to a craft certificate. In one instance in the early phase of the Electronics Committee, more than 10 of the workers who got a craft certificate, mostly women, later continued their education in electronics on a technical college. The project manager stated:

“This is the best equal opportunity-project I have ever participated in - and equal opportunity or gender was not even an issue!”

The Employment Office contributed with their stand-in arrangement where unemployed stepped in for the employees attending the courses. Prior to this, the unemployed were taken through a training session to prepare them for the work in the enterprises. This arrangement supposedly benefited all parties; the enterprises could send their employees on long-term courses without serious production problems, and get their employees back with a higher competence. In addition they got the opportunity to try out potential future employees. The unemployed got both training and a practical experience that might qualify them for future work if they wanted to pursue their career in this direction. In any case it would be an advantage to have held a job recently when they would go back to applying for jobs.

The production methods in the enterprises changed in this period. This called for training in subject like methods for surface treatment, soldering techniques and knowledge of components. Special courses on specific machinery were also arranged, as well as courses in logistics and purchasing. In those instances enterprises from other industries also participated in order to fill up the courses. The levels of the courses varied, while most could be handled at the upper secondary level.

Some of the courses were held on daytime, others partly daytime, partly in the evenings. It was tried out to run courses only in peoples spare-time, but that was a too heavy burden on the employees, and did not work out well. They arrived at a general model where they ran the courses partly during work hours, partly on the employee's spare time.

Ending the project, continuing the collaboration

The Electronics Committee started off as a project with the expressed intention to continue operations if the collaboration was seen as successful. The intention and the design of the committee was all in the direction of creating something that could serve as a meeting point between the actors over time, and not only be a short time project. Under a year after the start, the project-phase formally ended in the summer of 1992 when the Nordic Project terminated. The involved stakeholders saw no reason to stop the productive collaboration they had started, and the Electronics Committee continued its existence as a more institutionalised collaborative forum. To be precise, the name "the Electronics Committee" was not introduced until well after the formal project period. Before this, the group did not have a name, but was a project with a long explanatory title. For simplicity reasons I have chosen to use the term Electronics Committee throughout the case description. The naming of the group at this stage can be seen as an expression of the institutionalisation, signalling a clearer and more independent identity.

After the Nordic Project ended, the project manager went back to his position at Arendal District Employment Office, but continued to work with the Electronics Committee on the side. After a while it became clear that the Electronics Committee involvement took up too much time, as it was not defined as part of the job he held. One of his colleagues had 25 % of his time dedicated to industry-related work, and in 1993 he took over the role as the Employment Office representative in the Committee. Convinced of the need for direct involvement with industry, the initial project manager also managed to convert a position at the Employment Office to an "enterprise-officer" position, a position that implied special responsibility for working with industry. From the previous cases of this thesis we recognize this position, and the experienced officer who got the job around the 92/93 turn, still held the position by 1998. As we remember, he was central in the final implementation phase of the Joint Project, involved in the Wood Centre case, and later we shall see that he took over the

secretary function of the Electronics Committee and initiated the diffusion of the Electronics Committee model.

7.4 Expansion and redirection

The Joint Project intervenes - new enterprises join

The three cases of this thesis run in parallel and address the same issue: interorganizational collaboration about competence development. Rather than being independent trajectories, the development processes of these efforts are intertwined, as stakeholders overlap between the cases¹⁰⁸. Especially on the public side the stakeholders, in the form of concrete individuals, move across the various initiatives.

As we recall from the first case, the final implementation phase of the Joint Project started in the fall of 1995 when the enterprise officer from the Employment Office was appointed to do the job. In addition to organizing training efforts with groups of enterprises, he also sought to stimulate the formation of more permanent network constellations in branches, often in the form of training rings. This was one of the intentions present in the early documents of the Competence Development Programme, but the idea had not achieved sufficient attention to become a major project on its own. Stimulating network formations was rather a general feature of most of the industry-directed activities from the public actors. Especially the Employment Office would demand that enterprises collaborated before the office would go in with their support. This was foremost because the Employment Office was concerned about not to interfere with the competitive relationships between the enterprises. It was also based on both a practical need to reach more enterprises and employees, and a belief that the enterprises themselves would benefit from collaborating with each other.

The enterprise officer running the Joint Project at the time was a senior colleague of the employment officer who chaired the Electronics Committee. The enterprise officer suggested that the Electronics Committee took on the ambition to become a competence committee for the whole county on IT-production, and not limiting themselves to the four largest enterprises. The suggestion was accepted by the Electronics Committee, and Scan-Matic, Scana Moland

¹⁰⁸ All the 7 Electronics Committee member enterprises also took part in the Joint Project (see Johansen og Sundtoft 1996c).

and Hernis Scan Systems joined the group. These enterprises were considerably smaller than the original members, averaging about 25 employees at the time.¹⁰⁹ The Committee now counted 7 enterprises with a total of 1200 employees, representing the vast majority of the production-oriented IT-enterprises in Aust-Agder.

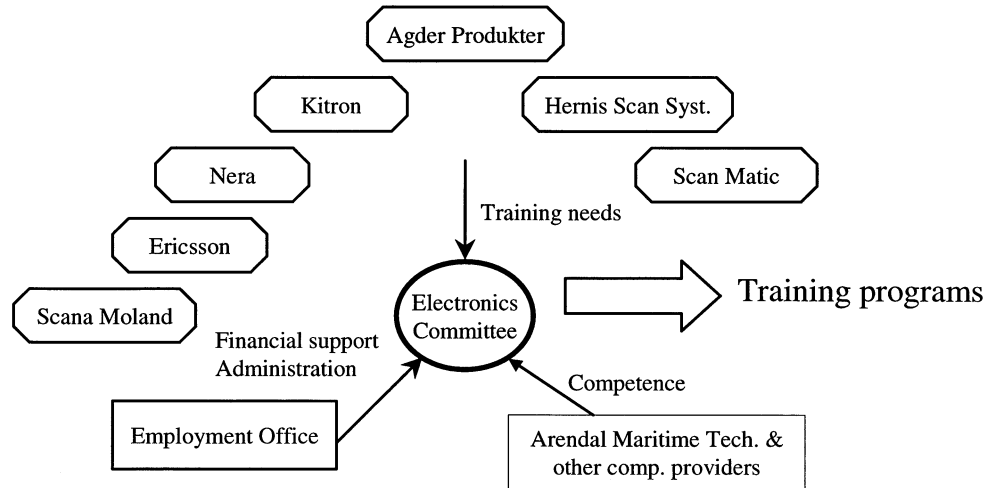


Fig. 11: The Electronics Committee stakeholders from 1995

Changing dynamics

Increasing the size of the Electronics Committee with the smaller enterprises added a level of complexity. While the larger enterprises could send for instance 10 employees at a time to a course, the smaller enterprises tended to have one here and one there, and the needs were also somewhat different at times. This made it more demanding to fill up courses to arrive at an acceptable price level. Whereas the new members contributed positively to the group, according to the old members, the increased size in itself as well as not sharing the pre-history made the group dynamics somewhat more complicated. "It was easier in the period with only 4 enterprises", one informant admitted.

¹⁰⁹ By February 1998 Scan-Matic had 29 employees. Scana Moland had 31 and Hernis Scan Systems reported 44 employees. Including the four larger enterprises, this adds up to 1200 employees.

Time	Course of events	Phases
1990	The Nordic Project starts.	
1991	Start of the project to establish a competence group in the IT-branch. Ericsson, ABB Nera, Kitron and Agder Produkter participate.	Initiation
1992	The representative from the Arendal Maritime Tech. School joins the group. Summer 1992: The Nordic Project ends, and the ITCC continues.	Institutional-isation
1993	The initial project manager withdraws from the group and is replaced by a colleague from the Employment Office.	
1994		Operation
1995	Scan Matic, Scana Moland and Hernis Scan Systems joins the ITCC on request from the enterprise-officer. Total number of employees: 1200.	Expansion
1996	The second ITCC-secretary is succeeded by the enterprise-officer. Change of focus towards recruitment.	Redirection
1997	The Network Project starts.	
1998	The Network Project ends.	Diffusion

Fig. 12: The course of events

Pulling out

Ever since the second secretary from the Employment Office succeeded the project manager who initiated the Electronics Committee, he was told not to get too involved and take over the operations of the Committee. If the activities were important enough to the enterprises, they would finance their own administration, it was argued. Make them take the responsibility, and don't get "trapped", was the warning. The Employment Office saw themselves as initiators of collaborative efforts, and then helpers on the way to a more independent situation, but not as permanent secretaries doing work for the enterprise groups or networks.

The reason for this attitude was partly that they worried about achieving real enterprise ownership to the effort when they continued in a central role. Enterprise ownership was perceived as an important guarantor for relevance and quality of the efforts. But foremost it was based on their role as a public service with strong norms of equal service to everybody. In the county there were a number of other branches with similar needs, and with this logic the Employment Office could not go on giving special service to only one branch or industry for a longer period. The Employment Office did not object to participating in such fora on a permanent basis, it was the overall responsibility and central role in running the collaboration they did not want to have. The second secretary for the Electronics Committee repeatedly attempted to convince the group of enterprises that they should establish their own training office or -ring with their own manning, but as long as everything worked fine for the enterprises, his arguing was fruitless. Urged by his superiors and colleagues, he started to withdraw from an active role in 1996, though avoiding to officially leaving the committee.

Other changes also influenced the activity level of the Committee. In 1997 the production department of Ericsson was sold out and established as Sonec, and staffed by the former management at Kitron. By this restructuring and a modification of the production profile at Sonec, who no longer produced exclusively for Ericsson, the two enterprises became more of competitors than before. This complicated the internal dynamics of the group somewhat, but did not keep the enterprises from collaborating on recruitment issues when this increasingly came to the foreground.

Changing needs: lack of qualified people

Prior to the withdrawal of the second secretary for the Electronics Committee, changes in the industrial context gradually led to a shift of focus for the committee. The unemployment started to decrease substantially in 1996 both nationally and in Aust-Agder county. The county was also in a better position relatively to the other counties and had moved from the bottom of the statistics to above average on the unemployment rate. The expanding activities in industry led to a shift in the needs of the enterprises; from focussing on training of employees, the most urgent problem became recruitment, interpreted by the Employment Office as need for more traditional employment service. The shifting needs of the enterprises, at least seen from the perspective of the Employment Office, coincided with changes in the operating conditions for the Employment Office, and thus a different role for the office emerged.

The Employment Office is subject to heavy political influence and central governance from the Directorate of Labour. As the national preferences turned from reducing unemployment to providing enterprises with qualified personnel, available funds for in-company training were dramatically reduced. The BRO-construction ceased to exist from the beginning of 1996 after the termination of the Free-County Experiment, and now the BIO-funds administrated by the Employment Office were reduced as well. This reduced the manoeuvring possibilities of the regional Employment Offices, and diminished their role as an active partner in competence development in the enterprises. An informant from the Employment Office stated:

“Due to the lower unemployment and even lack of people in certain branches, the Employment Office now focus narrowly on traditional employment service: finding people for vacant jobs. This focus turns the Employment Office away from development-oriented activities, which is a pity. It often shows that an initiator (pådriver) is needed, and we have had such a role. Now it is more up to personal interest and commitment.”

However turned away from competence development in the enterprises, the Employment Office continued to regard themselves as an important partner for the enterprises, but now in the field of qualifying unemployed to meet specific recruitment needs. The main financial means available now were the AMO-funds, funds that could be used to train unemployed. When one or more of the Electronics Committee-enterprises reported that they would need so and so many new workers with so and so competence level, the Employment Office would organize training to bring unemployed up to the desired level, and thus provide the unemployed with very high likelihood of getting a job after completed training.

Getting in again: the Network project

In 1996 when the second secretary of the Electronics Committee had reluctantly withdrawn and the focus were shifting towards recruitment, the enterprise-officer was working on the last implementation phase of the Joint Project, organizing training efforts for a large number of enterprises. Continuation of the Joint Project was introduced as a central issue to the Joint Project-partners, and the idea to move in the direction of the Electronics Committee-model as an attempt at institutionalising was introduced. With the changing context for the Employment Office and their reduced role in financing in-company training, the enterprise-officer started to develop a project proposal more in line with the present goals of the

Employment Office. This project should seek to establish collaboration between branches and the public support system on a broad basis, but with a clear bias towards the Employment Office (Rygh 1997). A small work group of employment officers was established to develop the concept further.

More or less accidentally, the proposed network project coincided with ideas in the Directorate of Labour, who wanted to establish branch-wise «Resource-offices» at the district employment services. These Resource-offices should take care of contact with their respective branches in the county. This thinking matched well with the ideas of the enterprise-officer, who got funding from the Directorate for a one-year project starting in early 1997.

The work group arrived at the notion of a “Contact Committee” for each branch, a modified version of the Electronics Committee. The Contact Committees should be composed by employers, employees, representatives from the district employment services, training rings or an especially relevant competence institution, and also representatives from the District Development Teams. The District Development Teams were developed as part of the Free-County Experiment with the purpose of integrating public actors on a level between the municipalities and the county administration. The District Development Teams had gone through a positive development trajectory during the Free-County Experiment, and were highlighted in the evaluation as one of the most successful parts of the Experiment. Their formalized link to industry was however not strongly developed at this point. In establishing a stronger link between the enterprises and the public support system, the link to the District Development Teams also had to be secured. Due to multiple roles among the actors, such as both being an employment officer and a member of a District Development Team, the same persons could take care of more than one function. This general model would be adopted and modified according to the specific settings in each branch.

The enterprise-officer wanted a flying start for his new project, and linked up to the Electronics Committee who had not had meetings for a long time. At the first meeting he presented the situation and asked for a redefinition of the committee, which implied including recruitment as one of the core activities together with competence development, expanding the committee with a representative from a district employment service, and re-naming the committee to the “IT Contact Committee”. The proposal was accepted by the members.

Again a project had intervened in the course of the Electronics Committee development trajectory. Now the attempted continuation of the Joint Project, the re-direction of the Electronics Committee and the role of the District Development Teams came together in an attempt to further strengthen the collaborative structure in the county.

Revival

In the new construction it was still up to the enterprises to discuss whatever they found relevant, being competence development, recruitment or other related issues. Their needs were still the focal point. Comparing the Electronics Committee to the Joint Project, the enterprise-officer reflected: “the mapping of needs we did in the conferences, we are now doing in the committee”. Naturally the Employment Office signalled what their contributions might be, and this of course influenced the direction of the conversations.

The internal functioning of the committee was somewhat altered by the increased size. The Electronics Committee was now too big to be effective for more detailed work, and ad hoc work groups were set up to handle specific tasks. These workgroups would also include other representatives from the participating organizations that the regular members. The Electronics Committee also started to invite central actors to specific meetings according to the issues the enterprises wanted to rise. This more flexible and issue-based participation was meant to secure relevant participation without increasing the number of permanent members to impractical numbers. The ability to identify the relevant actors for an issue relied on a good knowledge of the public system, a knowledge and overview the enterprise-officer felt he had greatly developed during the Free-County Experiment.

During the Network-project the enterprise-officer was willing to «throw in a little extra» in terms of work for the Electronics Committee. He chaired the meetings, but he managed to make the representative from the Agder Maritime Technology School take care of the paperwork.

The Electronics Committee had an increased activity level during the fall of 1997 with frequent meetings where they organized training efforts mainly from a recruitment perspective. Despite the reduced possibilities of the Employment Office to finance training of employees, there were still some alternatives left that allowed for creative solutions. In one

instance, some of the enterprises wanted to send some of their uncertified, but experienced workers on a theory-course in order to prepare them for an official craft certificate. "How can you contribute?" the enterprise-officer was asked. The course would run over 16 weeks, and the absence would be difficult to handle in production. The enterprise-officer could then use their stand-in arrangement, which means that they take unemployed, train them and place them in the enterprises as stand-ins while the original employees are away. It takes some effort to identify good candidates among the unemployed and design the trainings. A work group was therefore set down to take care of this, as it was not relevant to the larger Electronics Committee. The enterprises interviewed the potential stand-ins and closely followed the process.

The ad hoc work group also managed to get the course itself paid by a special fund for craft certificates, a rather small fund with large competition. Only schoolbooks had to be paid by the enterprises. Linking these support measures thus created an attractive qualification programme for employees even if the Employment Office in a sense were out of that business. In the concrete courses, the Employment Office included more unemployed than the enterprises needed, and took the surplus further on through the theoretical training along with the employees. In this way the Employment Office managed to train the extra unemployed people very cheaply.

Further developments

So far the Electronics Committee has focussed on lower level training, and has more or less covered the ground on craft certificates for the time being. This does not mean that there is no need for training, on the contrary. The dominating enterprises signal that increasing automatizing of the production and changes of product specifications demands a higher competence level than before. This means educations of 2-3 years in electronics¹¹⁰ for production workers. However, these long educations of a more ordinary educational character are at the present not so easy to follow up for the Employment Office. They strive towards supplying work life with personnel as fast and cheap as possible and are evaluated on their ability to do so, so there is a drive towards making the trainings as short and cheap as

¹¹⁰ In Norwegian: A competence level equivalent to VKII.

possible. This might be easier achieved in other branches. But keeping it short becomes increasingly difficult due to more general structural changes in the labour market; when the unemployment rate goes down, the competence level among the unemployed also goes down. Those with the lowest competence are the last to get jobs, and this creates an increasing gap between the competence level asked for by the enterprises and the competence level among unemployed. This might force the Employment Office to engage in higher-level qualifications, probably involving other actors on the public side for co-financing, such as the county administration, and also the enterprises themselves by providing practical training opportunities.

Diffusion

The Network project terminated at the end of 1997. Modified versions of the Electronics Committee-model are now being implemented in both the construction industry, the mechanical industry and in the leisure-boat industry, with the intention of diffusing it further. Thus the learnings from the Joint Project-effort, the District Development Teams and the Electronics Committee seems to be utilized still further in an attempt at creating an all encompassing collaborative infrastructure bridging public and private sectors.

Part IV: Analysis and conclusions

Chapter 8

Constructing Public-Private Collaboration: Organizing

8.1 Introduction

The journey of constructing collaborative relationships contain many aspects and dimensions that play together as the social process unfolds. This meaning of “construction” has two main dimensions, namely *organizing* and *process*. The one cannot be properly understood without the other, as the organizational forms influence the processes and the processes again influence the construction and reconstruction of the organizational forms. Organizing may be understood as a process, and processes do have structures and organizational expressions. In other words, these dimensions are interconnected. Therefore, there will be areas of overlap between organizing and process in the analytical chapters 8 and 9. This chapter answers the first research question about the organizational conditions for constructing a collaborative domain. I have chosen to discuss the role and function of the convener in this section because it relates closely to the issue of organizing, not least to the role and function of the referent organization. The chapter consists of analysis of individual cases, a discussion across the cases, and a summing up. It starts with a discussion of the initial step in constructing a collaborative domain, i.e. the convening.

8.2 Who should convene?

Initiating collaborative efforts

If public-private collaborations represent promising constructions for handling of complex developmental issues, a first question becomes how these collaborations are initialised, and by whom. Should public or private actors take on the convening responsibility in their regional setting? What are the critical aspects of the convening function? These questions are focused in this section. First I shall briefly highlight how initiating and convening took place in the three cases.

Convening in the Joint Project case

The Joint Project was born out of the Free-County Experiment as an attempt to address the issue of competence development on a regional scale. The initial identification of the issues in this particular setting was made by the heads of the county departments when they defined the main elements of the strategy for industrial development. Of course they did not define these elements in a vacuum, but in response to signals from enterprises and other work life actors, and also with a view to what they judged to be politically acceptable.

The first step in the convening process was to bring together the strategy team to spell out in which ways competence development was to be addressed. The county administration invited, or convened, some of the central actors at the policy levels (regarding competence development) to take part in the strategy team. In addition to representatives from the county administration itself, the NHO, the LO and the regional college were represented. This first convening of stakeholders may be seen as a temporary and transitional construction that served as a step towards the actual collaborative construction. Both the cross-departmental dimension in the strategy team and the participation of the Social Partners later proved to be important for the direction of the Joint Project. The work of the strategy team led to the construction of the Joint Project as a joint initiative between the Free County departments and the regional and national Social Partners. In other words, a collaboration between public and private institutions was formed. The coalition of the Social Partners and the Free County departments formed the core of this domain, and later exercised the convening function in relation to the enterprise population as a formal body inviting enterprises to participate. In practise, this was done by the project group.

The most important convening power of this coalition in relation to the enterprises was undoubtedly based on their legitimacy and credibility as the main work life representative institutions (LO and NHO), and on their control of resources (Free County money). Personal networks and personal credibility among key individuals also played an important role, especially in forming and manning the Joint Project itself. One has to bear in mind that the construction process did not happen in a setting of strangers, but in a context of criss-crossed personal networks and knowledge about each other from previous encounters.

The credibility of the Joint Project as a convening body suffered after the Motivation conferences, and direct, personal contact with enterprise managers took over as the main convening mechanism throughout the rest of the project. Personal credibility, knowledge about the subject matter, and the economic resources they could offer seem to have provided the basis for convening the enterprises in the latter part of the project.

As we have seen, the Joint Project grew out of a public initiative, but joined with central work life actors early on to create a template from which enterprises could be addressed. However, concrete enterprises were never integrated into the core of the Joint Project, but continued to have a form of customer relationship to this construction rather than developing ownership.

Convening in the Wood Centre case

The convening process in the Wood Centre case grew out of conversations between a small group of managers belonging to a regional employers association. They shared a growing concern about the low competence level of their workforce. The group realized that the enterprises were unable to address this issue on their own, and successfully brought two key persons from the educational sector into the discussion; the dean of the upper secondary school, and the head of the county Department of Education. This led to the first practical result: a class in carpentry was established at the upper secondary school. Notably, what happened here was that the enterprise managers created an alliance with public actors in order to improve on their problem area. To address the competence level of the people already working in the enterprises, 6-7 core enterprises formed a Training Ring and organized an education and training process towards craft certificates for their employees. Teachers were hired in from the school, and financing was granted from the authorities. In other words, the public-private dimension continued to be important. Bringing more enterprises into the domain was critical to achieve the sufficient economy of scale, and the core enterprise managers toured the potential enterprises to talk them into participation. A lengthy process led to the sufficient number of 45 apprentices from 12-14 enterprises.

The convening power in this phase of the case is clearly based on informal authority in the form of knowledge of the problem domain (i.e. the situation in the enterprises and the importance of competence development) and personal credibility. The founding group of enterprises *together* achieved a level of authority and influence that made it possible to

convene other enterprises and expand the domain beyond the critical size. This is an example of what Wood & Gray (1991) term “convening through layers”, where a “first-order collaborative alliance” convenes the “second-order collaborative alliance”. As we recall from chapter 6, more enterprises joined as the mission was broadened, and a couple of years after the start of the training, the collaboration counted 25 enterprises. The routinized convening function in this period was with the small secretariat, but key managers actively initiated changes and brought other public actors into the process that subsequently led to the forming of the Wood Centre. Public and semi-public actors were mobilized by the key actors at the points of transition, and helped to create the hybrid construction that eventually led to an independent service centre for the domain of wood industry with 51 member enterprises.

This is an example of a stepwise convening process that starts with a few visionary individuals who are able to phrase a shared problem, suggest a collaborative solution, and then form a group as a basis for convening other public and private stakeholders. Formalizing the collaboration into a Ring and later a Centre with a board of enterprise managers, also provided a formal template for approaching public actors that could play a role for this construction.

Convening in the Electronics Committee case

The Employment Office initiated this collaboration based on their own visions of how the Employment Office should seek to work with enterprises and utilized public resources. The first convening step was to form a project group consisting of LO, NHO and representatives from the relevant county departments. This was done with a view to the newly started Free-County Experiment to secure legitimacy and sufficient coordination through overlap of personnel. This project group invited a number of enterprises from the electronics industry to form a committee that should address their own needs for competence development. As we recall from chapter 7, the invited production managers, union representatives and the representative from the Employment Office constituted themselves as a group from the start, and immediately began to address their joint training needs. Soon the head of the training centre at the most relevant school was included in the committee. After the first convening, further participation to a large extent rested upon judgments of the output of the collaborative construction. The further convening of the group was partly done by the representative from the Employment Office as the secretary for the group, but was to a large extent initialised by

the enterprises themselves based on their own needs. When they became aware of an upcoming challenge that would include needs for training, they would contact him, and a meeting would be called.

The initial convening “power” in this case rested again primarily on the resources which the public actors could provide, coupled with the legitimacy of the project group as inviters, and supported to some degree of personal networks, i.e. individual credibility. The conveners were obviously capable of envisioning a purpose for the collaboration so it appeared desirable to the enterprises to participate in the first round, as well as fitting the new ideas from the Employment Office.

As we have seen, the vision or basic ideas in this case originated in the public sector, but the convening process soon brought enterprises on board to provide for development of ownership.

Convening: Cross-case discussion

In discussions of collaborative strategies for industrial development and enterprise development, an issue often raised is the question of who should initialise the collaborative efforts. The positions range from a “bottom up” attitude where everything must come from the enterprises themselves, which leaves public actors passive, to positions where the public actors in the field of industrial development create the “perfect” support measures based on extensive mapping and general knowledge about what the enterprises need, what creates good industrial development etc. - without having concrete enterprises participating.

What can be learned from the cases on this matter? Of the three examples, two are initiated by public actors, and one by enterprise managers. This gives us a possibility to assess to which extent it is important from which sector the initial convening is done. In the further reasoning, judgements of the outputs and the development trajectories of the collaborations have to be brought in to assess the convening function. If long life of the collaboration with a corresponding survival of transitions, stable membership, low operational costs, short time from planning to implementation, and diffusion to other industries of the core concept, are indications of a fairly successful collaborative, the Electronics Committee must be judged as fairly successful. The other case initiated from the public sector, the Joint Project, has not survived the critical transitions, had high operational costs and spent a long time from

initiation to concrete implementation in the enterprises, and is thus less successful with respect to these criteria. The ongoing Wood Centre initiated by enterprises must also be assessed as fairly successful. What does this tell us? The first apparent point is that convening is not a question of public sector or not. Something else must be of a more critical nature.

If we look closer at the two cases initiated by public actors, the striking contrast when it comes to involving enterprises directly leads us to consider what happens *after* the initiative rather than who takes the initiative. In other words, it seems that the initiative itself can come from any of the stakeholders. This is supported by Gray, who concludes that “Initiatives for launching successful collaborations can originate from any of the relevant stakeholders” (Gray 1996:77). The decisive issue appears to be to secure a good anchorage in concrete enterprises as early as possible, which was done in the Electronics Committee and Wood Centre cases, but not in the Joint Project. A key here seems to be to secure sufficient ownership among all stakeholders from the start. Even if the expressed intention in the Joint Project was to involve the enterprises more directly, the pre-designed nature of the project meant that the ownership never was anywhere else than with the initiators. Consequently, one might add that even if the LO and the NHO are central actors in this respect and represent a majority of the enterprises, they are insufficient stand-ins for the real enterprises.

