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The Limits of Self-Europeanisation: Norwegian Health Researchers' Motivations for Participation in Horizon 2020

A Comparative Case Study of the University of Oslo and NTNU.

Master's thesis in European Studies
Supervisor: Jan-Henrik Meyer
Trondheim, November 2016

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Abstract

This thesis aims to analyse Norwegian health researchers' perception of the EU Framework Programmes. The central research goal is to understand and explain why they may choose to abstain from the Horizon 2020. The background for the study is that increased participation towards the programme is an important ambition of the Norwegian government. My focus is on health research; in particular, as statistics have demonstrated that health researchers have a lower return rate from the programme than many other research fields in Norway. Hence, I assume that health research is a particularly critical case requiring most explanation. The thesis aims to study this in the perspective of European integration. The theoretical framework combines a Europeanisation approach with a neo-institutional framework, focusing on rational choice institutionalism, sociological institutionalism and the concept of path dependency from historical institutionalism. These concepts were used to study what could attract Norwegian health researchers towards integration, but also to explain what could prevent integration of Norwegian researchers into the framework programme. The thesis has been conducted by doing a case study of the University of Oslo, and the NTNU.

The thesis is based on information from research literature, public documents and semi-structured interviews specifically conducted for this thesis with central advisers at the universities, and health researchers.

The thesis finds that health research at the universities has been Europeanised, with the universities strategies clearly pointed towards doing H2020 research. In addition, several health researchers are participating in the Framework Programmes. However, the universities health researchers are free when choosing to participate in the EU Framework Programmes. Important motivations for participating in the programmes are generous funding, network, prestige, the exchange of ideas, and to solve societal challenges within Europe. General reasons for not participating are the application process, low probability of success, a lack of resources and network, culture and language differences and calls that does not fit the researcher's competence. More specific reasons for health researchers may be: competing national funding sources, a busy schedule with several duties, and a strong competition in European health research. The rational choice institutionalism has proved to be the most potent theory for explaining the findings, as the researchers' evaluations of the advantages and disadvantages of the H2020 determines if they participate.

Keywords

Europeanisation – research policy – Framework Programme – Horizon 2020 – health research – rational choice institutionalism – sociological institutionalism

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Finn G. Litsheim

Volda, November 13th 2016

Abbreviations

DG - Directorates General

EEA – European Economic Area

ERA – European Research Area

ERC – European Research Council

EU - The European Union

FP –Framework Programme

FP5 – Fifth Framework Programme

FP6 – Sixth Framework Programme

FP7 - Seventh Framework Programme

H2020 - Horizon 2020

NOK - Norwegian Crowns

OECD – Organisation for European Economic Co-operation

PES – Project Establishment Support

POS – Positioning Support

R & D – Research and Development

RCN – The Research Council of Norway

UIO – University of Oslo

NCP - National Contact Point

NTNU – Norwegian University of Science and Technology

WHO – World Health Organization

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1.Introduction

The Norwegian Government announced its EU strategy for research and innovation in 2014, where the documents focus was on the Horizon 2020 research programme, and the European Research Area (ERA). The Horizon 2020 is the biggest research and innovation programme from the EU, that provides 80 billion euros from 2014-2020. Its main objectives are to secure European competitiveness globally, boost economic growth, and to create jobs in Europe. The H2020 is the eight EU Framework Programme (European Commission n. d. (c)).

The government's strategy plan was published the same year as the Horizon 2020 launched. The document showed that the government put a high value on research and knowledge, and that it is an important key for increasing the nation's competitiveness, and for the creation of jobs. The ambitions are high, and the government expects that Norwegian scientists should be in the forefront of science, where the best ideas for producing competitive products and services are developed. This is also, where the solutions to the biggest societal challenges are constructed. Participation in the European research and innovation co-operation is regarded as an important key for being in the front of the global knowledge production. The Prime Minister Erna Solberg and the Minister of Education and Research, Torbjørn Røe Isaksen, encouraged Norwegian scientists to get as much as possible from the H2020 (Kunnskapsdepartementet 2014b p. 3).

Earlier reports had shown that Norwegian researchers had as much, or higher participation as other European researchers in the Seventh FP, when adjusted to the size of the national research system. However, the growth of the return rate from the EU programmes was lower than other countries. Further, the university and college sector had the highest participation in the Seventh FP, but compared to the Nordic universities from Sweden, Denmark and Finland, the Norwegian effort is considered as poor. This creates expectations to the universities, where they are encouraged to increase their efforts in the H2020. The University of Oslo, NTNU, and the University of Bergen were the Norwegian universities with the highest activity within the seventh FP (Kunnskapsdepartementet 2014 pp. 6-7).

In addition, studies have shown that Norwegian health researchers have had a low participation in the programme, although the research environments within this field of study are considered as strong (Kunnskapsdepartementet 2013a p. 83). A recent study has shown that this is still a problem, and the return rate from the H2020 by the health researchers is considerably under the goal of 2 percent from the H2020 as a whole (Kunnskapsdepartementet 2016 p. 49).

The aim of this study is to analyse what thoughts and experiences Norwegian health researchers have from the H2020. The main objective is to research why Norwegian health researchers choose to abstain from the H2020. Related to this, it is important to see this in the light of the earlier experiences some of the researchers may have.

The thesis takes a European integration approach, where the aim is to find reasons for why the researchers at the universities find it attractive to integrate towards the EU, and why it may not be attractive to seek integration towards the EU. This can tell us something about the situation around a Europeanisation of the universities health research. This have been done through a theoretical approach where I have studied the universities by the concept of Europeanisation, and by considering the involved actors through the theories of neo-institutionalism.

The thesis use a circular definition of Europeanisation, as it also investigates Norway's possibility to influence EU politics, and Saurugger (2014 p. 126) defines Europeanisation in a circular perspective as:
"*Europeanisation is not a linear process but a circular one, which also includes European integration and the process's influence at n*
integration anew."

Within this frame, I have used the perspectives of rational choice institutionalism, sociological institutionalism and the concept of path dependency from historical institutionalism. Further, it has been important to see how the researcher's decisions is influenced by the environment they operate within, and this has made it important to analyse how the EU research policy has influenced down to the national level, and further down to the universities studied. This has been particularly important in the perspective of sociological institutionalism. It is also analysed how the researchers' former experiences with the FPs influence their choices, and this is done in the light of path dependency.

1.1 Structure

Section 1 of the thesis has outlined an introduction to the topic for the reader, demonstrated the aims of the study, and described research questions. It also shows the methodology the thesis use to solve the research questions. It has also pointed out the relevance of the thesis, and presented earlier research and experiences with the EU FPs.

In section 2, I will present the theoretical framework of the thesis where I will review the concepts and theories that I will use for the study. The study is done through the concept of Europeanisation, and have used the theories of rational choice institutionalism, sociological institutionalism and the concept of “path dependency”. All perspectives belongs to the neo-institutional theories.

Section 3 will analyse how the EU is involved in health, and how it develops its health policy for its member states, and the associated countries. Further, it demonstrates how this is done by establishing research collaborations in Europe. This is particularly interesting since health regarded as a national matter.

Section 4 will demonstrate how Norway is connected to EU health policy, and how the relationship between the EU and Norway is in this policy area. This will further demonstrate the connection between the EU and Norway at the health research level. Financing is an important part for understanding the situation between Norway and the H2020, and this will also be reviewed in this section. Section 4 will also include a review of Norwegian strategy towards the H2020. This is an important part, since it helps us to understand how Norway works up towards the programme with its most important actors.

In section 5, the analysis itself will be presented, where it starts with a review of the universities strategy documents relevant to European research, and this will be done along with important input from the adviser’s interview, as this provides interesting insights and experiences. It will also describe how the universities provides incentives to stimulate participation. Section 5 also presents the analysis providing the responses from both the advisers and researchers.

Section 6 will add up the most important results, and provide further analysis and discussion, where the results are analysed together with the conceptual and theoretical framework. The section will also do a comparison between the UIO and NTNU, and see the new results in the light of former studies presented in section one.

The last section will provide the concluding remarks, and suggestions for further study.

1.2 Research Question

The aim of the thesis is to contribute to a better empirical basic for understanding Norwegian health researcher's motives for participation in European research. The study is done in a European integration perspective. Based on the theoretical framework I use; I will try to answer the following research questions:

1. To what extent is the NTNU and UIO influenced by the EU research policy?
2. What attracts the health researchers from NTNU and UIO towards the H2020 Framework Programme?
3. Why may the health researchers choose to not participate in the H2020 Framework Programme?

The first research question aims to find out to what extent the universities are Europeanised by the EU research policy, and how different actors may influence the universities activities.

The second research question aims to find out what the researchers sees as attractive in the H2020, as this may lead them towards the EU.

The third research question is the most important question, and aims to reveal what reasons the health researchers have to not seek participation in the H2020. This may show some of the reasons why health researchers have a low attendance in the programmes and a low return rate.

1.3 Relevance

As mentioned in the introduction, Norwegian participation in the H2020 is an important strategy for the government, and it considered important that researchers have success within the programme.

Further, in an article from 2014, the RCN encourages Norwegian health scientists to apply for more EU funding. The argument is that Norwegian health scientists apply far less than its colleagues from Sweden and Denmark, and the RCN believes the health researchers' ambitions should be aimed at a higher level by applying for EU funding in the H2020. The background is a report from Forskningsbarometeret that shows that Norwegian health researchers submitted 339 applications, while their Danish colleagues submitted 681 applications. However, the success rate from Norwegian health scientists was about as high as the health scientists from the neighbour countries, but it is important that the amount of applications increase to obtain a higher return rate. It is argued that there is a lack of motivation and interest for the EU FPs within the Norwegian health research environments. Only a small amount of Norwegian health research is funded by international sources of funding, and it is a wish that the ambitions for internationalisation and especially towards the EU should be increased. The government wants a higher participation in the field of health hopes for an increase at 60 percent in the H2020. Secretary of State in The Ministry of Education and Research Bjørn Haugstad tells that the success in H2020 is a good indicator for the situation in Norwegian research. The secretary of state also explained that it is a priority to initiate mobilisation efforts to inspire more researchers to apply for the EU funding. The threshold should be as small as possible for each researcher that seeks involvement in the research programme. The Secretary of State pointed out that some of the possible reasons for low participation is that there is more regional competition in Norway, than international competition. The quality of the support apparatus, and the political instruments is also questioned (Haugan 2014).

The arguments from the RCN are supported by statistics from the RCN itself that shows the status in the H2020 by November 2015. The statistics demonstrates that the return rate from the "Health" category in the third pillar that deals with societal challenges is the lowest of all themes. The return rate is just above one percent. In the other categories within pillar 3, the status of the return rate is two percent or higher (Forskningsrådet 2015, Appendix 4). This is supported by the Forskningsbarometeret study from 2016 that shows that the return rate from health is still just above 1 percent, and far from the average goal at 2 percent (Kunnskapsdepartementet 2016 p. 49, Appendix 3). The findings are especially interesting when observed together with numbers that show expenses for health research within Norway. It is demonstrated in Forskningsbarometeret (2011 p. 23, Appendix 2) that health is the research area with most expenses for the university and college sector. It is important to point out that this sector includes health authorities with university hospital functions as well. Only information and communication technology has higher expenses altogether than health. However, these expenses are mostly related to business activity.

The low participation from health researchers compared to other research areas, makes it interesting to do a study on the researchers' experiences with the FPs, with a particular focus on why they choose to not participate in the FPs. The Norwegian policy is to increase the amount of applications to the programmes, as this is an important key to increase the return rate. The study can contribute to understand why the figures for the health researchers are low in comparison to other research areas, and to our Scandinavian neighbours.

1.4 Experiences and Former Research on Health Research Participation

In a general study by Forskerforbundet, around 57 percent of the researchers have had success in obtaining funding from the FPs, from one of their applications they have submitted. It is important to point out that this may include several applications. In addition, 23 percent mentions that they do not want to apply for the FPs again. Still, 33.8 percent seeks to apply again, although they have not had success in the FPs. This study was for all disciplines, and for researchers that had attempted the FPs (Forskerforbundet 2014 p. 8).

In the same study by Forskerforbundet, the most important results are that the application procedure is very complicated and includes big indirect costs. Researchers also lack important network both nationally and internationally. The research environment they are a part of, is too small. Another obstacle is the lack of a support service regarding the applications to the FPs. Some researchers also comment that writing applications is perceived as voluntary work. Further, the study also suggests that that it is important to provide sufficient time and resources to the application procedure to improve participation in the FPs. Half of the respondents have the opinion that the FPs do not correspond within their own research field. The research also emphasises that there is always a risk in participating in both national and international research programmes, with the chance of not obtaining funding. Thus, it is important to develop robust research communities, with sufficient funding to carry on independent research and development within their special subjects (Forskerforbundet 2014 p. 3-5) In addition, participants of the survey also mention that the application procedure is more demanding than for national research programmes. The study also suggests developing routines for exchange of experiences from the researchers with success in the FPs (Forskerforbundet 2014 p. 24). A NIFU STEP study, tells that the Norwegian success rate from the FP6 to the FP7 increased in the health category, and that this may be addressed to the new topic of Healthcare in Health in the FP7**.** This may be a topic that could be more interesting to the public health institutions. The topics relevance for researchers seems to be an important aspect for participation (NIFU STEP 2009 p. 169). The study also explains that there have been a generally low interest for doing international research collaborations. A reason for this may be that there are few funding incentives for participating in the international research, and the traditional resources from national funding has been good enough for their ambitions. In a NIFU STEP report, most of the research done in all public and private hospitals is funded by the Ministry of Health and Care services. This funding is most often distributed to the regional health authorities that do research on health and medicine. This counts for 70 percent of the funding, and another 15 percent is targeted funding from the same Ministry. The funding from the Research Council equals to only 4 percent, although this number is a bit higher for the universities. Still, most of the funding comes from the Ministry (NIFU STEP 2009 p. 170). The NIFU study also mentions that it has been difficult to recruit new health researchers because of poor salary to potential candidates (NIFU STEP 2009 p. 171).

The University of Oslo, NTNU and the University of Bergen contributed with almost all participation in the Seventh FP from the university and college sector. In total, it contributed with 29 percent of all participation. Compared to other Nordic universities, the Norwegian universities do worse, and the government wants a higher participation from the big and small Norwegian universities in general. Health enterprises had only a small share of the participation, but there is a close cooperation between the university hospitals and the universities. It is reported that many scientists are employed at both. Thus, most of the research projects related to the EU programs have been registered at the universities. Further, clinical research has not been prioritised in the earlier FPs. Financing related to research in health, have had support for international cooperation, but the EU projects have not had special incentives. This should have been changed from 2014, and this gives the university sector and health enterprises the same economic benefits from the finance system. The government wish to stimulate the participation and intends to contribute to a better use of the project results (Kunnskapsdepartementet 2014b p. 7).

The Technopolis study from 2012 named "On motives for participation in the Framework Programme", looks on motives and deterrents for Norwegian participation towards the FP7. Health is one of the main subjects of the study, along with information and communication technology, and environment themes. In general, the reasons why researchers do not participate in the FPs are much of the same as in the study by Forskerforbundet: a demanding application process, cumbersome project administration, a complicated rule system, difficulties regarding the protection of intellectual property, high transaction costs and low success rates. The study mentions that from an objective point of view, these objections are valid to some degree, but also exaggerated. This is because the deterrents most often are suggested by individuals with little or no experience from the FPs. Individuals with experience from the FPs are much less likely to mention these complaints. Thus, most of the deterrents are experience-dependent (Technopolis 2012 p. 2). Regarding deterrents to health, the study also points out that the low FP participation from the health authorities, can be explained by that both the health authorities and universities employ many researchers. The higher education institutes receive financial rewards for their FP income, and the health authorities do not receive a financial reward. In addition, the health authorities have not developed internal FP support units, and these two factors makes it more tempting for researchers to participate as a higher education institute researcher. Still, this do not influence the Norwegian participation in Health (measured in FP funding) as a whole. The study tells that participation in FP projects is a new venture for health authorities, and that the participation is rising. Still, in interviews with health authority personnel, the situations seem to be a rather lukewarm approach towards the FPs. Important reasons for this, is that they are not pressed for financial resources, and that they are not assessed for their participation. The national funding situation makes the FPs more difficult to obtain. The study also points out that many researchers and managers have been positive to share their experiences at higher education institutes, institutes and companies. This has not been the case for health authority employees that have been less interested in taking time for the study, and the study sees this as a possible indication of a low interest in the FPs (Technopolis 2012 p. 45). It is interesting to study if the health researchers at the universities are influenced in some way by the connection between the universities and health authorities. The study also tells that the funding situation for the health institutes is so beneficial that they do not have a motivation to apply to the FPs. The situation seems to be the same for the health authorities (Technopolis 2012 p. 3). The Forskningsbarometeret (2011 p. 23) study mentioned in the preceding paragraph that health is the research area with most expenses for the university and college sector. This may indicate a correlation between the high public financing and the participation towards the H2020.

The study also considers the high Norwegian costs, and especially related to personnel costs, as something problematic. This is because it can make Norwegian partners less competitive in the proposal stage, and the Norwegian participants may be given a smaller role in the projects or maybe even pushed out of a consortium. It also makes it less tempting for a researcher to spend time at a foreign institution, unless the researcher keeps the same level as the Norwegian salary. Further, it is unattractive for a Norwegian actor to work as a proposal evaluator for the Commission from an economic perspective (Technopolis 2012 p. 52).

Related to funding, an evaluation by the Norwegian Research Council (Forskningsrådet 2011 p. 10) tells:

"*Most of the funding for clinical research is channelled via regional funding instruments and not through national competition. Regional funding is intrinsically less competitive than national funding and does not necessarily promote the highest quality clinical research in Norway. The different health re*[illegible]*funding are the while a majority of the RCN funding is within thematic areas or programs. The differences in the local funding of clinical research at the hospitals, and the national funding of basic research performed at the universities, are prone to decrease collaboration, sharing and optimal use of techniques, research infrastructures, knowledge and other resources necessary for successful translational research. The present strategy of funding clinical research predominantly through grants from the regional health authorities should be redesigned so as to encourage competition and collaboration between groups at a national level and not at a regional level*".

This may tell us something about the general funding situation where regional sources may compete with H2020 funding.

In 2015, Norwegian participants had received 1.87 percent of the EU funding for Horizon 2020 in total. This is a better return rate than in the FP7, but lower than the government's goal of two percent. The return rate seems to be highest in research related to the big societal challenges, where 2.6 percent has been collected from EU funding. In the programme health, demographical change and well-being (which is a part of the programme of societal challenges), the return rate is for 1.15. This can be considered as quite low compared to programmes as "Secure, Clean and Efficient energy" that amounts for 3.7 percent, and "Safe Societies" that amounts for 3.87 percent. Climate, environment, resource efficiency and raw materials amounts to 3.34 percent. (Forskningsbarometeret 2015p. 45).

The NIFU STEP report says that the funding from the FPs are modest compared to the national research and development funding. However, the EU funding stands for a large amount of the international funding. In the university sector, the EU funding from the Sixth FP was at 60 percent of this type of financing, where NTNU dominated with 77 percent of the international funding that came from EU funding. This amounted for 36.7 million NOK for the university in 2007. For the University of Oslo, the number was for 71 percent at an amount of 72.9 million NOK. The University of Tromsø only had 18 percent of this share. The institute sector has a considerably lower number of foreign funding from the EU, where the funding was at 30 percent (NIFU STEP 2009 p. 133).

1.5 Methodology – Qualitative Case Study

The study is done by a qualitative case study. The qualitative method is appropriate for gaining in depth insight and a deeper understanding of the researchers' field of interest (Tjora 2010 p. 19). The method gives the researcher a possibility of explaining why or something happens, rather than just what happens (Punch p. 135). A qualitative research method may give a more accessible and more thorough understanding of the processes and objects studied compared to a more quantitative method. The researcher may reach a more holistic view of the context, and my gain insight on perceptions from the inside of the object studied (Punch 2005 pp. 134-142).