Further, it appears that the more developed the initiative gets in terms of both contents and structure before enterprises get directly involved, the harder it seems to develop the sufficient ownership among the enterprises. And without ownership and close participation from the enterprises it appears exceedingly difficult to construct support measures and corresponding institutional structures that meet the needs of the enterprises. The risk, and the all too typical situation, is that public as well as private non-enterprise actors in the field of industrial development set out to develop support measures that do not fit the population of enterprises they are addressing.

While the initial convening is given most if not all attention in the literature, and is of critical importance, the three cases also illustrate that convening is not only taking place in initiating the collaborative effort, but is also done throughout the collaborative process. Especially at critical turning points for the collaborative, the ability to reconvene stakeholders of the domain and include new stakeholders appears to be of critical importance. The unsuccessful

attempt to create a second Joint Project illustrates the inability to convene the critical stakeholders. The transitions from Training Ring, to Wood Ring, to Wood Centre in an hybrid structure, and finally to an independent, enterprise-controlled Wood Centre, all entailed convening processes reaching outside the core of the domain.

8.3 Summing up lessons learnt on convening

The lessons learnt on convening can be summarized as follows.

- The question of who should take the initiative and convene the stakeholders is not a question of either private or public actors. Legitimate stakeholders from either sector may initiate successful public-private collaboration. This supports the position that there is a role for public actors in creating collaborative developmental efforts.
- The critical point in establishing a public-private partnership to address enterprise development is not who convenes, but to immediately anchor the process with concrete enterprises.
- Convening is not only a question of the initial step in establishing a collaborative domain, but must be understood as an ongoing process, where various stakeholders may take convening initiatives. The ability to *reconvene* the stakeholders at critical junctures must be maintained in a domain that seeks to exist over some time. Assuring continuous *ownership* among central stakeholders seems to be essential in maintaining this necessary reconvening ability. The level of ownership benefits highly from direct participation in conversations about the future of the domain.

8.4 Organizing for development

After the initial convening of the stakeholders, a collaborative effort typically takes on some element of organizing in order to move ahead. In some instances, several organizational elements are introduced in the process, as in the Joint Project. In other instances the collaboration arrives at a form of organizing almost immediately upon convening the stakeholders, as in the Electronics Committee. The way these organizational entities are shaped, the functions they perform and their interrelations are thought to be significant for how the collaboration evolves.

The functions carried out on behalf of the domain by these organizational entities are termed *referent functions*. While the concrete functions are context specific, it is argued that three broad types of functions must be handled in order to manage a collaborative domain. Trist terms these functions *regulation*, *appreciation* and *infrastructure support* (1983). The organizational entity itself is called a *referent organization*, or where several entities perform such referent functions, the term *referent structure* is used¹¹¹. These concepts provide the entrance points to discuss the issue of organizing for development. “Organizing” in our setting takes on special dimensions because it regards *collaboration* between independent organizations, and because this collaboration regards *development*, rather than for instance conflict resolution. This section will discuss these organizational aspects of collaborative domains, and seeks to answer the research question of “How may the referent organization be constructed, and what are the roles and functions of the referent organization in its domain?”

Organizing and the Joint Project

Before I enter a discussion of the organizational aspects of the Joint Project, a brief recapitulation of the main stakeholders is needed. The process leading up to the Joint Project was driven by a sequence of small groups. The Executive Committee initiated the strategic process, the strategy team created the strategic plan, and the informal work group concretized the Joint Project and brought the national HF-B on board as a collaborative partner with the Free County departments. These small groups formed the Joint Project in a setting where the county politicians proved to be a critical stakeholder group.

The Joint Project itself was organized with a project group of 3-4 people and a steering group of approximately 18 people, as the Internationalisation program merged into the Joint Project. Key stakeholders behind this project construction were the county Executive Committee on the public sector side, consisting of the county department heads, and on the private sector side, the national HF-B and the regional Social Partners. It is among these key collaborative bodies and the individual stakeholders behind them that the referent functions were carried out before and during the Joint Project.

¹¹¹ See chapter 3.

Referent functions

Much of the critical elements in the Joint Project were handled as a part of establishing the project itself. The basic function concerning *regulation*, i.e. such as setting the ground rules, deciding the purpose, determining the criteria for membership and establishing the governing (referent) structure, was spelled out by the strategy team and later the informal work group. Therefore, the initial phase up until the start of the Joint Project takes on a special importance also in terms of handling referent functions. During the course of the project this is emphasised by the fact that there were almost *no* elements of redesign or modifications. That is, the central questions regarding who they were, the purpose of the collaborative effort, how they should operate, and how the project should be organized, were not addressed in any fundamental way after the project was defined. In other words, important referent functions were handled *once and for all* instead of being subject for an ongoing discourse by the stakeholders as the process unfolded and experiences were made. Therefore, the detailed pre-design removed important referent functions from the collaboration.

The second function, *appreciation*, which has to do with recognizing trends and issues, and agreeing on desirable directions for development and identifying the appropriate action, was also handled initially in the discussions in the strategy group and in the informal work group. On a more detailed level, the project group in the Joint Project itself handled this function primarily through the use of the motivation and mapping conferences where the enterprises were invited to express and discuss their joint development needs. Here we recall that the motivation conferences were rather unsuccessful, while the mapping conferences at least were partly successful. The conferences are more thoroughly discussed below. The more fundamental questions regarding the design of the project was not brought up in the course of the project.

Similarly, the third broad function, *infrastructure support*, was mainly handled in the process of establishing the Joint Project. The regional Social Partners together with the Free County coordinator played a key (referent) role towards the national HF-B to attract the necessary funds and establish legitimising relations. During the project, the question of infrastructure support came up again in the last phase when the county departments were supposed to take over the responsibility. The project group and the regional NHO and LO, who got the complaints from the enterprises they had handled thus far in the project, pushed on the Free

County departments to take action. This was partly done directly by the project group and by the Social partners, partly through the steering group, who soon proved to be without steering power in this matter. Infrastructure issues came up again towards the end, when the stakeholders attempted to create a second Joint Project. As the reader will recall, this referent function, which implied handling of external relations (to the national HF-B), was unsuccessful. We then have a situation where the majority of the referent functions were decided upon once and for all in a detailed design, and those who were addressed during the project, were largely handled unsuccessfully, maybe except for the «appreciation» made during the mapping conferences.

The conferences

The motivation and mapping conferences were key elements in the way the project group performed two critical referent functions. Bringing the enterprises into the collaborative effort was of course a precondition for the further existence of the Joint Project, and was thus a critical function to perform. Secondly, identifying the core task of the collaborative endeavour in more concrete terms for each enterprise, i.e. what to do in the enterprises, was a core function in order to move from the level of strategy to concrete competence development. A more detailed discussion of the conferences is therefore provided.

The motivation conferences

As indicated by the story from the first motivation conference, as well as the reported unrealistic expectations the enterprises got from these events, the concept of motivation conferences organized in this way had its shortcomings. Massive information given in one-day plenary sessions about the possibilities of getting financial support from the public system did not significantly increase the participants' knowledge about the support system, again according to their own evaluation, but it did give the impression that there was a lot of money in the system available for the enterprises.

The LO project coordinator who ran these conferences later concluded: "In retrospect, we could have done without the motivation conferences"¹¹². As it turned out, the project group

¹¹² Regardless of this reflection, the concept of motivation conferences was continued in the second application to HF-B (Stokken & Gramstad 1996).

had to make extensive contacts with each individual enterprise to make them participate in the mapping conference, which was how the actual “motivation” occurred. Later in the project the need to do active recruitment between the conferences decreased as the design of the mapping conferences was modified and especially because the enterprises tended to be better informed about the mapping conferences from informal contacts with other managers who had already participated in these conferences.

Was the idea of specific motivating efforts then a mistake? Quite early in the process the motivation conferences were reported as less successful with low satisfaction from the participants. Only few enterprises became “motivated” to join the mapping conference. Later, enterprises that wanted to join the implementation phase without having participated in the previous phases showed up without being “motivated”. This could be taken as indications of unnecessary efforts put into motivating the enterprises. The last case, however, can partly be explained by the fact that some of the latecomers were interested in the first place, but the timing of the conferences was bad for them. Partly the explanation is that the project coordinator in the implementation phase did put in a substantial effort to get more enterprises to join in order to fill up the courses. In other words, he did a lot of direct motivational work. Also the effect created by 60 partly well known enterprises participating in an effort like this in a relatively small region contributed at this stage. The enterprise managers’ networks most likely also functioned to get participants to the mapping conferences. Thus, it is fair to say that the way enterprises became motivated to join the mapping conferences and later to start training efforts changed throughout the project, and thus the motivational aspect has played a role, even partly an important one. But the motivation conferences proved inadequate as a method to motivate enterprises in this context. From the successful “motivations” in this story, one might draw the learning that motivational aspects should be *integrated* into conversations about the concrete development needs, and not handled as a separate “selling”-session. Thus, motivation and mobilization seem to be more a question of suitable strategies and methods than a misconception of the need for recruiting enterprises to such development efforts.

The mapping conferences

The mapping conferences seemed to function considerably better than the motivation conferences, as they also had a totally different design. As we remember, the mapping conferences were a modified version of the dialogue conferences (e.g. Engelstad 1995, Gustavsen 1990) with alternating group work and plenary sessions throughout 3 days, or more precisely, one evening and 2 full days. The groups were often composed differently from group work to group work to allow for exposing various experiences to each other, and in this case ending with a session where the representatives from the same enterprise focused on their own concrete needs and planned the further work.

Creating opportunities for enterprises to discuss development needs across the enterprises was reported by the participants as useful and rewarding, and the amount of training needs reported back to the Joint Project was higher than expected, all in all well over 200. The level, however, was mostly an upper secondary one, or at least could be handled by upper secondary level institutions¹¹³. To some of the stakeholders on the support side, this was a bit disappointing, for instance to higher level competence institutions such as Aust-Agder Enterprise Consultancy and Agder College. Also, competence development in the form of relatively short courses dominated, with less efforts of a more general enterprise development nature. This was also not as expected by some of the stakeholders, especially the HF-B.

One would assume that the need for competence development is not limited to the lowest levels in the organizations. Surely, the emphasis on basic training by the enterprises probably reflected an actual need for improvements on this level where most of the people are, in which case it might be regarded as very useful at least to start at this level. However, it might also be a result of who participated and how the conferences were designed. The total design of the mapping phase, i.e. who participated at the conference, how the issue was presented, the questions posed in the group sessions, the quality of the homework done by the enterprises before and after the conferences, etc., probably influenced the direction of the expressed needs. With one manager and one employee representative from each enterprise participating in the conferences, one would expect that issues close to the needs and experience of the

¹¹³ In Norwegian: "Videregående skole".

employees would be focused upon, both because of the direct relevance for the participants, and also because it is probably the easiest to focus on. More complex issues like broader development efforts or new export initiatives with more severe strategic consequences would be likely to need a longer and broader discussion process within each enterprise before any requests could be made towards the support system. Notably, many of these enterprises were small, almost 50 per cent had less than 20 employees (Johnsen & Velde 1996). Many of these, and also larger enterprises for that matter, might not have been used to reflecting on competence issues in a very strategic sense, not to say broader enterprise development efforts.

Therefore, the mapping conference must be characterized as poorly designed for identifying broader development issues as well as topics pertaining to internationalisation. Thorough discussions in each enterprise before and/or after the conference could possibly have remedied the situation. Clearly, just asking the enterprises to do preparatory work and continue the discussion after they returned from the conference was an insufficient intervention.

How the support system should respond to more advanced requests is also an issue that was not addressed by the Joint Project. Training on higher levels on quite a few issues would probably be handled well by the regions competence environments. But if the Joint Project had got a larger number of enterprise development requests back from the enterprises, how would they meet these requests? Who would be the competence suppliers or resource persons assisting the enterprises, and how would financial support for such as consultancy work and/or running of internal conferences for the enterprises have worked out in relation to the system of rules regarding spending in the joint fund, not to say after the joint fund ceased to exist by 31 December 1995? As we remember, the training efforts went all through 1996. These questions were not addressed in any concrete way, as the planning for the whole of the implementation phase was almost non-existent until after it should have started.

The referent organization

Then, where is the referent organization in this story? Obviously, there is not one single entity that stands out, but rather a series of collaborative bodies that (sequentially) took on referent functions. This is especially the case before the Joint Project was established. Establishing a referent organization is thus not something that happened at the end of the process, but at several times with varying tasks and composition. The project group who ran the project and

did the practical work with the conferences, is the closest we get to a referent organization *during* the Joint Project. That does not in itself mean that the referent *functions* were well performed, or that the relationships to the other stakeholders were well established.

For instance, the oversized steering group was set up to contribute with the handling of more general questions, but never proved capable of providing leadership to the domain. The steering group functioned more like a forum for discussion, and was unable to handle the critical incident when the Free-County departments should take over the formal responsibility for the last implementation phase. The large steering group had few resources and thus limited possibilities for actual steering. The necessary decision-making capacity in this respect was with the Executive Committee, who in a sense was the real steering group, only the Social Partners was not represented there. The link between the steering group and the Executive Committee were the head of Education and the free-county coordinator, but this construction was far from ideal regarding LO-NHO influence and coordination between mapping and implementation.

The oversized and underpowered steering group would not have been such a serious drawback if the Executive Committee had been better integrated into the project. The Executive Committee, who had the key decision power regarding resources for the final implementation phase (“infrastructure support”), showed a weak ownership to the process and had only an indirect position in the referent structure. As we remember, after coining the strategic areas the Executive Committee was not active in creating the Joint Project. Still, they were the key decision makers in the critical transition from mapping to actual competence development in the enterprises. This proved to be a poor design of the referent structure.

Insufficient planning

As we know, little if anything was done to prepare for the final implementation phase. For a long time it was not decided which one of the three departments, Industrial Development, Education or the Employment Office, should take the responsibility and provide the manning for implementation of this last phase. After the mapping conferences, the requests for training started to pour in to the project coordinators from LO and NHO, followed by phone calls from impatient managers. When nothing happened, the enterprises began to lose their patience and put a pressure on LO and NHO. The LO-NHO side thus pushed on the public actors to act on

the issue, and they had to take on this role for quite some time before things started to happen. This created a high frustration level with the LO-NHO, and led to conflict situations between the core stakeholders. For a period of time the relation was dominated by complaints about too slow progress and too little manning of the follow-up.

The responsible departments demonstrated a clear lack of understanding of what the task demanded in terms of personnel resources. Originally they anticipated that organizing the concrete training efforts into smaller projects, each with a group of enterprises and the appropriate competence institution could be done as a part of the daily operation in the departments. This proved to be a totally unrealistic expectation. Only slowly they recognized the need for specific manning for phase three, and accepted their responsibility. To give an indication of the time span, the first mapping conference was held medio January 1995, whereas the staff who should handle the output of the conference was not dedicated to the task until half a year later, in August that year. Even more, the initial 1/2 man year put aside for this work was clearly too little, and the LO and NHO together with the assigned officer argued for this until he was put on 100 per cent from March 1996, more than a year after the first mapping conference.

When we look at the involved manpower in the Joint Project from start to end, and at the governance structure versus the operational level, the scarce manning in the final implementation stands out in contrast. Firstly, the project group consisted of 2 to 3 people during the conferences, which in addition drew on many public officials as contributors, especially in the motivation conferences. Secondly, the steering group took on a large size, comprising 18 at its peak. Lastly, the contrast becomes even larger when we take into account the resources put into initiating and establishing the Joint Project. Then, only one person was allocated to implement the training efforts generated by this major effort.

Why did the departments not plan for this phase?¹¹⁴ And why was the Executive Committee so slow at taking action on this? Poor understanding of what it takes to organize training efforts like these might be one reason, and surely the actors did not anticipate the volume of

¹¹⁴ The insufficient planning for phase 3 was not difficult to identify early on. This concern was raised by me both in conversations and in writing to members of the project group and to the free-county coordinator before the start of phase 1 (document of 20.01.94).

training proposals coming out of the mapping conferences. This could have been compensated for by reacting to the situation as it became clearer in early 1995.

Political power play

Another important reason is to be found in the decision by county politicians to replace the Employment Office with the Department of Education as responsible for the Competence Development Program. The Employment Office had the financial resources and the personnel capacity and competence to carry out the last phase, whereas the Department of Education had very little financial means and no personnel resources to contribute, except chairing the Competence Development Program and the steering committee for the Joint Project. When the Employment Office to their great disappointment was taken off the case in October 1993, they naturally withdrew from an active attitude and left it to the county departments to take the responsibility. Also the fact that the enterprise officer from the Employment Office was assigned to one of the other sub-projects under the Competence Development heading from early 1994, contributed to a withdrawn role in the starting phase of the Joint Project¹¹⁵. As it where, it took almost two years from the Employment Office was “sacked” by the county politicians until they were back and assigned their enterprises officer to organize the competence development efforts.

Consequently, the situation in the Executive Committee was marked by unclear expectations and a poor combination of responsibility and capacity for relevant action. The Department of Industrial Development had assigned a person to follow up the expected internationalisation-part of the outcomes of the mapping conferences, and more or less thought this was their contribution. The Education department had the responsibility, but not the means, while the Employment Office had the means but not the responsibility.

The negotiations in the Executive Committee to sort this out also took some time. Subsequently the situation was solved, but the delayed last phase put a strain on the relationship between the parties. According to the evaluation, the overall impression regarding the relationship between the LO/NHO and the Free-County partners was that the relationship

¹¹⁵ The enterprise officer got the responsibility for developing the district development teams, see chapter 4.

was neither closer or more trusting, nor more distant or less trusting. In other words, the actors maintained the relationship, a somewhat less successful result than the actors had expected on beforehand (Johansen & Velde 1996:33). On an operational level, once the manning was sorted out and the work had started, the positive and informal contact between the actors was highlighted. The partners in the project group developed a good working relationship, and persons got to know each other quite well during the process. In this respect, the collaborative process has been good, the evaluation report states (ibid. p. 33).

This adds up to an unclear and insufficiently integrated referent structure with a limited ability to handle crucial referent functions. It is also highly doubtful whether the project design with the shifting responsibility was optimal. In addition to the unsuccessful mobilization of the key decision makers and the corresponding strain on the relationships between core stakeholders, the transition also meant a shift of personnel that worked with the enterprises. Such a shift implies that the experiences gained so far in the process and the personal relationships established to the enterprises are not continued into the process. To the extent that enterprise development consists of ongoing conversations and personal relationships, such a shift is a less than ideal situation.

The intervention by the politicians in June 1993 thus set back the process by $\frac{3}{4}$ of a year in the up-start phase, plus in retrospect, they decisively contributed to the unclear conflict situation in the transition from mapping to implementation by their act of removing the Employment Office from the role of responsible agency for the last phase. This also illustrates the complex stakeholder setting that had to be handled in this case.

Stakeholder participation

Organizing is of course not only a question of which functions were performed by which organizational entities in the referent structure. We also have to consider which stakeholders are parts of this referent structure. In the Joint Project, a striking feature appears to be that the *enterprises were not involved in the referent structure*. The project group had no enterprise participation, and the occasional enterprise manager who joined the steering group did so in the capacity of being involved with the Internationalisation program, which got nothing out of the mapping conferences. One might of course question whether stronger enterprise participation in the steering group would have changed anything. With the size of the steering

group, the point in the process (late) and the issue at stake (county responsibility), it is doubtful whether adding a handful of enterprises would have changed anything regarding the crisis concerning practical follow-up at the end of the project. Effective enterprise participation would have demanded a more radical change of the referent structure. It is also worth noticing that competence institutions were represented on the steering group, but they were not the institutions that ended up being involved with the enterprises. It is therefore fair to say that the participation in the referent structure did not well reflect the stakeholder setting.

Consequently, the Joint Project can be characterized as being both too planned and inadequately planned, as well as overcrowded and with insufficient participation.

The role of public actors

Departing from the position that public actors have a role to play in supporting enterprise development in a wide sense of the term, we must ask which roles the public actors played in this particular case? By examining the various roles played in the three cases, it might be possible to arrive at fruitful reflections on what roles the public actors should and can play in development efforts of this kind.

The case material and the analysis thus far have already touched upon the issue a number of times. This small section will therefore not repeat descriptions at any length, but attempt to give more precise characteristics of the roles and assess how successful they were. Firstly, we have the role as *initiator*, discussed above. This particular role did not so much concern bringing the enterprises in, which was a weakness, but focused on *constructing the institutional framework* in interplay between various public actors, the political level and subsequently the regional social partners. Handling the political level created problems in the up-start phase, with negative consequences for the final implementation.

Linked to this role is the role of *provider of resources*, mainly economic support to the training, and to the preceding motivation and mapping. Establishing these resources was also a collaborative affair involving various departments, and goes back to the Free-County Experiment. Thus, the public actors, especially the heads of departments and other key individuals from the department structure, *created a space for concerted action*, with the sufficient administrative and political backing, financial resources, and involvement of those

assumed to be important stakeholders, namely the social partners and competence institutions. The resources were essential to the existence of the project.

From this point on, the social partners took over the lead, but individuals from the county administration closely followed the work. They contributed at the motivation conferences, and county representatives participated in the steering group. In this phase, they held a *legitimising function*, maintaining the link to the larger public system. In the last implementation phase, the enterprise officer performed an *organizing function on a practical enterprise level*, a role that appeared to be of critical importance for arriving at practical results. His particular role clearly depended on his individual competence, his experience and his personal network, and did not reflect the general capacity in the public system for this type of work.

There was a poor ability to *maintain the resources and the institutional framework* in the transition where the county department should take over the operational responsibility. However, resources in the form of competence and capacity in the public educational system were mobilized in the practical training efforts.

Organizing and the Wood Centre

Before we address the organizational aspects of the Wood Centre case, let us briefly recapitulate the composition of stakeholder. The development was initiated by a small group of managers, who jointly established what was called the Training Ring, comprised by member enterprises. This construction was later expanded to become the Wood Ring, and subsequently the Wood Centre was established in a hybrid structure at the local upper secondary school. The final stage in this case description was the formal merger of the Ring and the Centre, and the establishing of the independent Wood Centre. Along this process, the collaborative construction experienced an expanding membership base of enterprises. The enterprises were part of the governance structure of the Centre through its board and user assembly.

The main public sector stakeholders were from the educational system. The dean at the local upper secondary school and the manager of the AMO centre were key stakeholders together with one of the enterprise managers. The Department of Education also played an important

role, especially by supporting the innovative training arrangement financially¹¹⁶.

The referent functions

One of the characteristics of the Wood Centre case is that the referent functions were carried out *repeatedly* throughout the collaborative process, and not once and for all at the outset, like in the Joint Project. Let us first look at the function of *regulation*, in the form of setting the ground rules, deciding the purpose, determining the criteria for membership, establishing the governance structure and the function of *appreciation*, which e.g. concerns recognizing trends and issues, agreeing on desirable directions for development and identifying appropriate action. These functions are not always easy to distinguish, and in a longer development process they tend to be intertwined. For instance may the ability to recognize trends and issues (appreciation) lead to a reconsideration of purpose (regulation), which again will influence the task of identifying appropriate action (appreciation).

The first attempt to address the issue was made by the initiating managers together with the dean and the manager of the AMO centre when they established the Training Ring. The initial purpose was to organize vocational training in carpentry for the surrounding wood-related industry, and the governance structure took the form of a membership organization with a board of enterprise managers and a secretary taking care of the daily operations. The ground rules were expressed through creating an innovative, tailor-made and self-administered training program based on the perceived priorities of the potential participants regarding such as travel distance.

The first modification of purpose occurred when the central stakeholders realized that the focus on carpentry was too narrow to meet the needs for craft certificates in the enterprises. They expanded the purpose of the Ring to include a wider array of wood-related craft

¹¹⁶ In the Joint Project we learned that the Department of Education had no funds to contribute to organizing the training efforts. In the Wood Centre story, the Department of Education provided funding for the training itself by approving the vocational training and thus giving access to national funds. In addition they sponsored the increased travelling costs inherent in the model developed by the wood industry. The difference in type of training partly explains this difference in financial support. Partly the important difference lies in paying for the *organizing* of training efforts, i.e. bringing enterprises and training institutions together, versus paying for the training efforts in themselves in terms of teacher salaries and workers compensations.

certificates, and changed their name to the Wood Ring. This was done in connection with a new reform in education, and this modification of purpose (regulation) was thus integrated with a recognition of trends (appreciation). This opened up for more enterprises to join (different criteria for membership), and also for more participants from each enterprise.

The second round of modification of purpose was also initiated by the visionary core of the collaborators, and eventually involved several of the enterprise managers. The idea was to create a service centre, in which training was only one of several developmental issues that could be addressed through such a centre construction. Expanding the purpose required a new round of buy-ins and arriving at agreements for desirable direction for development. This act of appreciation was done through a project that mapped the development needs and ideas of the potential enterprise members.

The governance structure created for the incubation period of the Centre was an innovative hybrid construction, where the Centre was formally a part of the upper secondary school and thus a part of the educational bureaucracy, and at the same time controlled by the enterprises through the user board and user assembly. Finally, after three years the Centre achieved a sound enough financial footing to take the step to become independent from direct governing by the educational bureaucracy, and the governance structure was changed again.

The broader scope of purpose led to a repeated and ongoing attention to which concrete issues the Centre should address, i.e. deciding on appropriate action became an ongoing activity. The central principle applied by the Centre was to take the enterprises as the point of departure, and as the ideas and conversations on development issues developed, so do the tasks addressed by the Centre.

Regarding the third referent function, *infrastructure support*, the core stakeholders had proven an ability to attract the necessary support from public actors at various points in time. The first infrastructure support was to establish a class in carpentry at the upper secondary school. The next critical event was to gain approval of their concept for vocational training for craft certificates according to the rules, and thus receive state funding. In the transition from Ring to Centre, the core stakeholders successfully mobilized a wide range of public and private institutional actors for the feasibility study, and were able to negotiate the hybrid construction

as a form of supporting the Centre. Infrastructure support is also achieved through ongoing relationships with county authorities, for instance leading to project assignments that generate income for the Centre.

The referent organizations

Who carried out the referent functions in the Wood Centre case? From the start and onwards, the small group of a few enterprise managers, the manager of the AMO centre and partly the dean of the upper secondary school were the central actors in questions pertaining to regulation, appreciation and infrastructure support. They performed these functions partly as members of the board, partly as “normal” members of the Ring/Centre. These core stakeholders played an important role even in enrolling new member enterprises in the early phase by visiting enterprises and arguing for their participation in the vocational training. The referent functions were carried out in close collaboration with the secretary of the Training Ring, the Wood Ring and later the two secretaries of the Wood Centre. Whereas the secretaries from the start had their main tasks in more operational directions, they gradually moved into participating in larger parts of the referent functions as they achieved recognition by the enterprises and established relationships of trust to external stakeholders.

This shows that becoming a well-functioning referent organization relies very much on the qualities of the relationships to the other stakeholders and the surrounding infrastructure. In the beginning, only the well-respected enterprise managers had these relationships and were able to fill the critical referent functions. Subsequently, the secretaries of the Ring and the Centre “earned” a referent position through their results and interaction with the enterprises. Thus, to handle the referent functions, the referent organization and the people working in it must be able to acquire a legitimate and trusted position in the domain, a position that in this case was more earned than given.

Rather than being a unit that is either established or not established, we may then more adequately think in terms of establishing a referent organization as a *process*, in which the “earning” is based on mutual experiences and learning through interaction with the stakeholders. In such a processual perspective, *time* becomes an issue. The Wood Centre case has covered more than 10 years, and is still carrying on. Both the position of the referent organization in the domain and the development issues addressed have matured over these

years. Arriving at this position seems to require certain *continuity* both in the referent structure and in addressing development issues. This continuity is not in the form of rigid and unchanging structures or once-and-for-all decisions as to what development should mean. It still has to do with the ability of the referent organization to remain in the domain over time by building a position of trust for itself. This trust also entails trusting that the referent organization will be there tomorrow, and thus is worthwhile engaging in. Regarding development issues, the continuity lies more in continuously addressing development and giving it a concrete and practical meaning, than what this development should be about. It even appears that renewing and rephrasing the issues is an essential part of continuity itself. Thus, this continuity is probably best assured by a well-developed capacity for change.

Demonstrating a capacity for change

The ability to reconsider the purpose of the collaborative construction, adjust the organizational form correspondingly, agree on new directions for development and establish a mechanism for ongoing identification of appropriate action, demonstrate a *capacity for change* where learning and experiences gained are utilized in taking new developmental steps. The collaborative process thus takes on an evolving nature where close and responsive contact between the referent organization and the constituencies are at the core. One might argue that this ability to reformulate the purpose as the context changes and adjust the organizational form and membership base correspondingly, is an important quality of collaborative constructions. This capacity for change provides a kind of robustness to the domain, and seems to be essential for maintaining a sufficient degree of usefulness to the stakeholders as the context for the collaborative changes, tasks become resolved and new challenges are identified. Capacity for change and thus survival provides the best ground for the needed continuity in a development setting like this. This domain seems to have been able to find the right balance of change and continuity, or rather; change *is* continuity in this domain.

Based on the quite successful handling of critical referent functions, the referent structure consisting of a core of active stakeholders and a referent organization must be characterized as coherent and adequate for the challenges faced by this domain.

The role of public actors

The public actors in the Wood Centre case seem to have played three main roles. The first may be characterized as being *co-entrepreneurs*, referring to the roles played by the AMO centre manager and the dean of the school in constructing the training arrangement. Along this process, the county level contributed by sanctioning the solutions arrived upon. The second main role is that of *resource provider* by financing the vocational training and co-financing the feasibility study. The contributions made by the teachers may also be a part of this role. The third, and most special role, is that of being an *incubator*. The upper secondary school provided an administrative infrastructure for the Centre, and the Centre used the three years of incubation to establish a foundation for being largely self-financing and independent. All in all, the public actors in this case take on a role as *supporters of enterprise initiatives*, participating in finding practical, economic and institutional solutions to the requests made by the enterprises.

A most interesting aspect was brought to my attention through this story. It concerns the *context* for public engagement in development issues, i.e. the political and institutional backing and financial possibilities. More specifically, it concerns the *changes* in this context. The Wood Centre was established under the era of the Free County Experiment, and outlasted the Experiment, which was terminated by December 31st, 1995. Therefore, the private core stakeholders in the Wood Centre case were able to experience and reflect upon how this shift influenced their collaboration with the public sector. From being active, responsive and supportive, even proactive in the years of the Experiment, their impression was that the county representatives withdrew from active engagement with enterprises from 1996. This indicates the need for a political, financial and administrative “space” at the county level if the intention is to utilize and mobilize public resources for supporting industrial development. Now let us move on to the last case.

Organizing and the Electronics Committee

As the reader may recall, the central stakeholders in the Electronics Committee were the Employment Office, the participating enterprises, and the school representative. The up-start phase involved a broader spectre of participants from the county agencies and the regional Social Partners, together forming a project group. Once the enterprises were included in the process, this project group played a minor role, and was dissolved as the project period ended.

The referent functions

The overall purpose of the Electronics Committee was to create tailor-made training efforts in enterprises through collaboration between enterprises, educational institutions and the Employment Office. This purpose was defined by the initiating stakeholder, the Employment Office, before the enterprises were involved. Also the industry approach, i.e. the strategy of addressing a group of enterprises from the same industry, was chosen at this early stage. Furthermore, inviting production level managers and employees to the table was a deliberate choice up front. Participants of the initial project group took part in these reflections, leading to identifying the electronics industry as the target group. The enterprises were thus invited in to accept this construction as a starting point. Notably, at this stage the effort was not identified as establishing a Competence Committee, and there was no governing structure in place. Only after more than a year of operation, the ITCC came up with a name for themselves. The starting conditions thus consisted of suggestions on what to do, roughly how to do it, and who should participate. Once the enterprises were engaged, the specifics regarding ground rules, i.e. how to operate, started to be concretised. Ideas about a conversational mode were the point of departure, but the interaction and experiences gave this its concrete form. Characteristics of the *modus operandi* they established can be summarized as conversational and informal, low cost, need-based and with a focus on achieving practical results.

As we can see, important parts of the function of *regulation* were spelled out before the enterprises joined the collaboration. In this particular story, these aspects appear not so much to limit the participation by the enterprises, but rather to provide some ground on which to invite the enterprises in. Notably, this was done without overly specifying neither the governance structure nor the modus of work, or specifying what this construction was. Both the purpose and the membership structure were modified over the years. The purpose was modified from in-company training to include training of potential employees and addressing recruitment issues in general. The membership base was expanded to include more enterprises at one point, and later also to include another representative from the employment service. These changes did not grow out of the needs of the enterprises, but were externally induced modifications, i.e. caused by changes in political priorities, the financial foundation for the

training, and new strategies developed elsewhere in the public system. The group of enterprises accepted the changes, and the Committee continued its existence.

Acts of *appreciation*, which concern such as recognizing trends and issues, agreeing on desirable directions for development and identifying appropriate action, to a large extent took place in the Committee. By departing from needs voiced by the enterprises, and jointly designing tailor-made training efforts, appreciation took on a more or less continuous form as part of their *modus operandi*.

The *infrastructure support* received by this Committee was chiefly in the form of funding of the various training efforts. Essential to this funding situation was the ability to apply a creative use of public funding. The participation of the employment officer in the committee made such a tailor-made and creative use of public funding possible. Only through his access to and knowledge of the various funds, rules and regulations did the Committee arrive at financial packages that made the various training efforts feasible. The Committee itself received no external funding for its operations, and expenditures were also kept at a very low level.

A special incident illustrates how this collaboration made it possible to influence their joint infrastructure. By representing the vast majority of the electronics manufacturers in the county, the Committee managed to intervene in the education system and assure the continuation of basic training in electronics. Statements about future needs for qualified personnel made it possible to change bureaucratically made decisions of closing down this study. All in all it appears that the necessary referent functions have been performed sufficiently well in this case.

The referent organization

How was this collaborative effort organized? This case has by far the simplest organizational form of the three. The Committee itself took on the role of a referent organization in this collaborative effort, and as we know, no additional organizational entity was established to perform functions for this domain. The construction did not even include a board, a reference group or a user assembly. The stakeholders present when the committee met provided a sufficient referent structure. Rather than being established as the last point in the formation

process of a domain as suggested by Gray (1996), the referent organization was established on beforehand, and was modified by adding more enterprises and a public officer at a later stage in the development trajectory.

The needs for administrative services were covered by the employment officer, while the work with the various training projects was carried out by those directly involved. The Employment Office repeatedly argued that the enterprises should establish a more formal training ring with their own staff, but such a step was not taken during this period. The reason for sticking with the Committee is probably that a larger construction would mean additional costs, and would provide little added value, the way the purpose was defined. The committee did not initiate and administer standard, long term educational programs such as craft certificates, but developed tailor-made training programs that were designed to fit the enterprises in terms of topic, level, pedagogy, timing and price. Largely, the training efforts varied from time to time. Therefore, rather than relying on stable funding for predefined training, the ongoing interaction with the employment officer became crucial to secure financial support. Adding new personnel would not contribute to these dynamics, it was believed. Lastly, it is important to acknowledge that the limited number of enterprises and hence the limited size of the committee made this simple organizational form possible. A larger domain in terms of actors would have posed different challenges, and made it necessary to consider other representative arrangements.

The role of public actors

The Employment Office was the *initiator* of this collaborative effort, see 8.2, where an experimental project, the so-called Nordic Project, was the legitimising framework and point of departure for taking on this new role. As part of the Committee, the officer from the Employment Office took on a set of roles which can be characterized both as being an *administrator*, a *project organizer* and a *convener*. The most innovative and critical function he took on, however, was that of performing a *linking function* between the enterprises and the rest of the public system. He communicated changes in the public context to the committee, organized for the committee to influence the educational system, and on a continuous basis provided knowledge of and access to funding sources. In addition, the public system was a *resource provider* in terms of financial support to the training, and manpower in

the form of the secretary and competence in the form of teachers in the various training projects.

Organizing: Cross-case discussion

When we look across the three cases at the organizational dimension, it partly gives support and increased clarity to some of the reflections based on each individual case above, partly it provides new insight. The following section seeks to identify learning by contrasting these three cases that ran in parallel in the same county.

Constructing the referent organization

The currently dominating contributions to collaborative theory that discuss the formation of referent organizations, place the referent organization as one of the *last* elements in a collaborative process (Gray 1996, see chapter 3). Furthermore, the establishing is portrayed as a once-and-for-all action that is done at a point in time to manage a presumably stable operational phase for the domain. This mainly derives from a focus only on the up-start phase of such collaborative efforts. The cases in this thesis have a longitudinal character, lasting from about 4 years to 7-8, and thus provide opportunities for learning about the construction processes of referent organizations reaching beyond the initial act of forming an organizational entity.

Organizational characteristics	The Joint Project	The Wood Centre	The Electronics Committee
Initiator	County dept. and regional LO & NHO	Enterprise manager	Employment Office
Referent structure	Incoherent, poorly designed.	Centre + active enterprise. Consistent, well funct.	The Committee itself. Simple, but adequate?
Time of constructing referent organization	After strategy process and definition of project	Repeated construction	Constructed from the start
Complexity of governance structure, rel.	High	Medium	Low
Organizational form	Project	Centre	Committee
Manning	Large public effort, reduced to one man in the final implementation.	Centre manned by two.	Self-managing committee.
Capacity for change	Low	High	Medium
Cost of operations, rel.	High	Medium	Low
Time from start to concrete training	2 years+	2 years	Half a year
Institutionalisation	Failed	Permanent centre	Ongoing committee

Table 5: Organizational characteristics

If we look across the three cases (see table 5 above), there is an apparent *diversity* in the way the referent organizations are constructed, *when* in the process they are established, and the *forms* chosen. It also becomes evident that establishing a referent organization cannot be understood only as a matter of installing the appropriate organizational form, but also as a *process* involving a repeated reconstruction of the referent structure.

Regarding the question of *when* in the process the referent organization is constructed, the Electronics Committee represents the one extreme. In this case the referent organization was in place from the very start of the collaborative initiative. From the first meeting with the enterprises, the committee was kept as the referent structure. In other words, the referent organization may well be constructed at the very start in such low-conflict, development-

oriented settings, and is not necessarily a task *at the end* of establishing a collaborative process as Gray (1996) and Burns (1981) portray it.

In the Wood Centre case the organizational entity was established as soon as the actors agreed on trying to start training for craft certificates (the Training Ring), but the entity was redefined and reconstructed three times before it arrived at the independent-centre construction, including an incubation period as part of the public bureaucracy. Correspondingly, the role performed by the referent organization evolved over time. The question of when it was established must then be answered by “several times”, which shows that establishing a referent organization may well be understood as a *process* of repeated reconstruction. While some referent structures remain unchanged over a long period of time, like the Electronics Committee, others may need repeated redefinition to be well adjusted to the domain. Thus, rather than placing it as the last point in a collaborative process and treat it as an once-and-for-all issue, theories of collaboration must address the ability to *reconstruct* the referent organization based on changes in the stakeholder setting, the purpose of the domain, the desired tasks or contextual changes influencing the domain. This implies recognition of the evolving nature of collaborative efforts, and does not conform to a linear conception of development processes.

Regarding the *form* of the referent organization, the cases show that the form may vary according to the stakeholder set, the problem complex at hand and how it is understood, the available resources, the political legitimacy etc. The cases range from the complex setting in the Joint Project to the simple construction of the Electronics Committee, and the Wood Centre case shows different forms over time for the same domain. Form is also a question of *who participate*. As we recall from the discussion of the Joint Project, the enterprises had a poor representation in the referent structure, and the competence institutions were only indirectly represented. Important public stakeholders were also insufficiently integrated, as critical decisions regarding implementation were placed outside the core of the collaborative. By comparing we can see that the Joint Project had a relatively large referent and governance structure, but still inadequate representation and managing power.

In contrast, the Wood Centre was constructed according to a different logic. Rather than leaving the implementation of the services to institutions external to the enterprises, it was the

users of the services, i.e. the enterprises themselves, that were in charge of the Ring and later the Centre, and decided on such as manning, purpose and directions for development. The ownership was thus with the enterprises, and stakeholders *in* the collaborative process were able to successfully address the central referent functions. The public actors were not formally a part of the referent structure, but two of the core individuals from the educational system were closely integrated through personal network, and in the incubation period the Centre was a part of the educational system by being placed formally under the upper secondary school. The representation of core public stakeholders thus seems to be sufficiently handled. In the Electronics Committee, the question of participation was easier to address because of the small number of enterprises (8), that never the less represented the same number of employees as the members of the Wood Centre (51 enterprises). Again, those who were directly influenced by the actions of the domain, where also participating in the referent structure.

What can be extracted from the cases in terms of what creates a well-functioning referent organization? Undoubtedly, the principle of organizational choice also applies to this interorganizational setting, which means that it is not possible to specify one single best referent organization. Still, it is possible to identify shortcomings in the chosen structures, exemplified by the malfunctioning of the Joint Project, and also some positive characteristics that cut across the cases. General elements that seem to influence the quality of the referent organizations in these cases are such as a) the competence of the people, b) the quality of the relationships to other stakeholders and actors in the larger context, c) legitimacy in the domain through adequate representation, d) coherence and balance between tasks, resources and responsibilities, e) non-bureaucratic mode of functioning, and f) continuous close contact with the stakeholders.

These are hardly surprising dimensions, but especially the last point does not seem that easy to maintain. Why is it important? Firstly, it concerns the ability to meet the needs of enterprises and adapt to changes as they occur. This appears to be the way that the quality of the relationship to the other stakeholders can be maintained and improved, and thus the legitimising assured. Secondly, we must take into consideration that there are times when some important functions cannot be performed successfully by the formal joint bodies, but rather by other core stakeholders. If it is important that core stakeholders outside the referent organization perform referent functions at critical points of time, it becomes an issue how one

may assure that these stakeholders choose to engage in these functions. Such an involvement will presuppose a certain degree of ownership to the domain. Both the ownership and the knowledge about the challenges facing the domain are greatly enhanced by close and repeated contact. This again highlights Trist's (1983) point about the need for a referent organization to remain in close contact with the constituencies, and not take over too much of the going, as he puts it.

In addition to a simple question of cost, the desire not to take over too much of the going and not develop bureaucratic practices, also have consequences for the *size* of the referent organizations. As in these cases, they are typically small with only a few employees, but should probably try to secure robustness and continuity by not becoming too small.

Capacity for change

The importance of an ability to reconstruct the referent organization as argued above, can be further expanded to include in principle all aspect of the domain and formulated as a general *capacity for change*. Based on the cases, it seems that an important aspect of collaborative efforts is the ability to change the purpose, the way of working and the structure based on the experiences made, the changing context and new challenges for the domain. This has to do *both* with a learning and self-reflection ability, where modifications come as a result of experiences with how the domain performs and the changing of needs, *and* with an ongoing assessment of relevant changes in the larger context of the domain. In other words, there are both internal and external reasons for modifying or changing. The referent organization or core stakeholders must be able to establish such a capacity for change to secure lasting survival, as the capacity for change provides a base for continuity. Inability to do so seems to reduce the quality of the action for the domain, reduce the long-term usefulness for the stakeholders with a corresponding reduction of legitimacy for the collaborative construction.

How was this handled in the three cases? Whereas the Joint Project went all the way through with a design that was previously decided upon, the Wood Centre went through a process of modifying purpose and structure, as well as expanding the actions carried out by the Centre. The Electronics Committee also had moderate modifications of its purpose, and minor changes in its structure through a growing number of participants. What can be learned from this? The point made in the Wood Centre discussion above regarding the importance of a

capacity for change seems to be strengthened by looking across the cases. The Joint Project stands out as the example of a construction that stayed with its predefined structure, purpose and planned action, despite the feedback and criticism that occurred on the way. It is fair to say that the demonstrated learning ability was rather limited if changing is a measure of learning. The Joint Project is also the collaborative effort that terminated after the planned training had taken place. Several reasons contribute to this inability to reconstruct its own existence, but it seems clear that the limited capacity for change seriously hampered both the quality of the Joint Project as it was on its way, and the ability to establish a second Joint Project and thereby institutionalise this public-private collaboration. The capacity for change thus appears to be an important basis for continuity and survival.

My impression from the cases and from other types of engagement with enterprises in a development setting is that they prefer long-term relationships and continuity when they assess whether or not to enter into relationships with other actors. Continuity is here both linked to individuals and institutional actors. Correspondingly, short-lived institutional actors find it harder to mobilize the enterprises. If continuity and *expectations* of continuity influence to which extent stakeholders invest time, attention and support in relationships, one may ask if it is counterproductive to declare a limited time horizon when engaging with enterprises, such as the Joint Project did. The term “project” does not signal an intention of continuity, and is by definition met by expectations of termination after the project period. The elements of continuation in this effort were provided by the institutional actors behind the Joint Project, not by the project itself. In contrast, The Wood Centre and the Electronics Committee signalled an ambition to continue existing, and a constant attention to development issues. Continuity therefore seems to be an element to be taken into account already at the outset of collaborative efforts, and not treated as an option to be considered after the effort is over. The option may no more be there at that point.

Time and money

It is rather striking to make a comparison of resources spent until concrete training is off the ground, however rough and superficial such a comparison is in this thesis. While the Joint Project had a budget of close to NOK 2 million for the two conference phases and in addition the salary for the enterprise officer in the last implementation phase, the Wood Centre achieved NOK 250 000 for a feasibility study, and managed to finance a part time secretary as

part of the vocational training, increasing to two positions towards the end of the period of study. The Electronics Committee had no budgets at all, and the participants met on a self-cost basis. Even when we make corrections for the number of enterprises involved, this difference appears rather large.

The same pattern appears when we look at the time dimension. All three cases start in the early 90s, and thus happen at the same time. From the strategic plan passed the County Parliament, it took close to two years before the first training was carried out in the Joint Project. If we add the time from they started to make the strategic plan, another year can be added. In the Electronics Committee, the first training occurred about half a year after the Employment Office initiated the process. The Wood Centre is placed somewhere in between regarding time spent from the first initiative, but this is due to the different nature of the competence development they set out to achieve. Designing and establishing long-term training for apprentices, securing financing and recruiting enough member enterprises are a more time consuming task than “asking” enterprises what they need and then matching them with a competence provider and a budget. The comparison between the cases becomes even more imbalanced when we consider the time before the conversations with the enterprises started, because development of enterprises was the main target in all the three cases.

Terminating the Joint Project

Of course, the Joint Project was a considerably more complex construction, and had to balance in a political setting and secure backing from a larger number of stakeholders. Such processes take time, and largely explain the time spent. Still, the emphasis on strategy development followed by detailed planning (however insufficient) and establishing of a complicated (and even malfunctioning) governance structure, matched with a costly operational phase, makes it fair to characterize the Joint Project as too expensive and resource demanding compared to the amount of concrete training produced. Did it then produce *additional* output that justifies this difference? Development of relationships, lessons learnt through the process and establishing of more permanent collaborative structures are such output that justifies the investment. None of these aspects seem to have been particularly successful. Due to the conflicts among the core stakeholders, relationships did not improve significantly, and permanent structures were not established. The core stakeholders

undoubtedly learned a lot about each other and probably about development work, but again, when continuity was not secured, the learning was not utilized in any direct sense.

From the above discussion, a number of reasons seem to contribute to the termination of the Joint Project. In addition to the malfunctioning referent structure, the very *size* of the construction, the more *politically challenging* stakeholder set, and the *costs* involved in running the operations made it hard to maintain the construction, and contributed to the unsuccessful renewal or institutionalisation of the effort. Compared to the other two cases, the Joint Project carried an overload in terms of governance structure as well as operational expenses, and did not provide an output that made this difference reasonable. Coupled with a limited capacity for change and a late recognition of the need for continuity, this very much seems to account for the unsuccessful prolongation of the collaborative effort.

The roles of public actors

What can be learned when we consider the various roles taken by public actors in the three cases? A striking point is that they cover a rather wide range of roles, and the roles differ between the cases, despite the fact that the public actors largely are the same *across* the cases. The labels used above are: initiator, co-entrepreneur, resource provider, incubator, constructor of institutional framework, legitimizer, organizer, administrator, convener and linker. The list could probably have been longer if we had been more specific. Other stories from different contexts will most likely give examples of still different roles, which just add to the point made. From the variety of terms we may conclude that there is a need for a variety of roles in collaborative efforts like these, and based on the cases, it is hard to rule out any of the roles as something the public actors should not engage in. The terms used above all fit within the broader categories of *developer* (Amdam 1996b) and are of a *proactive* nature (Bennett & McCoshan 1993). The cases have thus provided examples of what other scholars argue is a desired and even necessary role for public actors in fostering regional development.

We may also acknowledge that the roles described are performed not by one particular unit or person, but by several public actors ranging from individual officers to county departments, and most often *in collaboration or interaction* with other public actors. This dimension, i.e. collaboration and interaction among public actors as a basis for performing roles in relation to the enterprises, stands out as particularly interesting as a general feature. Does it imply that

public actors in development settings must be able to collaborate and link up to other parts of the public system in order to be interesting and effective partners for the enterprises? If this is so, such as integration among public actors, network development and collaborative efforts in this sector become a part of industrial development efforts.

The discussion of useful roles should therefore not be based only on examples of success or failure, the ability or disability of particular public actors, or rules and regulations in the various parts of the public bureaucracy, but on reflections on fruitful strategies for public-private collaboration.

Regional autonomy

A particular point regarding the institutional framework for a proactive role by the public actors emerged from the Wood Centre case. They experienced a clear difference between the Free County Experiment and the following period, when the county departments lost their “free” status. Despite a successful evaluation and supportive words from the minister¹¹⁷, their fund structure was dissolved, and the new, locally adapted rules concerning funding was replaced with the old, standard regulations. The space for creating industrial policy and acting upon it was thus diminished. Judging by the experiences from the Wood Centre case, this had clear consequences for the roles played by public actors at county level. The changes are also partly noticeable in the Electronics Committee, as the rules for the various funds changed and thus influenced the particular solutions for the training projects. The Employment Office was able to maintain its role in the Committee despite the termination of the Experiment, so the changes were not so strongly felt in this case. The Joint Project itself was terminated too early for this effect to be visible. The learning is never the less valid and highly relevant to our discussion.

It seems that a precondition for a proactive public sector that is able to take on meaningful roles in collaboration with enterprises, is that the county level has resources and decision power that serve to mobilize public actors and give them a lever for action. This implies

¹¹⁷ The minister of the Ministry for Municipality and Labour at the time, Gunnar Berge, expressed a clear support to the Free County Experiment at a Free County conference in Aust-Agder 22 and 23 August 1995. This Free County conference was the main arrangement for summing up the experiences from the experiment.

increased autonomy and a strengthening of the county level. Development in the opposite direction where the county level is weakened, thus appears counterproductive from this perspective. While the *initiation* of the Free County Experiment very much captures the ideas of local and regional initiatives as essential to industrial development (e.g. Deiaco & Nordström 1998, Zeitlin 1992), the current development away from a strong and more autonomous county level, seems to undermine this central aspect of regional industrial development.

While some political parties in Norway argue for a removal of the county administration and political level altogether, recent comparative research shows that the general trend in Europe is not to reduce the importance of this level, but rather to expand and strengthen this level (Baldersheim 1998, Rømming 1999). The necessary autonomy required for taking the role as developer rests on national policies, which has been absent after the termination of the successful free-county experiments in the counties of Nordland and Aust-Agder in 1995. In the vacuum of disappearing tasks for the county level, the Government is now picking up the experiences from the free-county experiments six years later. The Government has given the county administrations in Norway the task of becoming “regional development actors”, starting from 2002 (St.meld. nr. 19, 2001). It remains to be seen whether this task is followed by sufficient means and the autonomy required.

8.5 Summing up learning on organizing

The main learning regarding how to organize the collaborative domain with emphasis on the construction, the role and functions of the referent organization in its domain can be summarized as follows:

- *Referent functions:* Referent functions may be carried out by various stakeholders in the domain, not only by the referent organization. This is not necessarily a weakness of the domain, but can instead imply a broader ownership, flexibility and robustness. Consequently, the referent organization should not even seek to take over *all* the referent functions, but rather secure an active participation by core stakeholders. Thus, close interaction between the stakeholders and the referent organization becomes important in order to assure coordinated implementation of critical functions.

- *Participation and coherence*: In constructing a referent organization, adequate representation by core stakeholders should be assured. When the task is to support enterprise development, participation by enterprises is especially important. The referent organization or structure should acquire a consistence between the tasks, functions and the available resources and decision-making power. This is not fixed once and for all, but is a matter of repeated attention and consideration. Again, stakeholder ownership and close and continued interaction with core stakeholders appears decisive in achieving such a coherence.
- *Process of reconstruction*: The literature on collaborative theory presents a too simple a notion of the construction of the referent organization. Establishing a referent organization should be regarded as a *process of ongoing reconstruction*, rather than treating it as a once-and-for-all action at one particular point in time. The latter appears as an oversimplification, and the cases show that referent organization may in practise be established at different points of time. Firstly, the processual dimension becomes evident when we consider not only the organizational entity as such, but also take into consideration the *functions* it performs. The ability to perform these referent functions adequately is based on *the quality of the relationships* to other central stakeholders as well as to the larger institutional context. Trust and legitimacy are important qualities of these relationships, and developing these qualities takes time. As these relationships are often not fully in place in relation to a larger domain from the beginning, the referent organization may be able to develop these *over time*, gradually handling a larger part of the referent functions as it obtains a good track record and recognition in the domain. Core stakeholders will have to take on complementary roles by performing critical referent functions as the referent organization matures into the desired position. Secondly, the process of reconstruction points to the fact that the referent organization itself will have to change in response to changes in the stakeholder set, the problem complex at hand and how it is understood, the available resources, the political legitimacy etc. Therefore, the referent organization should not be regarded as a fixed entity, but may acquire *varying organizational forms over time*, as exemplified by the Wood Centre case. This leads us to the next point.