In addition, according to Yin, a case study has the goal of producing a deep and invaluable understanding of a case that is insightful. This can lead to new learning about real-world behaviour and its meaning (Yin 2012 p.4).

A case study is defined by Yin (2009) as:

"*An empirical inquiry about a contemporary phenomenon (e.g., a "case"), - set wi world context - especially when the boundaries between phenomenon and context are not clearly evident*" (Yin, 2009, p. 18).

A case study research examines the context and other complex conditions related to the case or cases that are studied (Yin 2012 p. 4). The thesis attempts to look at the surrounding conditions that influence the universities' researchers, and how the informants perceive the context studied. Thus, a case study seems appropriate for achieving the goals of the thesis.

The researcher can see the case studies as valuable when trying to solve descriptive questions like "what is happening or has happened?" or explanatory questions like "how or why did something happen". Further, it is also suitable if the researcher wants to study a phenomenon within its natural real-world settings. To study the situations, a questionnaire may be fruitful. The case study is also appropriate for making evaluations (Yin 2012 p. 5).

The study attempts to explain what is happening, as there is a low attendance in the H2020 from health researchers compared with another research field, and it also try to explain why it is like this. A case study can help to explain these questions.

Case studies are commonly criticised regarding generalisation, and it is often questioned if the study can be generalised to other cases. In this process, the researcher must ask what is unique about a particular case, or that if it is has similarities with other cases (Punch 2005 pp. 145-148).

I will study if there are similarities between the NTNU and the UIO, and will try to find out if there is something unique in one of these cases. It will be hard to say something concrete about generalisation, as Norwegian universities and colleges differs in how they position themselves towards the EU projects. Some of them may use a lot of resources to have success in the H2020, while some do not. Some may do more health research than others as well. However, by studying two actors that have a high activity towards the H2020, the thesis may provide some generalizable results when compared to other universities with a similar strategy and activity level towards the H2020.

Thus, I will use a comparative analysis where I try to do the same study at the two universities studied. Krumsvik (2014 p. 157) argues that a comparative analysis where the researcher studies two cases may strengthen the validity of the study. This can be achieved by doing the same study at two similar objects of the same size may be a useful method, and a comparison of the cases may be done afterwards.

I also choose to implement theory in the case study to help me in developing hypotheses. Yin (2012 p. 9) argue that a case study that starts with a theory will be easier to implement than one that do not have any propositions. He also suggests that an implementation of theory can be useful for constructing hypotheses.

1.6 Data selection

Kvale & Brinkmann (2009 p 23) argues that it may be beneficial to collect data by qualitative interviews, when trying to understand the world from the perspective of the interviewee. An important aim is to understand people’s experiences, and to understand how they perceive the phenomenon studied. My role as an interviewer is to set the scene and try to obtain the information needed for the study (Kvale & Brinkmann 2009 p. 23).

My main collection of data has been collected through qualitative interviews. From the UIO, the informants are one EU adviser, and four researchers. From the NTNU, the informants are two EU advisers interviewed in a group, and five researchers. I have also used different written sources as public documents, research literature and internet pages to get an overview of the connection between all levels within the H2020.

I have used different questionnaires for the advisers and the researchers. The questionnaire for the advisers is more comprehensive since they also have been interviewed by the universities strategy towards the H2020. The data collected on strategy from the interviews with the advisers, has been combined with the universities strategy documents that have been possible to obtain from their web sites. This have been done to create a more updated picture of the universities strategies, and to include the advisers practical experience from working within the strategic framework from the university.

I have used semi-structured interviews. This may be appropriate since it have the potential of giving the interview a better structure. In addition, it can also help in arranging and analysing the interview when the interviews are finished (Kvale & Brinkmann 2009 p. 128). The flexible format of open-ended interviews can give insight to how the participants think about situations and how they construct the reality. They can give more information than to just answer a researcher's specific questions and own view of reality (Yin 2012 p. 12). The flexibility from applying a semi-structured interview have been beneficial since the informants have had the opportunity to talk freely around the different topics related to the study, so that they can tell about the issues that they are concerned with regarding the topic.

Further, I have interviewed informants that have different experiences with the programmes. Some have had success several times before within the FPs. Some have had success only recently in the programme, and some has not participated in the programme. This has given me a lot of depth in understanding how different researchers perceive the participation in the FPs.

I have also reviewed similar studies that have been done before on experiences with earlier EU FPs. This have been useful for developing questions for the interviews, and to study if the health researchers is concerned with the same issues as other researchers in earlier FPs. Subjective positions will occur in qualitative interviews, and it can also be a problem that the interviewee is reluctant to tell everything to the interviewer. Personal attitudes and interests may also influence the answers (Kvale & Brinkmann 2009 p. 256). Thus, I see it as useful to see if older studies have similar answers. It is also important to consider my own neutrality in the process, since my own role can affect the results. This is especially important to consider when analysing the data.
The sample has been chosen *strategically*, since the participants have been selected because of their positions and potential role for applying for the H2020 (Thagaard 2009 p. 55). I used the *snowball* method where I first contacted the advisers and carried through the interview.

When the interview was finished, the advisers were asked if was possible to have a talk to some researchers as well. The advisers were positive, and at a later point, I received an e-mail with contact information to the researchers (Johannesen et. al. p. 119). I believe this method increased the potential for doing an in-depth study. The researchers often have a very busy schedule, and the advisers was very helpful and provided useful information on who might be available. However, it may also lead to bias as the advisers could put me in contact with researchers that they strategically picked themselves for their own interests. However, the findings were closely examined, and weighed against each other, and it was important to look for both positive and negative sides from the answers.

All the interviews were done by phone, and transcribed immediately after. I analysed the interviews where I looked for themes, tried to compare them, and looked for patterns. The data was later sorted and arranged with the intention of providing an orderly presentation of the results. This is similar to what Thagaard (2009 p. 171-188) calls a *thematically approach*, where I compare the information from all informants about each theme. I did this to achieve and present a more in-depth information on different factors around the process of participating in the H2020 than in the other studies I have used as background information. The former studies have not presented the researchers' responses in the same detail, and they have not presented in-depth information about health researchers to the same extent.

The responses have been given a code to assure the informants anonymity.

1.7 Case selection

The UIO and NTNU have been selected as cases for the thesis. The universities are chosen because they are the biggest actors within the H2020 of the Norwegian universities measured by the numbers of participations, granted EU funding, and coordinative functions in projects where a contract has been signed. The universities also have long experience within the EU FPs, and this provided a good probability to meet researchers that have had experience with the programmes. The strategy documents also showed a high activity within the H2020, with a wish of more attendance. It also demonstrated that the universities had provided mechanisms to support the researchers, and this is an important part of the study. The University of Bergen was also a potential case for the study, as this is the university with the third highest attendance. The university is not far behind the UIO and NTNU. However, at the start of the project, the UIO and NTNU seemed more available geographically for me, and within the first contacts with the advisers from these universities, the study looked like it had a good feasibility.

1.8 Limitations

A case study has several limitations. An important element is the problem with generalising the findings to other potential cases. I have studied two universities with a relatively high activity towards the H2020. The findings do not necessarily correspond to other research organisations working towards the H2020, as they have different resources and strategies that influence their activities towards the H2020. Another limitation is that I have only interviewed a selection of informants. Although I have tried to interview informants with a variety of experiences, they do only represent the opinions of the selection that has been studied. It is also a limitation that there are several disciplines within health research, and the backgrounds represented does not present a comprehensive and detailed picture from all backgrounds. However, many of the answers seemed to correspond to each other, and the informants pointed at many of the same aspects about the topic studied. It is also important to include that my own subjectivity may be an important limitation of the study. It has been important to repeat the main points from the informants' statements under the interviews, so that they could confirm if their statement were correct. This was important for avoiding misunderstandings that could lead to biases.

2. Theoretical framework and concepts

In this section I will provide the theoretical framework for the study. I will first present the concept of Europeanisation and show how it will be used for the study. Thereafter, I will review the theoretical approaches by neo-institutionalism, where I present rational choice institutionalism and sociological institutionalism, and the concept of path dependency from historical institutionalism. In the end of the section, I will demonstrate how I will apply the theoretical framework, and what the expected response from the analysis will be.

2.1 Europeanisation

The concept of Europeanisation emerged at the beginning of the 1990s. It has developed from being a concept for studying national positions and interdependencies between domestic and European actors. The aim of the initiating phase of the concept was to explain how the policy of the EU and institutional patterns evolved at the EU level. This was seen as an "uploading" perspective of the process. The concept has later emerged to analyse the integration process as a causal factor, where it incrementally transforms national public policies. The thesis analyses at which degree the EU transforms Norwegian research policy, with health research as the main objective. The European integration will then be studied as a factor for explaining the observed changes in national public policies called downloading (Saurugger 2014 p. 124).

Börzel and Risse (2009 p. 1) describe this type of analysis as a necessary step for having the possibility to fully capture the importance of the EU. It will be possible to obtain a more comprehensive picture, where we study the feedback processes among the different levels of European, national, and subnational governance.

Thus, Europeanisation has developed to be an ambivalent concept. Claudio Radaelli later proposed a solution for the problem where he argued that we could not think about Europeanisation without taking the processes that established the rules at the European level into consideration. This suggests a more circular process of Europeanisation, and not a linear process. This includes the European integration process that influence the national level, and the processes at the national level that also influence the European integration itself. This is special for Norway, since the country is only an associated member, but the country does have options for influencing the EU. This is described in more closely in section 4. Radaelli's perspective takes the different levels, actors, and instruments of change into consideration (Saurugger 2014 p. 125).

The circular logic shows us how the national and European levels interact. This mutual interaction influences public policies and constitutional structures at the domestic level**.** This model of interdependence helps to structure research more efficiently than a more unidirectional model, or one trying to explain linear causality. In this scope of Europeanisation, we try to look at developments at both the national level and the European level at the same time, and we try to understand the institutionalisation that happens between the interacting levels (Saurugger 2014 p. 127).

Risse has developed a three-phase model for analysis where the levels are:

European integration ->pressure ->adaptation

In this model, European norms are important so that some adjustments are necessary at the national level, so that the member states can comply with them. In the second step of research, we measure the compatibility between the European and national norms, where we try to obtain the "goodness of fit" and the degree of "fit" will constitute what we can describe as "adaptational pressure". The effect of the Europeanisation on the domestic structures will involve a process where the European rules, regulations and collective understandings interact with the domestic structures in the member states. The pressure for adaption depends on the "fit" or "misfit" between the EU and the domestic structures. When the norms, structures or institutions at the national level is like those at the European level, it becomes easier for the EU to influence at the national level, since it is a greater compatibility. In the last step, we put emphasis on the domestic institutions. At this level, we measure how the national actors mediate the pressure from the European level. Institutions will probably not resist adaptation if this is in line with their own principles. The filter at the domestic level gives strong influence to the question whether the domestic level is put through a transformation or not (Risse et. al. 2001 pp. 6-7).

The top-down approach has been a subject to critique, since it prejudges the EU as the main player for national change. It also relies on the "shadow of hierarchy", that gives the EU the possibility to impose its policies and institutions on the member states legally, but it also gives incentives for the member states to comply. Still, Börzel and Risse (2012 p. 2) claims that EU is not the only source of political change in the domestic area, and the EU's ability to transform domestic policies and institutions has become weaker. In this scope, we can study institutional change as the dependent variable. Institutions can be seen as "social structures and systems of rules, both formal and informal". To demonstrate that the EU has provoked institutional change, do not tell us about the compliance within the institutions when we try to demonstrate that the EU has induced institutional change directly or indirectly (Börzel & Risse 2012 p. 4).

Börzel (2010 p. 6) assesses in her article *The Transformative Power of Europe Reloaded – The Limits of External Europeanization* the limits of Europeanisation, and study to what extent the concepts and the causal mechanisms need further qualification when applied to European neighbourhood countries, that are not necessarily willing of adapting to the EU. Although the literature regarding the Europeanisation of the "West" has convincingly demonstrated that Europeanisation has occurred in the EU 15 member states, the scope and direction of change are not clear. Most students seem to agree on that the Europeanisation of domestic politics have met the same convergence. In this context, neo-institutionalist thinking with its rational choice and sociological institutionalism approaches may be applicable to help solve the puzzle.

Neo-institutionalism

2.2 Rational Choice Institutionalism

The European integration process at the national level is usually studied through the conceptual framework of Europeanisation. One of the most important applications has been enlargement research, where it is assumed that the conceptual framework of rational choice institutionalism is good to analyse the effects more than any other concepts, since the demand for accession is based on rational cost-benefit analysis (Saurugger 2014 p. 88). Institutionalist research of the integration process is a more recent phenomenon. The relaunch of the European integration process, and the important role played by the European Commission in constructing the SEA and the EMU led researchers towards a focus on the institutions that we can understand as both the actors and structures where influence is embedded. The institutionalist approach helps us to analyse the complex process between all the involved actors in the European integration process (Saurugger 2014 p. 79).

Rational choice institutionalism emerged from the North American political science community. The models were applied often in comparative and international political contexts (Börzel 2010 p. 6).

We can conceptualise the adaption in Europeanisation using rational choice institutionalism, following the "logic of consequentialism". In this case, we analyse the misfit between the EU and the domestic processes, policies and institutions, which provides societal or political actors with possibilities and constraints where they are believed to follow their own interest. It depends on the capacity of the actors if they try to exploit the new opportunities and avoid the constraints.

Two mediating factors have opposite effects on influencing these capacities:

-*Multiple veto points* in the institutional structure of the country that can empower actors with diverse interests effectively to resist adaptation pressures from the Europeanisation.

-*Formal institutions* may provide actors with the material and ideational resources to take advantage of these new opportunities that further could lead to a change.

In this perspective, the logic of rationalist institutionalism, indicate that the Europeanisation process happens through a differential empowerment of actors, that comes from a result of redistribution of the resources at the domestic level (Börzel & Risse 2009 p. 2).

In other words, we argue that the EU has facilitated the domestic change, by changing the opportunity structures for the domestic actors. If there exist a misfit between the EU and the domestic behaviour, it takes agency to translate the misfit into domestic adaptation. Further, the downloading of the EU policies by the member states depends on cost/benefit calculations of strategic actors whose own interests are at risk. The domestic change is dependent on the institutions of the member states that do not allow the domestic actors to not adapt to the requirements from the EU through "veto points", or if they empower domestic reform coalitions by giving them additional resources to take advantage of the opportunities given by the Europeanisation (Börzel 2010 p. 6).

Most studies focus on that the Europeanisation happens if it is "inconvenient", and that there must be some misfit or mismatch between the domestic policies and the institutions. We can determine this by "the goodness of fit", that shows us the degree of pressure for the adaptation by the Europeanisation on the member states. If the compatibility is low, the higher the adaption pressure will be. Thus, if there is no need for domestic change, and the Europeanisation fits perfectly with the already well established way of doing things at the domestic arena, the member states do not have to change. Further, they will not provide new opportunities and constraints to the domestic actors that leads to a redistribution of the resources at the domestic level, where some actors' profit and some do not. It will not change the actors' interests (Börzel & Risse 2009 p. 5).

We can conceptualise the Europeanisation's domestic effect as a "process of change at the domestic level in which the member states adapt their processes, policies, and institutions to new practices, norms, rules and procedures that emanate from the emerging European system of governance. (Börzel & Risse 2009 p. 7)

In the rationalist institutionalism perspective, we treat actors as rational, goal oriented and purposeful. They seek to maximise their utility by using their resources in strategic interactions. They possess an instrumental rationality where they weigh the costs and benefits of the different strategy options where they include the anticipated behaviour of other actors (Börzel & Risse 2009 p. 7).

2.3 Sociological Institutionalism

Sociological institutionalism has a greater emphasis on the cognitive dimensions of institutions and the way that institutions influence behaviour (Rosamond 2000).

Hall and Taylor describe:

"*When faced with a situation, the individual must find a new way of recognizing it as well as responding to it, and the scripts or templates implicates in the institutional world provide the means for accomplishing both of these tasks, often more or less simultaneously. The relationship between the individual and the reasoning individual works with and reworks the available institutional templates to devise a course of action. (Hall and Taylor 1996 pp. 948-9). This does not say that the individuals do not behave purposive, rational or goal oriented. However, the sociological institutionalist approach emphasizes th be seen within something that is socially constituted (Ibid.).*"

Where rational choice institutionalism has a focus on the rational behaviour of actors, the sociological institutionalism focus on the idea that actor's behaviour is more influenced by structural conditions that is created by the social, cultural and institutional climate. In other words, the structure where the actors behave rationally to increase their utility, is of importance in this perspective. The sociological institutionalism has three concepts of particular importance: Isomorphism, the logic of appropriateness and the logic of consequentialism (Peters 2005 p. 120). In isomorphism, we analyse the results from a social process by *emulation* and *diffusion*. Within this, there is three mechanisms: a coercive mechanism, a normative pressure mechanism and a mimesis mechanism, with the two former mechanisms being most relevant for this study. The coercive mechanism looks at the pressures from other organisations as the government through public subsidies upon the institutions are dependent, and to the cultural expectations stemming from the society. The institutions may conform as a result of these expectations. The normative pressures mechanism is linked to institutionalization of specific attitudes, and norms. Further, they are imported to the institutions by hiring professionals outside (Saurugger 2014 p. 94).

The sociological institutionalism differs from the rational choice institutionalists that follows the logic of consequentialism, where the actors choose the options that corresponds best to their individual interest, and they try to maximise their own interests and preferences. The institutions constrain or widens the choices for the actor that seeks to realise their interests (logic of consequentialism). Actors in a sociological institutionalism perspective follows a *logic of appropriateness* that is described as:

"*Human actors are imagined to follow rules that associate particular identities to particular situations, approaching individual opportunities for action by assessing similarities between current identities and choice dilemmas and m*

(March and Olsen 1998 p. 951).

These actors try to do the right thing, rather than trying to maximise their utility based on their own interests. They try to find the right rules that seems to be the normative one in the right situation (Ibid.).

Cognitive dimensions offer frameworks, cognitive models and categories that gives the actors the opportunity to interpret social phenomena. Thus, in the scope of sociological institutionalism, we are interested in the actor's behaviours and how they are influenced by the structural conditions that is created by the social, cultural and institutional climate. This gives the structure, where they construct their preferences and interests, much importance. In sociological institutionalism, the main assumption is that the institutions evolve by cognitive processes that are linked to external events. Even though these events can trigger change, they are also interpreted by actors that exist within collective and individual cognitive frameworks (Saurugger 2014 p. 95).

2.4 Path dependency

An important concept for the thesis is path dependency borrowed from the historical institutionalism. Historical institutionalism focus on the effects of institutions over time. Historical institutionalists argue that choices that have been taken in the past may persist, or locked in, so that they shape and constrain actors at a later time (Wiener & Diez 2009 p. 127). Because of the scope and subject of the thesis, an in depth use of the historical institutionalism have been excluded. However, path dependency may be useful for telling us something about the researchers' earlier experiences and choices, and how it influences their further actions. Path dependency is a conceptual framework through which one analyses how current actions or decisions are constrained by choices made in the past and by expected returns in the future (Eijmberts n. d.)

It assumes that events are normally "path dependent", and Sewell (1996, pp. 262-3) explains that "what has happened at an earlier point in time, will affect the possible outcomes of a sequence of events occurring at a later point in time. Sewell's definition claims that it is difficult to understand a social variable if we do not also try to understand "how it got there". It is important to study the previous events in a sequence that may influence the outcomes. Still, this do not necessarily induce a further movement in the same direction, although a path may influence the further outcome, as it tends to affect the further direction. Margareth Levi (1997 p. 28) suggests that actors may follow a path of increasing returns as the cost of reversal may be high. There may exist other choice points but certain arrangements may do a reversal of previous choices more difficult.