- *Capacity for change*: The domain benefits greatly from acquiring a *capacity for change*. An important aspect of collaborative efforts is the ability to change the purpose, the way of working and the structure based on the experiences made, the changing context and new challenges for the domain. This has to do *both* with a learning and a self-reflection ability, where modifications are shaped by experiences with how the domain performs and the changing of needs, *and* with ongoing assessments of relevant changes in the larger context of the domain. In other words, there are both internal and external reasons for modifying or changing. The referent organization or core stakeholders must be able to establish such a capacity for change to secure a long time survival, as the capacity for change provides the ground for *continuity*. Inability to do so seems to reduce the quality of the action for the domain and reduce the usefulness for the stakeholders over time with a corresponding reduction of legitimacy for the collaborative construction.
- *Continuity*: In forging collaborative domains and constructing referent organizations, intentions of *continuity*, i.e. a long-time perspective, should be applied. This is both because of a) the ability to mobilize and integrate enterprises into the domain at all. Short-time efforts are not highly regarded and influences the sincerity by which enterprises participate, b) the position of the referent organization, which will be weakened as an actor in a domain with a short-time perspective, c) the evolving and non-linear nature of development efforts, and thus its experimental character, and d) the *time* required to achieve substantial improvements. The time dimension in organizational change efforts is typically underestimated. This is repeatedly reflected in the short time horizon of support programs, projects and other measures applied by institutional actors from both public and private sectors, including politicians, administrations and large parts of the research community.
- *Motivating for enterprise participation*: The cases show that if the purpose is to motivate enterprises to take part in development efforts, motivational or mobilizing aspects should be integrated into conversations about development tasks and needs, and not handled as a separate act of “selling”.
- *The role of public actors*: There appears to be a need for a variety of roles played by public actors in collaborative efforts, and based on the case-material, none of them can be ruled

out in principle. A new dimension appearing from the material is that the public actors must collaborate with other public actors in order to take on roles as interesting and effective partners for the enterprises on development issues. Furthermore, the county level must have a sufficient degree of space for manoeuvring, i.e. resources and decision power for things to be realized. The increased autonomy of the Aust-Agder county level in the period of the study contributed decisively to this. The returning to a “normal”, and thus reduced autonomy rendered the public actors passive and with limited means and incentives to engage in development efforts. From an industrial development perspective this appears counterproductive, and is contrary to the trend observed in Europe today. The termination of the Free County Experiment shows an inability on the part of the larger governmental bureaucracy to learn from their own experiences, as well as experiences from other countries, and demonstrates a lack of a consistent policy for industrial development.

What may then be the more general lessons learnt from the cases based on the discussion of organizational aspects? Is the conclusion that small is beautiful, and large is costly and unproductive? I shall come back to these overarching conclusions after my discussions of the process aspects of collaboration.

Chapter 9

Constructing Public-Private Collaboration: The Processes

9.1 The processes of collaboration

In chapter 3 I proposed seven main characteristics of interactive processes, and argued that interactivity according to these characteristics has the potential of improving the quality of the collaborative effort compared to a linear and sequential logic. Therefore, the question asked was “To what extent can these cases be described as interactive processes, and how does the degree of interactivity influence the development trajectories and the outcomes of the collaborative efforts?”

To answer this question, we must first seek to identify the degree of interactivity in the three cases. When I use the term “degree”, it implies that it is not simply a question of interactivity or not, but to what *extent* the processes are interactive. Notably, I stressed that within interactivity there will also be well functioning linear aspects, so the presence of linearity in itself does not imply failure or lack of interactivity. Thus, we must consider *critical* aspects and main lines in the development processes and assess these types of dynamics.

9.2 Interactivity recapitulated

Before assessing the actual interactivity in the three cases, a brief recapitulation of the 7 characteristics of interactivity may be needed. In chapter 3 I suggested the following:

1. Interactive processes are **open-ended**: little if anything is pre-defined or pre-structured.
2. The process, structure and contents are **jointly** created by the stakeholders, repeatedly.
3. Interactive processes are **conversational** rather than consisting of monologues.
4. The process focuses development of **common ground** rather than the formal contractual aspects of collaboration.
5. Interactive processes are **non-bureaucratic**.
6. Interactive relationships respect the value of the other and are typically of a **horizontal**, participative nature.

7. Interactivity should be **sustained** as a modus operandi.

These characteristics of interactivity are thought to contribute to at least 5 important aspects of development processes. These are:

1. **Relevance and quality** of the development efforts.
2. **Ownership and commitment** among the stakeholders.
3. Backing and support from stakeholders at **critical turning points** for the collaboration.
4. **Trust-building** among the stakeholders.
5. **Learning** among the stakeholders.

I shall now assess the three cases with respect to their degree of interactivity, and link that to how the development process unfolded, and how it influenced the outcomes.

9.3 Interactivity and the Joint Project

As a first step in assessing the degree of interactivity in the construction process, the actual involvement of the parties has to be considered. The Joint Project grew out of the Free County Experiment with the County Departments as the template and initiators. The question then becomes how the *private* sector was involved in the process. The Joint Project started out with the intention of involving the enterprises more closely in identifying what competence development should mean to them. The Free County Experiment itself had enterprise involvement as one of its central ambitions, and this ambition was brought further to the Joint Project. As we recall, the design of the Joint Project started with the strategy team composed by public actors, the dean of the public college, two from NHO and one representative from LO, adding up to 8 participants. In other words, there was no direct enterprise participation at this stage; the winter and spring of 1993. We may here talk about an indirect, representative participation in this first team who laid out the main elements of the Joint Project.

This strategy team attempted to break out of the traditional linear mapping-analysis-action logic by suggesting a process by which enterprises should become more directly involved. They proposed that enterprises, competence suppliers and others from the regional support infrastructure should be brought together through *conferences* in order to raise the consciousness among the enterprises, to map their needs, and eventually to commit the

participants to joint development projects. Already at this stage, the social partners took the responsibility for the conference part of this project. The strategy team was dissolved after preparing this proposal in time for the County Parliament meeting in June 1993. The way the team operated, they seem to have had a fairly high degree of interactivity with respect to the 7 characteristics throughout the existence of the team. The main issue to notice at this point is which stakeholders were part of the interactivity.

As we recall, due to political power play, the strategy plan was not passed in Parliament until later that fall, and the process was delayed until early 1994. At this point, an informal work group was put together in order to design the Joint Project. This informal group was composed by two from LO, one from NHO and the free-county coordinator, an officer from the Department for Industrial Development. In other words, the design process continues without concrete enterprises. The informal work group made a detailed design of The Joint Project with a sequence of motivation conferences and mapping conferences for a number of industries. This led to the formal start of the Joint Project on 1 August 1994, two years after the strategy process started among the department heads. The first attempt at involving enterprises directly occurred at the first motivation conference in October 1994.

Apart from not having enterprises participating, the degree of interactivity between the participating actors up to this point can be characterized as fairly high in these small work groups. However, from this point onwards the Joint Project was carried out according to a linear logic. At the point where concrete enterprises entered the collaboration, the design of the process was already made, and the main elements of motivation conferences and mapping conferences were not changed throughout the lifespan of the Project.

Even if the Joint Project started out with an intention to involve enterprises, which they also did, the project never escaped the linear, centralized planning mode. Involving enterprises was reduced to inviting them to express their needs, after which the public actors should organize to meet those needs. The sequence with motivation conferences, then mapping conferences and finally an implementation phase that no-one thought about until after it should have started, shows a project that was both too planned and inadequately planned, as well as overcrowded and with inadequate participation.

The motivation and mapping conferences proved to be insufficient means for ownership development and did not allow for an interactive process between participants, but took the form of one-way statements rather than being conversational. The linear and somewhat rigid nature of the pre-designed master plan appeared to be a hindrance for learning and adjustments during the project, and thus showed low capacity for assuring the relevance and quality of the efforts. Despite the limited success with the conferences, this operational mode was continued throughout the project, and moreover, it was suggested as an element in the continuation into the next project, a critical turning point for the collaborative. The linear, pre-planned approach with weak enterprise participation proved unsupportive of learning to the point where the collaborators themselves were willing to continue, but the ownership to the Joint Project by the national HF-B and the enterprises proved too weak to support further activities along the same lines. The low degree of interactivity seems to provide part of the explanation of the less successful outcomes of this collaborative construction, i.e. the time spent from initiation to actual development efforts in enterprises, the costs involved, and the inability to institutionalise the collaborative.

A shift in logic

A distinct shift in logic appeared in the last part of the implementation, where the enterprise officer from the Employment Office was assigned the task of organising the actual training efforts together with the enterprises. As noted earlier, the resources put into this final stage were relatively scarce; while the motivation and mapping conferences had involved a large number of people from both the Social Partners and the county departments, this final stage of actually doing things in and with the enterprises was left to one individual, first on halftime, later on full time. He started off with a list of enterprises, which had formulated more or less well-specified training needs. The tasks he was facing was to link groups of employees from different enterprises with similar training needs into sizeable groups to achieve economy of scale, and identify educational actors to match the needs of these groups. In this process, the enterprise officer managed to recruit a relatively large number of additional enterprises, 24 out of the total of 71, to achieve a sound economy of scale.

The modus of work rested on direct, conversational interaction between the enterprise officer and representatives from the enterprises where they discussed contents, timing and adequate staffing of the various training initiatives. This can be viewed as an entrepreneurial process in

the sense that it had to do with linking actors, finding solutions to practical problems, seeing opportunities etc. For instance, due to his limited administrative capacity, the enterprise officer came up with the idea of “the coordinating enterprise”, which meant that the enterprise with most participants in a particular training program was given the task of coordinating with the rest of the enterprises throughout the training program, handling most of the paper work etc. This practical innovation was accepted by the participating enterprises, and made it possible for the enterprise officer to move on to organize the next training constellation.

One is compelled to compare this low-key, single handed, and in a sense entrepreneurial way of working to the relatively high profile, well staffed, highly organized, large scale and pre-planned efforts earlier in the Joint Project. After all, the enterprise officer managed by himself to recruit 1/3 of the enterprises, and bring them through concrete training programs, which may be regarded as the actual core output of the Joint Project. Was the process leading up to this final stage too long, too costly, too planned and inadequately organized? I shall return to this question as the next two cases provide us with further opportunities for comparison. With respect to the 7 characteristics, the Joint Project may be summarized as follows.

1. *Interactive processes are **open-ended***: little if anything is pre-defined or pre-structured. At the point where concrete enterprises entered the collaboration, the process was not open ended. To the contrary, at this point the process and the structure were pre-defined.
2. *The process, structure and contents are **jointly** created by the stakeholders, repeatedly*: Neither the process nor the structures put in place were jointly created. Only the contents were open to involvement from the enterprises. Joint reconstruction was not on the agenda. The organizational structures and the master design were kept throughout the Joint Project, despite clear indications of inadequacy.
3. *Interactive processes are **conversational** rather than consisting of monologues*: The motivation conferences consisted of monologues and were not conversational, and served to de-motivate the participating enterprises. The mapping conferences increased the conversational aspects, and the final implementation further strengthened the conversational aspect.

4. *Interactive processes focus on **development of common ground** rather than negotiation of formal contracts:* With respect to involvement of the enterprises, development of common ground was clearly more in focus than were formal contracts. Also between the Social Partners and the Free County departments the initial focus was on common ground through the strategy process. However, in the operational phases, despite written agreements as to who should do what, unclear expectations arose regarding division of labour between the stakeholders, and the governance structure proved inadequate. While this does not in itself call for more formal contracts, it indicates the need for careful discussions about practicalities and resources, both before and during the process, and an organizational design that is capable of learning and adjustments as the process unfolds.

5. *Interactive processes are **non-bureaucratic**:* The emphasis on funding possibilities communicated to the enterprises through the motivation conferences appeared to introduce a bureaucratic element in the process rather than a development-oriented perspective. For a period, the focus of the enterprises appeared to be on the money they could get under certain rules and regulations. Later in the process the bureaucratic element in relation to the enterprises faded, but remained high in the core collaboration between the Social Partners and the various Free-County departments.

6. *Interactive relationships respect the value of the other and are typically of a **horizontal participative nature**:* While the public rhetoric valued enterprise participation and close contact, participation by the enterprises was brought in *after* the Joint Project was designed. Since the enterprises did not have access to the design of the process nor the structure, the collaborative effort cannot be characterized as participative with respect to the enterprises in the first part of the Joint Project. From the motivation conferences onward, the participative element increased. If one defined the Joint Project as a strictly non-enterprise collaboration between the Social Partners and the county departments, one may argue that this critic of limited enterprise participation is mistaken, and instead maintain that all relevant stakeholders participated, given this particular setting. The argument against such a position goes to the core of what the collaboration is about: it is about development of enterprises, not e.g. the education system or physical infrastructure. The claim to have included all relevant stakeholders therefore does not hold.

7. *Interactivity should be sustained as a modus operandi*: Again a high degree of interactivity was not in place from the start, and hence the challenge was not to sustain an open, broadly participative process, but rather to introduce it in the first place. Interactivity was throughout the Join Project confined to certain stakeholders and certain issues, and the degree of interactivity appeared insufficient to address some of the critical issues for the overall collaborative construction. When the collaboration proved incapable of adjusting its own structure and its master plan, it indicated clearly an inability to raise the critical questions and learn from experiences along the way.

At this point one may ask whether this low degree of interactivity influenced the 5 important aspects of collaborative process?

1. *Relevance and quality of the development efforts*. One might rightfully question the relevance and quality of the overall development strategy, and part of its implementation, i.e. the motivation conferences and the understanding of what the final implementation would demand in terms of manning and work. The collaboration's inability to learn and adjust is in itself a lack of quality. Whether or not this would have been fundamentally improved by a stronger participation by the enterprises may be debateable. It does seem likely that with enterprises more actively involved in running the Project, the feedback from the enterprises on the motivation conferences might have been taken more seriously and the slow follow up by the county departments addressed at an earlier stage. This indicates that both the design and the governing structure of the Project would have been in for a critical discussion earlier in the process, if at all designed and structured this way with a stronger enterprise participation.

The relevance of the actual training programs must be judged as fairly high, as the enterprises themselves articulated their needs. However, the representatives chosen for the mapping conferences clearly influenced the direction of the training programs towards training of employees in rather basic issues, rather than more complex issues associated with e.g. internationalisation and enterprise development, which was an intention from the outset. This points to the importance of the process by which the needs are actually identified, articulated and discussed, both internally in the individual enterprise, and

externally with other stakeholders. Any kind of interaction with enterprise representatives will clearly not be sufficient in assuring relevance and quality.

2. ***Ownership and commitment among the stakeholders.*** Clearly the ownership among the enterprises to the collaborative construction was weak. To the enterprises, the Joint Project was not a construction they were part of, but rather a service they could choose to utilize. The level of commitment and ownership among the core stakeholders, i.e. the local Social Partners and the Free County departments appeared high, as they also had a high degree of interactivity among themselves.
3. ***Backing and support from stakeholders at critical turning points for the collaboration.*** The critical turning point for the Joint Project appeared when the core stakeholders attempted to institutionalise the collaborative construction through prolonging the Joint Project. As it turned out, the core stakeholders lacked the sufficient backing among the enterprises and the national Social Partners to succeed, and the Joint Project was terminated.
4. ***Trust-building among the stakeholders.*** Between the stakeholders who worked closely together, trustful relationships developed on an individual level (Johnsen & Velde 1996). However, the level of trust between the Social Partners and the county departments suffered during the tensions and conflicts when the follow-up of the enterprises was inadequately handled by the county departments until the enterprise officer was assigned to the task. The level of mutual trust appeared high enough, however, to agree on the attempt at institutionalising the Joint Project. The level of trust between the core stakeholders and the enterprises is more difficult to assess. What we know is that many enterprises did not want to participate after their experience with the motivation conference, and a few also dropped out after the mapping conferences. In addition, several enterprises signalled impatience with the lacking follow-up described above, pressing on the Social Partners, who in their turn pressed on the county departments. The enterprises trusted the Joint Project stakeholders, especially the Social Partners, sufficiently to show up at the conferences, but not enough to go on with the process without extensive persuasion. All in all it seems reasonable to describe the degree of trust among institutions as mediocre, and not evolving positively throughout the Joint Project, and to couple this degree of trust with

the corresponding low degree of interactivity. Typically, trustful relationships in this system seem to be between individuals rather than between institutions. In that respect, one may assume that the relationships between the enterprise representatives and the enterprise officer from the Employment Office evolved into a reasonably trusting one through their direct interaction and practical outcome of the training programs. His ability to recruit a large number of enterprises supports this interpretation.

5. *Learning among the stakeholders.* Did the degree of interactivity influence the extent to which the stakeholders learned from and about each other? It seems apparent, not least from the evaluation of the Joint Project (Johansen & Velde 1996), that the individuals who worked most closely together in the informal workgroup and later in the project group in charge of the conferences, gained a strengthened mutual understanding. In other words, where the degree of interactivity was highest, the mutual learning also appear highest. One may also imagine that the conflict around the follow-up gave the non-public actors a deepened understanding of the dynamics within the public system, for better or worse.

9.4 Interactivity and the Wood Centre

In assessing interactivity, we must start by identifying whom this interactivity potentially is between. In other words, who were involved and not involved at which points in the process? The second of the cases in this thesis was initialised by a few enterprise managers in the wood industry worrying about the competence level among their work forces. Already from the start this process was well anchored in the enterprises, though they were a small group. As we recall, they soon approached educational actors. The AMO centre, the upper secondary school and the county Department of Education were involved in establishing the vocational training, creating the hybrid structure for the Centre and partly financing the feasibility study. Other more peripheral actors, such as the Department of Industrial Development, also contributed financially to the study leading to the Centre construction, but they were not active stakeholders in the collaboration over time. The main lines of interaction are thus between the core stakeholders, the referent organization (i.e. the Ring and later the Centre), the other member enterprises and the educational actors.

1. *Interactive processes are open-ended: little if anything is pre-defined or pre-structured.*

The modifications of purpose and the changing of the referent structure several times

throughout the development trajectory, are clear illustrations of a process that is sufficiently open to accommodate new insight and learning. Adjustments of the purpose and restructuring of the domain did not occur according to a pre-defined master plan, but were instead the results of new understanding of the challenges and possibilities for the domain.

2. ***The process, structure and contents are jointly created by the stakeholders, repeatedly.***

Again, the Wood Centre is the best example of the three cases of how addressing these issues are a repeated concern, and not issues that are settled once and for all. To which extent was it “jointly” created? The initiatives very much grew out of the interaction among a smaller group of individuals, in which enterprise managers were the driving force, but repeatedly with the core public stakeholders involved. The larger domain, i.e. all the member enterprises, were not directly involved at all points, which is of course not feasible, but they provided crucial inputs regarding the direction for development, and eventually sanctioned and supported the initiatives coming from the core group of stakeholders. A critically important element seems to be the ability to “sell” new initiatives, i.e. to regain broad support from the larger domain at turning points. This relies very much on the relationships between the core stakeholders who champion new initiatives, and the rest of the domain. It thus seems that in the Wood Centre case, the process, structure and contents have been jointly created to a sufficient degree to maintain ownership and legitimacy.

3. ***Interactive processes are conversational rather than consisting of monologues.***

The interaction between a handful of core individuals in this case must be assumed to be conversational. The conversational element is also evident in visiting the enterprises in the up-start phase of the vocational training, and the continued emphasis from the referent organization, i.e. the Centre, to get to know each member enterprise and its development needs by actually visiting the enterprise and having conversations with managers and employees. The intention of creating a forum for what they call number one managers is also in line with the emphasis on conversations. Interaction with public actors has been on an individual and informal basis, where key stakeholders or influential actors have been addressed directly through meetings with core stakeholders of the domain. Instead of for instance letters to the county administration, the core stakeholders have arranged meetings

with the head of the Department of Education and the Deputy County Major to discuss issues of strategic importance to the domain.

4. ***Interactive processes focus on development of common ground rather than negotiation of formal contracts.*** The whole logic behind the Wood Centre is that the wood industries in the area share many of the same challenges, and will have to address them through collaborative strategies, i.e. the primary focus is on common ground. Apart from breaking loose of the hybrid structure and securing some basic infrastructure as endowment, negotiation has not been a relevant form of interaction. However, the practical means by which the shared challenges are addressed, do have contractual elements. There is for instance a level of formal contracts connected to the vocational training program, where the individual, the enterprise and the Centre agree on a 4 years program. This level of contractual regulation of the relationships serve to align expectations and thus stabilize such long term engagements, and is not what is meant by not focusing on negotiations of formal contracts. Exits from and entrances to the membership of the Centre are voluntary, and the level of engagement from each individual enterprise is also pretty much up to the enterprise itself. This gives a picture of a domain with a low level of formal control and contractual elements connected only to implementation of particular, concrete projects.
5. ***Interactive processes are non-bureaucratic.*** The distinct bureaucratic element in this process was the formal rules and regulations that the Centre had to comply with as part of the upper secondary school. This can be understood as a bureaucratic way of regulating the relationship between the Centre and the public actors. Though treated as flexibly as possible, this bureaucratic element posed some difficult challenges and eventually spurred the process towards independence of the Centre. This point illustrates the difficulty in fostering entrepreneurial, innovative development efforts within a bureaucratic framework.
6. ***Interactive relationships respect the value of the other and are typically of a horizontal, participative nature.*** The public actors in this case have demonstrated a supportive attitude and have acted constructively to the initiatives from the enterprises. The core enterprises on their side have managed to maintain a sufficient support in the wider membership base, and to involve the member enterprises in successively new

modifications. This indicates a fairly satisfactory and unproblematic balance of power between the public and private actors, as well as among the enterprises. The fact that the initiatives come from the enterprises themselves, contribute decisively to make this aspect unproblematic. Moreover, the participative element is strengthened considerably by the mode of operation by which the members regulate the activities, and ultimately the existence, of the Centre directly through co-creating meaningful activities by conversations with the employees of the Centre. Respecting the needs and the situations of the enterprises as the *returning* point of departure for initialising activities is said to be essential for the operations of the Centre. In addition, the influence of the enterprises is assured through the referent structure. In other words, this feature of interactivity seems to be satisfactorily fulfilled.

7. *Interactivity should be sustained as a modus operandi.* The interactive characteristics described above are spread out in time, and thus illustrate how interactivity takes on a more or less permanent form. Again, using the enterprises needs as the reference points, and repeatedly departing from conversations about development issues, contribute to sustain this modus operandi. The organizational frame for this way of working, i.e. the Centre itself, appears as an important element in institutionalising interactivity and thus sustaining this as a modus operandi without declining to rigidity and bureaucratic work forms.

Based on these reflections, the Wood Centre process can be characterized as having a high degree of interactivity. The next question then becomes whether this level of interactivity has contributed to the 5 important aspects of development processes.

1. *Relevance and quality of the development efforts.* The existence of the Centre during this fairly long time period, as well as the growing number of member enterprises from 6 to 51 during the years of the study (and only one enterprise departing), illustrates how the relevance and quality are perceived by the *enterprises*. The continued support from various *public actors* over the years, even in the form of giving project assignments to the Centre, clearly indicates how these actors assess the relevance and quality of the activities carried out. The level of participation by the enterprises, the focus on concrete competence needs and the conversational approach to identifying new challenges, possible solutions

and organizational forms, have undoubtedly contributed decisively to assuring relevance and quality by for instance not taking on too ambitious projects, keeping costs at a reasonable level, and still expanding the portfolio while being in tune with the enterprises' perceptions of their needs.

2. ***Ownership and commitment among the stakeholders.*** The ownership and commitment from the core stakeholders appear consistently high during the period of the study. The handling of referent functions on behalf of the domain and a series of new initiatives illustrate the level of ownership and commitment, as do the successful transitions mentioned below.
3. ***Backing and support from stakeholders at critical turning points for the collaboration.*** The critical turning points were more than anything the expansion from the Wood Ring to the Wood Centre, and establishing the Centre as a part of the hybrid structure at the school. The transition *from* the hybrid arrangement to becoming an independent institution is another such critical event. The number of actors financing the feasibility study, and the willingness of the educational actors to take on the burden of the hybrid structure, clearly show a situation where important stakeholders support the collaboration at points of transition. Notably, the support by these public actors would not have been possible without the active involvement in the first place by the core group of enterprises. At the point of independence, the member enterprises as well as certain involved individuals contributed to the practical arrangements that made it possible to continue operations.
4. ***Trust-building among the stakeholders.*** The most relevant dimensions of trust-building in this case probably concern a) the relationship to public actors and b) the position of the referent organization in the domain. a) The personal network and close collaboration between a few (public and private) individuals from the start of the Training Ring most likely was important in making the dean willing to include the new Centre in his school, and in a sense protect the Centre from the rest of the educational system. Thus, without interactivity this creative solution would most likely not have been possible. b) The referent functions performed by the Centre people and the expansion of types of projects they carried out with and for the enterprises, illustrate a development in trust based on a good track record. Was this dependent on interactivity? When the track record consists of

“records” of listening to the enterprises and taking them seriously, it indicates that at least a part of this trust building is linked to interactivity.

5. *Learning among the stakeholders.* The degree of learning from and about each other in the domain is hard to assess from the case material. Surely, individuals must have gained some increased understanding of limitations and possibilities inherent in the “other” sector, and the support received by especially the educational actors indicates an understanding and acceptance of the way the enterprises have wanted to address their challenges in the field of competence. Thus, either the insight of the educational actors was quite good in the first place, or learning has taken place through the interaction. The most obvious mutual learning situation occurs when the Centre people visit each individual enterprise and inquire into operational matter and development challenges. The main apparent weakness thus far is the limited interaction directly between the enterprises. Besides the ongoing conversations between a few core stakeholders, the representatives of the board and a few shared projects, the activities have not so far been designed to bring the enterprises together to learn from each other. A first step to remedy this is the planned number-one-manager forum.

9.5 Interactivity and the Electronics Committee

The immediate stakeholder setting in the Electronics Committee is simpler than in the previous cases. As we recall, the Employment Office initiated the collaborative effort, but very soon brought the enterprises and the competence institution into the Committee, and thus created a setting where those present very much constituted the domain. The Committee did not have any other governance structure or direct involvement of stakeholders, but relied on the funding possibilities in the larger public system for co-financing the various training projects.

The second group of stakeholders or influential actors if you like, was on the public side the Employment Office, which was and still is, heavily governed by the national Directorate of Labour and subject to changes in funding, manning and priorities based on political decisions and developments in the work market. On the private side, the potentially influential actors in relation to the Electronics Committee were mainly the top management of the participating

enterprises. Let us now turn to assessing the degree of interactivity in the process of the Electronics Committee.

1. ***Interactive processes are open-ended: little if anything is pre-defined or pre-structured.***

The Committee started out with a focus on the shop floor level and an invitation to collaborate across enterprises and with the Employment Office, in order to generate training projects that the enterprises needed. This was pretty much the level of pre-definition and pre-structuring in this effort. The Committee constituted itself each time it met at irregular intervals, and generated the contents collectively. This implies a low level of (pre-) definition and (pre-) structuring from one meeting to the next; both the fact that they summoned the next meeting and created the contents anew each time, was based on the needs formulated by the enterprises. When assessing to which extent a process is open-ended, one must also take into consideration the ability and willingness to change. A process may in principle be open ended, but in reality show incapability of change. Thus, what was once settled, defined and structured as a semi-temporary arrangement, may remain unquestioned regardless of changing circumstances. The major changes in the Electronics Committee were all induced by external actors. Both the suggestion to include more enterprises and later to redefine the purpose to adapt to the new regulations faced by the Employment Office, came from the outside. The internal stakeholders complied with the suggestions, and thus demonstrated an ability to adapt to contextual changes. The fact that initiatives for changes were not generated from within during this long time period, may possibly indicate a somewhat low level of attention towards self-development. This, however, does not seem to have had any negative consequences for the collaboration.

2. ***The process, structure and contents are jointly created by the stakeholders, repeatedly.***

The mode of operation where both the competence supplier, the public support representative and the enterprises represented by their production managers and union representative met together and through a conversation established an understanding of the present training needs and generated a workable solution in terms of timing, topic, quality and financial arrangement - each time - clearly satisfies this dimension of interactivity.

3. ***Interactive processes are conversational rather than consisting of monologues.*** The point just made above emphasizes the conversational element. In addition, informality was

put forward by the participants as important for creating the including, constructive and collaborative atmosphere for productive conversations. This informality led to, and was strengthened by adding social encounters to the result-oriented meetings.

4. ***Interactive processes focus on development of common ground rather than negotiation of formal contracts.*** Clearly, the Electronics Committee did not focus on negotiation of formal contracts to regulate their interaction. Only as a result of identifying common needs and designing workable solutions, a level of negotiation was introduced in settling financial matters and execution of the individual training projects where money, people and time should be coordinated. The level of mutual trust made it possible to execute these ventures without much formal paperwork and written agreements.
5. ***Interactive processes are non-bureaucratic.*** The modus operandi described above with its emphasis on conversations and informality is of a non-bureaucratic nature. The bureaucratic elements associated with the public funding was well handled by the enterprise officer, and thus kept out of the Committee. He thus performed a bridging function between the bureaucratic system and the entrepreneurial setting in the Committee.
6. ***Interactive relationships respect the value of the other and are typically of a horizontal, participative nature.*** Mutual respect and a clear sense of equality developed between the participants. Continually placing the needs of the enterprises in the centre is a powerful way of respecting the enterprises and their situation. One might, however, question whether this was always the case with the externally induced changes. These changes were results of views and priorities in the public system beyond the Committee, and did not take the participating enterprises as the point of departure. Especially the changing of purpose from re-training to recruitment had an element of ultimatum, but it was viewed as fair and understandable, and also to a certain degree matched changes experienced by the enterprises.
7. ***Interactivity should be sustained as a modus operandi.*** Their modus operandi has been continued, and thus sustained, over several years. The level of interactivity has thus remained high over the years.

How has this high level of interactivity contributed to the 5 aspects of development processes?

1. ***Relevance and quality of the development efforts.*** One must assume that the tailor-made approach where the enterprises repeatedly have defined the desired training, has contributed decisively to the relevance and quality. Ultimately, the enterprises are the judges of relevance and quality, and the long-lasting collaborative relationship clearly shows that the member enterprises have valued the Committee.
2. ***Ownership and commitment among the stakeholders.*** The ownership and commitment appear strong from the outset among a core group of stakeholders, i.e. the first enterprises and the officer from the Employment Office. The practical results are most likely the major contributor to maintaining the interests from the enterprises. But undoubtedly, the informal and friendly style, as well as the direct participation by all members in the Committee, have contributed to the continued ownership and commitment. Two changes of officers from the Employment Office do not seem to have influenced these aspects negatively.
3. ***Backing and support from stakeholders at critical turning points for the collaboration.*** The critical turning points for this collaboration were the expansion of the membership base, which made the dynamics of the Committee somewhat more complicated, and the redefinition of the purpose. In none of these situations was there a question of *external* backing. Rather it was a question of accepting the requests. Thus, it is unclear to which extent the interactivity has contributed to, or would have contributed to, backing at critical turning points.
4. ***Trust-building among the stakeholders.*** The relatively high level of mutual trust, which developed during the years, was undoubtedly influenced by the level of interactivity.
5. ***Learning among the stakeholders.*** The modus operandi rests on the premise that the parties listen to each other and respect the situation and conditions that they communicate. Repeated descriptions and explanations of operational matters, such as increased quality demands, shifts in technology, new products and varying size of production orders

coupled with needs to qualify people, have most likely provided the non-enterprise members of the Committee with an increased understanding of such matters. Likewise, the various financial packages put together for the training project may have given the enterprises some insight into the limits and opportunities of the public system.

9.6 Interactivity across the three cases

Interactivity and output - an overall reflection

If we then look *across* the cases, what are the most apparent lessons to learn regarding interactivity? The most striking comparative point on an overall level is that while the processes of the Electronics Committee and the Wood Centre both appear highly interactive, the Joint Project-process is clearly not. We know from earlier comparisons that the output or results in a broad sense follow the same pattern. The Joint Project was relatively more costly, took relatively longer time, had a higher level of conflict and was unsuccessful at institutionalising itself. To which extent can these differences in terms of results be ascribed to the difference in degree of interactivity?

Processual characteristics	The Joint Project	The Wood Centre	The Electronics Committee
Ownership	County dept and regional LO & NHO	Enterprises	Enterprises + employment office
Time of enterprise involvement	Late	Early	Early
Modification of purpose	No	Yes	Moderately
Modification of structure	No	Yes	No
Main development logic	Linear	Interactive	Interactive
Degree of interactivity	Low	High	High

Table 6: Processual characteristics

The results of the Joint Project have earlier (i.e. 8.3) been interpreted and explained from an *organizing* perspective. While there is an overlap between the organizing and the processual aspects, for instance regarding participation, the qualifications of interactivity provide *additional* insight into the shortcomings of the Joint Project. Thus, while interactivity does not provide *all* the explanations for the poor results, I argue that the processual aspects inherent in

the concept as I have defined it, enrich the understanding of development trajectories. In other words, the simple argument is that qualities of the process influence the results achieved, and that these qualities are brought into focus by the concept of interactivity. On the level of the individual case, this has been the focus of the discussions above. Contrasting the cases further supports this position. In the following I shall attempt to explain the differences in *overall development logics* between the cases. My main point here is the contrast between a linear, sequential logic and a non-linear logic based on interactivity. This discussion has consequences for the role and functioning of the public actors.

Main development logics

Not only the particular elements of the Joint Project have been marked by limited interactivity. Also the *overall logic* behind the effort takes on a linear dimension that very much rules out interactivity. The Joint Project was planned as a *sequential* effort: one element following neatly after the other. The main logic was as follows.

Step 1: Motivate the enterprises to consider competence development as an important issue.

Step 2: Map their needs, and

Step 3: Meet their needs by mobilising the competence institutions.

In more detail, the process went as follows: First, the managers and union representatives should participate in “motivation conferences” where the public actors presented their various support measures in a one-way fashion, i.e. giving a general overview in a speech mode, as opposed to a conversation. The enterprises should then start to articulate their development needs and report back in a similar one-way fashion. Then the managers and the union representatives should participate in a “mapping conference” where the actual needs were mapped by arranging conversations in groups among the participating enterprises. After the mapping conference where all the needs were supposed to be clearly expressed, the relevant competence supplier should be matched with the group of enterprises with a particular (training) need, and training carried through with some financial support from the public system. This sums up the thinking behind the project.

Moreover, the Joint Project was *actually expected* to follow this linear and somewhat rigid pre-designed master plan, and no elements of reflection and evaluation was included in the design. Thus, the Joint Project can be characterised as following a *linear logic*, both in the

overall development thinking and in the more operational elements of the project. I argue that this overall logic, as well as the particular elements of interactivity, contributed to the quality of the results. The master-plan thinking, which in this case captures the essence of linearity, contributed decisively to the costs, to the time perspective, to the inability to change, to the structural complexity and incoherence, and finally to the weak ownership at the point of attempting prolonging of the collaboration. Even if the Joint Project started out with an intention to involve enterprises and surely did, the Project never escaped the linear, centralized planning mode.

In contrast, both the Wood Centre and the Electronics Committee cases portray development trajectories of a more interactive nature where the collaboration was *constructed and re-constructed along the way*, rather than defined in advance. These cases had ideas and visions, but no master plans. Both cases experienced transitions where their core activities were modified and their stakeholder set expanded, and in the Wood Centre case, the organizational form was changed twice in the period of study. At these critical turning points, the close relationships between the Centre and the enterprises proved crucial. In the Electronics Committee, the way of working as well as developing was through conversations with everybody present. This level of participation effectively secures relevance and quality, and builds ownership among the participants in the small group.

In the Wood Centre case there has been a gradual development of the ideas, the member base, the purpose, the activities, the structure and the financial footing during its more than 6 years of operation. This has not been a linear process where the development follows a pre-defined plan, but rather a muddling-through process where solutions and opportunities have emerged as a result of the practical experiences and the interaction between the stakeholders. While all the 51 members do not participate with the staff at the Centre in every initiative and every conversation as in the Electronic Committee, all the initiatives are closely anchored in the enterprises by repeated conversations between the staff and individual enterprises, or with a smaller group of enterprises. This interaction provides the staff with important learning opportunities to the point where they have gained detailed knowledge about the participating enterprises.

Planning and interactivity

The contrast between an arms length relationship between enterprises and (semi-) public actors based on a logic of centralized planning, and an interactive, open-ended process based on continuous re-construction, appear to be so striking. Why does the former process appear so unproductive? Why has the Joint project not escaped instrumentalism and linearity? The approach in the Joint Project, and in the efforts leading up to the project emphasised bringing stakeholders into the process and relating more closely to industry. Further, the whole Free County Experiment, of which the Joint Project was a part, grew out of an attempt by public actors to be proactive and take a role in industrial development. This appears to be in line with what scholars on public planning argue is the desired direction for development within public sector (e.g. Amdam 1996b, Bennett & McCoshan 1993). Where did this thinking go wrong?

Firstly, we must look more closely at the proactive role. I do agree that the proactive role is desirable and even necessary for public actors and other developers in the field. But as I mentioned in 2.7.3, a proactive role for public actors needs to be carefully balanced so that the other actors are not forced into a *reactive* role that undermines ownership and commitment. This is exactly one of the aspects we have seen in the Joint Project. The proactivity displayed by the core stakeholders has not successfully contributed to ownership among the enterprises. Rather it has kept the enterprises as too passive recipients of public policies and support.

Secondly, we must question the overall planning logic as a framework for public action in this field. The strategy process that preceded the formation of the Joint Project is typical for the type of strategic planning carried out in a number of municipalities and county administrations all over Norway. They attempt to mobilize stakeholders and run broad, including processes that are well anchored in the community. This is in line with the development in public sector towards planning as social mobilization and social learning (Friedman 1987), or “strategic and mobilizing planning” as Amdam terms it (Amdam 1995). However, even with all good intentions, the problem seems to be to escape centralism, instrumentalism and linearity within this planning logic. These aspects sneak in again after they have been thrown out. This is for instance evident in the sequence of strategic, tactical and operative planning suggested by Amdam (Amdam, R. 1997). Here we see that the planning goes from strategic to operative, with increasing rationalistic and instrumental elements as the planning becomes more operational.

The Joint Project did not escape centralism and linearity, and my doubts expressed in chapter 2 regarding the compatibility between planning and collaborative development are strengthened by the experiences from the Joint Project. I am sure some would argue that it is just a matter of developing the forms of planning further, or apply the modern planning theories more properly. Development then becomes a question of still better planning to the extent where development *is* planning, as all public action is subject to planning. To me it seems that this development must go in the direction of still *less* planning to the extent where public actors must be able to escape the planning logic altogether, in order to be proactive developers that mobilize the enterprises in a collaborative manner. They probably do have to be planners as well, but if every action and interaction have to be subject to a planning logic, they seem to lose the dynamic and fluid aspects of interactivity. Escaping this logic is possible, as we have seen from the other two cases, and from the final stage of the Joint Project itself. Public actors then must be able to step in and out of a planning logic, as well as in and out of a bureaucratic logic. This also implies stepping out of the public hierarchy and into horizontal collaboration - and back again. These are highly demanding tasks, and illustrate the challenges faced by the public sector. How this is to be achieved, is not the subject of this thesis, but the direction indicated above seems to be in line with the discussions of the concepts of *governance* and *new public management* (e.g. Naschold & von Otter 1996, Stoker 1998).

9.7 Summing up the learning on process issues

- *From characteristics to principles.* My contribution to the literature on collaborative processes is supported by this analysis. Using my characteristics of interactivity in analysing the processes appears to give a new and better understanding of the various development trajectories, and the degree of interactivity corresponds well to the outputs of the cases. The way I have qualified the notion of interactivity, it may also serve as a guideline for future collaborative efforts. It escapes the linearity present in many current process models, as well as the linearity that dominates planning approaches by public actors. The concretisation of interactivity provides a conceptual apparatus by which critical aspects are addressed. Based on these analysis and conclusions, the formulation should be changed from “characteristics of interactivity” to “*principles of interactivity*” as interactivity now appears as a more well-grounded concept. However, interactivity does not attempt to be all encompassing in addressing process issues, neither does this conceptualisation claim to be valid for all types of collaboration.

- Interactive processes seem to secure ownership, relevance and quality of the development efforts, and strengthen trust building and learning. These dimensions positively influence the *capacity for change*, which I earlier argued to be a critical property of collaborative domains.
- Interactivity allows for an understanding of collaborative efforts as continuous processes of *re-construction*, rather than permanent, once-and-for-all constructions. This reflects the fact that interorganizational collaboration between in principle independent organizations, and the nature of the organizational forms they create at this level, is of a different nature from our traditional organizations with their command and control structures. Constructing public-private collaboration thus becomes a question of maintaining the attention towards the ongoing construction process with repeated attention to critical issues, and not viewing the effort as a question of a linear construction in a mechanical sense.
- A master-plan approach, which is linked to a linear, planning logic, seems particularly ill suited for forming robust public-private collaborative relationships. Such an approach embodies that which interactivity is *not* about.
- Indirect representation through for instance the Social Partners is an insufficient form of enterprise participation in development efforts.
- The role of public actors should be proactive, but the proactivity must be carefully balanced so that it does not lead to reactivity on the part of other collaborative partners.
- Regardless of new developments in public planning towards so-called «strategic and mobilizing planning» where learning and participation are central, the planning logic governing much public actions seems to be less suited for horizontal collaboration. To escape linearity and centralism, public actors must be able to step out of their planning logic within their bureaucratic and hierarchical context - and back into it again. Handling different logics and moving back and forth between hierarchy and bureaucracy to horizontal collaboration are highly demanding tasks. Nevertheless, examples show that it can be done, and such a collaborative public sector is very much in line with the current discourse on public sector development.

Chapter 10

Towards an Infrastructure for Change

10.1 Introduction

The way this thesis has been constructed, analysis may be made at three different levels; at the level of the cases, across cases, and at a regional level. The three cases are parallel in time, happen in the same region and partially have overlapping stakeholders, i.e. they co-exist in a quite similar institutional context. This allows not only for analysing each individual case and comparing across the three cases, as I have done so far. It also provides an opportunity to move one level up and try to extract learning on a regional level, where the cases may not so much be compared to each other, but viewed as an expression of an emerging collaborative pattern, indicating characteristics of an infrastructure for change. At this point I am searching for regional characteristics of an *indicative* nature that may help us to conceptualise public-private collaboration for industrial development. Rather than being conclusive, this chapter therefore has an exploratory character where traces or patterns emerging from the material are systematized.

In the introductory chapter I described how I became aware of the growing number of collaborative efforts in Aust-Agder, both between enterprises, within the public sector, and between enterprises and public actors. I started to wonder how these widespread collaborative constructs could be conceptualised beyond being just a number of collaborative efforts in the same region. In chapter 3 I established the idea of an infrastructure for change as my point of departure for developing the regional dimension of collaborative industrial development. This chapter attempts to give an answer to the question posed at the end of chapter 3: What are the characteristics of a regional infrastructure for change?

10.2 An infrastructure for change

An infrastructure in a general sense may be understood as an enabling structure. In a physical or material sense we often think in terms of infrastructures for such as transportation and communication, and by that refer to such as roads and railways, postal services and

telecommunications, etc. In our context, the infrastructure is for enterprise development, and consists not of rails, but of collaborative relationships that make a desired development possible. These collaborative relationships are necessarily communicative by nature, and link actors across levels and sectors around specific development issues.

The idea of an infrastructure for change applies well in regional settings where the development task is not limited to the individual enterprise itself, nor to the immediate network with which the enterprise interact directly, i.e. its transactional environment. The idea should also seek to take into account the larger system of enterprises and their relevant support structure, i.e. the *contextual environment*. The contextual environment consists of actors that may not be directly involved with the particular collaboration, but who indirectly influences it at points in time. Thus, it includes the extended networks around the collaborative efforts. This contextual dimension becomes one of the characteristics of a broader infrastructure for development.

What the infrastructure consists of is to a certain degree a site- and situation-specific question. It is the specific task at hand and of course the institutional setting, individual networks etc. that constitute the field. In constructing an infrastructure for change, we may talk about a task- and context-based construction process. In other words, this is not a public structure that is «in place», centrally decided, well institutionalised with clear responsibilities towards industrial development etc. And probably it should never become such a structure with its hierarchical and bureaucratic elements. Rather, it should be thought of as ongoing, horizontal construction processes, linking relevant actors and institutions around issues of shared concern. In a certain sense, it can be understood as a process of linking conversations about development. Who the actors are will inevitably vary, over time and from locale to locale. As the understanding evolves of how the development of enterprises may be supported, new actors may find themselves as co-players in this infrastructure. A wide range of institutions can potentially play a role as part of the infrastructure for change, including those who administrate public regulations of work life.

In a Norwegian county context some of the standard actors are such as the labour inspection authorities, the employment offices, the county departments for industrial development, education, forestry and agriculture, politicians at municipality and county levels, certain parts

of the municipality administrations, the enterprise health services, educational institutions, research institutions, consultancies, private investors, banks and the social partners with their various branch organizations. In addition, various national institutions play a role at the regional level. In addition to the ministries, such as the Norwegian Research Council, the Norwegian Trade Council and the Norwegian Industrial and Regional Development Fund are examples of typical actors with relevance for industrial development also in a regional setting.

The list can easily be made longer. The point here is to illustrate the potential scope of participants in an infrastructure for change that addresses the contextual environment, and not limit the thinking to only a few actors.

Partial domains in an infrastructure for change

Constructing an entire infrastructure for change that covers a region may appear as a too formidable task. However, *moving towards it* is in itself a valuable contribution, and an infrastructure for change does not have to be all encompassing to be useful. Then where do we start? What are feasible approaches that move towards the image of a larger infrastructure forming an integrated domain that is able to handle development challenges?

The attempt to start by constructing overarching, policy oriented domains does not appear very promising. Setting out to construct such an overarching infrastructure that in principle shall cover an entire region, runs the risk of becoming a costly and empty structure incapable of supporting change in enterprises and maintaining its own existence - if it is at all possible to construct such a broad alliance. The main problem lies in the tendency for policy actors to engage in creating structures and forming policies from a macro perspective without involving the enterprises sufficiently. These top-down constructions, or maybe not even “down”, only “top” constructions, may develop their own particular linear logic and master-plan tendency if they are not constructed in an interactive process with the actual enterprises who have the needs in the first place. Escaping the tendency of master plans and linear planning modes favours a different approach.

This line of reasoning does not imply that larger, overarching, policy oriented domains are irrelevant or unproductive per se, but that the construction of such macro-domains will have to consist of, or effectively link up to other domains in which concrete enterprises participate.

In order to become operational at the level of the individual enterprise, such a master-domain, if at all possible to construct, will have to consist of several smaller partial domains, each with a stakeholder set that reflects the particular development needs of the participating enterprises. If the domain construction is *only* overarching and macro-oriented without links to concrete enterprises, it is not an infrastructure for change in this meaning of the term.

A more fertile approach than constructing a master domain seems to be to think in terms of a number of *partial domains* addressing various issues and tasks, ranging from policy making to concrete action benefiting the individual participating enterprise. Together the partial domains may start to form an infrastructure. In other words, moving towards an infrastructure will have to be a gradual process where one addresses subsets of the desired infrastructure, i.e. addresses *partial* domains of the total, potential domain. The developmental focus then becomes one of developing partial domains with a view to how these partial domains interact, overlap and jointly form a broader infrastructure that can support the development efforts of the regions enterprises. These partial domains will of course not be self-sufficient, but will have to develop links to national and international competence institutions.

A partial domain-approach becomes self-evident for several reasons when one starts to “unpack” the population of enterprises. We face a diverse setting where such as types of industry, physical location, size of the enterprises, technological level, differences in development needs and the number of enterprises in itself calls for partial approaches that are able to meet the specific conditions and needs of particular groups or networks of enterprises.

How can we apply my distinction between domain, partial domain and sub-domain to the Aust-Agder setting? The way I have expanded the notion of domains (see chapter 3), it gives me a possibility to place the three collaborative efforts with respect to each other in a regional context. As we recall, partial domain refers to the stakeholder set, while sub-domain refers to the problem-complex.

The first step is to view the overall problem-complex as an issue of regional industrial development. From this perspective, the domain for industrial development in Aust-Agder may be seen as consisting of a whole range of actual and potential stakeholders, mostly inadequately organized at the level of the county. We may characterize this as a form of under

organized system (Brown 1980). Constructing partial domains may then be understood as an approach to increasing the degree of organization at this intermediate level. As I have explained in chapter 4, the chief integrating effort in this domain was the Free County Experiment, who made an important contribution in moving towards a more coherent and well-organized overall domain. Within this overall domain for industrial development, we find the sub-domain of competence development. Various sets of stakeholders have jointly defined that competence development is an important aspect of industrial development, and in this reasoning we may then think of the field consisting of stakeholder concerned with competence development in enterprises as a sub-domain of the overall domain for industrial development. This sub-domain is not organized into one, tightly connected set of stakeholders, but consists of several *partial* domains, each organizing parts of the stakeholders. The Joint Project, the Wood Centre and the Electronics Committee may thus be understood as partial domains within the sub-domain of competence development.

With this conceptual perspective, the focus is redirected *from* an overall intention to create an infrastructure for change, *towards* constructing partial domains, while still maintaining the dimension of addressing the larger whole. Thus, partial domains may be understood as the *building blocks* of a regional infrastructure for change. The cases about the Joint Project, the Wood Centre and the Electronics Committee are examples of how the building blocks may be constructed.

Connecting multiple referent organizations in multiple domains

If the purpose is to move towards an infrastructure for change, it becomes insufficient to stop at the level of separate, unconnected partial domains. An infrastructure for change will have an element of integration across the partial domains and sub-domains to allow for cross-domain learning, exchange of experiences and ideas, effective resource utilization and policy making at a regional level.

To form an infrastructure then implies to consider the *interconnectedness* between these partial domains - seeking to reach a sufficient level of coordination and integration between the various collaborative efforts. What will be the nature of this interconnectedness? As the partial domains themselves are primarily of a non-bureaucratic and non-hierarchical nature,

even if the participants are parts of bureaucratic and hierarchical structures, the linking mechanisms between the partial domains will have to rely on the same logic.

In practical terms, utilizing social and organizational networks through *stakeholder overlap* in the various settings may serve as one of the chief mechanisms. In communities with dense and overlapping personal networks this effect may emerge by itself, and to a certain degree it can be further encouraged by deliberate participation by key actors in more than one domain. Such stakeholder overlap is probably *necessary*, but nevertheless *insufficient* as an integrating mechanism across domains. Unfortunately, simple stakeholder overlap does not assure well-connected dialogues and consistent strategies. Integration across different social and political settings demand more elaborate strategies.

Consequently, the issue of connecting partial domains will have to be addressed deliberately, and not left to the coincidental personal networks only. When the partial domains each have some form of referent organization, a deliberate regional strategy will have to address the question of *how to integrate multiple referent organizations in multiple domains*. Should we think in terms of a referent organization of referent organizations? Is this perhaps also the entity, forum or arena for generating policymaking dialogues at the regional level? How is this to be achieved without creating centralising structures and processes? These are unresolved questions that deserve further exploration.

A wider range of integrative measures is of course also available and should be utilized when appropriate. Some examples are projects that cut across various partial domains, joint meetings, conferences, analysis and various written material. Within the public structure, the interconnectedness may take a bureaucratic form, linking partial domains in more formal ways, but also the public actors will have to rely on a mode of networking between largely separate public institutions.

In Aust-Agder, overlap of individuals between the three partial domains was the primary integrative mechanism in addition to the Free County Experiment. Examples of overlap are a) central actors in the Free County Experiment sat on the initial steering group of the Electronics Committee, as well as on the steering group for the Wood Centre feasibility study, b) the enterprise officer from the Employment Office carried out the last implementation

phase of the Joint Project, and took over as secretary of the Electronics Committee, while he also participated in the steering group of the feasibility study for the Wood Centre, and later involving the Wood Centre in organizing some of the training generated through the Joint Project, c) some enterprises from the Wood Centre and Electronics Committee also took part in the Joint Project.

This illustrates that on the public side, only a few actors seem active in these kinds of development efforts. The positive consequences are that they appear in a number of settings, and therefore may contribute to a better integration of various efforts. What does this integration lead to? An example of learning across partial domains is that principles and experiences from the Electronics Committee was integrated into the application for a second Joint Project, and thus contributed to new understanding and a different approach among some of the core stakeholders - even if the attempt at financing was not successful.

A further clarification of the nature of a regional infrastructure leads me to go a step beyond the idea of a set of interconnected partial domains. Focusing only on partial domains runs the risk of forgetting the nature of the extended networks around the particular partial domain, i.e. the contextual environment, which are actors that may not be directly involved with the collaboration, but who influences it at points in time. The point is that in order for a partial domain to work well, not only the collaboration between the actors present is important, but also the collaboration between their “home” constituencies. This is the theme of the next section.

10.3 Introducing Triple Connectedness

This far in the reasoning, the infrastructure for change consists of interconnected public-private collaborations, forming partial domains. This may be understood as a collaborative pattern at the level of the region. However, taking a last look at the cases from Aust-Agder may help us to identify a *complementary* collaborative pattern.

An emerging collaborative pattern

To view the emerging pattern of public-private collaboration we have to go beyond the three cases to the *context* of the cases, and the prevailing situation *before* the cases started. The Free County Experiment (FCE) is here a key to understanding the emergence of a collaborative

pattern that may indicate a particular dimension of a well functioning support structure for industrial development.

The Free County Experiment was initialised as an attempt to overcome fragmentation in the public support system. It was recognized that the lack of coherence and integration across agencies, departments, political bodies and national support measures were quite unproductive with respect to industrial development in the county. As we recall, the approach taken in Aust-Agder emphasized a form of *empowerment* of the county level by gathering funds there, and *collaboration* across county department was defined as the main organizing principle. In addition, a closer interaction with industry was desired.