Thus, preceding steps in a particular direction, may induce a further movement following the same direction. This can be captured by the idea of increasing returns, as the probability of benefits increase over time by following the same path compared to other potential paths. An exit to previous alternatives will probably rise the costs (Pierson 2000 p. 252).

2.5 Application of the Theories

I will use the concept of Europeanisation to analyse how European integration has influenced national public policies by downloading. Further, I will look at the circular process of Europeanisation to analyse the possibilities for Norwegian actors at influencing the EU policy. Within this, the European norms is of importance by Risse's three-phase model, where I study the norms at the European level, and how it may influence a change at the national level. Further, I want to analyse the "goodness of fit", "fit" or "misfit", where I study if the compatibility between the European and national norms in the field of health research, with the particular interest of how NTNU and UIO mediates the pressure from the European level, and if the institutions filter makes a transformation possible and if the institutions comply.

Within this, I want to analyse the political environment and the researchers from NTNU and UIO from the theory of neo-institutionalism, where I study the integration through the perspective of rational choice institutionalism, sociological institutionalism as this can help to understand the complex process between all actors in an integration process. Related to this, I will see if there is a misfit between the EU and the different levels all down to the universities studied. The main point of interest will be the health researchers from the NTNU and UIO, where I analyse how they respond to the possibilities and constraints within the opportunities for doing health research within the H2020. In this perspective, it is important to analyse if they try to exploit the opportunities that the programme offer, and if they avoid the constraints. I will see if there exist *veto points* within the institutional structure of Norway that gives the actors possibilities to resist the adaptation towards European research. I will also see if there exist material and ideational resources provided by the formal institutions, that makes it possible for the researchers of the opportunities from the H2020. This makes it important to analyse the actors by seeing how they do a cost/benefit calculation of the opportunities that exists within the H2020, as this can be an indicator if they seek to adapt towards the EU or not. If there is a misfit between the actors and the EU, agency is important if the adaptation should happen. It is also interesting to see if the institutions within the Norwegian political structures provides additional resources to exploit the opportunities given by the EU.

Within this framework, it is fruitful to see if the influence from the EU is inconvenient, or if there is a "goodness of fit". This can help to analyse the pressure of adaptation from the EU, or if the compatibility between national policies and EU policy is of a low or high degree.

Further, it is also of interest to see if the researchers operate because of its environment within the institution it is a part of. In addition, it is important to consider that NTNU and UIO is also influenced by other political actors. The institutions and its members rational action, must be seen together with the influence from structural conditions created by the social, cultural and institutional climate. In a coercive perspective, I will analyse pressures from other institutions that are involved in research policy, and how they interact with the universities. By analysing the normative pressures mechanism, I will study the specific attitudes and norms that influence the organisation. I will also study if the researchers follow a logic of appropriateness, or a logic of consequentialism,

In addition, the case study of the UIO and NTNU, try to see the institutions from the rational institutionalism perspective, with the aim of studying if the institutions members (the researchers), can be seen as actors that try to maximise their utility by strategic rational thinking. Within this, the study investigates what seems to attract the researchers towards the H2020, and what reasons the researcher may have to not seek integration. Further, it is also interesting to study how they consider the behaviour of actors that influence their possibilities within the H2020. This may be the government, the RCN, the universities themselves, and other involved actors that may be involved in the researcher's process of evaluating to attend the H2020 FP or not.

I will also how the researchers' decisions and experiences from the past, will influence their choices towards applying for the H2020 from a path dependency perspective. This may tell us something about participation being experience dependent.

2.6 Expected Response

Based on the theoretical framework, I choose to have the following assumptions:

1. Norwegian health research at the universities studied has been Europeanised by the EU research policy, and the influence has moved from the EU, to government, and further down to the universities.
2. The researcher's decisions are influenced by the expectations from the environment they operate within, and what is expected from them
3. The success of the adaptation depends on the researchers' preferences, and the researchers are rational actors seeking to maximise their utility, where they try to obtain resources that helps them pursue their goals.
4. Earlier experiences affect the researchers' decisions when considering to participate in the H2020 or not.

The first expectation is based on the sociological institutionalism, where I assume that the universities are being influenced by the political environment they operate within, and this makes the concept of Europeanisation important as well.

The second expectation takes a sociological institutionalism perspective, where it assumes that the researchers' decisions are influenced by the structural conditions that is created by the cultural, social and institutional climate that they are a part of. It is important to understand the environment that the researchers are a part of. This can be from many levels from the EU and down to the universities.

The third expectation assumes that the integration depends on how the researchers perceive the opportunities from the H2020 (and its predecessors), and if it fits the researcher's goals and interests. The researchers do a cost-benefit analysis, and this makes them to a rational agent, and we can see if integration happens in the perspective of rational choice institutionalism.

The fourth expectation takes a *path dependency* perspective, and assumes that former experience from the FPs influence the researchers' choices towards the H2020, as decisions or experiences from the past, may affect how they perceive the H2020 in the present.

3.Health and Health Research Policy in the European Union

This section demonstrates how EU has developed an involvement in health policy, although health matters are seen as a national matter within the member states. Further, it points at important aspects of the EU's strategy towards health. The section also presents how EU promotes cooperation through its research programmes, with a short presentation of the H2020.

3.1 The European Union's Involvement in Health Policy

In the 1980s, the European Union launched a set of activities as health promotion, information, training and education, and developed EU level health data and disease specific programmes. These programmes focused on HIV/AIDS. Eight other programmes were adopted between 1996 and 1999 focusing on AIDS, cancer, drug dependence and health promotion (Seychell & Hackbart 2013 p. 2).

Although health policy has been a national matter, and there is no genuine EU health policy, EU is still involved in health policy at different levels. Lamping & Steffen (2005 p. 3) argues that health policy is one of the best examples for demonstrating the direct and indirect impacts of European integration, as it has transformed a non-topic into one of the most challenging and most important policy fields for the future.

Health services were seen as something unaffected by European integration politics. Still, it is difficult to separate healthcare from the Single Market, and the "four fundamental freedoms" apply to:

-The freedom of movement creates a EU-wide labour market for professionals, with mutual recognition of formal competence in the health professions. It also gives Union-Wide access to medical care services for EU citizens.

-The free movement of goods ensures pharmaceutical products and medical goods a single market.

-The freedom of movement of services ensures delivery of services between countries. This gives opportunities for patients to seek the best care, and care establishments can seek labour force and clients (Lamping & Steffen 2005 p. 13).

EU has gradually worked towards a consistent and integrated policy framework, which should aid in responding to common challenges regarding health. This has been done by combining legislation, financing and cooperation. The health strategy named "Together for Health" was launched in 2007. (Seychell & Hackbart 2013 p. 1). The strategy seeks to respond to challenges faced by member states by improving the coordination and cooperation across the EU. The strategy should complement the national health policies. In addition, the strategy has its aim in supporting the overall Europe 2020 strategy, where the main goals are to move the EU towards a «smart, sustainable and inclusive economy promoting growth for all». The EU sees good health as an important prerequisite for obtaining this goal (European Commission n. d. (b)).

It was the broad public health area, and the crosscutting policy issues that opened the backdoor to the member states' policies regarding health, and later put it at the European political agenda. New challenges and concerns regarding public health risks expanded the limited resources from the Maastricht Treaty of 1993, to an increased involvement in the Amsterdam Treaty from 1999. The intention behind Article 152 was to contribute to a high level of health protection throughout the union by preventing human illness and disease, eliminate sources of danger to health, and ensure that all European policies were compatible with health protection. The Commission has since the middle of the 1990s promoted a dialogue on health issues in the EU (Lamping & Steffen 2005 p. 9).

There has also been a growing number of establishments of European healthcare information and evaluation systems. The European Observatory on Health Systems and Policies, and the Statistical Office of the European Communities (Eurostat) shows that the EU is active in building up a knowledge base regarding health. The Commission also has an important role for establishing health policy networks where knowledge can be shared and expertise institutionalised. The increasing expertise capacity formed at the EU level, is done partly by financing research projects. The strategic involvement of health policy experts that are pro-EU is important for understanding the health policy integration. These processes have been important for gradually introducing the EU into national policy discourses, and for making policy debates transnational (Lamping & Steffen p. 17).

Still, the subsidiarity principle is of importance, and the principle ensures that the EU only should intervene in cases where it is able to act more effectively than member states in areas where there is shared competence (Seychell & Hackbart 2013 p. 2).

The "open method of coordination" facilitates for the collection and exchange of ideas, knowledge and data. Once it is institutionalised, it is comparable to the work accomplished by the WHO and the OECD, and will probably have an intellectual impact on the domestic reform discourses by diffusing institutional recipes and technical know-how on effective reform activities (Lamping & Steffen p. 17).

3.2 The European Strategy for Health

The Commission sees an investment in health as an important part for tackling the challenges of an ageing population, an increase in chronic diseases, and an increased demand for healthcare. However, it recognises the expensive cost for technological progress (European Commission 2013b p. 1). Further, the Commission sees health expenditure as a growth-friendly expenditure, since it can increase both productivity and quantity of labour, by contributing to a longer and healthier life**.** In addition, there is a great potential increasing the efficiency and cost-effectiveness to ensure the current health systems' sustainability (European Commission 2013b p. 11). Health systems is a cornerstone of the European social market economy, and the healthcare sector employs 8% of the total European workforce. Problems related to the economic crisis, structural changes in demography and the types of diseases that affects populations in Europe, makes it important to modernise and reform the health systems. The EU has an important role in facilitating cost-efficiency through innovation, and to make better assessments of the health systems performances. The EU sees this as crucial to improve access to, and to facilitate equity in health services. In addition, it is important to ensure sustainable financing. There also seems to be a big difference in the efficiency of the expenditure between each member state, and the relationship between expenditure and outcomes is not linear. How the money is spent is important for considering the health status of a country. This is confirmed by the Council, which also sees the potential in improving the health status of the population, without increasing spending (European Commission 2013b pp. 2-4).

Although the general health levels in the EU have been improving for a long time, there is major inequalities related to poorer and disadvantaged people that lives shorter, and have lower health quality through life (European Commission 2013b p. 2). People in Europe now have a high level of health, and in the recent decades, life expectancy has grown substantially. There is also a strong link between health and wealth, and there has been a steady growth of wealth in the EU countries the last twenty years (Ståhl et. al. 2006 p. introduction xviii).

The life expectancy in the EU is for over 80 years. Countries with a low human development index counts for about 56 years of life expectancy. Thus, people in the EU can expect to live 24 years longer than countries with a low human development index (Sotiris et. al. 2015 p. 348). Better health can contribute to economic growth, and countries with bad conditions for achieving good health does not seem to have the same capacity for boosting growth (Ståhl et. al. 2006 p. introduction xviii).

The health status of the 28 EU member states follows some common trends, but with some variations because of socioeconomic and cultural characteristics. Further, there is a slow progression of certain health indicators when considering comparative data of the 15 “old” EU countries (EU-15), and the 13 new EU countries (EU-13). There are some positive indicators in an integrated fashion and this is often related to demographic indicators related to well-being. This includes indicators of life expectancy, birth rate and fertility. Common negative indicators are mortality, disability, morbidity and frequency of disease (Sotiris 2015 p. 351).

Further, health and well-being is a major societal objective in itself, and not only for its role in stimulating economic growth. EU sees the health systems as an important part of social protection, and it is important for social justice and social cohesion. The European countries have shared the values of access to good care, equity, solidarity and universality, and this corresponds to the values in the “Health for All Policy” by the WHO. Health is also influenced by policies from other sectors, and health is an important factor for realising goals in other sectors (Ståhl et. al. 2006 p. introduction xviii).

The economic crisis has revealed severe challenges, and has put an additional strain on the health systems sustainability. This has made it an important part for making a better use of the resources that can contribute to economic recovery. An investment in good and sustainable health systems can add gains regarding efficiency, and lead to better health outcomes (Seychell & Hackbart p. 1). “Health system” is a term to express the institutional expression of health policies. It does not only cover public health measures with examples of prevention and health protection, but it is also concerned with the organising of the health services (Koivusalo 2006 p. 23).

The task of moving health higher up on the European agenda is grounded in the institutional history of the European Union, and health has been highly valued by its citizens. There have been provisions all back to the founding treaties in the 1950s for health (Koivusalo 2006 p. 21). Still, there have been no specific EU objectives for health until 1992, and this was deliberately a limited one. There are examples from the coordination of the social security systems, and giving access to health care for workers moving between the member states. In addition, we can find examples from intentions to improve the environment and safety at work issues. Still, there are only limited provisions in the health article 168 from the Lisbon treaty, giving the national regulations the primary role for health policy in Europe (Greer 2014 p. 1). EU action should be in the areas of encouraging cooperation between member states, fostering international cooperation and complement national policies. Therefore, the impact from the EU on health has been of a more indirect and limited character. The reason for this is deep legal and political reasons. National governments have preferred to keep the health issues at the national level, and therefore given the EU only limited power to pursue health objectives (Seychell & Hackbart 2013 p. 2).

Health policy is affected by many factors, and many Directorates-General (DG) contribute to the health policy of the EU, where the DG for Health and Consumer protection known as DG SANCO has been the most active one. The DG SANCO is involved in policies regarding cross-border health care, food safety, pharmaceuticals and medical devices. Other DGs are involved as well, but they have more specialised roles, with for example the DG Research and Innovation that oversees the EU research budget (Greer 2014 p. 4). The Commission has an important role, and initiates the political process with its proposals, and although the Council and the Parliament decides on the EU legislation, the Commission has a great influence on what is ultimately decided. The Commission also has a role in guarding the treaties, and can file cases against the member states that do not comply with EU law. The Commission works very collectively in its policy development, and use strong internal mechanisms for giving support to the College of Commissioners to make sure that there is a collective approach for policy development (Greer 2014 p. 6).

Health in All Policies, try to address the effects that health has in all policies. This includes environment, agriculture, fiscal policies, transport and housing. Its aim is to improve health, and at the same time try to contribute to wealth through good structures and mechanisms that can contribute to better politics in member states. Further, it is important for Europe to strengthen the ties between health and the other political fields, since it is not certain that the earlier positive developments in the EU will last into the future. There are for example great challenges addressed towards an obesity crisis, the expected rise in chronic disease, and the cognitive decline related with an ageing population in Europe (Ståhl 2006 et. al. p. Introduction. xviii). Further, the interaction between EU policy and national policy makes it important that the EU health policy is compatible and do not hinder the national policies. This makes it even more important to move health policy further up on the European agenda. The free mobility of people and services is also an important factor when developing a policy on health at the EU level, since this can have impact on national health systems as well (Koivusalo 2006 p. 23). The development of health policy has become more complex because of economic integration and globalisation, and although health traditionally has been a national matter, the regulatory framework is changing because of the agreements and legal commitments made at the different levels. Thus, EU has an important role to ensure that the different policies set at EU level, do not limit the capacities for the member states to promote and provide a high level of health care (Koivusalo 2006 p. 31).

The Health in All Policies perspective sees good health as determined by factors outside the health area. Thus, an effective health policy must involve all relevant policy areas. The EU sees cooperation within the fields of social and regional policy, taxation, environment, and research and education as important for achieving good health. The treaty requires the EU to follow this HIAP approach. Although, to be truly effective, it must be implemented in national regional and local policies (European Commission n. d. (a)).

The “health article” within the treaty is an article concerning public health. The reason for this is to put emphasis on the population level measures and away from action on health services. The article on health gives EU limited powers where it aims to balance the common interests between the member states. The article takes into consideration the national sensitivity on having control over its own interests in the policymaking. The health article has a complex drafting showing this challenge of balancing, and it says that the EU should respect the responsibilities of the member states for their own health system (Eurostep – EEPA n. d.). Thus, the article gives the member states very much control over their policies. The only shared competence the EU and the member states is a “common safety concerns in public health matters” (TFEU, Article 4, paragraph 2(k)). Further, the member states have given very limited powers to the EU to achieve the public health objectives. The only binding legislation concerns quality and safety standards for substances of human origin, blood and blood derivatives (Greer et. al. 2014 p. 20).

Further, the article enables the EU to give financial support for actions aimed at supporting public health objectives (TFEU, Article 168, paragraph 5). This is limited to the economic resources that are available from the budget, and this has usually been very limited. The Article has an “integration clause”, which aims to ensure that health protection should be included in all EU policies and activities (Greer et. al. 2014 p. 21).

3.3 Research Programmes

The first Europe-wide research programme was launched in 1984, with its aim to bring expertise together from the European community, and to increase Europe's competitiveness in key technologies. The FPs have played an important part in facilitating research collaborations in Europe, and has since increased in size, scope and ambitions since the beginning. Research is a fundamental part of the European economy, and is important for creating a successful society (European Commission 2015c p. 2).

EU health policy gets its funding from the EU health programme. This facilitates collaborative projects in Europe from the three broad topics of health threats, health information and health determinants. (Greer 2014 p. 27). The programme had a budget of around 46 million Euros a year, and this is very small as it equates to 0,000058% of the publicly funded health expenditure in the EU. This tells that EU comes short in providing the resources for a health system, and must rather see its role as a facilitator for supplementary actions. Still, the health programme has been effective in some of its goal where it contributes to the sharing of knowledge and supports collaborations between countries, and creates comparable data for benchmarking. There exist examples for this type of European projects that have changed direction of entire national health systems as in the case of cancer where it has highlighted comparisons. The present programme is spanning from 2014 to 2020, and the budget is 449.4 million Euros to cover the six-year period, and correspond to the broader "Europe 2020" objectives, and emphasise health systems to a larger extent than before (Greer et. al. 2014 p. 28). The health programme corresponds to the Horizon 2020, and the programmes aim to complement each other (European Commission 2016b p. 8).

For a long time, research has been an important priority for the EU, with the intention of facilitating collaborations between scientists in Europe**.** Research takes a large part of the EU budget with only the Common Agricultural Policy and the structure funds absorbing more of it. Health has been a major priority within these research programmes, with a budget of 6.1 billion Euros between 2007-2013. The EU has funded thousands of research programmes in the health category. Still, the trend has been to fund projects concerning biomedical research, and not public health and health systems. Public health and health systems have a higher priority in the "Horizon 2020", as this programme has a broader focus on health through the programme "Health, demographic change and well-being". The funding from EU is only a small part of the funding for the research projects, and the main parts comes from national governments. EU has an important role in coordinating the research, with its aim to increase its effectiveness and to avoid duplication (Greer et. al. 2014 pp. 106-107).

The role of the EU may be very important for inspiring European countries to have a good health strategy. Only about the half of the European countries have health research strategies, and under half of them are led by their Ministries of Health. EU has an important role in administering information regarding national health research strategies. Further, it is possible to improve health research by collaboration between the member states it is also significant that they are coordinated with the EU health research strategy (Grimaud et. al. 2013).

3.4 Horizon 2020

All the previous research and innovation funding from the EU, was brought together in 2011 under a single common strategic framework. There was a wide-ranging consultation involving all key stakeholders. This led to the Horizon 2020 Framework Programme, and this is the eighth research programme from the EU (European Commission 2016a).

Horizon 2020 is the biggest research programme initiated by the EU so far, and it is financed for around 80 billion Euros over seven years (from 2014-2020). In addition, the programme is financed through private and national public investments. European leaders and members of the European Parliament support the programme. Research and innovation is considered as very important for Europe's future, and the aim of the programme, is to facilitate for world-class science and technology for stimulating economic growth. It is also a main target to make the industry more competitive and to deal with societal challenges. The Commission has collected experiences from earlier FPs, and it has been important to make the H2020 simpler for users (European Commission 2014 pp. 5-7). The programme is designed to be fair towards applicants, protect the participants, and to make sure that the public money is spent in a wise manner. The funding is open to everyone. This includes organisations and individuals that is outside the EU as well. Countries that contribute to the EU budget, and are associated with the EU research programmes, have the same rights as EU participants, and this includes Norway as an associated member. Researchers, organisations, and companies decide if they want to get involved in the FP, and draft work programmes set out the broad areas of research. The Commission has a central part in giving the grants, and prepares for signing when all administrative and technical details are completed for the selected proposals.

It is an objective to simplify the work of administering the project, and the intention is to let researchers research, and not use their time to fill out forms. Essential to this aim, is to make it easier for participants to see where the funding opportunities exist. The H2020 has only one set of participation rules, electronic signature of amendments and grants, easier funding rules, and intends to reduce the burden of financial control and audits (European Commission 2013a p. 3). The Commission and its executive agencies administers the funding, and there are no pre-allocated quotas between the countries. Decisions regarding which projects should be financed are taken after all research projects are evaluated and ranked. Some countries have historically performed better than others, but in the H2020 there is a focus on “widening” participation (Ibid.).

The main target for the “Health, Demographic Change and Well-being”, which is the health program within the Horizon 2020, is to facilitate for a better health for all, with an aim to improve health and well-being outcomes, and to promote healthy and active ageing. Further it is important to promote market growth and job creation, and to move forward as the global leader in the health area. With a life course approach, the EU wants to decrease chronic diseases, and lighten the burden on health and care systems and the society. Further, the programme has several research priorities, including: personalised medicine, rare diseases, mental health, advanced technologies, comparative effectiveness research, mental health, e-health, robotics, patient empowerment, data security, active and healthy ageing, big data, valorisation, anti-microbial resistance, infectious diseases including vaccines, maternal and child health and the silver economy. E-health and “Smart Living Environments for Ageing Well” related to the “Internet of Things” is also an important area for the EU within this FP (European Commission 2015c p. 5)

The European Commission sees the H2020 as extremely popular in a review of the first results. In 2015 were about 36 700 proposals, with 40% of the applications coming from newcomers that have not participated in the FP7. Another important finding is that the radical simplification that the Commission has tried to achieve in the FP, has been welcomed by the participants. (European Commission 2015d p. 3). Of the proposals, only 14% received funding, measured by the 31 115 full proposals that were received. Compared to the FP7, its success rate of the full seven-year duration around 20% received funding (European Commission 2015d p. 13). This shows that it is hard to access the H2020. Norway is the second country with most applications of the associated countries, only behind Switzerland. Norway accounted for around 1.4% of the eligible applications by April 2015. Behind Norway we find Israel, Turkey, Serbia and Iceland (European Commission 2015d p. 10).

The table under shows the different parts of the H2020, and provides an overview of the different parts of the programme:

Excellent Science	Industrial Leadership	Societal Challenges
European Research Council Future and Emerging Technologies Marie Skłodowska-Curie-Actions Research Infrastructures	Leadership in Enabling & Industrial Technologies - Information and communication technologies - Nanotechnologies - Advanced materials - Biotechnology - Advanced manufacturing and processing - Space - Access to Risk Finance - Innovation in SMEs	Health, demographic change and wellbeing Food security, sustainable agriculture, marine and maritime and inland water research and bioeconomy Secure, clean and efficient energy Smart, green and integrated transport Climate action, environment, resource efficiency and raw materials Europe in a changing world-inclusive, innovative and reflective societies Secure societies – Protecting freedom and security of Europe and its citizens

(Ministry of Higher Education and Science 2015).

The H2020 is a complex and comprehensive programme, and only a small presentation can find its place in this thesis. To obtain more information on the programme, please visit the European Commission's website at: https://ec.europa.eu/programmes/horizon2020/

3.5 Summary

Health policy has moved up at the European agenda. It is difficult to overlook health matters in relation to the Single Markets four fundamental freedoms. Thus, EU has worked towards a more consistent and integrated policy that should help coordinate health policies towards the EU's challenges by complementing the national strategies. The policy is considered as important with the EU's overall strategy towards 2020 to support better health for citizens. Still, the member states decide on their own policy, and EU should only act where it can work more effective than the member states, and where the sharing of competence is beneficial. Still, it has been important to move health policy up at the European agenda, so that EU health policy is harmonised with the national policies. This has been done partly by the "health article" 168 from the Lisbon treaty. Still, the EU has very limited direct powers when it comes to health matters. Health policy is seen as very important for the Commission. Solving health problems can be positive for growth, and new solutions to health issues may solve important problems for the members in the EU and contribute to the EU as a whole. Improvements in health, can also improve other policy areas within the EU, and this is a part of the Health in All Policies approach, and can be reflected in the "integration clause" from the health article.

The FPs for research is an important tool for the EU reaching its policies towards health. This is done by facilitating for collaborations between scientists in Europe, and research takes up a large part of the EU budget. Health has been an important priority within research. Currently, this is done by the H2020. The H2020 is the eight FP and the EU's biggest research programme so far. The FP spans from 2014-2020. The programmes were most concerned with biomedical research in earlier editions, but the H2020 has more funding towards public health. However, only a small part of the funding for the H2020 comes from the EU itself, and the main contributor is the national governments. The Commission is in charge of administering and giving grants. It has been important to simplify the administrative part of the FPs in the H2020, so that the researchers can use more of their time for research. Important objectives for the H2020 is to promote better health for all the EU's citizens, and to promote market growth and job creation. This is important for strengthening the EU and innovations in health systems is also an important objective towards 2020. However, EU only works as a coordinator.

4. Norway's Relationship to EU's Health and Research Policy

This section will analyse the connection between the EU and Norway in relation to health policy and health research. Further, it will demonstrate how EU policy have shaped Norwegian research policy, including health research through the FPs. The end sections of the chapter describe how the programmes are financed, and how Norway have positioned itself towards the EU research programmes, and in particular, how the country is positioned towards the H2020.

4.1 How Norway is Connected To the EU in Health Politics

Although, health policy has been considered a national matter, and the role of the EU has been limited, the policy area has increased its importance related to EU in the last years. This happens both in an indirect and direct manner and affects the member states health policy. This applies to Norway as well as an associated member, and it was considered in the St. Prp. Nr. 100 (1991-1992) that the general health policy was a national matter. However, the EEA agreement considered that the free movement would have implications for the health sector. The rules for approval of occupational competencies for health personnel, and harmonisation of the regulations of pharmaceutical are good examples. The agreement also gives workers from member states social rights, where they should have the same rights regarding health care, as the inhabitants in the country they work (Utenriksdepartementet 2012 p. 490).

There is an increasing amount of cooperation on common challenges between the countries. The EEA agreement makes topics associated with health safety, cross-border health services, tobacco, food, pharmaceuticals and medical equipment connected to the EU. Norway cooperates with the EU on health matters, since the main goal of international health collaborations is to solve challenges that do not stop at the nations boarders. EU wants to contribute to better public health, and to reduce social inequalities regarding health and make health services accessible. Although, the Lisbon treaty acknowledges that health is a national matter, the countries can still voluntarily cooperate on developing common rules, and seek to solve common challenges together. Norway takes part in these collaborations. In the last years, the collaborations have been concerned on topics outside the area of the Single Market. An important example of Norway's participation in the health collaborations, is through the field of health security, and the participation in the Health Security Committee. There has been established a comprehensive system for sharing knowledge, coordination and warning, with the intention of increasing the security in case of pandemics and other cross-border health threats (Regjeringen.no 2015).

The public health article (TFEUF article 168) encourages the member states to cooperate on public health matters. However, this agreement came too late to be included in the EEA agreement. Still, this has had little practical relevance, since the EFTA states, have approached the cooperation actively. Norway has included most of the legislative acts in the area. The country is an active participant in various programmes, agencies and Joint Cooperation Initiatives (Utenriksdepartementet 2012 pp. 490-91).

Every year an estimate of 60 and 100 legislative acts is incorporated into Norwegian law that is related to the working area of the Ministry of Health and Care Services. This is a result of the EEA agreement. The agreement also ensures that the Ministry and its underlying institutions have the right to participate in working groups and Committees that drafts EU law (Regjeringen.no 2015).

Thus, in addition to participating in the common regulations, Norway also takes part in collaborations regarding health matters through programmes, agencies and networks. Central in the cooperation are the EU health programmes, and Stortinget gave its approval for Norwegian participation in the Health for Growth program for the period of 2014-2020.

Norway has also participated in EU's second health program for the period of 2008-2013, and contributed to its budget. The country has also participated in projects, joint actions, working groups and expert groups. There also exist opportunities for learning, where health agencies and research communities can develop knowledge for improving health services, and to share the knowledge (Regjeringen.no 2015).

As mentioned, The Ministry of Health and Care participates in the Joint Programming Initiatives, which aims to solve challenges related to some of the big societal challenges as Alzheimer and other neurophysiological degenerative diseases. These programmes are initiated by the Member States and is supported by the Commission. The Ministry explains that the goal with the programmes is to coordinate the national research for a better use of resources. Norway participates in the EMA (The European Medicines Agency), ECDC (The European Centre for Disease Prevention and Control), EFSA (European Food Safety Authority), and the EMCDDA (European Monitoring Centre for Drugs and Drug Addiction). These agencies contribute with specialist advice to the Commission based on professional analysis. Further, Norway contributes with experts in the Commission that works with health-related topics (Regjeringen.no 2015)

The regulations and cooperation has connected Norway closer to the EU since 1992. Although Norway is not allowed to take part in the decision-making procedure of the EU, there is very small difference between Norway and the member states regarding integration. It has been little debate in public regarding Norway's relationship to the EU on health. Still, it seems like the political majority in Stortinget have had a wish for the adaptations. This also includes the health authorities, and the national policies regarding health seems to be in accordance with the health policy thinking in the EU. It is assumed that the common set of regulations at the EU level, has led to a better and more precise set of regulations than before, with a particular concern on pharmaceuticals. The Lisbon Treaty contributes to some changes that can be relevant for Norway. This includes an increased authority in the field of cross-border health threats, and that the EU should take considerations in areas related to policy that affects public health. This will probably not affect Norway as an associate member, but it can lead to new rules and politics that is of relevance to Norway as an EEA member (Utenriksdepartementet 2012 p. 491).

4.2 Europeanisation of Norwegian Research Through Framework Programmes

The EEA agreement connects Norway to the EU in an accelerating research and education cooperation. Topics related to research and higher education have been a subject of high importance on the political agenda for Norway and the EU. The EU have from the start of the 1990s developed from mostly concentrating on the programme collaborations, to being a more ambitious facilitator with an aim to establish Europe as a common area of knowledge with a free movement of researchers, students and knowledge, and this has also been discussed as the “fifth freedom”. The attention on research is an important part in the strategy for increasing Europe’s competitiveness, and to contribute to a dynamic knowledge based economy. Norway has earlier been granted full access to the FPs for research and technology (Utenriksdepartementet 2012 p. 612). The same status applies for Norway in the H2020, which is the eighth FP from the Commission. The government in 2013 declared a wish for access to the H2020 (Regjeringen.no 2013). Through the EEA agreement, Norway and the EU agreed on a more settled access, and a long-term condition for Norwegian connection to the EU’s programmes. Legislative acts regulate the cooperation only at a low degree. The attendance happens through initiatives, collaborations and new policy instruments like the open method of coordination. Thus, EU acts more like a coordinator in addition to disperse funding for the programmes (Utenriksdepartementet 2012 p. 612).

There have been many changes on the European level of research, where the FPs have received considerably higher financing, and it has been an intention to build a European Research Area (ERA), with a legislative foundation from the Lisbon treaty (Ibid.). The European research area is meant to be a unified research area, where researchers, technology and knowledge can flow free through the union and its member states. The intention of the area is to strengthen competitiveness and scientific and technological bases. It is emphasised that the EU should address grand challenges collectively (European Commission 2015a p. 2). The ERA aims to have free movement of scientists, equality of gender, common programs, and common research infrastructure and program collaborations through the Horizon 2020 (Kunnskapsdepartementet 2014b p. 5). Norway has been an active participant in the development of the ERA, and in the White Paper “Lange linjer – kunnskap gir muligheter” from 2012, the government announced that it wanted to participate further in the collaborations to improve the European research quality, and to secure a more effective use of European resources (Kunnskapsdepartementet 2013b p. 48).

There seems to be a Europeanisation of Norwegian research because of the EEA agreement, with apparent choices towards European cooperation partners and publications patterns. Before the EEA agreement, Norwegian scientists published far less with European research fellows, and before 1994, it was under 20 percent with European research fellows. In 2007, it has increased to 38 percent of all internationally cooperative written articles. There was a doubling of articles published by Norwegian scientists together with colleagues from other countries. This has shown how integrated Norwegian science is to European science. Participation in the FPs is an important explanation for the Europeanisation. The Europeanisation can be seen together with a broader internationalisation (NIFU STEP 2009 p. 261). Norway has leaned towards a cooperation with the EU in the internationalisation. The FPs have been very popular for Norwegian scientists, and an estimate of 5000 researchers has been involved. The institutional sector seems to have had the highest participation in the FPs, but the university sector and private organisations has also been successful in receiving grants from the research programmes. The FPs has been important for realising projects that demands international collaborations. The FPs stand for only a modest amount of research and development funds of around 4 to 5 percent for Norway. Still, it is important as it the FPs give access to information and results, in addition to contacts, network and prestige. This is important factors for Norwegian researchers. Still, there is big differences for the motivation and threshold for participation. It also varies how attractive Norwegian researchers are for European partners (Utenriksdepartementet 2012 pp. 612-616).

In the FP5 and FP6, participation from the different parts of the Norwegian research system varies where the institute sector had the greatest participation of 35 percent, businesses 29 percent, and Norwegian universities and colleges 25 percent (NIFU STEP 2006 pp. 15-17). It also varies geographically where Oslo had half of the 450 projects, Trøndelag 21 percent, and the Western Region 14 percent. This could also be an indicator for how important the four biggest actors involved in the FPs are, where SINTEF, UiO, UiB and NTNU are the biggest Norwegian participators in European research. The state driven colleges and university hospitals seems almost non-active in the ERA. There are also differences in the various disciplines. In the humanities, only six percent of the articles are written in cooperation with European fellows, and about a half of them in physics. Still, there seems to be an inclining orientation towards Europe in all disciplines, and the differences can be explained by traditional differences in internationalisation (Utenriksdepartementet 2012 p. 617).

4.3 Financing of the Programmes

The EU funding is an important incentive to do research that otherwise could not be possible. If researchers have success in the FPs, national funding could also come addition to the EU funding. The Ministry of Education and Research has a finance model that rewards participation in EU FPs. Participation in the FPs may give access to science production, that can have a greater value than the funding itself (Utenriksdepartementet 2012 p. 617). For the universities this comes from the RBO funding that is a result based funding system that provides funding from a shared pool of resources. A good performance in the H2020 releases more funding for the universities (Kunnskapsdepartementet 2014b p. 18).

The EFTA states is usually invited to take part in the EU programmes as full members, and especially if the programmes coincide within the frames of the EEA agreement. The EEA Committee and Stortinget have to approve the participation. Participation in the programmes is voluntary, but both EU and the EFTA countries have been positive to incorporate the FPs into the EEA agreement (Utenriksdepartementet 2012 pp. 775-76). For Horizon 2020 the EU accounted for about 77 billion Euros, while the EFTA commitment accounted for 2.3 billion Euros. Regarding Health for Growth, EU funded 449 394 million Euros, and the EEA EFTA commitments accounts for 13 482 million Euro (efta.int). The Norwegian contribution to the FPs is decided by the size of the programmes, the development of Norway's BNP compared to other members of the EU, and the exchange rate. Full member countries cover the fee through the common EU budget, and it is not a specific item of expenditure at the national budgets. Increased expenses for the FPs are normally covered by taking from other parts of the common EU budget. For Norway, this means if the programmes receive a higher part of the EU budget, Norway's contribution must increase. The FP7 had a budget of 50 billion euros, and the budget for Horizon 2020 is budgeted for 87 billion euro (Utenriksdepartementet 2012 pp. 618-619). The government has announced that it wants a return rate at 2 percent of all the funding in the H2020, and sees it as necessary that the activity towards the programme increases. The Ministry of Education and Research announced a goal in the FP7 of an economic refund at the same level as the competitive part of the Norwegian contribution, and this equals to 2 percent of the total EU funding for the programme. The government wants to invest 400 million NOK in stimulating activities to increase the participation. It is also mentioned that it is important to cover the costs that stand left after the projects have been given a grant (Kunnskapsdepartementet 2014b p. 15). Earlier, the return rate has been negative, but this does not necessarily show the whole picture. SINTEF reports a multiplication effect by about 20 times compared to what they receive directly in funding. This is because they are granted access to valuable projects, and that the effects of participation reach far further economically and scientifically. In addition, participants get access to network, new business associates, access to new markets and an increased amount of research contracts (Utenriksdepartementet 2012 p. 776).

A new financing model has been developed for the H2020. This will give businesses better financial conditions, but the model does not seem to give the university and college sector better conditions. The funding for the sector is based on a result based redistribution of the base grant that has been used to stimulate for EU participation, named RBO funding. The allocations come from the same basket and are reallocated each year based on how much EU funding that have been obtained two years earlier. This makes the institutions former results compared to other institutions results very important for the funding. It further leads to unpredictability for the institutions, and lower participation will in total give lower payments per payment from the EU (Kunnskapsdepartementet 2014b p. 18).

4.4 Norwegian Horizon 2020 Strategy

There is a broad political support regarding the value of the internationalisation of the research and higher education area, where the European dimension has been the most important part. The FPs have had strong support from Norwegian politicians, and the participation has had little controversy (Utenriksdepartementet 2012 p. 613). The Ministry of Health and Care has a declared goal of securing Norwegian interests in the EU by performing an active European policy (Ministry of Care and Health Services 2007 p. 3).

The government announce in their strategy document for the R & D cooperation with the EU, that they have ambitious goals, and clear expectations from the participation in the H2020. The document mentions that there are much room for improvement, and the government wants to increase the funding with 400 million NOK for stimulating activities. (Kunnskapsdepartementet 2014b p.16). It is attractive to participate in world leading research communities as they contribute to innovations with broad applicability. The government wants to contribute to solve global challenges and sees this as a responsibility. It is also important for the government to contribute to European competitiveness, and boost jobs. It is also necessary to be included in the best research environments. It is also important to secure the nation's own competitiveness to create future jobs (Kunnskapsdepartementet 2014b p. 2). It is expressed that Norway should be more ambitious in the programme, although this has a high economic price (Kunnskapsdepartementet 2014a p. 39). Participation gives possibilities for sharing costs of expensive research infrastructure in addition to giving access to them. Researchers that participates is also more attractive and visible as collaborators both internationally and in Europe. Thus, it is important for the government to establish an ambitious strategy for participation in the European research projects. (Kunnskapsdepartementet 2014b p. 5).

There has also been an increased attention towards support functions for the scientists, since earlier experience has showed that it is important for stimulating participation. The institutions themselves have an important role in professionalising the support services. Sharing of experiences among research administrators may contribute to increased participation, and it has been established a network for research administration (NARMA) by the University and College Council in 2013. The network promotes cooperation for improving the support to the researchers in H2020. The RCN has the main responsibility for the public support system, including information, instruction, and stimulating alliances between different actors in the field. The RCN have the responsibility of administering the financial incentives. Related to this work, the NCPs have an important role, and they are appointed to each thematic theme in the H2020 (Forskningsrådet.no). The NCPs are attached to programs in the EU and Norway, and this gives them the opportunity to see European and Norwegian interests together. The NCPs also have an important job in securing the quality of applications, and must balance their time between proofing applications, and give advice. The goal is to achieve the best possible effect from the resources allocated for the programme (Kunnskapsdepartementet 2014b p. 16).