Truly, before the FCE started, public actors were not collaborating with respect to industrial development in any systematic way, if at all. They had limited knowledge about available support measures administrated by other actors in the public system, and generally knew little about what other public actors were up to in this field. Functional diversification, dividing budget structures and separate areas of responsibility characterized the overriding logic in what may be termed a reactive role, if at all active. Relations to industry were unsystematic and often kept at an arms length distance.

What happened? As we already know, the FCE was termed a success with respect to the goals set for the experiment, and never the less it was terminated. As shown by an external evaluation of the FCE, both the formal collaborative structures put in place, the joint strategies and the way department heads and public officials in various departments started to work directly with each other, proved to be a new, promising collaborative way of integrating public efforts in the field of industrial development (Amdam 1996a). The public actors achieved a new level of integration, focus and mobilization, and jointly took on a clearly more proactive role.

Moreover, this public sector integration was coupled with an improved contact with industry, again according to the evaluation (*ibid.*). From the case studies we have seen that new development oriented domains between public and private actors were constructed in this period. Statements from private actors in the various domains confirm the perceived change in a proactive direction. Referring to the situation before and during the FCE, an enterprise

manager stated: "The difference was like night and day. But after the FCE terminated, they do not seem active anymore". In other words, they returned to a more passive role.

The Free County Experiment illustrates quite clearly that public actors are able to take on more proactive roles in development issues, provided that they have a "space" or elbowroom for creating joint industrial policies and acting upon them. As discussed in 8.3.5, this space has to do with regional autonomy in the form of financial means, modifications of rules and regulations, and the adequate decision making power. But we must not forget a particular dimension that is probably decisive for the qualities of the Free County Experiment and thus the fruitful interaction with industry. This dimension is the *collaboration between public actors*. As suggested in 8.3.5, the integration across departments, agencies and offices in the public system greatly enhanced the role of the public sector as partner for enterprises on development issues. Notably, the collaboration within the public system should also include the relationship between the political and the administrative levels. A dysfunctional relationship between politicians and administration will severely hamper the potential of playing a constructive role as a regional developer.

The importance and relevance of public actors with a good knowledge of their own system is illustrated by experiences from the small Electronics Committee. The capacity of the public officer to represent more than his own office, drawing on economic measures and competent people from other places in the public system was valuable to his interaction with the enterprises. In a sense he was able to play the role as a liaison between the larger public system and the small group of enterprises. The public officers that over the years held the position as secretaries for the Electronics Committee, commented themselves that the learning they achieved about the rest of the public system through various collaborative efforts during the FCE, was highly beneficial for their ability to organize the training projects together with the enterprises. Does this learning imply that public actors in development settings must be able to collaborate and link up to other parts of the public system in order to be interesting and effective partners for the enterprises? The experiences from Aust-Agder seem to support such a perspective.

Triple Connectedness in an infrastructure for change

By contrasting the situation before and after the FCE like this, it appears that the emerging pattern consists of both a substantially improved integration among public actors through collaboration, *and* a closer interaction with industry. I suggest that these two aspects must be viewed as closely interrelated. Meaningful interaction with industry is not only a matter of mobilization of public actors. It is also closely linked to their level of integration, i.e. the *connectedness* within the sector. This concerns the quality of public actors as partners for industry, where the connectedness within the public sector may be seen as an important foundation for effective collaboration with industry. If this is true, it implies that improving the connectedness between public and private actors must involve improving the connectedness within public sector itself. Then what about the private side? A parallel argument can be made here. For instance, individual and uncoordinated enterprises have a much weaker standing in relation to public actors than do a well integrated group or network of enterprises. Thus, the integrative or collaborative pattern that emerges is one of increased connectedness along three dimensions; public-public, public-private and private-private. I call this three-dimensional conception “Triple Connectedness”¹¹⁸.

Triple Connectedness refers to the *interdependency* between collaborative constructs in the public sector and collaborative constructs in the private sector in order to develop a well functioning collaboration between the two sectors. Thus, the issue of this thesis, “constructing public-private collaboration for industrial development”, now becomes situated in a broader collaborative context.

The interdependencies between the three sets of connectedness can be explained as follows. Seen from the public side, entering collaboration with enterprises to develop public policies and actions that meet the enterprise's needs, require organizing of the enterprise-population at a level above the individual enterprise. The public actors cannot support and relate to single enterprises one by one, mainly for three reasons. Firstly, there is an obvious capacity factor; there are simply too many enterprises to relate to individually. With increased focus on SMEs,

¹¹⁸ I introduced the concept of triple connectedness at the 24th International Congress of Applied Psychology, San Francisco, August 9-14 1998, with the paper “On the construction of collaborative infrastructures for enterprise development” in the session “Action Research for Organization Development: International Applications”.

this point becomes even stronger. Secondly, in supporting individual enterprises directly, public actors are running the risk of disturbing the competitive relationship between the enterprises, which is regarded as unacceptable in the Norwegian setting. Thirdly, the collaborative arenas where enterprises are brought together serve to facilitate verbalizing and clarifying of the enterprises developmental needs. The common assumption that enterprises (at any given time) know what they want and need, and how they can achieve it, seems to be wrong in most cases. By engaging in discussions with other enterprises, the ability to move from uncoordinated "nice to have" demands, to well argued, joint development issues well anchored in the enterprises, is enhanced. Thus, creating and supporting collaborative constructs among enterprises is an important strategy for transforming the private sector from being a large number of individual enterprises into a sizeable partner for the public actors in their efforts to create industrial policies and development initiatives.

Seen from the perspective of the private enterprises, the wide array of public and semi-public institutions with their support programs and uncoordinated initiatives, often are regarded as a chaotic multiplex of largely inaccessible actors which is very demanding to relate to in any efficient manner. Each and every relevant public actor will at its best be able to contribute a piece of support, but to arrive at more substantial, integrated development efforts it will not suffice. In the same way as the public actors cannot relate to industry by addressing the enterprises one by one, the enterprise or group of enterprises cannot shop around among a larger number of uncoordinated public actors. With this kind of fragmented public system, the public actors will not be interesting partners to spend time with. Thus, there is a need to form new ways of pooling resources and collaborate across public agencies and institutions in a network-like manner. This appears to be a prerequisite for the public systems ability to engage in meaningful collaboration with industry. Public actors who enter collaborative domains with enterprises in order to generate ways in which they can support their development, will not only have to represent their own particular set of rules, regulations, grants, competent people and other support measures, but also be links to and provide knowledge about the other actors in the public system and represent already pooled resources, competencies and coordinated policies. In this way the public actor engaging in conversations with e.g. a group of enterprises about a development issue will be able to draw upon a wider set of development oriented measures than what his particular agency brings to the table.

The move towards a network-integrated public sector along these lines in which the public actors engage in horizontal collaborations with each other and with private organizations, is in line with newer developments in public administration discourses regarding the role and function of government in general, referred to as a shift towards a form of “governance” as opposed to the traditional “governing” (e.g. Stoker 1998). In our context, inter-public collaboration should be understood as a precondition for, and a part of industrial development in regional settings. Thus, in a regional collaborative structure involving both public and private sector for the purpose of supporting enterprise development, the sectors are facing a mutual need for the other sector to form collaborative constructs and thus move the field towards an increasing degree of Triple Connectedness.

The Free County Experiment and the collaborative initiatives with industry in the experiment period, moved the overall regional field in the direction of an increased degree of Triple Connectedness. Termination of the FCE was a set back for this development, and despite the choice among the Free County partners to continue to collaborate across units; the removal of the economical and institutional backing most likely will erode the collaborative turn in Aust-Agder. This illustrates that the collaborative pattern must be *institutionalised* beyond individual champions who choose a way of working based on a longer, shared learning process. Over time, key personnel move to new positions, and new personnel who do not share the FCE experience will hardly be able to maintain the “voluntary” choice of collaboration under the pressure from the bureaucratic governing system. Possibly, existing within the bureaucratic system imply an even greater need to institutionalise collaboration than what is the case along the two other dimensions of Triple Connectedness.

More than public and private

I have used the term «public» as a general term to demarcate the enterprises from “the rest”. Many of those institutions that collaborate with enterprises are not public. In practice they cover the range from public institutions via not-for-profit organizations, non-governmental institutions and voluntary sector, to private, for-profit institutions. Not least the universities and other competence institutions are included in this general bracketing. The point here is that these actors, regardless of institutional backing, economic foundation and ideology, will have to relate to each other and not only individually relating to enterprises if the larger, regional system or infrastructure shall move towards a desired state. This does not mean that

smaller, limited collaborative efforts including only one non-enterprise actor and a group of enterprises are futile or wasted. Indeed, they can be of great use. The point is that if we talk about it at a regional scale, as I attempt here, the need for integration beyond the single, small collaborative effort seems important.

While the notion of the “Triple Helix” (Etzkowitz & Leydesdorff 1997), which I was not familiar with at the time of conceptualizing Triple Connectedness, refers to the idea that university, government and industry should “spin” around in a collaborative relationship, Triple Connectedness takes as a part of departure that everyone cannot collaborate directly with everyone all the time, and therefore it adds the important point that it is not only a matter of spinning together, but to address particular collaborative dimensions to make these collaborative relationships productive in a regional setting. The idea of Triple Connectedness is based on the banal insight that government is not one unit, industry is not one unit, and neither is the competence sector. To overcome fragmentation and a state of under-organised social system, regional collaborative strategies thus have to address public-public collaboration as well as collaboration between enterprises.

This section has introduced the idea of Triple Connectedness, and suggests that a certain level of Triple Connectedness will have to be sought after in pursuing a well functioning support infrastructure in a regional setting. Triple Connectedness expands the discourse on public-private collaboration by arguing that the qualities of the public-private connectedness are interdependent with the connectedness within each of the two sectors. A consequence of this is that public sector integration becomes an issue for industrial development.

10.4 Main characteristics of an infrastructure for change: a summary

This chapter has attempted to address the question of public-private collaboration at a regional level. The aim has been to conceptualise emerging patterns that may help to address industrial development. The starting point was to regard these kind of development oriented collaborations as forming an *infrastructure for change*, a term that may provide a more actionable concretisation of the idea of *learning regions*. My development of the domain concept into *partial domains* and sub-domains was then utilized to suggest that partial

domains should be regarded as the building blocks of an infrastructure for change. Furthermore, the chapter introduces the concept of *triple connectedness*, and I argue that a certain level of Triple Connectedness will have to be sought after in pursuing a well functioning support infrastructure in a regional setting. This implies that public sector integration becomes an issue for industrial development. Taken together, these conceptual developments answer the last research question, and give increased understanding of the still underdeveloped notion of an infrastructure for change. Based on this, the main characteristics of an infrastructure for change may be summarised as follows.

Main characteristics of an infrastructure for change

- An infrastructure for change is an interorganizational collaborative construction, linking actors across levels and sectors around development issues.
- An infrastructure for change encompasses a wider set of both public and private actors. Enterprises and competence institutions are core stakeholders when industrial development is addressed in the form of competence development.
- An infrastructure for change addresses the contextual environment of the enterprises.
- Development strategies will have to address partial domains in moving towards a well functioning infrastructure. Partial domains are therefore important building blocks of such an infrastructure.
- Partial domains are horizontal, focused networks deliberately created by the actors in order to address development issues of shared concern.
- The enterprises participate directly in the infrastructure through partial domains, and thus are a part of the infrastructure itself.
- Constructing the partial domains will greatly benefit from an interactive process.
- To form an infrastructure, inter-domain relationships must be developed, and learning across partial domains should be given special attention. The question of how to integrate multiple referent organisations in multiple domains must be addressed. Overlapping memberships and arenas for conversation are promising as integrative mechanisms.
- Sustainability of the construction and continuity of the stakeholder set is important to allow for building of trust and attention to long-term development efforts.
- An infrastructure for change will benefit from pursuing a state of Triple Connectedness.

Chapter 11

Concluding Considerations

This chapter starts with a brief recapitulation of the main purpose of this thesis before I sum up the conclusions of the study. My contributions to the literature are then pointed out. Before I present suggestions for further research, I shall provide some critical and constructive thoughts about the current promotion of competence development in work life.

11.1 Introduction

In the beginning of the thesis I identified regional collaboration between enterprises and the public sector as one of the core issue in furthering industrial development. Various strands of thinking today accentuate interorganizational collaboration as the core phenomenon in supporting enterprise development on a larger scale. One of the key arguments behind these positions is that the economy is becoming increasingly knowledge-based, and hence that economic growth and competitiveness depend on the ability to continuously develop the knowledge base of the work force, i.e. the competencies of people already working. Both the rate of technological change and newer understanding of innovation processes are put forward in this context. The rate of technological change in it self demands a capacity for learning and change within the organization in order to utilize still new and widely available technologies. In addition, innovation processes are recognized as essentially being learning processes involving larger constellations of organizations, rather than being an intra-organizational phenomenon. This implies that newer efforts in industrial development address interorganizational collaborative constructs whereby the learning capacity of enterprises is enhanced.

This way of understanding industrial development opens up for an increased and active engagement by public sector. Keeping up with the demands on continuous competence development require utilization of the educational system and the R&D-environments in direct interaction with work life, and public actors are thought to play an important role in supporting these processes. It is argued that such a role implies a need for public actors to become active developers.

However, how to actually create productive collaboration between public and private actors is an underdeveloped theme both in academia and at policy levels. This is where I place my thesis. Therefore, my initial research question posed in chapter 1 was as follows:

How can regional actors collaborate to support development in enterprises?

Based on the theoretical discussions in chapter 2 and 3, I developed the overall research question into the following four sets of questions:

- 1) **What are the organizational conditions for constructing a collaborative domain?**
 - What are the critical elements of convening the stakeholders of the domain?
 - How may the referent organization be constructed?
 - What are the roles and functions of the referent organization?
- 2) **What are the critical elements characterizing collaborative processes?**
 - To what extent are the collaborative processes characterized by interactivity?
 - How does the degree of interactivity influence the development trajectories and the outcomes of the collaborative efforts?
- 3) **What are the characteristics of a regional infrastructure for change?**
- 4) **What characterizes the role of public actors in collaborative industrial development?**

11.2 Central findings

Question 1: The organizing of collaboration

Convening in regional settings

If constructing public-private collaboration is an important aspect of industrial development, a first question becomes how such collaborative efforts may be initialised, i.e. how to convene the potential stakeholder set.

The literature focuses on the power bases for convening (Gray 1996), and the role and characteristics of the convener (Wood & Gray 1991). I will not repeat similarities between theory and the cases, but focus on new insight adding to the existing literature. In the context of an evolving role for public actors towards becoming proactive developers, I ask the

question whether public actors should take on a convening responsibility in their regional settings, and if they should, what appear to be critical elements of such a convening function?

The three main learning points from the cases are:

- The question of who should take the initiative and convene the stakeholders is not a question of either private or public actors. Legitimate stakeholders from either sector may initiate successful public-private collaborations. This supports the position that there is a role for public actors in creating collaborative developmental efforts.
- The critical point in establishing a public-private partnership to address enterprise development is not who convenes, but to immediately anchor the process with concrete enterprises.
- Convening is not only a question of the initial step in establishing a collaborative domain, but must be understood as an ongoing process, where various stakeholders may take convening initiatives. The ability to *reconvene* the stakeholders at critical junctures must be maintained in a domain that seeks to exist over some time. Assuring continuous *ownership* among central stakeholders seems to be essential in maintaining this necessary reconvening ability. This insight expands the question of convening from being focussed on the initial start up of the collaborative domain to include the convening function at later stages in the development process.

Referent functions and referent organizations

In organizing and managing a collaborative domain, certain functions have to be handled. These are termed referent functions. Organizational entities that are constructed to handle these functions on behalf of the larger domain are termed referent organizations. In constructing public-private collaboration it becomes important to provide answers to the questions of how the referent organization may be constructed, and what the roles and function of the referent organization are. The main lessons from the cases are:

- *Referent functions*: Referent functions may be carried out by various stakeholders in the domain, not only by the referent organization. This is not necessarily a weakness

of the domain, but can instead imply broader ownership, flexibility and robustness. Consequently, the referent organization should not even seek to take over *all* the referent functions, but rather secure an active participation by core stakeholders. Thus, close interaction between the stakeholders and the referent organization becomes important to assure coordinated execution of critical functions.

- *Participation and coherence*: In constructing a referent organization, adequate representation by core stakeholders should be assured. When the task is to support enterprise development, participation by enterprises is especially important. This supports the position of Deiacco & Nordström (1998). The referent organization or structure should acquire a consistence between the tasks, functions and the available resources and decision-making power. This is not fixed once and for all, but is a matter of repeated attention and consideration. Again, stakeholder ownership and close and continued interaction with core stakeholders appears decisive in achieving such a coherence.
- *Process of reconstruction*: The literature on collaborative theory presents too simple a notion of the construction of the referent organization. Establishing a referent organization should be regarded as a *process of ongoing reconstruction*, rather than treating it as a once-and-for-all action at one particular point in time. Such a view appears as an oversimplification, and the cases show that a referent organization may in practise be established at different points in the development trajectory. Firstly, the process dimension becomes evident when we consider not only the organizational entity as such, but also takes into consideration the *functions* it performs. The ability to perform these referent functions adequately is based on *the quality of the relationships* to other central stakeholders as well as to the larger institutional context. Trust and legitimacy are important qualities of these relationships, and developing these qualities takes time. As these relationships are often not fully in place vis a vis a larger domain from the beginning, the referent organization may be able to develop these *over time*, gradually handling a larger part of the referent functions as it achieves a good track record and recognition in the domain. Core stakeholders will have to take on complementary roles by performing critical referent functions as the referent organization matures into the

desired position. Secondly, the process of reconstruction points to the fact that the referent organization itself will have to change in response to changes in the stakeholder set, the problem complex at hand and how it is understood, the available resources, the political legitimacy etc. Therefore, the referent organization should not be regarded as a fixed entity, but may acquire *varying organizational forms over time*, as exemplified by the Wood Centre case. This leads us to the next point.

- *Capacity for change*: The domain benefits greatly from acquiring a *capacity for change*. An important aspect of collaborative efforts is the ability to change the purpose, the way of working and the structure based on the experiences made, the changing context and new challenges for the domain. This has to do *both* with a learning and self-reflection ability, where modifications grow out of experiences with how the domain performs and the changing of needs, *and* with an ongoing assessment of relevant changes in the larger context of the domain. In other words, there are both internal and external reasons for modifying or changing. The referent organization or core stakeholders must be able to establish such a capacity for change to secure survival over time, as the capacity for change provides the ground for *continuity*. Inability to do so seems to reduce the quality of the action for the domain and reduce the usefulness for the stakeholders over time with a corresponding reduction of legitimacy for the collaborative construction.
- *Continuity*: In forging collaborative domains and constructing referent organizations, intentions of *continuity*, i.e. longer time perspectives, should be applied. This is both because of a) the ability to mobilize and integrate enterprises into the domain at all. Short time efforts are not highly regarded and influences the sincerity by which enterprises participate, b) the position of the referent organization, which will be weakened as an actor in the domain within a short time perspective, c) the evolving and non-linear nature of development efforts, and thus its experimental character, and d) the *time* required to achieve substantial improvements. The time dimension in organizational change efforts is typically underestimated. This is repeatedly reflected in the short time horizon of support programs, projects and other measures applied by institutional actors from both

public and private sectors, including politicians, administrations and large parts of the research community.

- *Motivating for enterprise participation*: The cases show that if the purpose is to motivate enterprises to take part in development efforts, motivational or mobilizing aspects should be integrated into conversations about development tasks and needs, and not handled as a separate act of “selling”.

Question 2: Processes of collaboration

Based on a critique of current process models in chapter 3, I proposed to focus on the *interaction* between the stakeholders as a way of dealing with the process aspects of collaboration. I suggested seven characteristics of interactivity, table 7, which are thought to contribute to at least five important aspects of development processes. The aim has been to escape linearity, centralism, and a prevailing understanding of collaborative processes as following a sequential logic. In analysing the cases based on this new conceptualisation, I have attempted to answer the questions of to what extent the cases are characterized by interactivity, and how the degree of interactivity influence the development trajectories and the outcomes of the collaborative efforts. The main lessons from the cases are the following.

- The first conclusion on process issues is that the analysis of the collaborative processes by using my concretisation of interactivity supports the suggested characteristics. I therefore change the status from characteristics to *principles of interactivity*. Using my principles of interactivity in analysing the processes appears to give a new and better understanding of the various development trajectories. The degree of interactivity corresponds well to the outputs of the cases in the sense that it contributes to the explanation of why the processes unfolded as they did. While the Joint Project must be characterized as attempting to follow a linear logic with low level of interactivity, the Wood Centre and the Electronics Committee are clearly marked by a high degree of interactivity. The way I have qualified the notion of interactivity, it may also serve as guidelines for future collaborative efforts. It escapes the linearity present in many current process models, as well as the linearity that dominates planning approaches by public actors. The concretisation of interactivity provides a conceptual apparatus by which critical aspects are

addressed. However, it does not attempt to be all encompassing in addressing process issues, neither does this conceptualisation claim to be valid for all types of collaboration.

- The analysis further indicated that interactive processes do contribute to secure ownership, assure relevance and quality of the development efforts, and strengthen trust building and learning. These dimensions positively influence the *capacity for change*, which I earlier argued to be a critical property of collaborative domains.
- Interactivity allows for an understanding of collaborative efforts as continuous processes of *re-construction*, rather than permanent, once-and-for-all constructions. This reflects the fact that interorganizational collaborations between in principle independent organizations, and the nature of the organizational forms they create at this level, are of a different nature than our traditional organizations with their command and control structures. Constructing public-private collaboration thus becomes a question of maintaining the attention towards the ongoing construction process, which implies *repeated* handling of critical issues, instead of viewing the effort as a linear and sequential construction process where one step is finalized after the other. In a continuous process of reconstruction, the critical issues are in a sense never finalized. The cases thus support the critique developed in chapter 3.
- A master-plan approach, which is linked to a linear planning logic, seems particularly ill suited in forming robust public-private collaborative relationships. Such an approach embodies what interactivity is *not* about.
- For processes to be interactive, the question of *who participates* must be carefully addressed. The study emphasise direct participation by enterprises, and the indirect representation through for instance the Social Partners appears as an insufficient form of enterprise participation in development efforts.

1. Interactive processes are **open-ended**: little if anything is pre-defined or pre-structured.
2. The process, structure and content are **jointly** created by the stakeholders, repeatedly.
3. Interactive processes are **conversational** rather than consisting of monologues.
4. The process focus development of **common ground** rather than the formal contractual aspects of collaboration.
5. Interactive processes are **non-bureaucratic**.
6. Interactive relationships respect the value of the other and are typically of a **horizontal**, participative nature.
7. Interactivity should be **sustained** as a modus operandi.

Table 7. Principles of interactivity

Question 3: The regional dimension of collaboration for industrial development

In addition to analysing on the level of the individual case and across the cases, the particular setting of the three cases provided opportunities to reflect on the regional dimension of public-private collaboration. I have attempted to view these parallel collaborations as representatives of an emerging collaborative pattern in the county.

As a point of departure I suggested that the ideal of a «learning region» should be approached by creating an *infrastructure for change*, also a term underdeveloped at the time being. My conceptual development aimed at giving further meaning to this term. As a first step, I argued the need to apply development strategies that addresses the construction of *partial domains*, of which the cases in this thesis are examples. Partial domains thus may be viewed as the building blocks of a regional infrastructure for change. The overall issue of the thesis, “constructing public-private collaboration” may consequently be reformulated into “constructing partial domains”. The development of the domain concept into partial domains and sub-domains provide an interlinked set of terms that makes it possible to discuss the interrelations of various collaborative efforts in a regional field.

By recognizing the need for an infrastructure for change to incorporate the contextual environment of enterprise development efforts, I developed the concept of *triple connectedness* to highlight how the connectedness *between* public and private actors is dependent on the connectedness *within* the respective two sectors. I suggest that a certain level of Triple Connectedness has to be established in pursuing a well functioning infrastructure for

change. This implies not only that enterprise networks are important constructs for furthering industrial development, but also that *collaboration between public actors becomes an issue for industrial development*. Development strategies that do not take this dimension into account will therefore fail to achieve a well functioning infrastructure for change at a regional scale.

Based on this reasoning and the previous analysis at the level of the cases, I have proposed the following characteristics of a regional infrastructure for change.

- An infrastructure for change is an interorganizational collaborative construction, linking actors across levels and sectors around development issues.
- An infrastructure for change encompasses a wider set of both public and private actors. Enterprises and competence institutions are core stakeholders when industrial development is addressed in the form of competence development.
- An infrastructure for change addresses the contextual environment of the enterprises.
- Development strategies will have to address partial domains in moving towards a well functioning infrastructure. Partial domains thus are important building blocks of such an infrastructure.
- Partial domains are horizontal, focused networks deliberately created by the actors in order to address development issues of shared concern.
- The enterprises participate directly in the infrastructure through partial domains, and thus are a part of the infrastructure itself.
- Constructing the partial domains will greatly benefit from an interactive process.
- To form an infrastructure, inter-domain relationships must be developed, and learning across partial domains should be given special attention. The question of how to integrate multiple referent organisations in multiple domains must be addressed. Overlapping memberships and arenas for conversation are promising as integrative mechanisms.
- Continuity of the construction and of the stakeholder set is important to allow for building of trust and attention to long-term development efforts.

- An infrastructure for change will benefit from pursuing a state of Triple Connectedness.

Question 4: The role of public actors

This study has not focused the role of public actors *in particular*. Such a study would have had to investigate closer into the various conditions influencing the ability for public actors to play proactive roles, explored each particular role much more thoroughly, and discussed this by drawing upon recent theories of governance and public administration and the build up of the Norwegian public system at county level. While this has not been done in this thesis, the cases have nevertheless provided learning of relevance for the theme; constructing public-private collaboration. The learning also appear particularly relevant from the perspective of industrial development as it relates to the question of what public actors are to do if they want to support the development of industry.

- Firstly, there appear to be a need for a variety of roles played by public actors in collaborative efforts, and based on the case-material, none of them can be ruled out in principle. The role of convening and taking initiatives has been focused in the study, and the conclusion is that public actors may very well initialise collaborative efforts as long as concrete enterprises are involved very early on. Thus, the common question whether public actors should sit back and wait for industry to take the initiative as a way of securing relevance, is answered.
- Secondly, it seems clear that while public actors should seek to be proactive, the proactivity must be carefully balanced so that it does not lead to reactivity on the part of other collaborative partners.
- Thirdly, a new dimension appearing from the material is that the public actors must collaborate with other public actors in order to take on roles as interesting and effective partners for the enterprises on development issues. This point is integrated into the notion of Triple Connectedness.
- Fourthly, it seems apparent that the county level must have a sufficient degree of space for manoeuvring, i.e. resources and decision power for a proactive role to be realized.