The RCN and the network of civil servants in the ministries have the responsibility of administering the Norwegian participation in the health research programmes. In addition, they have an important role in providing information and promoting the benefits of participation within the FPs. Still, according to a NIFU report (2009 p. 171), the potential for increasing the research collaborations in the FP lies within the power of the Ministry of Health and Care Services, and this should be an important matter of attention for national research strategy, and the leadership of this sector. This is because of the beneficial funding from regional sources that are provided by the Ministry.

The universities and colleges are central actors for giving advice in their regions. This should happen in cooperation with the NCPs and the regional public support system. Norwegian Network for Research Administration also has an important job in creating an arena to increase competence, career development, and increase the quality of the university and college institutions research administrative services (NARMA 2015)**.** It is a goal that NARMA should be strengthened with the aim of improving the research administration towards H2020. The university and college sector also has an important role in supporting young scientists, so that they achieve the competence to participate in the EU research projects. The sector also has an important function in supporting and stimulating a free flow of researchers, as this could be important to strengthen the institutions participation in the H2020 (Kunnskapsdepartementet 2014b pp. 17-19). Further, it is mentioned in the governments long term plan for research and higher education, that it is not as important to cover the costs for the university and college sector. It is better to give information and support for positioning activities, support for writing applications, and to establish and carry through projects (Kunnskapsdepartementet 2014a p. 16). The government use the Research Council as its main instrument for pursuing its goals, but Innovation Norway will also be involved in relevant fields. It is expected that the universities, colleges, research institutes and health enterprises develops its own strategies, goals and plan of action on how they intend to contribute to the Norwegian goals (Kunnskapsdepartementet 2014b pp. 7-9).

Norwegian authorities carry out an active European policy for making the participation in the EU projects attractive for researchers. Actors as politicians, departments, businesses and the public support system are represented in Brussels. The Ministry of Education and Research has an important job in coordinating the activities between the Norwegian actors. The Ministry also has the responsibility to influence the policy process of the European research and development policy. Norway can influence the policy process at the proposal level, and at this level, Norwegian representatives can influence the Commission at the same level as other actors. There also exist possibilities in the decision phase, where Norway can work up towards member states, the European Parliament and the Commission. Previous experience has shown Norwegian interests have been taken into consideration before (Kunnskapsdepartementet 2014b p. 20). It is also important that Norway take part in the process of developing the research programmes, and its announcements, so that they are interesting for the Norwegian research community. This is done through the Commission in the formative phase, and through active participation in the program committees in H2020. Here, the subject coordinators from the departments play an important role, in addition to the experts, represented by the RCN in most cases. Together with the NCPs, these actors have an important job in influencing the programs, so that they correspond to Norwegian interests and needs. They also have to work together with Norwegian research communities, so that they ensure correspondence (Kunnskapsdepartementet 2014b p. 22).

4.5 Summary

Norway is connected to the EU through the EEA agreement. This influence Norway’s health policy in various areas because of the free movements from the Single Market. About 60-100 legislative acts is incorporated into Norwegian laws that are connected to The Ministry of

Health and Care services, and this is a sign of Europeanisation. There are small differences between the member states and Norway when it comes to integration, although Norway is not allowed in the decision-making process. Still, health politics are considered a national matter. However, Norway cooperates with the EU on health topics, and a main goal of the international health cooperation is to deal with problems that is difficult to solve for the nations alone. This is because many health challenges do not stop at the nations boarders. Norway participates voluntarily in the collaborations facilitated by the EU, and in the last years, this has happened through a cooperation that is outside the matters of the Single Market. Norway has approved its participation in the Health for Growth Programme for 2014-2020 as well.

Norway is connected to the EU's research and education policy through the EEA agreement, and the country has been an active participant and supporter of the ERA. This has led to a Europeanisation of Norwegian research as well. In addition, the country also participates in the FPs, and Norway continues to have full access in the H2020. An important motivation for this, is to get access to the information, results, contacts, network and prestige. This has led to an increased interest and orientation towards European research in all disciplines, and this is also a sign of Europeanisation. There has never been much debate concerning the value of internationalisation of Norwegian research, as Norwegian politicians has been positive. The country must contribute to the funding of the H2020 by the national budget, and this creates expectations from the government for financial returns from the programme. This demands an active policy towards the EU and many public and private Norwegian actors are represented in Brussels to promote Norwegian interests. These actors seek out to secure Norwegian interests. Norway can only influence the research policy through proposals, and by working active up towards member states, the Commission and the Parliament. Within this, it is important to participate in the formation of the FPs, so that the programmes coincide with Norwegian research interests and competence. Subject coordinators from the departments and experts from RCN, has the responsibility to secure these interests. The government has a goal of a return rate at two percent, since much money is invested in the H2020. Further, the government invest in stimulating activities to with the hopes of increasing the return rate that has been lower than the expected two percent.

5. Analysis
In this section, I will present the most important part of the thesis, where I present the responses and the analysis of them. It is important that the answers are seen in the light of the universities strategies towards the H2020, to understand the environment that the researchers operate within. It is also important to consider the international environment that the universities are a part of, and especially the EU, since much of the international research in Norway points towards it. The first part will also present how the universities provides incentives and support for their researchers towards the H2020. The advisers have been interviewed about the strategies as well, and their insights and experiences are presented as well. After the presentation of the universities strategy, I will present the responses from the informants, where they provide information about their experiences with the FPs. The analysis has a particular focus on the motivations for participation in the H2020, and the possible deterrents that may influence the researchers' choices. I have also found it useful to include some suggestions for improvements from the researchers, which may lead to a higher participation for health researchers. After the presentations, I will discuss the answers in the light of the three previous sections, where I analyse the responses in relation to the theoretical framework, and the political system both at the EU level, and the national level that the researchers operate within.

5.1 The Universities Strategies Towards the H2020

University of Oslo
UIO communicates through its international strategy plan "Global presence – global responsibility", that it aims at being a top international university of academically excellence. The UIO also wants to be an attractive partner and strategic player within international academic collaborations. This shows clearly that UIO seeks stronger internationalisation (University of Oslo 2012).

UIO has been in the EU's FP's since 1991, and claims to have the largest EU portfolio of all the Norwegian universities. One of the UIOs strategic objectives is to be involved in leading international research within first-rate international networks (University of Oslo 2015 p. 12). Up until 2014, UIO have participated in 162 FP7 projects, and the university was best within the thematically free areas like the ERC and in the Marie Curie Actions. This makes it important for the UIO to increase the success within the thematically areas (University of Oslo 2015).

UIO has had an increased growth in the seventh FP, with increasing income that adds up to 123 million NOK. The University received 24 ERC grants in the FP7, and this makes it the leading university in Norway, and in line with the best Nordic universities. The university wants to strengthen its position in the ERC projects in H2020, and the adviser confirms that the ERC has a particular good reputation for researchers in addition to being a prestigious programme (0567). The H2020 strategy is closely related to the adjacent strategies that deal with research infrastructure, innovation, and internationalisation. This results in a strategy where the university seeks to increase participation in H2020 through an increased management pressure. The intention is to create a foundation for motivation and recruitment work towards the stimulating activities for H2020. There are clear expectations from faculties and institute leaders, to prioritise the most relevant EU researchers and environments. It is expected that all levels shall work towards promoting the H2020 as a clear and desired funding opportunity for researchers (University of Oslo n. d. pp. 1-2).

The UIO adviser confirms this, and tells that both the university and the faculty are very interested in obtaining external funding, and it has always been like this. Still, it is more important now than before, and there are clear signals from both the university and the Ministry of Education and Research. This gives the faculty an important job in motivating and helping the researchers. The adviser also tells that this is important, so that the researchers can concentrate their efforts towards the research itself. The advisers should not only seek to help obtain the funding, but also to help administer the projects including reporting and whatever is needed in the externally financed projects (0245).

The university plan towards H2020 also mentions that it is important to act strategically on the EU research agenda, as this can create increased opportunities for researchers' success both on a national and international level. An important strategy for meeting its goal, is to attract the best researchers both internally and externally, and to facilitate for long term opportunities for the researchers' development, with an emphasis on young researchers. This is important for stimulating competitiveness internationally (University of Oslo n. d. p. 3).

The UIO adviser adds that the EU research projects is important not just because of the money, and that they try to influence the researchers by telling them that the projects open new opportunities for future collaborations. It is possible to be invited into new consortiums that can apply for funding at other grants, and then they are enabled to mobilise with the best researchers. Networking is of particular importance, especially for having the ability to compete internationally (A2). The aim of involving researchers in EU research projects have a much more far-reaching objective than just obtaining funding. If researchers show that they work well, and are of an international standard, they will often get invitations for new projects. Of other factors that are interesting for the university, are a mark of quality, and an increased level of competence (0437).

The university considers “positioning resources”, to support the researchers in establishing competency and network that takes long time to build up. This is important especially for young researchers, with the intention of preparing them for international competition (University of Oslo n. d. p. 3). The UIO adviser also mentions that they prioritise to help young researchers obtaining EU experience and competency (0765).

Included in the UIO strategy, is the development of a professional staff to support the faculty’s specific ambitions, portfolio and resources, with the goal of providing the best possible support and information services for researchers and their needs. This has been a prioritised area in the last years, and EU financing competency is an area where UIO wants to expand its activities (University of Oslo n. d. p. 2). The adviser says that the support system now has become more professional and bigger, and that there are more and better resources available to support the researchers regarding the EU projects. The adviser also tells that there is a process of trial and error where they try to find out which strategies that works and what does not work. Some strategies work towards some groups, while other works for other groups. They try to adapt themselves to the researchers. They also work as an information central for the faculty, where they obtain information from many sources including the Commission, the NCP at the RCN, and from the central administration at UIO. Further, they receive information from members in the UK research office that is represented in Brussels in important forums. They send newsletters to the advisers at the UIO, that process the information and forwards the information to researchers two or three times a month. The mail is short, and provides information on funding opportunities (0299).

The UIO applies to the RCN for allocations within the PES scheme. PES funding can cover costs for travel expenses, purchase of external assistance and counselling. The PES funding can also be used to buy personnel free from their regular work tasks (University of Oslo 2016).

PES support is evaluated as positive, but should be implemented along the faculties own incentives. The adviser mentions that the university has an agreement with an external consultant that helps to read applications from programs like the ERC and Marie Curie. The consultant also gives some courses, and this helps. The adviser sees the incentives as something that can be of importance for stimulating the researchers towards the EU H2020 (0463).

The University observes that there is an unexploited potential regarding the thematic calls, including health science, and the university wants to exploit this potential (University of Oslo n. d. p. 4). The adviser tells that they have good competency in the faculty's environment, but too few applies towards the H2020. Thus, it is a wish to increase the number of applications to improve chances (A2).

The main challenges for the UIO are the thematic calls, interdisciplinary, and the innovation in keeping up the good results in ERC (University of Oslo n. d. p.1). The adviser tells that they are starting with concrete approaches because of the extra funding that they have received from former EU projects, and that they try to use the funds strategically. The plan is to select a group of researchers that they want to send to Brussels together with research leaders and administrative leaders at the institute. They will attend a program so that they get to know the system, and to understand the EU financing better. He stresses that they try to go for the best researchers as the competition within health is very tough, and that they need to send the best to have a better chance of success. This is particularly relevant towards ERC. He emphasises that you do not have to be excellent in all programmes, like Marie Curie for young researchers and for mobility. However, the researchers can use other programmes so that they could build the CV, and this increases their chances if they apply later. It is important to approach the researchers out from the level they have, and some researchers must gain experience so that they can apply later (4523).

The adviser also has the opinion that they have strong research communities within health, so that they should be able to obtain more funding from the EU. The researchers are considered to be well connected since they have a good network around the world, although he stresses that some researchers are more international than others are. Still, he mentions that they do not have enough applications, and that more researchers should apply to achieve greater success within the EU FPs. The adviser also tells that the Faculty of Medicine has been relatively good at obtaining external funding, but that they hope this will increase from the EU as a source. The national funding is still important, but they wish that the researchers should develop a habit of applying for the EU funding as well (6987). The adviser also says that it is important to obtain EU funding because it gives the faculty a seal of quality that is very important, and that the faculty wants an increase in competency and cooperation in addition to the financing (5719).

NTNU

NTNU also has a clear international strategy, and its slogan is «Knowledge for a better world». The university wants to be active in the global development of knowledge, and internationalisation should be integrated in all subjects of knowledge and its environments. Cooperation within the European sphere of education, research and innovation, is one of NTNU's top priorities. Cooperation with the best research communities is of high importance to strengthen the quality in research and development. (NTNU 2 n. d. p.5). One of the advisers tells that it is important to participate for the Faculty of Medicine, since this helps in obtaining network and contributes to the universities overall competence and standing in the field. In addition, it is an important focus to obtain external funding. This is particularly important since much money is going into the H2020, and it is important to get funding back (7687).

It is important for the university to stimulate for long time and robust collaborations in the best international research environments (NTNU n. d. p. 6). An adviser stresses the importance of attending the EU research projects as the consortiums continue to cooperate for a long time. They also give new avenues in research partly because they can work interdisciplinary. Some of the partners they attract is also big, and together they stay innovative for a long time.

Horizon 2020 is an important part of the international strategy for the university, and it has expressed a goal of receiving at least 1 billion NOK for the program period spanning from 2014-2020. The university will work systematically for mobilisation towards more participation (NTNU n. d. p. 7). One of the advisers from the NTNU confirms that the EU strategy is based around H2020. The rector, faculty leaders, institute leaders and department leaders sends signals to go and work on EU funding topics (9856). Further, the adviser also mentions that the main research strategy has not changed much because of the H2020, but that the methods they use to support the researchers is changing. The international focus has always been there, partly because of encouragement for the RCN, where they have tried to inspire institutions and researchers to see the opportunities (3467).

Similar to the UIO, NTNU seeks to stimulate young researchers career development through NTNU's "Stjerneprogram" (NTNU n. d. p. 7), and its "Onsager Fellowship Programme". The latter program has its purpose in recruiting young researchers that have been recognised internationally (n. d. (a))

NTNU also mentions in its international strategy plan that it wants to establish an office in Brussels (NTNU n. d. p. 7).

Samarbeidsorganet, that is a cooperation between Helse Midt-Norge-NTNU, contributes with incentives through POS (Posistioning Support) and PES (Project Establishment Support). PES support can be used for meetings for potential applicants that considers to apply for EU projects, and can cover travel expenses. PES support can be used when there exist more concrete plans to apply for EU funding, and researchers are encouraged to apply as early as possible in the application process. The funding is harmonised with PES2020 funding from the RCN. The PES for NTNU researchers has much of the same purposes as for UIO researchers, where they can use the funding to cover travel expenses when shaping the application, buying external competence and counselling for the application process, and to buy personnel free for writing the application. It is expected that the applicants apply for funding from The RCN's PES funding in addition to the funding from Samarbeidsorganet. The support from the RCN can be of a maximum of 50%, and the funding from Samarbeidsorganet will cover amounts up to 100% of the maximum support from the RCN. If the EU application is not sent for application, or the application is rejected because of formal errors, the funding will be repealed. In addition, NTNU supplies two incentives for participation in H2020, and this is for projects that have received a grant. The two incentives involve additional funding, and projects can obtain a PHD fellowship or a postdoctoral position for projects where the NTNU researcher is the coordinator, and in the ERC projects. The project funding can be used for all professional activities within the project. Project costs that the EU have not accepted, or that exceeds the budget can be covered by this type of funding. The additional funding from NTNU, covers 25 percent of NTNU's part of the budgeted EU funding if NTNU is coordinator in a collaboration project. If NTNU is partner in a collaboration, the university supports with 15 percent of NTNU's part of the budgeted EU funding. If NTNU is the only partner in the project, NTNU supports 15 percent of its part of the budgeted EU funding. Coordinated collaborations in H2020 where EU funds for at least 500 000 euros receives a three year PHD fellowship or a two-year postdoc position, and this also happens by projects that receives an ERC scholarship (NTNU 2016).

One of the advisers believes that NTNU has a good position in the EU since they have a reputation for excellent research, and very good specialist competences. Both advisers agree that much good is happening with the administration that shall support the researchers, and they work hard to stimulate proposals. Many people have been involved, and much has happened in the last years. Still, they tell that it is important to get the right people and the right knowledge to help the researchers towards the EU projects. It is also important to help the researchers using the best methods, since it is important to educate the researchers in the right way about the information that exists from the EU. One of the advisers says that there is always something interesting in the EU when it comes to health, and it is important to visit information days in Brussels for the researchers (4531).

The adviser is also of the impression that a lot of work has been done to stimulate for an increased EU participation, and that they are on the right way. She also stresses that it is important to find the right persons with the right competencies to help the researchers, and she thinks that this is going in a positive direction (3423).

5.2 How Mandatory is Participation at the Universities?

When asked to what degree participation is mandatory, both the researchers at UIO and NTNU answers that it is not. The researchers do not see it as a pressure, but explain that they notice the increased expectations. Further, a researcher at the NTNU tells that there are few assets put aside for research in some types of research, so that it is necessary to look for external funding to do research. The researchers in the medicinal faculty must also look for infrastructure as labs to do the research, and then they need financing. They do not get this from the NTNU. Thus, it can be difficult to do research if not financed externally in some research areas. The researchers also tell that although it is not a pressure to apply for EU funding, there is much focus on it from the university system and the RCN. Thus, the institute and the faculty have much focus on spreading the information to the employees, and that it is a strong request for applying to the FPs (7567). A researcher from the UIO says that he can dispose his time for teaching and other things, but that he must get external funding to do research (6530).

Another researcher mentions that you are noticed at the institute and the faculty at NTNU, if you have active applications towards the EU (5634).

An adviser from the UIO tells that the pressure has increased from the management at the university since they want more external financing. He explains that this is the way funding is developing within research. Still, he will not describe it as mandatory. It is more like that the faculty wants external funding, and that it is good if the researchers can do it. It is expected, but not mandatory. The researchers have the freedom to apply from where they want, and to what they want. They try to facilitate for the researchers, and motivate them. The adviser also tells that the faculty is pressured from the Ministry, and from the university, and that they try to push this further down the system. However, they cannot impose this on the researchers. The university system does not work like this. This is something that only the institute leaders can do to some extent the adviser tells (4455).

At the UIO, a researcher tells that although it is not mandatory, it is a strong pressure for researchers to try the programme, and not at least to be a coordinator for the projects. She also tells if you take a role as a coordinator, there should have been more money and administrative support, and so that they receive a larger portion of what comes in, as this can lead to more financing. She also explains that 50 percent of their activities should be research, and there is a pressure that the funding should come from either the RCN or the EU. The RCN also has a big focus on that they should apply for EU projects. Both organs for funding release money to the university. The government puts money into the system, and they should try to get the money back (3344). Another researcher confirms this, and say that they are pressured from politicians, the RCN that further put pressure on the institute's leaders (5296).

5.3 Responses

This section provides the main responses from the advisers and researchers interviewed. This is the most important part of the thesis where the informants provide information about their experiences with the FPs, and how they are positioned towards participation. The main aim is to analyse why they may choose to not seek participation in the H2020. The section starts with what is attractive from the FPs. Further, the section discusses possible obstacles that may prevent participation. In the last part of the section, the informants also provide some suggestions for improvements that may lead to a higher participation in the EU FPs.

The Researchers’ Motivation for Participation and the Attractiveness of the FPs

There seem to be several factors that motivates the researchers towards the EU FPs. One of the reasons that most of the researchers point out as important, is the ability to collaborate with the best scientists in the EU, and to draw on their expertise.

This is something that is interesting for the universities as well, as it is considered as something that increase the overall competence of the institutions (1322). It is also interesting for the researchers to exchange ideas and to discuss them. One researcher tells that she sees the possibility to work interdisciplinary as a rewarding educational process, since they often have completely different approaches and working methods. It is also inspiring to get the possibility to work with people from other sectors that have good capabilities and competence. She also emphasises that the cultural exchange has been an educational and rewarding process (3578).

The motivation to work with other top scientists in Europe, is mentioned by almost all researchers interviewed for the study, and this factor is also confirmed by one of the advisers that tells:

“*I think the participation in the EU projects are attractive since we can collaborate with the best of the best in the EU, and in some cases even beyond. You can get expertise from other countries and partners that you do not find in Norway and get lifted to a higher level. For some it is also important to exchange ideas and to show and learn how to do it in other countries. Researchers have an internal drive, and see this as an opportunity to learn more. They get to work with the same goals but from different angles (9090).* ”

Another adviser is more considered around the possibilities for the researchers to realise their ideas:

“*The researchers look for money to realise their ideas. They think tactically about where they can get the funding for fulfilling their wishes in the easiest as possible way. To receive money from the EU gives them the possibility to obtain their goals. Still we try to argue for, and get them to see that to participate in EU projects is something more than that. You get the possibility to work with others that are very good within their field of subject, and together it is possible to achieve a lot more than what the researcher can do alone. But I do not know if this works with all researchers. Further, I believe if the researchers see the EU programmes as something bureaucratic and complicated, they will rather want to apply for other programmes at a national level (7346).”*

Another important factor is the possibility to do something they do not have the chance to do in other circumstances, and this is also related to the competency that they attract by involving scientists at the top European level. In addition, the funding is of a great proportion, so that it is possible to do larger research projects within the EU FPs. Still, it is emphasised by one of the advisers that the funding itself cannot be a motivation alone because there is far too much work and administration around the project (5890).

A researcher tells:

“Even if it is always too little money in a project, you may at least have a possibility to do a very big project with the EU financing you obtain. There are no national sources that gives enough money to do the types of projects you can do within the EU projects (8790).”

It is also mentioned by some of the informants that the prestige that comes from the EU projects, is a factor that researchers find attractive. An adviser tells that especially the ERC programmes have a very good reputation that gives the researchers a mark of excellence. If the researcher has achieved success in the ERC, this looks very good at the CV, and shows that the researcher has very high competence in its field of subject. Related to this is that the researchers then operate at a higher level with competition from the best researchers in Europe, while the researchers that participates in national programmes only participate with the best from Norway. It is not that it is a bad achievement to have success in national programmes, it is a very good achievement. However, the adviser thinks it may be a time for trying the EU FPs if a researcher has had the ability to get consistent results in the national programmes. The adviser tells that it is good for a researcher to build up its competency in the national programmes, and to later try the EU programmes when ready (7314).

Some researchers also tell that the practical relevance for the society is of importance to them. It is more interesting for them to do this type of research, than research that only is done for the research itself, and the EU projects suits well since they try to solve practical societal challenges (7890). A researcher tells that it is important to her, that it is important that the issue to solve is of societal importance, and that it must be profitable to solve it at a EU level. It should not be something that she could just as well could have done within Norway. She tells it is much easier to administrate a project in Norway, and there must be a special motivation to bring this up at a EU level. Related to this comes the benefits of cooperation on methods, and to access competence that was not possible to reach at the Norwegian level (8712).

Another researcher sees it as an inspiration to have the possibility to include PHD fellowships and post doctors at real projects, and that this can be an awarding experience to them (1980).

Possible Obstacles for Not Seeking Participation in Horizon 2020

Application

Application process

The application process is something that the researchers sees as complicated and comprehensive. To complete an application process demands many work hours for the researcher, several partners, and much help from the administrative staff at the universities. Two of the researchers point out that application process is very demanding, and that it is important to set off much time to do the application work (3890 and 7845).

One of the researcher says:

"*It is so complicated that you are totally dependent of having a Horizon 2020 adviser, it is not a thing that you can do by yourself..you are totally dependent on a EU adviser (8956).*"

An adviser tells that the application process is something that many researchers fears as something very complicated and difficult, but emphasise that most of the financing sources has its demands and expectations (1478).

It is also pointed out by a researcher that an important reason that makes the application process complicated, is that they also must communicate with the partners, and this could take a lot of time (9012). The researcher mentions:

"*I had an idea very early that I formulated and made a short sketch. Further, I contacted a partner that I knew could fill in the necessary jobs that were necessary to realise the project.*

This led to little confusion of what was the idea, and what should become the result. It was very OK to have a clear working plan for the people involved, and to put up which parts the different partners should write. We knew where we were going. Still, it has to be written and it should be composed into a complete history, and this takes a lot of time. I thought that when I had the time to sit in front of the PC to write, I rather used a lot of time on the phone to communicate with partners. This is people that I have worked with in many years, and know well (*3579).*"

The same informant tells that the budgeting part of the application is also very demanding, and to calculate how much resources each partner needs to solve the task is one of the work tasks that demands effort. It is also a factor that the wages and other things related to the project is of a lower cost in for example Spain, France and Italy than in Norway, and that you must think tactically in the process (7812).

Another researcher tells about negative experiences with the bureaucratic methods from the EU, and mentions that the cultural differences between partners can be a problem, in addition to the bureaucracy, coordination and reporting from the project. The cultural differences have led to negative experiences in different parts of the project related to information, procedures, reporting, rules for purchases, and the economy. The researcher says that this has led to a poor outcome for the research (NR3).

A researcher says that one of the greatest obstacles for attending the EU FPs is the time and work used on writing the application:

"*Seen in the relation to risk, and not recei*
application, so that you have to be quite certain that you will receive funding from writing the application (3190)."

When asked if this is a rational consideration the researcher answers:

"*It is not only that you have to write the application, but even if you should initiate something, you also have to gather partners. You must do a lot of work in Europe as well. It is easier to participate if many partners are coming to you, and you do not need to have as much focus on the application writing itself. To increase the participation, I believe we must increase the amount generated by us. We must have more people from Norway that starts writing applications and not ones that only joins initiatives started outside Norway (2323)."*

In addition, a researcher points out that writing the application was an educational process, and that the application is not necessarily a waste if it is not granted financing, because it is possible to reuse the application. It was also considered as positive that it was possible to establish contacts for a consortium (2167). Another researcher also sees the application process as a positive experience, and tells that it has been an enriching experience to work through the application with people from other countries and other fields of science, so that the project becomes an international and interdisciplinary project. Still, the researcher also emphasise that it is important with good partners, and preferably to have former experience with them in the projects. This can have a lot to say for making the application process easier. In addition, this is also related to how the process will be further if funding is granted (1735). Still, it is stressed by another researcher, that it is not necessarily easy to reuse an application if it is a narrow field with few calls. It is very difficult to predict if the same or a similar call will come out again in the EU FPs. He also mentions that there is still a lot of work to do if he should try to apply again with a project application (8012).

Another researcher tells that she does not see the application as wasted if it does not receive a grant, since there is a possibility that the application receives grants from national programmes, and maybe regional programmes. This is an important carrot for the projects that do not reach to the top in the EU programmes. Still, it may be necessary to take out parts of the project for applying in other programmes, because you will not necessarily get financing for other countries contribution to the project, and then they can only do a part of the project. However, if the application itself is of low quality, it is wasted. The researcher thinks that they have a very good document when they are finished with the application, and that this is a good start since there has been done a lot of work in the application process. It is like the application process force you to do it, and researchers can possibly receive the benefits later she tells (1489). One of the advisers confirms this, and tells that there is a good possibility to transfer the application into other projects. It is often wise to consider if the idea can be circulated around in different ways and try to meet different programmes demands. Still, the adviser also tells that researchers generally see a rejected proposal as a waste of time, since they have used two or three months on the application, but did not receive funding. Many researchers are considered with here and now, and they want money immediately. The adviser also points out that some researchers have understood how this works, and that they will often receive many declines before they get a positive response. A project that gets a rejection from the Commission in one instance because other projects was more interesting at the moment for them, is not necessarily uninteresting in the future for the Commissioners (9991).

One of the researchers tells that the rumour that goes around in the research community, is that there is much bureaucracy with the reporting and administration of the projects. In addition, the rumour says that the researchers must use much time on things considered as administrative tasks, and not scientific tasks as a researcher wants. Still, the researcher sees the administration of the project as manageable, and that the support team has been of a very good help in this process. The workload of administrating the project is not as bad as the rumour says he tells (8876).

An adviser is considered of that sometimes the researchers comes late in the application process, and this makes it difficult to give them as much help as needed. Therefore, they encourage the researchers to start early in the process, and particularly in the collaborative projects where many partners are involved, and many people must collaborate. The collaborative projects are considered as something that demands very much work. For coordinators, it is mentioned by the adviser that it is clever to start five or six months before the application deadline if this should not end up as a stressful task. The months can fly by since you have to wait for other partners to respond to your request, and to get what you need from them. The adviser also mentions that the researchers have a busy schedule with many other tasks, and this can make the time aspect extra difficult (8811).

This is also mentioned by a researcher that tells that there have been some cases related to the applications that they have started late, and this is not preferable. One of the reason for this is that there are tentative calls out, but they do not actually come out before it is too late. It can become difficult if the idea is not ready, and if the consortium has not already been established. In this case, the administrative support can be of good use, so that the researchers can focus on the project, instead of using time on the budgeting process, and communicating with partners (8715).

Still, the time aspect varies for the different type of programmes within the EU FPs, and in ERC, it is easier because a researcher often is writing the application alone, and can do it along other responsibilities for two to three months. Marie Curie projects is also not as complicated to administer. It is also important to emphasise that the researchers usually can budget for more help in the collaborative projects, than in other type of projects (1489).

An adviser explains that the university has some researchers that are very international in their activities, but also that many researchers sees the process of applying up towards the EU as something very difficult, complicated and bureaucratic, and that this scares them away from applying (2468).

It is stressed by one of the advisers that the EU projects has become much easier than they used to be, and explains that there have been some bad experiences with former FPs like the fifth and sixth, where the application was very bureaucratic. The advisers tell that the Commission has simplified the application process quite much, and it is clearly easier than before to apply for EU funding. They try to communicate this to the researchers, but that a change in culture takes time. It is important that there are some good cases of success where researchers tell positive things that inspires other researchers. It is also mentioned that it may come a generational change, where new researchers are not inspired by the researchers with bad experiences from the earlier EU FPs. The increased investment and professionalization of EU advisers has also made the application process a lot easier for researchers considering applying. It is explained that many researchers have had a fear of not receiving enough support throughout the application process, and also the work that comes if they actually manage to get funding. Still, the adviser also tells that the results from this process will vary from faculty to faculty, and institute to institute (1965).

A researcher that has been through the process before, suggest that it could be positive for researchers that are new to the application process to participate in courses on how to write applications. The researcher has earlier attended courses in Brussels about how to write EU applications, and saw it as very useful since the process is so comprehensive, and with many aspects to consider. The researcher also says that it is very important to understand the reasons and motivations for why EU provides funding. The researcher confirms that in H2020, the EU has a focus of strengthening European industry and businesses, and to promote EU in relation to other continents (9117).

Premises for receiving EU grants from applying

There seems to be consensus between the researchers about that the project application must be of a good quality, and that you must have a good idea. The idea must be something that thinks a little bit forward to what exists today. Further, several of them mentions that it is important to have a societal impact in H2020, and that this is important for receiving funding. However, this do not count for ERC projects to the same extent one of the advisers tell (7718).

One of the researchers says:

"*You have to understand why EU gives funding to science. It is about the impact part of the application, and the societal relevance described in the call. The task to solve as a researcher (1014)*."

Another researcher confirms this and says:

"*An application is split into three parts. An excellence part, an impact part, and an implementation part. Maybe we have not been as good at the part considering the impact of the project, and how this can change clinical practice, and its societal relevance. You have to think at a European level, and I think this is the part that is the most difficult to write. This is because you have to think like a salesperson, and not a scientist. You also have to write why this can stimulate the businesses in Europe. This is aspects that you often do not need to include in an application to the NRC. However, I learned a lot from the process, but it took a lot of time (1901).*"

A researcher tells that it is important to show that you can use indirect research and put it into practical solutions. He says that many researchers do not have a medical degree and no contact with patients, and therefore there is a gap between the intellectual and practical possibilities. He stresses that EU looks for output and production within the H2020, and that the EU wants to see the results immediately with a direct effect. He also says that the demand from the EU of practical use of the projects makes it easier for researchers that are medical doctors, since this gives the researcher a role where it is easier to have a direct influence (8513).

Many of the researchers stress the importance of reading and matching the call text. One of them explains:

"*When you find a call to apply for, you must dissect the call text, and interpret every sentence in it. You also have to assure that you address this in the application (7719).*"

Another researcher says that it is important to interpret the call text in all calls, but that this may be especially important at the EU level. It is important to answer with what they ask for, and to do it in a good and proper manner (0056).

A researcher has the impression that it demands another type of writing in the EU applications, and that the language to use is different from writing applications for the RCN and Samarbeidsorganet (1119).

Another important aspect that seems to be important for the researchers is to choose good partners with the right competence.

This is described by one of the researchers:

"*It may sound a little banal, but it is important to recruit partners that are friendly and nice, and easy to talk to. They must have a good will to cooperate, and it is important that they are solution-oriented. It is also good that you already know them, and that they have good references. It happens that we have disagreements about our subject, but that you still talk together in a good manner. We cannot have conflicts and arguing about money and resources. To have a good consortium is very important. I am very happy for that we had a focus on this when we applied (8846).*"

A researcher says that there are many predators in the EU research environment, and it is important to show that you have good intentions of establishing projects of practical use. It is important to have good people in the network (4619).

It is also mentioned by a researcher that in addition to having a comprehensive scientific background, it is important to have many partners in the project and that this has been a prerequisite by the EU earlier as well. Still, he believes that the projects could have been better off with fewer partners (9990).

Importance of earlier experience

One of the advisers interviewed has the experience that it is definitively easier to participate if one has already been a part of a consortium and done a good job earlier. Then the researchers are often invited again. The adviser also tells that this could prevent researchers that has not been a part of EU projects earlier from participating, because you must show clearly that you are good at what you do, and that you can deliver what you promise. Other researchers can be sceptical to include unknown people in a consortium. However, the adviser also tells that many applies, but do not receive funding. There are always statistically greater chances of not receiving funding. Thus, a researcher may still consider that it is difficult to receive funding, even though it should be easier to apply because of the experience obtained from the application process. Still, it is important to emphasize that it is possible to both increase its knowledge about the FPs and its application process, and to access network from being in the application process itself. This can lead to an increased chance for success later.

The adviser tells:

"*We had a researcher for about a year ago that took the role as coordinator for the first time with international partners. It was very much work with the application. The application got a very good grade, but not funding. I told the researcher that we should not interpret this as negative, but that it could open opportunities for new things, and a half year later, an international partner contacted the researcher, and they wrote a new application for another programme. Now they got funding with a project like the one that they had applied with earlier. This was in another programme, but it shows that if you work through your idea well, you can use your application many places (0119).*"

A researcher tells that it is useful to know how it works, whom to talk to, where to apply for releasing time from the clinic, how to include collaborates, and practical things regarding the EU portal. It also helps to know that this is something that is possible, and he emphasise that we should increase the awareness of that it is possible to have success in the FPs, and show that it is possible to pass through the threshold (9451).

Something similar is also mentioned by a researcher with success in several projects within the EU FPs. The researcher tells that if you have a positive experience from a project, and if you have a consortium that you can work well with, it is certainly more tempting to participate again. It has also been an important experience to learn to know the application process, and to be aware of improvements for eventually new projects (2568). Another researcher with success in the programmes several times, sees the pros of applying for the EU FPs as bigger than the cons. Still, he says that there are quite a few cons, and that it is essential to learn to have routines on reporting and writing the application. From there, it is easier (2981). Another researcher seems to agree that it helps to know the process, but thinks it is essential to have a network that also fit the project. He also says that there is no default in getting new projects, and that you must be passionate and deliver each time you apply (2018).

Another researcher believes positive experiences from earlier EU projects will surely increase the interest for new EU projects for him:

"*I have very positive experiences, it has been really good. When we receive a project like this, we can do a proper research project that could solve societal challenges. You acquire scientific muscles since you have a big consortium with many partners that works with the same things…. you can do a proper piece of work. societal challenge. In small projects, you contribute only marginally. Further, I can add that when you first get a grant from the EU, it opens a whole lot of new possibilities. You open* *many new doors and you are invited into a whole lot of other things. This do not happen in national projects. You have more than enough money, but way too little time and people. So we have to hire new people, and this stimulates to further research activity both here and other places. We have also delivered other applications that we have established a connection to the EU project, and this is very positive. It releases other funding when you first have gotten the grant, and this is very good (6719).*"

Still, a researcher stress that it is important to consider the type of experience a researcher have from earlier applications and projects. She says "I have colleagues that says never more..and I say…I will participate, but not for every price (0061)."

Funding

Attractiveness of EU funding

When asked how attractive the financing for EU projects appear to the informants, they give the impression that the financing is attractive and good, but that it is very small chances to receive a grant, as the competition is very high.

A researcher that has participated in several EU projects explains:

"*It is much more attractive to receive funding from the EU, but much more difficult and especially in the H2020. The grant approval is given for about 2 percent. It is higher demands related to quality when submitting for EU projects and the projects is often bigger and more complex (9015).*"

However, one of the researchers points out that it is easier to increase other funding when you first have obtained EU funding. If you get some, you have an increased opportunity to receive more from other sources. This is partly because the status of the EU projects make it easier to apply for satellite projects that is attached up towards the EU project itself. She also mentions that it is easier to achieve further success in national and regional applications that are connected to the EU project (9865). This is confirmed by another researcher that tells that there exists a better possibility of obtaining funding from the RCN, if you show that you can get EU funding (9983).

Another researcher says that the positive aspect of EU funding is that the financing from the EU is very precise when it comes to the amount the researchers are applying for. He considers this as an advantage over national funding. He also thinks that he gets more for the hard work in the EU programmes rather than for example the programmes from the RCN (6719). Still, it is pointed out by another researcher that although the EU gives a lot more funding than the RCN, it depends on what type of application it is. She also mentions that it is not necessarily easier to receive funding from national resources than the EU, although maybe regional projects may seem easier. Regional financing is the most attractive source for her, since it is easier to get funding, although the financing is limited compared to RCN and EU (5177). Another researcher says that the funding from the RCN often is of a fixed rate, and it may be more attractive to go for EU funding if the expenses related to the project is higher then what you can get from the RCN (8519).

When asked if it is easier to take part in national projects rather than EU projects, the informants seem to agree that national programmes are often easier to participate in, and to receive funding from.

One of the advisers tells:

"*Yes, it looks like it is easier for researchers to participate in national projects. Still it varies from researcher to researcher. Some is very international, while some only do national projects. Some does both (1598).*"

This is confirmed by another adviser, which tells that to actually manage to get the funding, the success rate is much lower in the EU FPs than in the national programmes. The restrictions from the Commission about the number of European partners needed, and all the administrative work related to the FPs, makes the EU projects much more difficult than national projects (1456). Still, it is also stressed that it is like this in general. There are also complicated projects with complicated procedures in Norway as well. The elite programmes in Norway can also be very difficult (7334).

One of the reasons for that it is easier to get national funding, can be explained by that many researchers already know the systems and application procedures for the national projects. This makes it easier for them to approach national systems rather than the EU. It is also mentioned by the same adviser that the level is higher in the EU, and that it can be easier to be a big fish in a little pond in Norway, but when you take it to a EU level, you compete in a higher division (8104).