This corresponds to the position of e.g. Zeitlin (1992). The increased autonomy of the Aust-Agder county level in the period under study contributed decisively to this. The returning to a “normal”, and thus reduced autonomy render the public actors passive and with limited means and incentives to engage in development efforts. From an industrial development perspective this appears counterproductive, and is contrary to the trend observed in Europe today. The termination of the Free County Experiment indicates an inability on the part of the larger governmental bureaucracy to learn from their own experiences, as well as experiences from other countries, and demonstrates a lack of a consistent policy for industrial development.

- Lastly, the introduction of interactivity has accentuated how public planning and collaboration may be at odds with each other. Regardless of new developments in public planning towards so called “strategic and mobilizing planning” where learning and participation is central, the planning logic governing much public actions seem to be less well suited for horizontal collaboration. Creating and effectively participating in collaborative domains after principles of interactivity seems to demand a degree of entrepreneurship, autonomy and flexibility that is not supported by a planning mode. To escape linearity and centralism, public actors must be able to step out of their planning logic within their bureaucratic and hierarchical context - and back into it again. Handling different logics and moving back and forth between bureaucracy and horizontal collaboration are highly demanding tasks. Nevertheless, examples show that it can be done, and such a collaborative public sector is very much in line with the current discourse on public sector development.

11.3 Contributions to the literature

This section seeks to highlight how the conceptual developments and learning from the thesis represent contributions to the existing literature. Two main bodies of literature have been of special importance in the thesis. One is the literature on industrial development, the other concerns the issue of interorganizational collaboration. My intention has been to bridge these two main areas, and to make specific contributions to interorganizational collaboration.

Contributions to the literature on collaboration

My contributions to the literature on collaboration seem partly to be based in the longitudinal dimension of my cases. The literature that discusses convening, construction and function of referent organizations (e.g. Burns 1981, Gray 1989, Gray 1996, Inskip 1992, Wood & Gray 1991) has a tendency to focus on the initial establishing of collaborative efforts. Hence, they miss out on the dynamics of collaborative efforts that exists over some time. This has consequences for the understanding of both organizing and of processes.

Regarding convening, the contribution of this thesis is to regard convening as an *ongoing process* rather than an initial step in bringing stakeholders together for the first time. The function of convening therefore may move from being performed by the initial convener over to becoming one of the functions performed by a referent organization. An important point, however, is that other stakeholders in the domain may well take important convening initiatives throughout the lifespan of a collaborative, and the referent organization should not seek to acquire a monopoly regarding this function. Rather, it should be attentive to and encourage such initiatives. The cases show that the ability to *reconvene* the stakeholders at critical junctures must be maintained in a domain that seeks to exist over some time. This is a point briefly argued by Trist (1983), but this understanding of the convening function seems to be lacking in the later literature on convening interorganizational domains (e.g. Gray 1989, Wood & Gray 1991).

The second area of contribution concerns the referent organization and the referent functions. The study shows that the literature on collaborative theory presents too simple a notion of the construction of the referent organization. Establishing a referent organization should be regarded as a *process of ongoing reconstruction*, rather than treating it as a once-and-for-all action. To a greater extent than what is the case for traditional organizations, the referent organization exists through being reconstructed by the constituencies. The gradual handling of referent functions, the importance of a capacity for change while maintaining continuity, and the varying organizational forms that reflect changing circumstances, all underline the aspect of reconstruction. The literature, foremost exemplified by Gray (1989), also treats the construction of the referent organization as an act that appears at the end of establishing a collaboration, after a particular sequence of other actions. As exemplified by the Electronics Committee, the referent organization may well be established up front, and as in the Wood

Centre case, find its more permanent form years after the initial start up. Thus, construction of this organizational entity should not be understood as slightly mechanical, linear and sequential affair. This point is closely linked to the issue of how collaborative processes are understood, which I will come back to below.

The thesis also contributes a better understanding of the relationship between the referent functions, the referent organization and other core stakeholders. A main point is that the ability to perform the referent functions adequately is based on the quality of the relationships to other core stakeholders as well as to the larger institutional context. Therefore, a referent organization may over time evolve into performing a larger part of the referent functions, rather than handling these functions adequately from the start. The referent organization thus goes through a learning and development process in itself. Development strategies should take this into consideration. With this point of departure, a consequence becomes that an adequate handling of the necessary referent function for the domain depends on a well functioning *complementarity* between the referent organization and other core stakeholders. This implies that the latter actors, in coordination with the referent organization, take responsibility for the development of the domain by addressing referent functions.

The third area of contribution to the literature concerns my conceptualisation of collaborative processes in terms of interactivity. The intention has been to escape the linearity and centrality present in the literature, and develop characteristics of dynamic and evolving collaborative relationships, which I experience to be closer to the nature of real life collaborative efforts. My main critique in this respect has been towards Gray (1985, 1989, 1996), who has a central position among scholars on collaborative theory. If we instead of viewing Gray's (1989) process model as a process model, i.e. as a scheme portraying how a process should/does unfold, regard it as a list of things to pay attention to during a collaborative process, my contribution is not at odds with Gray, but interactivity then becomes complementary to Gray's checklist.

A different take on the process issue has been made by Huxham and Vangen (Huxham 1996b, Vangen 1998, Vangen & Huxham 1998) who focus on dilemmas, challenges, problems, typical pitfalls and the like, that actors involved in collaborative efforts typically will have to handle. Their research is to a large extent based on and oriented towards small group

functioning. In relation to this take on processes, my contribution on interactivity, i.e. main principles for the interaction between participating stakeholders, is also complementary.

The fourth area of contribution to the literature concerns my conceptualisations of a regional field. The contributions are:

- a) the expansion of the domain concept into *partial domain* and *sub-domain*, and the relationship between these. This conceptualisation makes it possible to discuss the relationships between various collaborative efforts as part of an overall domain for industrial development. Thus, instead of thinking only in terms of individual collaborative efforts, the perspective also incorporates the regional dimension, and thus may contribute to the discourse on regional strategies for change.
- b) the coining of the term *Triple Connectedness*. Triple Connectedness focuses the interconnectedness between collaborative efforts along three dimensions: public-public, private-private and public-private. A consequence is that collaboration between public actors becomes an issue for industrial development.
- c) the development of the meaning of an *infrastructure for change*. The term suggested by Gustavsen (e.g. 1998) has not been given any concrete content, and my contribution is thus to provide a set of suggestions regarding how such an infrastructure may be understood.

Bridging industrial development and collaboration

In this study I started out by arguing that theories of industrial development are weak on handling interorganizational collaboration from a development perspective. This appears as a shortcoming especially since the discourse apparent in the literature does argue the centrality of collaboration. I have argued that in order for a collaboration-oriented industrial development to become operational, i.e. give meaning to «development», it should incorporate insights on *how* collaborative efforts are initialised, organized and managed. I provide such insights through my conceptual development and discussion of the Joint Project, the Wood Centre and the Electronics Committee. A contribution of this thesis may thus be understood as the manner in which I have extended the discourse on industrial development in a more actionable direction.

A particular conceptual link between the literatures on industrial development and on collaboration is provided by the domain concept. By departing from an industrial

development-idea about “learning regions” (Asheim 1995), I claimed that to become a learning region, one must seek to develop a well functioning “infrastructure for change” (Gustavsen 1998), consisting of collaborative relationships. My development of the collaboration-based domain concept into partial domains and sub-domains allowed me to bridge the underdeveloped idea of a learning region with collaborative theory. The domain concepts provide a way of conceptualizing a regional field and the relationships between various collaborative efforts that jointly may enhance the learning capacity of the enterprises. Thus, a development strategy for creating learning regions will entail the construction of partial domains, i.e. a partial domain development strategy. These construction processes of partial domains have been the main focus of this thesis. Thus, a development perspective has been coupled to a regional perspective on industrial development. Therefore, with respect to the literature on industrial development, this thesis may contribute increased understanding of how the desired public-private collaboration may be constructed.

11.4 A second look at competence development

The collaborative efforts portrayed in this study have all been about competence development in enterprises. During my work with this thesis, the issue of competence development in work life has turned from a fairly low level of recognition and attention to becoming almost a main focus on the current agenda. One of the clearest examples is the national competence reform in Norway, who is still struggling to find its form. Thus, the relevance of this thesis may seem to have increased during its progress. Therefore, some further remarks about competence development seem pertinent at this point.

Notably, this thesis has been about the construction of public-private collaboration, and not about competence development per se. Still, it has been based on a particular view of how competence development can be supported on a larger scale. This view has matured through the study, and hopefully led to a clearer position on this issue. Let me repeat that I have not investigated into the particular qualities of the individual competence development efforts, nor have I studied the processes internal to each individual enterprise¹¹⁹. “Competence development” has been used in a broad and general sense, and it has been up to the enterprises

¹¹⁹ See for instance Skule (1994) on competence development and reflections on processes internal to the enterprise.

to give it concrete meaning. As mentioned in the introductory chapter, these aspects are of great importance to the actual benefit of competence development efforts. While these crucial aspects have been deliberately omitted in the study, the way of organizing at the interorganizational level to generate need-based, practical competence development has been given special attention.

This approach is contrary to a more traditional, linear view of how competence development is furthered. The more traditional view rests on the assumptions that someone, i.e. R&D and the educational environments, possess the competence, and that the enterprises needs it. With such a view, competence development is easily reduced to a question of transferring knowledge from those who have it, to those who need it. In the context of the on-coming national reform that is marked by political compromises, substantial sums of money and competing views on competence development, a further clarification of the learning and approach taken in this study is warranted.

A major point in this context is that efforts at competence development in work life should not be reduced to giving economical support to a growing number of course providers offering pre-defined training programs. This may be a quite likely risk if the national competence reform is left to the market dynamics. Instead, the challenge is to organize ongoing, conversational, interactive processes where needs continuously are discussed directly with the providers of relevant expertise and support, whereby the training efforts are tailor made and contextualised in terms of issue, level, pedagogy, timing and cost. Thus, competence development at a larger scale is not only a matter of money, it is a matter of organizing, which is probably the harder part.

Competence development is therefore best understood as a *process of organizing*, not a fixed, rigid support system with predefined measures, but an ongoing interaction where the “market”- relationship, if there is any, is of exactly this close, direct, interactive, conversational nature. The moment the standardization of competence “supply” takes over and the educational institutions retreat to a position where they only offer readymade courses, programs and certificates, the necessary dynamic relationship is jeopardized. This is the

situation we very much have today, and it is quite easy to identify the consequences. Among the most apparent are:

- 1) The quality and relevance of the training soon becomes mediocre or poor by not relating directly to what concrete enterprises need at a particular time, but instead relying on predefined, general ideas about competence needs.
- 2) The issues of timing and of critical mass of people in order to run economically sound competence projects will be likely to suffer when the market relationship is reduced to a one-to-one relationship of an arms-length nature. When the population of enterprises is dominated by SMEs, and even of micro-enterprises, the processes whereby competence are handled across the enterprises is crucial. One-to-one relationships between enterprises and educational institutions tend to favour the larger enterprises with a competence development strategy and financial means to buy whatever they need. Such a setting is not conducive to the needed support of SMEs and micro-enterprises.
- 3) By returning to a market mechanism without ongoing, conversational relationships, *learning* between the actors are likely to suffer. This concerns the enterprises' possibilities for learning about the educational actors and the educational actors' possibilities to learn from and about the enterprises. This is a kind of learning that is conducive to mutual adaptation and seizure of opportunities.
- 4) The processes by which enterprises develop a clearer understanding of their own needs through conversations with other enterprises over time, will suffer. In other words, the "customer"-competence will not be improved. This has consequences for the training directions taken, relevance and hence, the overall quality of the competence development efforts.

I stress this point because it is all too easy and too tempting to *slip back* into a linear, non-conversational rationale. The educational system is very hard to change, and any attempts that achieve a level of the close and interactive relationship with work life that I argue for, will have to face the continuous challenge of maintaining the elbowroom, legitimacy, resources and otherwise institutional support required. The bureaucratic and monolithic educational system will by its sheer size, its academic reward system, its professions, its disciplinary and departmental diversifications, lack of cross-disciplinary conceptions of knowledge and its exam- and grade-based hierarchical notion of learning and competence - apply a pressure towards conformity on efforts that does not align with the dominating logic.

In other words, it becomes imperative to *institutionalise* a collaborative relationship between enterprises and the educational system - a relationship that is of an interactive nature. In a sense we may talk about a need to *institutionalise interactivity*, i.e. to institutionalise something that should not be permanent and rigid, but flexible, self-reflexive, with a capacity for learning and self-transformation. Therefore, it is more a matter of institutionalising a process than institutionalising one particular organizational form, while at the same time being concerned about further development of the organizational form chosen at any given point.

How is it possible to institutionalise an interactive process? This may appear as a contradiction. How can something that shall change and continuously adapt to shifting circumstances achieve a level of institutionalisation that make it robust enough to withstand the above mentioned pressure from the traditional educational system? There are no easy answers to this question, but apparently it demands a primary focus on institutionalising a way of working, i.e. interactive collaboration. It also implies securing the room or space for this interactivity to take place in terms of legitimacy, financial means and personnel resources, without creating hierarchical constructions that promote rigidity. One possible way of moving in this direction may be to create *bridging institutions* with strong enterprise ownership. They may be placed partly or entirely outside of the educational institutions, but with strong links to one or several R&D and educational environments. Such bridging institutions may be in the form of a forum, a centre, or another type of regular meeting place that is able to repeatedly discuss its own form and content. The Wood Centre and the Electronics Committee are to some extent examples of this kind of bridging institutions that function as arenas for conversation and generation of concrete competence development efforts.

11.5 Further research

The research areas of collaboration and regional development are certainly not fully researched. Rather, new avenues for investigation are opened as new insight is developed. The national action research program Value Creation 2010 concerns interorganizational collaboration in regional field with the purpose of enhancing enterprise development. Hence, it provides an especially interesting context for furthering this field of research. Many of the findings reported in this study are highly relevant to the discourses and research work carried

out in the 7-9 modules across the country, and the program has the potential of contributing decisively in further development of the research agenda I suggest below. I also fully recognize the limits of my data, and my conclusions and conceptual developments deserve further verifications for that reason also.

In general, the bridging between theories of regional development and theories of collaboration and enterprise development should be developed further, not least because they “meet” in the field in a desire to contribute to practise. The concepts within industrial geography are still not very actionable on a practical level, while the Scandinavian action research tradition still has a way to go in terms of coming to grips with the regional dimension of change efforts.

Enterprises and their larger domain

The linkages between the collaborative field and the internal change processes of the individual enterprise needs further research. The question of how learning on the inter-organizational level effectively can speed up learning and change on the intra-organisational level is important to answer more extensively in order to make interorganizational relationships truly useful. This area has deliberately been omitted in my study, but deserves attention. This line of research demands ability to work simultaneous with learning and change processes internal to the enterprise, the qualities of the external relations and the functioning of the larger network.

Organizing at the interorganizational level

The concept of the Development Coalition has a prominent position in the rhetoric of the Value Creation 2010 program. So far it is a relatively underdeveloped concept, and basically means that several actors collaborate about development. A host of questions remain unresolved. Partly we need more actionable concepts, partly we need a better-developed conceptual apparatus to handle the regional dimension. The interlinked concepts of domain, partial and sub domain, combined with referent functions and referent organization, bring us considerably further. Still, research needs to be done on how these concepts are utilized in coherent regional development strategies. One of the unresolved questions is how to integrate multiple referent organizations in multiple domains?

Collaborative processes

In general, the issue of process knowledge in collaborative fields is underdeveloped. The principles of interactivity should be applied in new settings to be enriched, modified and supplemented. Richer data than what I have been able to collect will possibly bring new understanding about how interactivity is to be brought about.

Triple Connectedness

The concept of Triple Connectedness needs further clarification and should be challenged in other regional contexts. Research on practical development strategies need to be carried out, and collaboration between public actors around industry-related development issues should be brought more into focus in regional development strategies, whether they are in the form of national research programs (e.g. Value Creation 2010) or national strategies for industrial development.

Infrastructure for change

The avenue of qualifying the idea of a regional infrastructure for change along the lines I have suggested seems promising. Many of the other concepts discussed in this thesis go into such an infrastructure, and developing them further will therefore also enrich the meaning and practical relevance of this idea.

Role of public actors

Public actors as active developers pose a number of challenges as I have pointed out above, not least the need to collaborate with other public actors. Public actors as developers is becoming a more widely recognised topic lately, partly because regional actors seem to recognize this challenges, partly because the county administrations in Norway have been given this role to play by national decree. Issues of competence, role conflict, internal organization and relationship to the national level are but a few of the obvious challenges.

Policy making

Policy making at the regional level has been carried out under the heading of “Strategic Plan for Industrial Development”¹²⁰ in all counties for a couple of decades. Many of these plans and the way they are created seem to be mature for revision, not least in the perspective of a

¹²⁰ In Norwegian: Strategisk næringsplan

more active county administration. It is a major challenge to escape centralism where the few are planning for the many, and develop strategic dialogues that are not top-down, that serves to integrate and coordinate, pool resources, empower the stakeholders, contribute to learning across domains and strengthen the shared experience of common ground – and that lead to action. How such dialogues may be organized is an important question to address by the research community.

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Appendix A

Methodology

In this chapter I shall describe the methodological approach I have followed in this study. First I give an account of the process of designing this multiple-case study in a regional field. The various methods applied are accounted for, and I explain my way of analysing the outcome of the fieldwork i.e. the theory building approach. Finally, I discuss the trustworthiness of the study.

Finding my way in a regional field

As most readers will know, the tidy and linear structure of the thesis does not reflect the research or sense making process. Research entails a continuous effort of making sense of things, and as such has been going on since my first contact with the field in 1990 and in principle until the defence of this thesis. While this thesis in a traditionally way is build up with theory first, then case material and analysis at the end, the research process has been iterative, going back and forth between these three main categories. A first step was to identify a thematic focus based on my knowledge of the field. Since then, the process may be characterised as an ongoing conversation between theory, cases and analysis, between reading, writing and collecting case material, each category feeding back to the other two and pushing the process forward – and to a higher level of reflection. Hence, as always, the logic portrayed in a traditionally structured thesis such as this does not communicate the learning process of the researcher or how the research process actually unfolded.

My involvement with the regional field in Aust-Agder was from the start in 1990 conceptualised as an action research engagement inspired by the work on collaboration by Trist (1976, 1983, 1985, 1986) and Gray (1989), as well as the long tradition of action research at the Work Research Institute (see Gustavsen 1992, Qvale 2000).

From 1990 I worked as part of a research team on an action research project with a business park in Aust-Agder. The aim was to develop collaboration between small, high-competence-based enterprises located together (see also introductory chapter). Soon, relations between the

park and the larger system appeared to be decisive for the internal development of the business park. The larger system included other enterprises outside of the park, as well as the political and administrative system at municipality and county level, as their priorities influenced the conditions for development. Relating to the public actors of the area led me to understand development of the business park not only as an inter-enterprise issue, but also as a question of industrial development.

This experience spurred my interest for collaborative issues in regional development, and the newly launched Free-County Experiment provided an opportunity for investigating into this issue. Together with my colleagues I carried out a study of how the competence system in the county interacted with work life. The study was designed with a conference that brought central actors together to debate the findings of the study (Finsrud et al 1993). The study was commissioned by the county administration, and served as an input to the strategy process in the Free-County Experiment. This study deepened our understanding of the regional competence system and broadened our personal network in the area.

Our broad field contact as a research team made it possible to run an international summer school in action research later the same year (1993) in Fevik, Aust-Agder, with 40 participants from nine countries¹²¹. The summer school was based on extensive contact with the field during ten days, and included workshops and modified search conferences. The summer school was an intervention in it own right in the various projects WRI researchers were working with, and by bringing together experienced and in-experienced action researchers from a broad international action research community, the summer school also contributed to the quality of the action research carried out.

Resources and legitimate position: from action research to case studies

Our ambition was to follow this path further, and develop a larger action research project together with the actors of the Free-County Experiment. For a number of reasons we were

¹²¹ The summer school in action research had participants from Norway, Sweden, Denmark, Finland, Poland, The Netherlands, Turkey, USA and France.

unsuccessful in getting the necessary regional funding and with that a formal role to play in the regional change efforts as a research team. This reduced our involvement with the Free-County Experiment to a level where we followed the processes rather than acting as part of them. Our contributions to the development in the field became limited to conversations with key stakeholders and producing occasional notes discussing problematic issues. Our previous project activities and knowledge of the field gave me fairly easy access to the various stakeholders *individually*, even without a formal role in the Free County Experiment, and other WRI-projects¹²² in Aust-Agder county brought us together with some of the stakeholders in other settings, and contributed to maintaining relationships. However, the necessary funding and legitimate position needed to get involved in an action research mode, was not in place. The challenge for me became to follow the Free-County Experiment – and eventually the Joint Project, over a long time period in order to learn not only from the initial up start, but from the process as it unfolded.

This shift in funding structure meant a shift in approach to my thesis work. Instead of doing action research as part of a research team, my thesis work became an individual encounter and turned into more traditional case study research, but still with a clear development perspective. This is an important point to notice. Even if my involvement did not contribute to change in an active sense, and therefore shall not be considered as an action research engagement, my focus has been on *development*, which to me is essential to action research. Therefore, the issues I have raised are to a large extent grounded in the problems, perspectives and actions of the actors – rather than derived from theoretical propositions in the literature. This point of departure has also influenced the way I have analysed the cases, constructed meanings and formulated propositions and concepts. Even if the studies did not become action research projects, I claim that the insights developed are highly relevant to action researchers attempting to work with collaborative, regional change efforts.

¹²² At the time the WRI had projects on supported employment, sheltered workshops, municipality development, in-plant rehabilitation, public support agency for work environment, and health sector cooperation.

Towards a multiple-case design: The process of choosing cases

The rich field-situation in Aust-Agder and the diminishing action research element led me to abandon my initial thesis-idea of comparing regional development efforts and action research approaches in the two counties of Aust-Agder and Vestfold (Finsrud 1993). Comparing action research approaches became the focus of a separate publication (Finsrud 1995). Instead, the abundance of collaborative efforts within Aust-Agder led me to consider the potential of a thesis design based on three cases taking place in the same county, at the same time and with overlapping sets of actors. In addition, the cases should preferably deal with the same development issue. Not only were there many collaborative efforts in Aust-Agder at the time, but several of them had as their overall aim to contribute to competence development in enterprises. Hence, it was possible to find cases that had the same purpose and therefore allowed for a closer comparison of organizational and processual issues.

According to Robert Stake “The first criterion (for selecting cases) should be to maximize what we can learn” (1995:4). Therefore cases should be rich, relevant, contrasting and comparable. The Joint Project was launched as a major collaborative effort that involved both regional and national actors and cut across public and private sectors. It was the first time in Norway that the social partners (through HF-B) and a county administration had established an active, development-oriented partnership. Hence, the Joint Project represented a novelty in a national perspective. The accessibility for me as a researcher and the learning opportunities in such a new approach made me choose the Joint Project as the first case of my study. The next step was to search for cases that would contrast or supplement, and have dissimilar as well as similar characteristics. In other words, I was designing a multiple-case study (Yin, 1989), or in the terminology of Stake, a collective case study (Stake 1995).

With the Joint Project as the point of departure, I set out to find cases that would contrast and compare well with this case. This was not, however, an easy and straight forward task where the criteria for choosing were nicely spelt out in beforehand, and the information about alternative cases easily available. Instead, the process of finding and choosing was an iterative process going back and forth between initial case analysis, conversations and interviews with actors in the field, tentative write-ups of cases, rudimentary analysis, more information gathering, dismissing cases, finding new ones, etc.

To develop a better understanding of what was useful and what to look for, a first step was to write up a first draft of the Joint Project, and start playing with dimensions, categories and possible critical characteristics. Hence, a first attempt at analysing and making sense of the Joint Project material formed the basis for searching for comparative cases. A number of interviews with various potential case-representatives then followed. In order to test out whether the presented cases had the sufficient qualities with respect to the research questions and my initial case, I had to write up the cases and make the first round of systematizing, analysing and comparing to make sure it carried all the way through. After exploring various alternatives, including the Maritime Forum, the IT-Ring, the Competence Ring South and Sentek (at the time a new centre at the regional college), I settled for the Wood Centre and the Electronics Committee because of their mix of similarities and differences in relation to each other and to the Joint Project.

Field work and case studies

According to Yin, “Case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context” (Yin, 1989, p. 13). As the reader will know by now, these criteria fit this study. More specifically, I have carried out longitudinal, qualitative multiple-case studies. The studies may be identified as *instrumental* case studies motivated by a need for general understanding rather than as intrinsic case studies motivated by a need to learn about a particular case (Stake 1995). The generated understanding is generalized through theoretical propositions, not to populations.

Methods applied and account of data

My main sources of information in this study are the following:

- Interviews
- Conversations
- Written material produced by the field
- Written material produced by other researchers
- Participant observation

A total of 77 interviews with 40 different people across the three cases have been made in the period from 1991 to 1998. The interviews have typically lasted between 1 and 1,5 hours, with some lasting 2 hours. Some of the informants have been interviewed about more than one of

the cases in the same interview. This has been counted as separate interviews in order to illustrate the field contact behind each case. See the tables below. Key interviews have been audio recorded, and personal field notes are kept from the interviews. More informal conversations have been carried out to test my ideas and my interpretations of events and development trajectories.

Position/institution/role	Number of interviews
Officer, Dept. for Industrial Development, Free-County coordinator, secretary for the Executive Committee	10
Department head, Dept. for Industrial Development until 1993, member of the project group	3
Officer, Dept. for Industrial Development	3
Officer, Dept. for Industrial Development	1
Department head, Dept. for Industrial Development from 1993	2
Department head, Dept. for Agriculture	1
Department head, Dept. for Education, head of steering group	2
Chairman of the county council	2
Director, County Employment Office, steering group	1
LO-secretary, steering group	4
LO-representative, strategy team, member of the project group	3
Director, regional NHO, steering group	2
NHO-representative, politician, member of the project group	1
Officer, County Employment Office, operator of implementation	2
Director, Arendal Employment Office, deputy chairman Arendal municipality	1
Researcher, Agder Research Foundation	1
Researcher, Agder Research Foundation, secretary for the IT-Ring	1
Faculty, Agder University College, Fløiheia	1
Faculty, Agder University College, Fløiheia	1
Director, Arendal Industry Forum	1
Officer, Agder Enterprise Consultancy	1
CEO enterprise, chairman Arendal Industry Forum, board member IT-Ring.	2
CEO enterprise, chairman of IT-Ring and The Competence Ring South.	2
CEO enterprise, business park developer	4
CEO enterprise	1
CEO enterprise	1
CEO enterprise	1
CEO enterprise	1
Total number of interviews	57

Table 7: List of interviews Joint Project

Position/institution/role	Number of interviews
Manager, The Wood Centre	1
Employee, The Wood Centre	1
CEO enterprise, initiator, member	1
Manager AMO-centre and previous manager The Wood Centre	1
Officer, Dept. for Industrial Development, Free-County coordinator	2
Officer, County Employment Office	1
Department head, Dept. for Education	1
CEO enterprise	1
CEO enterprise	1
Total number of interviews	10

Table 8: List of interviews Wood Centre

Position/institution/role	Number of interviews
Officer, County Employment Office, later Arendal Employment Office, initiator and first secretary	2
Officer, County Employment Office, second secretary	1
Officer, County Employment Office, third secretary	2
Officer, Dept. for Industrial Development, Free-County coordinator	1
Director, County Employment Office	1
Faculty, Agder Maritime College, member	1
Production manager, enterprise	1
Labour union representative from enterprise	1
Total number of interviews	10

Table 9: List of interviews Electronics Committee

The field itself has produced a substantial amount of documentation, which has been an important supplement to the interviews. In addition, other researchers have produced reports based on studies in the same field. This amounts to an extensive and important source of information and interpretations. See appendix B for document overview.