However, it is pointed out that although if a project receives very good funding from the EU FPs, the funding must be split between the partners. Thus, the contribution to each of the partners do not necessarily compete with what a single partner could have received in national projects (8678).

Another researcher says that it is very difficult to get something from Norway in his field, because there do not exist any good programmes for the clinical studies he is involved in. There exist some possibilities, but it applies to indirect science that does not have a practical perspective, and where you get personal funding. Thus, the EU projects seems more attractive to apply for funding in the EU programmes rather than in the national programmes for him (1142).

One of the advisers tells that he is of the impression that sometimes the researchers have very good access to national funding, and that this can work negatively for making them apply for EU funding. Still, he says that he wants to say this with big uncertainty (1871). It is pointed out by a researcher that the probability for receiving funding form the RCN is difficult, but that the process for applying for EU projects, are bigger, and that she understands if people worries about applying for the EU programmes (9714).

Incentives

There seems to be an agreement between the advisers and researchers when evaluating the PES, and they see the financing as beneficial for stimulating participation. It is also attractive that the researchers can access administrative support from advisers, and the possibility of getting a PhD fellowship for the project is something that is attractive as well. The PhD fellowship is particularly useful for administrating the project. Still, it is stressed by one of the researchers that this alone is not a reason for using a lot of time on applying for EU projects. It is more like a bonus that makes the process easier. Still, he also tells that the low chances of success at 2 % makes these incentives easily wasted (6150). One of the researchers from the UIO mentions that the EU funding also release funding nationally. This funding goes directly to the university, and further on to the faculty and the institute. However, the researcher does not necessarily receive anything from this funding. Still, she sees it as motivating to contribute to the institute’s economy, and that you get some prestige by obtaining it (9465). A researcher from NTNU points out that she sees the incentives from the NTNU as very attractive since the project can get 25% percent extra if they participate as a coordinator, and as a partner 15%, and that this is relatively free disposable assets. She also evaluates the possibility of obtaining a PhD fellowship, or a postdoctoral position as very valuable. This is very motivating because she then can use the free disposable assets for other things like new ideas that can generate a new project in the next round. She comments that she is not sure that everyone knows much about all these incentives, since she values them as very attractive. The researcher has participated in EU projects before, and comments that the system seems to be made for those that are successful since it is possible to get additional benefits if they are successful in the EU FPs. It is also emphasised that there exist arrangements to support those that are new for applying for the EU FPs, and it is necessary to invest in training for scientist that wants to have success in the programmes (2001). The possibility of obtaining 25 percent as a coordinator, and percent as a partner, is something another researcher also values as very good. He thinks that the incentives from NTNU makes it more motivating to apply for the EU programmes (7117).

An adviser at the UIO evaluates the incentives as something that can work as a benefit that plays a role whether the researchers choose to participate or not, and evaluates them as good and useful (4819).

It is pointed out by a researcher that the PES funding provides the opportunity to buy oneself free from other duties to write the application. This is perceived as positive, since he can reuse the application in other circumstances, even if he should not be successful in the project he applies. He sees it as a win-win situation for a researcher (8711).

Probability for obtaining funding

When asked about how the informants consider the probability of receiving a grant, they seem to agree that it in general, there is a very low probability of receiving a grant, and some of them points to the statistics that affirms the low success rate. Several of the informants also emphasise that the probability is dependent on the theme of the call, if it is broad or narrow, and if it suits the researchers field of subject and competency. If the call is broad, it will probably attract many applicants and the possibility of receiving a grant will be lower. If it is a narrow call, and it suits the researchers field of subject and competency, the probability will often be higher, since there will often be fewer applicants. However, some researchers tells that this also have coherence with the researcher’s field.

A researcher explains:

“*In the clinical projects it relatively difficult. It is my impression that some programmes are easier to receive grants from, and in the projects where there is a high competition, there is usually a very low chance of receiving a grant. The competition has a lot to say and especially in the basal research and the clinical research, while maybe in biology research* *and other projects I believe it can be easier to receive funding. I believe that many choose to not seek EU projects if the threshold is very narrow, and get demotivated to apply (0851).*"

Another researcher considers the economic situation in Europe after the financial crisis in 2008 as an important aspect when evaluating the probability of receiving funding. He tells that there are probably more researchers that wants to obtain funding from the EU at this time than before (5611). This is confirmed by an adviser that tells that the financial crisis has led to more applications than before, and that this makes the probability lower for obtaining EU funding. They have noticed an increase in applications. This is because of the financial crisis that has given consequences for many countries, and they do not have the ability to provide as much funding to research as before (6719).

It is stressed by one of the researchers that it is very important to go all in on a project if he should have a real possibility for EU funding. It is difficult to have success and write an application that is of high enough quality without the determination to do a proper job at it. He also points out that the competition is very strong, and that it is only a very few that have success obtaining funding (6120). Another researcher with former success in the programmes, points out that you probably have to apply a few times before you are successful, and that the amount often matters (9314).

It is pointed out by an adviser that some researchers get a top grade at their applications, but still does not receive funding. This does not mean that it is a bad idea, and tells that in some cases the idea is used in national funding systems, and obtain success. It is not always that the idea is not good enough, but that there were ideas with more importance at that time for the Commission (0915).

Another researcher believes she must be better funded herself if it should become more interesting to apply towards the EU. She thinks that Norway puts too much funding into the EU projects compared to how much funding is invested in the researchers that are expected to pull the funding back to Norway. She thinks it is difficult to find the time and resources to do a EU project in an already busy schedule, and that she must be provided more resources if she should even think of doing a EU project. The probability for success is to low, and she does not think that it is worth trying for the thematic calls within the EU (1199).

Other Obstacles

Fear

A fear of a big bureaucratic and complicated process, is a factor that several researchers point out as a reason for why researchers do not approach the EU FPs. Although the H2020 has been simplified in comparison with the earlier FPs, many still fear the large and time-consuming process of seeking EU funding. It is also mentioned that people are afraid of not getting enough support if they actually receive funding.

It is stressed by an adviser that they try to tell the researchers that things are easier than before, and that the negative experiences people have had from earlier programmes are not as relevant anymore. However, the adviser believes there must come a great deal of examples where researchers that have had positive experiences comes out and tells about it. He also tells that he thinks that there may come a generational shift, where there are fewer persons with negative experiences involved. However, a cultural change takes time (9116).

A researcher describes:

"*This is the first time I have participated in a EU project, but I have heard that there is much bureaucracy with reporting and administration, and that you have to use your time on things that a researcher is not as interested in. As a researcher, you want to do research, not administration. But as I see it, it is manageable. The support team have been good both at the institute and the faculty, and NTNU has been good at providing supportive functions for the projects. A rumour has been spread that there is very much job to be done to get the EU projects…and of course..there is much job, b researchers, and what we have heard before…i completely manageable. I believe many are scared of the FPs, and sees it as a big bureaucracy and that it is totally impossibl (0713).*"

Another researcher also tells that an important reason for not participating in the FPs, is the fear of that the project can end up as something very complicated where they have too little time, and many partners involved that they must administrate. The process can become difficult to follow, and she tells of an experience where they had to back out of a project because it had become too complex (8017).

Culture

Two of the researchers tells about that it can be difficult to work with researchers from other cultures, and that this can complicate the working process. One of them tells about an experience where the working partners in a project had very different working methods when it comes to several parts of the working process. This includes administration, information and communication, reporting, and rules for purchases and the economy for the project. She also stresses that the working process has been unnecessary complicated, and that her experience may lead to her not doing a bi-lateral project again. Still, she is not completely negative to apply for other types of projects (4010). The other researcher says it can be hard to work with people from other cultures, and not at least because of the distance to your international partners. Communicative challenges can lead to misunderstandings, and she points out that it can be particularly difficult to work with researchers from Eastern Europe, since they do not always have a good English proficiency. However, she points out that it is important that Eastern European researchers attend the programmes as well, because of the societal benefits for Eastern Europe (0812).

Another researcher with a high success rate in the EU programmes, points at the Norwegian research culture itself, is an important reason for why Norwegian health researchers do not participate in the EU FPs. He says that many people do research in Norway, but not at a European level. He believes Norway is not good enough to stimulate and to support top level researchers. It is stressed that you must have long term experience to reach the level that is necessary to compete in the EU programmes. He thinks that Norway must be more selective when considering what to finance within research, if the country should be able to have a higher success rate in the top research programmes. Norway does not have the culture to prioritise the top talents and top researchers necessarily as much as other nations. He sees it as very important to be strategic in what to finance if Norway should generate the best researchers that can reach a high international level. Mass funding is not seen as positive at all, and he believes long term outcomes should be of more importance politically (3111). An adviser says that one of the reasons why the researchers do not obtain success in the FPs, is that they are not experienced enough, and that this can be important related to the high competition (8619).

Network

Several of the researchers points out the importance of having a good network for having the possibility to participate in the EU FPs. This is because it is often a prerequisite from the EU to have many partners in a project.

A researcher believes this is more complicated for health researchers since the scientific environment is smaller, and more individual persons that do the research. He also points out that tradition is of importance, and that the Gløshaugen environment at NTNU has a long tradition for applying for EU funding, but this is not as usual in the field of health research (1323).

A researcher tells that it is easier to approach a EU project when the network already has been established, and that it is important to access a consortium. When she wants to apply, it is easy for her to already establish a consortium. A strong consortium that already has the experience of how to be successful can be important to carry through an EU project. It is possible to have success even though a researcher has not participated before, but it helps to have the network and people within it that knows how to get EU funding. It is also good to be educated by someone that has the experience and have obtained funding earlier (8610).

Another researcher says that she does not have the time to establish a proper network as her day is full of other duties. It is difficult to find the time and resources for establishing herself as an attractive partner for potential partners She is only a part of a small group, and believes it is important to invest in the Norwegian research environments, so that they are capable of obtaining EU funding (4542).

The experience also often determines if you have a good network or not, and one researcher says it is important to have long term collaborations if you shall be successful in the H2020. It is necessary to have international contacts, and researchers that only have done national projects, does often not have the international network. It is also important to have a network that makes it possible to do a project that fits with the calls from the EU (2072).

The programmes relevance for the researcher

When asked about the calls relevance for the researchers' competence, they say that it is important that the calls must have a good fit if it should be interesting to apply. An adviser tells that there is something for everybody in the H2020, but it is important to choose the right approach. Many of the calls are of an open type, and they demand different types of competency to solve the problems. Thus, it is difficult to approach the calls with a very fixed idea, because this can make it difficult to find something that fits. It is important to approach the calls with and open mind, where the researcher's competence can be used as something that can be a part of the call. He is of the experience of that this can often lead to find something that fits. Still, he tells that there is a difference between the ERC projects and the collaborative ones. In the ERC projects, the researchers choose what they want to do research about. The collaborative projects demand that you approach a specific problem (9741).

A researcher says that ERC is of a much higher relevance to her, as the programmes can offer her to do research on what she usually uses her time for. The ERC offers basic research, and this is more attractive than the translated research that the thematic calls expect. The thematic calls also demand specific objectives that she usually does not work on (5205).

Another adviser tells that the relevance of the EU programmes, seen in the relation to the researcher's daily research area, is one of the most important factors for researchers to not apply for the EU research programmes (3054). It is also stressed by a researcher that there are different opportunities within the EU FPs. Hence, it is important to use time to educate oneself about the different opportunities within the FPs. Further, it is of importance to see this in the light of the project ideas the researcher has, and to be realistic about it. The project idea must correspond to the call from the EU. Sometimes the calls given by the EU is very broad, and this makes it difficult because only a few projects receive funding within the call, and this can make national funding more interesting if the call seems to be a better match. Other times the EU can have calls that match better to the researcher's ideas and competences rather than the national calls (8555).

Use of resources to support the researchers

The researchers at NTNU is in general quite satisfied with the administrative support team from the university. It is important that the support is of a good quality and can contribute to make the application better (9124). A researcher points out that the supporting resources from the NTNU, is formidable in his institute and faculty in comparison to earlier years. Another researcher points out this as well, and tells there has been no problem to obtain information about the EU FPs in the last years. She considers that the support and incentives that the NTNU gives are good. He emphasises that it is a learning process for the organisation as well, and that it is important to use the projects that they got now, to develop the systems further. She points out that this is quite new for the institute and the faculty to relate to, and that many people must use time to understand the FPs. Thus, she sees the support system with experienced advisers as very important (5201). It is expressed by another researcher that it is crucial to attract key personnel with experience and competence, and that these positions must be of a high quality. This can make it easier to obtain funding and to concentrate on the application. Still, the researcher is of the impression that they get good support in the application process, but that the support is not as good when the funding has been obtained, and the project shall be carried through. Still, he thinks that this is something new for the

Faculty of Medicine, and that they have not gained much experience in supporting projects that obtain funding (8451).

This is also mentioned by one of the advisers that says that they have done a lot of work in the last years, and that she thinks they are on the right way (5329). A researcher emphasise that experienced EU advisers is crucial for success, and that special competency is needed. He gives the impression of that there should be more resources set aside to acquire this competence (0423).

A researcher from the UIO reviews the effort for establishing more support as something “too much”, and he implies that they almost try harder than necessary. He does not seem to be satisfied with the quality itself, and considers the support apparatus as a little perplex (3023). Another researcher from the UIO also mentions that she has noticed the increased initiatives to lead the researchers towards the EU FPs, and that they try to inform the as researchers as well as they can. She reviews the support as not always well-directed, and that they are more eager to get funding than to actually see if they have to possibility to receive the funding (9430).

Another UIO researcher considers rates the use of resources as very bad, and thinks the administration is working for its own and not the researchers. He is not happy with that it is not easy to administrate something fast, and that he needs something fast and reliable. He mentions that the support team does not have the EU experience that is necessary, and says that quality is preferred over quantity when it comes to the administrative support for the EU projects. He thinks personal assistance with high competence is preferred, and that this can help a lot regarding time used (he mentions as much as 2/3). He has an assistant that helps and he thinks this works good since she does her job very good (5295).

More specific reasons why health researchers may not seek participation in the H2020

One important reason for why in particular health researchers choose to not participate in the FPs, is because they have a busy schedule with many responsibilities that is hard to combine with a EU application. A researcher says that it is not often organised for this sort of activity within the clinic, and that it is difficult to use three months to write an application. Although it is possible to get funding to buy oneself free from the duties, it is not easy to arrange this at the clinic. He believes there is little acceptance for using three months to write an application (9342). Some of the same reasons is pointed out by another researcher that tells that many researchers have two jobs where they for example have its main occupation the hospital, but that they do some research in addition. Thus, a EU project may appear as something that is way too demanding for them to carry through. The small research positions they have in their job, make it difficult to take on a big EU research project (4591).

Two advisers confirm this as an important reason for the health researchers to abstain from the FPs. One of them tells:

"*They have a lot of other things to do. Some have teaching that they must do, and many are clinicians and have patients. Their schedule is often quite full (4392).*"

Another adviser tells:

"*The researchers are very busy, and this may be a reason for them to not participate. A lot of people have a university position and on top of that a clinical position. Some clinicians and teachers must get other people to fill their role since they have obligations. If they find a call that fits them, they have difficulties finding the time, because the call comes out one and a half year in advance, and they have to administer someone to take their positions academically and clinically (5293).*"

This is also confirmed by a researcher that says she has very much to do in her position, and that the work load, resources and network that a EU application demands, makes it very difficult to do EU research. She is way too busy doing teaching and following up her research group, and that she does not have more to give. The EU applications are the last she thinks of, and in particular the thematic calls as the probability for obtaining funding is very low, and thus is considered as wasted time (5209).

Further, the adviser points out that even if the incentives that are available gives them the opportunity to buy themselves free, it is still hard to get someone to fill their duties. She is of the impression that when she works with researchers in another field, it seems easier for them to fill their positions when they want to apply for a EU project, than for the researchers within the Faculty of Medicine (5459).

Another explanation that may be university relevant, is that university researchers do not have enough resources, in addition to having very little time for doing EU research. One of the researchers mention that a researcher she knows works in a hospital, and have access to more funding and a big patient material. Thus, it has been easier for the hospital researcher to position herself towards the EU, as she has had access to the necessary resources for building herself up to become an attractive partner. The researcher says that it may be easier to obtain funding for doing EU applications at the health authorities, than at the universities (2593).

One of the researchers think this may be because the projects in the H2020 should be towards innovation and result in business activity, and that there is a stronger tradition for this within other subjects than in health research at the NTNU. He also explains that one of the reasons can be that there exist other funding sources for health science, and that it has not been necessary to reach for the EU funding (7523).

One researcher explains that there is much competition within health science in Europe, and that Norway is better in other areas like bioenergy, and that it is not necessarily as much of this in other countries. He tells that: “Health research is everywhere and this leads to much competition (9354).” Two other scientists agree when asked if this can be a reason for why especially health researchers choose to not participate in the EU FPs (3924 and 4592). One of the researchers points out that there is extreme competition in some fields, and that many may lose the motivation when they consider the chance of being successful (9452). This could be for certain types of health sciences, like medicine and lab, and a researcher within public health believes that there is not as much competition within her area.

5.4 Suggestions for Improvement

To improve the programme, it is recommended by an adviser to use the feedback systems that exists, and that it is important to provide feedback and opinions when the programmes are established (2593). A researcher suggests to provide incentives for inviting guest researchers where they can discuss a potential application. This could lower the threshold for attracting international partners (4529). Another researcher proposes a carrot for those that achieve a high score in the application although they do not receive funding. This could stimulate the motivation, and the researchers would not necessarily calculate that they should rather have used their time for other tasks, like publishing articles (6340). It is also suggested by a researcher that it could be positive to stimulate better contact between researchers that has been through the process, and newcomers. The researcher is also of the opinion that it could be beneficial to tell more to researchers of the administrative support that is available (2693). Another researcher recommends that it could be positive to tell about the success stories to researchers, and show the benefits of obtaining a project (5692). Further, several researchers stress that it is important to keep up the work with the incentives and support mechanisms, and provide more resources, if the attendance should be improved (6034, 5682 and 9823). One researcher wishes to have the availability to specify what is needed of resources if the project actually is funded It is also suggested that the programmes could have had more money provided in the calls of high attendance, and less for the programmes with little attendance, to even out the probability for each call (9523). Another researcher wishes for long term personal programmes, and long term funding for young researchers, and believes there are many young researchers with potential for success if they get the necessary resources (9452). It is emphasised by a researcher that the Norwegian funding to the H2020, must be balanced with the funding here at home. This is important to empower Norwegian researchers to take part in the programme. She thinks if this is not prioritised, may researchers will not have the opportunity to build themselves up to participate. Other recommendations by researchers is better internal evaluation of evaluating how much time should be used for an idea because the high level in the EU FPs (8723), and better feedback from the EU that tells what could have been better in an application (0253), so that the researchers can learn more from their applications.

5.5 Summary

The researchers have several motivations for participating in the FPs. They see it as attractive to collaborate with top class researchers in Europe and to use their expertise. The collaboration can lead to a fruitful exchange of ideas and discussions. Other factors that motivates the researchers towards the FPs is the possibility to work interdisciplinary, and to do projects that they could not have done outside the FPs. Further, the FPs are prestigious and can be very good to have at the CV. Some researchers also pointed at the attractiveness of solving societal challenges.