Finally, direct participation in meetings and conferences has given me access to observe the interplay between public and private actors. The “Motivation conferences” arranged early in the Joint Project are examples of this. The summer school at Fevik provided broad field contact for the participants through meetings, presentations from key actors and modified search conferences. Through the summer school, I benefited from the reflective and

interpretive capacity of a large group of action researchers, ranging from novices to an experienced staff.

In addition, our initial project that brought the researcher group at WRI into regional issues was based on interviews with 11 enterprise managers and representatives of 28 competence providers. 18 key individuals participated in a modified dialogue conference designed and run by me (Finsrud et al 1993). This, however, served more as a background for the cases than providing input about the cases. I acknowledge that these are not the most extensive data possible, but I claim that they are sufficient for the type of interpretations and conclusions I have made.

Making sense: analysing the cases within, across and together

The case study research carried out in this study is *qualitative*, where *understanding* is the main purpose of the inquiry, rather than explanation. This means that I do not seek to identify cause and effect relationships, but seek understanding of complex, social phenomena in a real-life context. This view belongs within a hermeneutical, constructivist and nondeterminist epistemology (Johannessen 1992, Stake 1995). Furthermore, qualitative inquiry is basically *interpretive*, it is about making sense through interpretations. In this section I provide an account of how the analysis was done, i.e. I explain key features of my process of interpretation.

Qualitative analysis is conceptualised in a number of ways by various authors, and it is not the purpose of this chapter to present and discuss these contributions. Rather, I utilize a few concepts and categorizations that contribute to a fair description of the sense making process.

According to Huberman & Miles (1998), qualitative analysis consists of three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification. *Data reduction* refers to the process of selecting, abstracting and transforming the data that appears in the field notes. *Data display* refers to various ways of assemble organised or compressed information into an immediately accessible form, such as matrices, graphs, charts and networks. *Conclusion drawing/verification* refers to the process of deciding what things mean, i.e. meaning construction, and these three activities, together with data collection, form an interactive, cyclical process.

The *data reduction* has mainly been done by writing the cases as they appear in this text. Writing has entailed a process of going back and forth between field notes, tapes from interviews, written documentation, further interviews and draft matrices and charts. In the process of *displaying data*, I have used larger matrices, tried out dimensions and categories, combined them into new ones, removed them, found new ones, collected more data to fill out the categories, and so on. Some matrices have been made up of dimensions x actors (role-ordered), other matrices have been time-ordered to get a grasp of the processual dimension, some have been effect-matrices, and a forth and dominant type has been the cross-case matrices. Parts of these matrices are then brought back into the text, either in the cases, or as part of the discussion. The *conclusion drawing* or meaning construction has been going on from the very beginning of the study, and eventually took on a more systematic form along the lines of grounded theory construction, see below (Strauss & Corbin 1990).

A similar way of categorising the sense making is as a combination of a narrative strategy, a visual mapping strategy and a grounded theory strategy (Langley 1999). The narrative strategy, i.e. telling the stories, has several purposes. It is an intermediary step in the process towards identifying characteristics of the processes. Partly it contextualizes the stories, partly it allows the reader to judge the transferability of the ideas to other situations, and finally it enhances trustworthiness and provides the reader with a possibility to make his own interpretations and check mine. The visual mapping strategy consists of time-series analysis and charts that partly have served as an intermediary step in the analysis, but simple versions of these overviews have also been put back into the cases to clarify major developments over time to the reader.

The third strategy I have applied in theorizing from the process data, is a grounded theory approach. A theory that is inductively derived from the study of the phenomenon it represents, is called a grounded theory (Strauss & Corbin 1990). A good grounded theory has categories that fit the data, is relevant to the core of what was going on, can be used to explain, predict, and interpret what is going on, and is modifiable.

Let me take an example. In the grounded process of constructing the meaning of *interactivity*, I have been cycling back and forth between strategies aimed at understanding case dynamics,

and at seeing the effects of key variables. In other words, I have applied a combination of a case-oriented and a variable-oriented approach (as recommended by Miles & Huberman 1994), but with an emphasis on the case-orientation. This is similar to the grounding process advocated by Strauss & Corbin (1990) with its inductive-deductive spiral. My point of departure for doing this study may have been more informed by theory than what Strauss & Corbin advocate as the ideal situation for building grounded theory. At the same time my approach has clearly been less rigid and theory-driven than the position taken by Yin (1989), where theory development is the first point in a linear approach. My aim has been not to get my prior theoretical understanding in the way of discovering new things, and that seems to be the major rationale also for the position taken by Strauss & Corbin.

An important point to notice is that I arrived at the characteristics of interactivity through a grounded theory construction process. The multiple case-design proved especially valuable in identifying these characteristics. Comparing across the cases during the construction process provided a richer understanding of these process-issues. Now, interactivity is presented already in the theory-chapter (chapter 3) in order to discuss it in relation to other process-theories. Hence, it may wrongly appear as theory development prior to fieldwork. When I discuss processual aspects of the cases in chapter 9, it might appear as a deductive approach, which it is not. Rather, it is a part of the inductive-deductive spiral of the grounding of a theory. That is why it makes sense to use a set of theoretical propositions derived from the cases, to discuss the cases. By doing this, I not only illustrate what interactivity is about and make the claim that it is a valid perspective. I also seek to establish a strong connection between the research questions, the presented cases, the theoretical propositions and the conclusions drawn through the discussions in chapter 9. By linking the degree of interactivity to the outcomes of the cases I add a new element, i.e. the outcome, and show how the degree of interactivity provides explanations for the outcomes.

Sensemaking along three dimensions

These sense making strategies have been applied along three dimensions in the multiple case setting. First, I have analysed each case in and by itself (chapters 8 and 9). Then I have applied a cross case analysis where key dimensions and key outputs are compared (also chapters 8 and 9). Finally, I have added an overarching regional perspective and discussed the meaning of the three cases as a collective expression of a collaborative development strategy (chapter 10).

This analysis has *not* followed the replication logic advocated by Yin (1989), where the successive cases after the first one are used to check whether the pattern found matches the first case. His emphasis on a priori prediction and theory development does not fit well with my constructivist understanding of knowledge. Rather, I view the cases as multiple exemplars, where the knowledge is constructed and synthesised in interplay between the cases.

Both the case study design and the analytical strategy contribute to the robustness of my conclusions. The comparative dimension across three cases adds credibility to the interpretations in itself, as do the internal interpretive consistence among the three dimensions. By similar and contrasting findings, a level of robustness is achieved that is not present in a single case study. Adding to this, the co-existence in time and space of the cases, and overlapping stakeholder sets, make the comparisons particularly potent when it comes to draw conclusions on organizational and processual characteristics. By this choice of cases, the organizational and processual characteristics stand out from a similar background, and I am able to show that “interorganizational choice” is possible, and that some choices are better than others. The three dimensional analytic strategy ensures that insights are derived both from within the cases, across the cases and on an overall regional level.

Trustworthiness

This thesis is based on three case studies carried out in a rather conventional and pragmatic fashion, i.e. it does not claim to fulfil the ideals of action research (e.g. Eden & Huxham 1995, Greenwood & Levin 1998,) or co-operative inquiry (Heron 1996). As described earlier, the initial intent was to carry out action research in this regional field, but for various reasons such an ambition was not feasible during this study. Therefore, the study undertaken here should be assessed as case study research in the constructivist meaning of Stake (1995).

This type of qualitative inquiry emphasises *interpretation*. The whole process of constructing meaning from a social field is a process of interpretation. The interpretations I present in this thesis are not the only possible ones, but, as I shall argue in this section, relevant, credible and trustworthy ones. “It is true that we deal with many complex phenomena and issues for which no consensus can be found as to what really exists – yet we have ethical obligations to

minimize misinterpretation and misunderstanding.” (Stake 1995, p. 108-109). The following is an account of how I have attempted to fulfil this ethical obligation.

What are the relevant criteria by which to judge how this study articulates a reality, which is “valid” in the meaning of being well grounded? According to Guba & Lincoln (1998), two sets of criteria have been proposed for judging the quality of an inquiry within constructivism. These sets of criteria are labelled *trustworthiness* and *authenticity*. The former is concerned with validating the methods and the latter of validating the outcome of the research. The trustworthiness criteria were suggested by Lincoln & Guba (1985), and are conversions of the positivist criteria of validity. Guba & Lincoln characterize them as “suspect” for this reason and encourages further critique (Guba & Lincoln 1998:214), which they get from Heron (1996) and Schwandt (1998), among others. A key critique concerns using member checking to establish credibility of findings. As the “members” are also part of the construction process and in a sense co-create findings together with the researcher, confirmation from them does not in any sense provide a guarantee for “truth”. Member checking then becomes nothing more than an element in the joint construction process you as a researcher have with your field. Member checking is, however, just one of the suggested activities for establishing credibility.

The main criticism of the trustworthiness-criteria rests on an approach to research with a deeper involvement with the research field (e.g. action research or co-operative inquiry), which is also the basis for suggesting the authenticity-criteria (Guba & Lincoln 1998). The authenticity-criteria concern the research *outcome*, and have to do with the participation of the informants in the research process, their learning, empowerment etc. These criteria do not fit a traditional case study design. Therefore, for lack of better alternatives, I will use the trustworthiness criteria to discuss the quality of the study.

The trustworthiness-criteria are credibility, transferability, dependability and confirmability (Lincoln & Guba 1985). *Credibility* parallels internal validity, and may be achieved by a number of activities.

Prolonged engagement enables the researcher to get “inside” the cases and provides for less possibilities of data distortion based on superficial information. My involvement with the

same regional field and actor set over a period of seven years means I have utilized this activity rather well.

Persistent observation provides depth of understanding by focusing extensively on what really matters, and hence the ability to sort out irrelevancies. It implies using tentative labelling of salient factors and then exploring them in detail, and avoiding the risk of premature closure. The use of an approximated grounded theory approach and the length of the study has helped me to focus on what I have come to believe are the important matters in this field. The longitudinal aspect in itself provides the test of time regarding such as the robustness of organizational forms and relationships, practical results etc.

Triangulation of data sources, methods, investigators and theories are thought to increase the credibility of the interpretations and gain the needed confirmation. Methodological triangulation is the most recognized, and implies using more than one method to gain information or data about a situation. It overlaps with data source triangulation, which may imply *multiple* copies of one type of source (ex. interviews) or *different* sources of the *same* information. Besides interviewing several informants about the same case, I have used written documentation extensively and used direct and participant observation. Investigator triangulation means having other researchers taking a look at the same scene or phenomenon. The Free County Experiment and the Joint Project were evaluated by other researchers during my study, see appendix B, and their interpretations and findings correspond well with mine. This has been an important confirmation of facts and also added new information to my own data. The Summer School in Action Research in 1993 also contributed as investigator triangulation, and researcher colleagues at the WRI who worked in Aust-Agder have provided me with supplementing knowledge of the field and alternative interpretations. When other researchers address your field, it also has an element of theory triangulation, and the evaluation reports by Møreforskning clearly contribute in that direction with their departure in theories of planning, public administration and evaluation.

Peer debriefing is thought to contribute to make the researchers' own understanding clearer and more explicit by exposing it to other researchers, preferably not doing research in the same field. Several systematic arenas contribute to satisfying this criterion. Firstly, professors and other PhD students have provided an important context for peer review, not least due to

the design of the PhD program itself. The case material has all the time been the point of departure for the various courses I have attended, with the consequence being repeated discussions of my own understanding of the field situation, both orally and in writing. The mentor system is in itself an example of systematic peer debriefing. Secondly, other courses and studies taken abroad have challenged my understanding and brought it forward¹²³. The third arena has been the Work Research Institute where discussions with colleagues on various aspects of the study over the years have helped me to clarify my understanding. The fourth arena for developing a clearer understanding has been international conferences where I have presented papers and utilized the international researcher community as a peer setting. The level of critique at these international conferences is not very high, and takes place in a friendly and polite atmosphere. In terms of articulating and explaining a Norwegian context and arguing for processual and organizational dimensions in a foreign language, it has nevertheless been a very useful setting for exposing and clarifying my understanding¹²⁴.

Negative case analysis as a credibility-enhancing activity consists of systematic efforts to test and challenge your understanding and concepts against data. This way of understanding “negative case analysis” brings it close to the principles of the grounded theory approach, which I have applied in parts of the analysis.

Unbiased representation or referential adequacy refers to an ideal of representing the data, i.e. events, episodes and interviews as neutral as possible by using such as video and audio recording. The idea is that you will be able to go back to these events and interviews and re-interpret them later, and that other researchers – in theory - will have the possibility of utilizing the same data. This suggested activity to strengthen the credibility of the study seems

¹²³ 1) International Summer School in Action Research at Fevik, 6th –15th of June 1993.

2) “International Action Research Development Programme” (ACRES) 1992-93.

3) “Produktionens rumsliga och sociala organisation - perspektiv på näringslivsomvandling og regional förändring”. Nordic researcher course in Uppsala, 14th - 23rd of November 1994.

4) Semester at Cornell University, Department of Anthropology, Ithaca, New York, fall of 1995.

¹²⁴ -6th European International Industrial Relations Congress in Oslo, 25.-29. June 2001.

-International Geographical Union, Study Group on Local Development, Annual Conference: “The Institutions of Local Development”, Trento, Italia 19.-21. October 2000.

-24th International Congress of Applied Psychology, San Francisco, 9.-14. August 1998

-Academy of Management, August 1996 in Cincinnati.

-Academy of Management, August 1995 in Vancouver.

to carry a particular heavy positivistic heritage. In many instances, access to people and events are based on trustful relationships and an ability to handle confidentiality. Such recordings will thus violate the very conditions for getting access to sensitive information. I have recorded interview data by keeping logbooks and taking notes systematically from the events I have taken part in. Writing is only possible through interpretation, and hence inevitably is biased. In 1 out of 5 interviews I have used audio recording, but under the conditions of *not* making it accessible to others. This activity is therefore only partly utilized in this study.

Member checking implies checking facts and interpretations with the actors where they originated. Heron (1996) argues that member checking does not establish the credibility of findings because the actors are also part of the construction process. This view rests on a radical or strict constructivism that I do not follow to its extremes. What is left is member checking as a potentially valuable element in the co-creation of understanding. I have tested out my understanding of actors and situations through conversations with key actors, and also sent the written cases back to key informants as a normal procedure in qualitative research. The co-creation, if not the credibility, has benefited more from the conversations than from feedback on the text.

By these activities, the study satisfies the trustworthiness criterion of credibility. The next criterion is *transferability*, paralleling external validity. This criterion has to do with generalizability of the study. To what extent can we trust that the knowledge is valid in other contexts beyond the particular case? In a constructivist view of knowledge external validity cannot be specified, and in a strict sense is impossible (Lincoln & Guba 1985:316). Lincoln & Guba (op.cit) claim that the only possibility is to provide “thick” descriptions that enable others to assess whether transfer is possible, i.e. the reader is left with his own generalizing. The question of transferability is thus an empirical one where the reader must know both the context of the study and the context where the knowledge may be applied in order to judge the “fittingness”. Greenwood & Levin (1998) provide a more developed explanation for this point, and call it “transcontextual credibility”. An important point here is that we are talking about theoretical or analytical generalization, not statistical. “Case studies are generalizable to theoretical propositions and not to populations or universes” (Yin 1989:21). It is not, however, sufficient to claim that the achieved insights and new knowledge are “theories” and therefore are (easily) transferable to other settings. Theoretical propositions are also contextually bound,

and we are back to considering the contexts and the fittingness between them. I have provided relatively thick descriptions to make it possible for the reader to judge the transferability of my findings. In addition, the findings are developed over three cases, which indicates a certain level of transcontextual credibility and robustness of the findings; at least the meaning construction makes sense beyond a single case. Beyond that, the readers will have to make their own judgements in each particular attempt at applying the knowledge in other situations.

The third trustworthiness criterion is *dependability*, paralleling reliability. Lincoln & Guba (op.cit) argue partly that when you have demonstrated credibility, dependability is also demonstrated. Triangulation of methods is the most direct technique. They go on to state that this is a very weak argument, and instead suggest an inquiry audit, metaphorically based on the fiscal audit. For discussions of the audit trail, see below under confirmability. In the same way as for confirmability, access to the case study database should in principle make it possible for other researchers to assess whether the process of inquiry is acceptable. Being an unrealistic measure in most instances, no external audit has been done in this study either. The quality of the dependability criterion rests on the close relationships with the field over time and the mentoring process as part of the PhD-study. The choices and interpretations made by me during the study are clearly dependent on my own frame of reference, including values and epistemological position. This is an inescapable fact for all research encounters. The point is to make this frame of reference sufficiently clear for the reader to make it possible to judge my conclusions on the basis of this.

The forth and last criterions is *confirmability*, paralleling objectivity. Lincoln & Guba (op.cit) suggest an audit trail comparable to a fiscal audit as the major technique. An auditor would then go through the data and control and check their meaning, and also assess the meaning construction process. Following Knutstad (1997), actually using this kind of audit to control the reconstruction of meaning appears meaningless. What exists is a form of case study database consisting of field notes, written and audio taped interview records, and drafts from the process of analysing. In principle, other researchers could gain access to this material, but would most likely not arrive at identical conclusions. Making field notes implies making my own judgement as to what has been interesting in a particular setting. Interpreting the setting and the words spoken and transferring it to text is clearly a contextual and subjective encounter, and other researchers would not be able to enter into the same settings, but would

have to rely on historical data only. This to a large extent rules out the possibility of reaching the same results. I have followed three change processes over several years, and they cannot be replicated, and will never occur in exactly the same way again. What is interesting is whether I have been able to tell a trustworthy story about these processes, and whether my conclusions are recognizable, trustworthy and have value in other contexts.

This discussion shows that the trustworthiness of the case studies is sufficient. The credibility is high, the transferability is partly demonstrated and is likely, the dependability is probable, and the confirmability is possible in principle, but in a sense meaningless in a constructivist perspective.

Appendix B

Document overview

List of documents: The Free-County Experiment and the Joint Project

Title	Date	Type	Writer	Theme
Strategisk Næringsplan, Høringsutkast	25.04.90	Report	Odd W. Boye in A-A Bedr. Rådgivning	Industrial development
Regional næringsutvikling etc.	29.11.91	Project application	WRI v/Ragnar Johansen	Competence environments for industrial development
Nordisk Prosjekt - Handlingsplan for Aust-Agder	23.12.91	Project description	Harry Svendsen, Employment Office.	Competence Development Electronics Committee
Utviklingsprosess eller regelendring?	mai 1992	Report, Møreforsk.	Amdam m.fl.	Status in the Free-County Experiment.
Undervegsevaluering av nordisk prosjekt	28.04.92	Report, Møreforsk	Jørgen Amdam	Employment Office: Training for industrial development
Frifylkeforsøket. Videreføring av forsøket, Strategiutvikling.	04.11.92	Report	Executive Committee, FCE	Strategy development in the Free-County Experiment.
Paradoksals kommunalisme?	1993	Report, Møreforsk	Anne-Karin Ødegård	Employment Office: Training for industrial development
Frifylka som regionale utviklings-organ	mars 1993	Report, Møreforsk.	Amdam m.fl.	Relationship county adm and municipality level
Kompetansemiljøer for næringsutvikling i Aust-Agder	mars 1993	Report, WRI	Finsrud m.fl.	Competence environments and enterprises, roles and relationships.
Organisasjonsstruktur og samarbeid i frifylkene	medio 1993	Report, Møreforsk	Herse og Ødegård	Reporting a survey among department heads about collaboration
Frifylkeforsøket, Strategi-utv og program-satsinger	15.05.93	Report, A-A County adm	Executive Committee, FCE	Strategy for industrial development, proposition to the County Parliament.
By og land hand i hand	1993	St. melding nr. 33, 92-93	The Ministry for Municipality and Work	About the Free-County Experiment.
Koordinering av rådgivnings- og kompetansemiljøer for næringsutvikling	09.07.93	Memo	Kristen Moseid, department head, Dept. for Industrial Development	Reporting the follow up on the issues identified in the report from the WRI (Finsrud et al 1993)
Frifylkeforsøket i Aust-Agder	1994	Folder	The County Administration, Aust-Agder	General info about the three programs and the structure of the FCE.
Dei samordnande frifylka	mars 1994	Report, Møreforsk.	Jørgen Amdam	Evaluation of the FCE
The Coordinated Free-Counties of Aust-Agder and Nordland	1994	Møreforskning, Volda, Work report nr. V9410	Jørgen Amdam	Comparing FCE in Aust-Agder and Nordland

Title	Date	Type	Writer	Theme
Sesam-prosjektet (foreløpig rapport)	07.06.94	Report	Regional college (AID) and county adm.	Coll. Between HIA, AABR, AF, N-etat and A-etat – and business life.
Felles mål for Agder-diskusjongrunnlag for konferanse i Mandal	24.06.94		KS, Aust-Agder og Vest-Agder (V. Norman)	Infrastructure suggestions for development of South Norway.
Elektronikk i skjærgården + +	11.07.94	Magazine articles	Teknisk Ukeblad	About Aust-Agder, several articles
Frifylkeforsøkets programsatsinger, statusrapport	01.09.94	Report	Executive Committee, FCE	Status report, The Free County Experiment
Et konkurransedyktig Sørland	jan. 1995	Report	Helland-Olsen et al, Agderforskning	Porter-analysis of South Norway, industrial development
Kompetanseheving - Internasjonalisering	30.09.95	Invitation	County adm. + LO + NHO	Invitation to motivation conference
Programsatsing: Kompetanseheving og Internasjonalisering.: TBL, Reise og Næringsmiddel	Feb. 1995	Table	Dept. for Industrial Development	Overview of training courses and enterprises
Nytt nettverks-program 95-98	17.03.95	Application	Kristen Moseid	Letter to SND about cooperation
Referat fra styremøte i Int. prosjektet	25.04.95	Minutes of Meeting	Enok Hansen	Status in the Internationalization project
Frifylkeforsøkets programsatsinger, status	01.05.95	Report	Executive Committee, FCE	Status report, the Free County Experiment
Samarbeid om utvikling: HF-B og Aust-Agder Frifylke	juli 1995	Project draft	Henrik D. Finsrud	Evaluation of the collaboration between HF-B and the Free County departments.
Distriktpolitisk handlingsprogram	1996	Report	Fylkesmannen	Economic development in the districts, list of projects.
Statusoversikt Kompetansekurs	jan. 1996	Table	Dept. for Industrial Development	Training courses and enterprises in the competence development program, current status
Sluttrapport Fellesprosjektet	30.06.96	Report	Jan Johansen og Kristian Sundtoft	Summing up the Joint Project
Soga om Fellesprosjektet	30.06.96	Report	Jan Johansen og Kristian Sundtoft	Material from the Joint Project
Soga om Fellesprosjektet II	1996	Report	Jan Johansen, Kristian Sundtoft	Material: Motivation and Mapping
Evaluering av «Fellesprosjektet»	sept. 96	Report	Arne Johan Johnsen og Håkon Velde	Evaluation of the Comp. Development and the Internationalization programs, HF-B og county collaboration.
Verdiskapning gjennom kompetanseheving	nov. 96	Application to HF-B	LO and NHO in Aust-Agder	Prolonging of the Joint Project
Søknad om videreføring....	10.02.97	Letter to LO Aust-Agder	HF-B, Ingunn Olsen and Inger Brevig	Application for project denied
Fellesprosjektet....	07.04.97	Letter til LO A-A	HF-B, Kristian Skjølaas	Application for project denied
Fellesprosjektet som implementerings-prosess	Mai 1997	Master thesis, UiO	Håkon K. Velde	The Implementation Process of the Joint Project

Søknad om videre deltagelse i Reginn	15.11.97	Application	The Agder counties	Regional innovasjon systems
Retningslinjer for samarbeidet.....	8.12.97	Collaboration agreement, suggestions	Arvid Johannessen	Suggestion for an agreement about collaboration between the county departments and SND.

List of documents: The Electronics Committee

Title	Date	Type	Writer	Theme
Nordisk Prosjekt. Handlingsplan for Aust-Agder.	23.12.91	Report	Harry Svendsen, fylkesarbeidskontoret	Action plan for the Nordic Project, Aust-Agder.
Undervegsevaluering av Nordisk Prosjekt – Norsk delprosjekt som planleggingsprosess på fylkesnivå	28.04.92	Report	Jørgen Amdam, Møreforskning.	National evaluation of the Nordic Project.
Kompetanseutvikling som et aktivt virkemiddel i regional næringsutvikling. Sluttrapport fra Nordisk Prosjekt, delprosjekt Aust-Agder	1992	Report	Harry Svendsen, fylkesarbeidskontoret	Reporting the Nordic Project.
Minutes of meetings and agenda for a number of meetings	1997		Per Storenes, Arendal Maritime Videregående Skole	Agenda and minutes of meetings from Electronic Committee meetings
Elektronikkindustriens Kontaktutvalg	1997	Statement of goals		Statement of goals
Kontaktutvalget for næringslivet. Næringslivskontakt	16.04.97	Memo	Odd Rygh	Presenting a plan to expand the Electronics Committee-model to other industries

List of documents: The Wood Centre

Title	Date	Type	Writer	Theme
Tre-ringen Agder. Vedtekter	Spring 1993	Declaration note	The Wood Ring	Note describing purpose, rules and org. form for the Wood Ring
Agder Tresenter, Birkeland	21.02.94	Report	Trygve Raen	The transition from Wood Ring to Wood Centre. Discussing the needs of the woodworking industry and ways a Centre can meet the needs. Suggesting organizational form and economy and arguing for establishing a Centre.

Agder Tresenter vekker oppsikt	28.02.95	Newspaper article	Jan Kvernmo, Agderposten	Describing the Wood Centre
Årsmelding for 1995	1995	Report	The Wood Centre	Annual report
Presentasjon av Agder Tresenter		Folder	TheWood Centre	Presentation of the Wood Centre
Brukerårsmøte i Agder Tresenter	12.03.97	Minutes	The Wood Centre	Annual user meeting
Vedtekter for Agder Tresenter	12.03.97	Declaration note	The Wood Centre	Note describing purpose, rules and org. form for the Centre
Medlemmer Agder Tresenter	1997	List	The Wood Centre	Member list