The application process is seen as something comprehensive and complicated, and is probably the most important factor for abstaining from the FPs. It seems like the EU adviser has a crucial role for having success with the application, and it is important to set off enough time. Even though the application process in the H2020 is simplified, the researchers still have to use many work hours for administering the application. This includes time for communicating with the partners. Still, the time that researchers must use for the application varies between the different programmes within the FPs. Budgeting is also a comprehensive task, and the high cost level in Norway makes it important to think strategically in the process. Cultural differences and bureaucratic methods is also additional factors that makes the application process unattractive. The researchers must calculate if it is worth writing the application, where they consider time and work used against the probability of receiving funding. Still, there can be positive experiences from the application process, and some researchers mentions that there is a lot to learn, and that the application, or at least parts of it, can be reused in other programmes. The researchers also saw it as positive to expand their network in the application process, even though they did not necessarily obtain funding. Benefits may come later if they have produced a good application, even though funding has not been granted. Still, an adviser told that many researchers considers a rejection of the application as wasted time, and stress that circulation of the application in different programmes can be beneficial. Some researchers have understood how this works. Even though the application process is generally perceived as very demanding and comprehensive in the H2020, it is much easier than in earlier FPs. The investment in administrative support has made it even more manageable. There seems to be an exaggerated fear for the application process, and it is seen as important to educate researchers for the process, and to communicate positive experiences between researchers to change this. A cultural change will probably be positive for increasing attendance. It is also important to note that the high Norwegian cost level, and in particular wages, makes it important to plan tactically for making a cost-effective application.

To actually receive funding, demands a very good application based on a good idea. It is also important to focus on the societal impact to have success in the H2020, as the programme seeks to increase production and output in Europe by stimulating business life. The researchers must act more like a seller than a scientist in the H2020, and it seems like this could be unusual for researchers. However, this seems to be most important in the thematic calls. Further, it is important to deliver what the call asks for to receive funding, and to have a good network with good potential partners.

Former experience from the FPs seems to provide a better chance of success in the programme, and it makes the application process easier. A researcher that has participated before, has had the chance to show its abilities and competencies, and this can make it easier to be included in new projects. Earlier participation can open new possibilities, and positive experiences can make it more tempting to try again. Still, negative experiences can make it less interesting to participate again.

The researchers see the EU funding as very attractive, although there are small chances of obtaining it. The funding is also very precise. Further, when researchers actually obtain funding, the chances for getting funding from other sources increases as a result of the status from the EU FPs. Still, it could also be difficult to obtain national funding, although regional funding is seen by some researchers as probably the easiest. Further, when comparing the EU FPs with the national programmes, the national programmes seem to be easier to participate in, and to obtain funding from. Still, this depends on how international the researcher tends to be. The experience the researcher has from international or national programmes, often predicts the researchers' success within them. However, the success rate in national programmes seem to be much higher in national programmes as an overall. This can partly be explained by that much more researchers may have more experience in the national programmes, and therefore also choose to approach this type of program rather than the EU FPs. The EU FPs has mentioned a much higher administrative burden. National funding seems easier accessible for researchers as a whole, and this may compete with the researchers' interest towards the EU FPs.

The PES funding is considered to be a beneficial incentive, in addition to the administrative support from advisers and the possibility to involve a PhD fellowship. Especially the chance of buying oneself free from regular duties is positive for researchers. The universities seem to differ when it comes to providing incentives, where UIO use the national funding that is released when obtaining EU funding at the faculty and institutes, while NTNU seems to support the researchers more directly, and the researchers have more control over the extra funding themselves. This enables the NTNU researchers to use the additional funding for different things that can stimulate for new projects. Still, it is not certain that every researcher knows about this opportunity at the NTNU. The incentives are in overall considered beneficial, but the informants seem to disagree whether how important they are for applying.

The use of resources to support the researchers, is a topic where the NTNU and the UIO seem to differ. The researchers at NTNU seems satisfied with the administrative support and this has become much better than before, and it is told that it is important to see this as a learning process for the organisation as well. It is very important that the advisers are experienced and has high quality. Further, there may be some concerns whether the researchers have enough support if they actually obtain funding from the EU.

The UIO researchers is more unsatisfied with the support, and sees it as not always well-directed. It is told that the support team seem more interested in obtaining funding than to evaluate if the project is good enough for funding. It is also mentioned that the support functions are working for its own, and it is also seen as "too much".

The informants perceive the probability of obtaining funding as very low. The financial crisis from 2008 must also been taken into consideration. More researchers in Europe have their attention towards the H2020 than they have had in former FPs, because there is less money for national funding at home.

Fear seems to be an important factor for researchers to not participate in the H2020. A time consuming bureaucratic process, ending up with a far too complex project, and the fear of not getting enough support in the process is important deterrents. This fear seems exaggerated, and it is told that participation is not necessarily as demanding as many researchers think because of a simpler application process, and more incentives given for administrative support.

A difference in culture may also be a factor that makes it less attractive to seek the H2020 FP, as different ways of working and communication issues can make the process more complicated. It is also pointed out by a researcher that the Norwegian research culture itself can be an obstacle for having success within the FP's, since the country does not have a culture for stimulating the top scientists. Long-term experience is often important for achieving a high enough level to have success within the FPs. This relates to building a good network to collaborate with, as the EU often requires this in some of the programmes. Further, a researcher thinks that mass funding is not good to stimulate more participation, and it could be positive to stimulate the best talents to a higher degree.

The programme calls must also fit to the researchers' field of area and competence. Some calls also need a variety of competence to solve it, and a good network with diverse competence may be of importance. In addition, if the call is broad, there is a lower chance for success since there will probably be more applicants. However, this varies between the thematic parts of the H2020, and those that are not.

There also seem to exist more specific reasons for why health researchers do not participate. One of them is that they have a busy schedule with several responsibilities that makes it difficult to find the time and arrangements to participate. Another reason may be that there is not the same culture for doing EU research as in other fields of subject. Other potential reasons may be good opportunities for national funding that competes with EU funding, and a general high competition within health research in Europe.

6 Discussion

This section aims at discussing the most important findings from the former sections, and I will discuss the findings together with the theoretical and conceptual framework used for the thesis to see how they correspond. The section will also present a comparison of the universities, and a discussion of the results seen in the light of former research.

Health policy has become more important in the EU to solve societal challenges in Europe, and this influence several political sectors within the EU. This is done by the Health in All Policies approach, where the EU try to implement policies to achieve better health in the European population in all political sectors that are relevant for achieving this target. Still, health topics are a part of national governments' responsibility, and the member states tend to defend their sovereignty within health politics. However, the Single Market has made it necessary to harmonise national laws to meet its demands from the four fundamental freedoms, and this affects Norway as well. Norway is connected to the EU through the EEA agreement, and the four fundamental freedoms influence Norway too. This has led to 60-100 legislative acts incorporated into the Norwegian law every year, which are connected to the Ministry of Health and Care Services field of responsibility. This shows that Norwegian health policy is affected by the EU, and it also shows that Norwegian law has been Europeanised.

Further, Norwegian research has also been influenced by the EU since the country has been positive to the ERA, and the FPs in its politics. The European norms seem to have influenced a change at the Norwegian level, but this is something that Norway has not resisted. This is an indication that there has been a high degree of "fit" between EU policy and Norwegian interests. There has not been a need for an "adaptational pressure" as mentioned in Risse's three-phase model, although adjustments have been done in the Norwegian research strategy because of the EU FPs. Further, this has led to a cooperation regarding health topics and health research, partly because many health challenges are difficult to solve within the nation itself, since health problems permeates boarders. The influence on Norwegian research policy, has contributed to a Europeanisation of Norwegian health research strategy. Norway has adapted their processes, policies and institutions to new practices, norms, rules and procedures because of initiatives from the EU. Still, the FP is as mentioned voluntary, and this gives Norway the choice to resist participation in the programme, and this is a potential veto point for the country. Norway participates in the H2020 as a full member, and must contribute financially to the programme. Motivating factors for participating for the country, is access to information, results, contacts, network and prestige, and this is regarded as important to not lag behind in the international research environment. Even though there is a potential veto point for the nation by not attending the H2020, the country still wants to participate because of the important benefits of participating. The risk of not participating, makes the outcome a result of the competitiveness in international research environment that exists. This makes sociological institutionalism relevant, and this goes down to the university level as well, since the universities also must stay competitive in their environment, and this demands that they have access to the best information and network that the FPs are claimed to provide. It is also important to participate in the European research environment to achieve a good reputation as a university among peers. They behave in a manner where they do "the right thing" by following the norms and expectations from them. This corresponds with the logic of appropriateness that is central to sociological institutionalism. This is the third step of Risse's three-phase model, and the domestic institutions studied (UIO and NTNU) comply with EU policy, as their strategies clearly are influenced by the EU FPs. Rational choice institutionalism is also relevant for understanding the nation and the university, as they do a cost-benefit analysis where they try to maximise their utility by accessing resources to stay competitive. The political result is that participation is the best choice for the country. Although the universities have complied with the Norwegian policy adaptations towards the EU, it is hard to tell to what degree this is in line with the universities own wishes. The government's strategy document towards H2020 expects that the universities develop their own strategies towards the H2020. This has been done by the universities, and they have adjusted themselves towards the H2020, but it is hard to tell to what degree the universities want to engage in the H2020 themselves. The universities are owned by the state, and are dependent on public funding. This leads to a pressure to following state policy. This can be seen in a sociological institutionalism perspective, where the universities are pressured from the state that they are dependent on, and this is a coercive mechanism that is typical from a sociological institutionalism point of view. It also corresponds with the normative pressures mechanism, with an institutionalisation of specific attitudes and norms. The universities have developed an attitude where participation towards the H2020 is expected because of Norwegian research policy. However, the universities own wish and approval for adaptation towards the EU FPs needs closer studies, as this is beyond the scope of this thesis capability.

As an associated member, Norway cannot influence the FPs at the decision level, and must therefore use an active policy towards the EU to influence the EU's decisions on how to form the programmes. This is done through contacts within member states, the Commission, the Parliament, and especially the programme committees that discuss the formation of the FPs. In this case, Norway influence the EU as well. This is a circular process of Europeanisation where Norway adapts EU policy by downloading, but also influence the policy by uploading. It is of course difficult to say to what extent Norwegian interests are included in the final programmes, and this may also be a study for itself.

The high cost of participating in the H2020 has led to a pressure on the Norwegian research environment for returning money from the EU FPs through agency. This has led to a development of methods for increasing the chances of receiving funding. Material and ideational resources have been provided, as they can lead to an increased participation in the programmes with the hope for success in the FPs. This has been done by providing economic incentives, and to provide resources for specialist competence to aid and inform in the process. The incentives are administered through different levels with key actors as the government, RCN and the universities themselves. This can work as a stimulant for further Europeanisation of health research, where more researchers choose to attend the FPs. This can be seen in a rational choice institutionalism perspective, where it becomes more and more rational for a researcher to participate, since it becomes easier to exploit the opportunities from the FPs because of the incentives. This has been done by providing material and ideational resources, and this may empower actors by providing resources. This also corresponds with rational choice institutionalism, as many of the researchers have seen the incentives as stimulating, and NTNU researchers have found this particularly useful. This makes the work easier, and the possibility for success may become higher when calculating how much time and resources to put in the project. However, the general response from the UIO researchers was lukewarm when evaluating the quality of the ad. The difference in how the universities provide the incentives may be a reason for why NTNU researchers seemed more positive.

The success of the stimulating initiatives depends on the researchers themselves, and the main aim of the thesis has been to find out if Norwegian health research has been a subject for Europeanisation. It has analysed different policy levels, and provided an in-depth study of Norwegian Universities, and the health researchers that work within these institutions. It has been an important aim to find out how the researchers perceive the possibilities that exist within the EU FPs, and why they may choose to not participate in the health research opportunities that EU facilitates. This has been analysed through the concept of

Europeanisation, and by drawing on theories from rational choice institutionalism, sociological institutionalism and the concept of path dependency. It has been important to find out if the EU policy by providing FPs is a good fit for the researchers, as this can tell us something about the adaptational pressure necessary to transform health research at the universities towards the EU. The thesis attempts to analyse what is the main motivations for seeking participation in the programmes, and this is factors that can lead health research towards Europeanisation. It has also been important to find out what reasons the researchers may have to not participate in the research possibilities within the EU's FP, with the H2020 being the current programme. These reasons can be considered to be factors that are obstacles towards Europeanisation. The researchers' experiences, opinions and behaviour have been interpreted through the theories mentioned, to see if they can be seen as rational, and to what extent their environments influence their decisions.

Evidently, there is a clear wish from the government to increase participation and success in obtaining funding, and it has been important to see how this has influenced the researchers. First, the universities strategy plans were analysed together with input from the advisers at the universities. This was to see how they were positioned towards the EU research policy, and how the EU indirectly influenced the universities plans. Both universities have participated in the FPs for many years, and both universities seek to be an "international university", where they want to contribute to improving the world. Both have a clear strategy towards the H2020, and this signals that there is a good "fit" between the universities and EU research policy. The UIO wants to increase the attendance through agency, by a pressure from the management with the intention of stimulating activity towards the H2020, and faculty leaders should thus prioritise the most relevant EU researchers and environments. The H2020 should be promoted as a clear and desired funding opportunity for the researchers. The EU FPs have always been important for the UIO, but the interest has increased, and the management clearly expects more from the researchers. Still, participation seems to be voluntary, and researchers are free to choose which programmes they want to apply for themselves. This is an important veto point in the institutional structure that leads to an agency where soft tools are used to motivate the researchers by giving information, providing incentives, and telling about the benefits. The use of material and ideational resources may influence the choice the researchers take, and this can be interpreted from a sociological institutionalism point of view, where the social, cultural and institutional environment influences their choices by a normative pressure. It leads to expectations towards more activity from the researchers towards the EU.

This is done partly because of the reason that the university sees this as important for creating opportunities for the researchers own success both nationally and internationally. The potential network they can obtain is of particular importance. The university acts rational in this manner, as it wants good and resourceful researchers that opens opportunities. It is also a sign of good performance for the university. The UIO use agency, and has hired advisers and invested much money to support the researchers towards the H2020. Further, the university is assumed to have good environments with a good chance for obtaining funding from the EU. Still, the UIO wants more funding from health researchers and wish that more of the researchers should seek participation within the H2020. Still, although the pressure has increased from the management, it is not mandatory. The indirect pressure for researchers to attend the H2020, comes from the RCN, and the government as well. In other words, the researchers seem to operate in an environment where there are strong expectations for participating in the H2020, and this is clearly a sociological institutionalism view of why integration happens.

A similar pattern follows at the NTNU, and for the same reasons like building strong research communities with a variety of competences, and for providing access to networks. The main research strategy has not changed because of the H2020, but the methods in how they support the researchers is in a process of change. NTNU seems to have better incentives for a researcher, since it is more direct for the researchers that obtain funding. NTNU has clear plans for receiving funding from the H2020, but the researchers interviewed only notice the expectations from the NTNU and the RCN, but does not see it as a pressure. A little like the UIO, it is like a strong request, and it corresponds with a sociological institutionalism perspective.

In the light of this, the researchers' actions must be interpreted by the environment they operate. The expectations on attendance comes from the government, all down to the faculties and institutes, where the leaders are expected to motivate its researchers towards the H2020. However, they cannot make the FPs mandatory for the researchers. Thus, it is up to the researchers themselves if they should seek participation or not. This is an important veto point in the institutional structure, and the researchers' choices are important for the integration to happen or not. The coercive mechanism can influence the researchers' opinions as they can be pressured from other organisations that they are dependent on. This is important as researchers often must obtain external funding to do research. Cultural expectations can also be established to a higher degree at the universities, as the interest of the FPs seems to be increasing from the political sphere. The normative pressure mechanism can further lead to more expectations from the researchers, and this may influence the universities attitudes and norms where EU projects are something that the universities researchers are pressured to do more than now. This is also interesting in a rational choice institutionalism perspective, as the veto point demands that formal institutions provide incentives so that the researchers take advantage of the FPs. This has been done as the incentives provided are increasing for the university researchers. The environment may provide benefits or disadvantages that lead them towards a rational choice, where they do a cost-benefit analysis with the intention of maximising their utility. This may be to pursue their own goals within this environment that is influenced by many levels from the EU and down to the universities. However, it is their choice that determines if the integration should happen or not, and this makes the rational choice institutionalism most relevant, although they may be influenced by sociological perspectives. Still, they do not have to follow the sociological arguments, and this makes their motivations very important to determine if they want to integrate towards the EU's FPs or not.

Several factors attract the health researchers at both universities towards the FPs. The most important reasons mentioned by the researchers are: the chance to cooperate with the best researchers in Europe and draw upon these researchers' expertise, a beneficial exchange of ideas, a possibility to work interdisciplinary, doing projects that are difficult to launch within national frameworks, prestige, and a possibility to contributing to solve societal issues that are taken to a European level. The funding from the EU is also seen as very attractive. This may be important goals for a researcher, and it would be rational for a researcher to integrate if this is important factors for reaching their goals.

One of the most important reasons for not participating is the application process for the H2020 as this is very comprehensive and cumbersome. The demanding and time consuming application process, makes it rational to not participate if the chances of success is small, which it is in most of the H2020 programmes. The financial crisis in Europe has contributed even more to this, as more researchers from the different member states and associated countries look for international opportunities as the national opportunities have narrowed. The researcher can end up with having spent much time for the project, but with no benefits received. However, whether the time is considered as wasted for a rejected application differs between the researchers, as some do not see the effort as wasted. It is important to consider the researcher's perspective towards other potential benefits from the application, when analysing how they calculate their choices. This is because some see it as beneficial to learn from the process, a possibility to reuse the application and a possibility to expand their network. This may lead to further invitations if they have obtained a good reputation from the process. This can make success easier at a later stage. The consideration of participating or not can be seen in a rational choice institutionalism perspective, as the researchers evaluate if this is something that will lead them towards their goals or not. Still, not everyone sees the positive factors from just trying to apply towards the EU programmes, and this can make their decision biased. Further, the importance of establishing a good network to makes the environment that the researchers operate within important, and this is in line with sociological institutionalism, as the norms of achieving a good network with relevant partners is often mandatory to even apply for funding from the H2020. Integration towards EU research demands to operate successfully within its environment by meeting its demands. It is also important to emphasise that the application process is an important veto point, as many researchers do not have the time, network or other resources necessary to participate and have success within the FPs. This is a misfit between the EU and the researchers, and agency must occur to translate the misfit if domestic adaptation should happen. Examples for this may be to provide bigger chances for success, more incentives, or to provide benefits to those who apply, but does not receive a grant.

Further, the researchers' earlier experience is also important to consider when analysing how they perceive the FPs. This includes their competence for applying, where former experience can make it easier to participate and be successful. Earlier experience can also make the application process easier and less time consuming, as this is a learning process. It is also important to consider if they have positive or negative experiences with the programme before. Successful researchers see it as rational to try again, as they have good experiences from the programme. Researchers with success from the FPs seem to have very good experiences, and the FPs have provided great benefits for the researcher. Related to this is the good reputation they achieve that can make it easier to receive funding from other resources. In addition, the network they obtain is a very useful resource that can determine further success. Researchers with bad experience from the programmes seem to avoid the H2020. One of the reasons for this, may be that the application process was even more time consuming and bureaucratic in earlier instances. Even this has changed to some extent and the bad experiences leads them towards other opportunities of funding that demands less effort. Thus, earlier decisions and experience can influence the researchers' choices, and these findings correspond to being path dependent. However, this does not necessarily lock them in, but some researchers may find it easier to participate because of the resources and competence they have gained through former participation.

Another reason that seems to be of importance for the researchers when considering their opportunities is the possibility of national funding that competes with the EU funding. A researcher will often calculate what is the best opportunity to achieve their goal, by choosing the easiest route with the highest probability for success. This is in line with the rational choice institutionalism, where they seek to maximize their utility by evaluating the sources that has the highest probability for success. National funding sources, and maybe in particular regional sources of funding, seem to appear as easier choices for the researcher, and especially if they have experience from this type of applications and programmes from before. This corresponds with path dependency as the experience they have from other research programmes, can tell us something of what programme they are most likely to participate in. The overall work involved in the national funding application process, tend to be lower than in the comprehensive application process from the EU FPs. In addition, these resources does not necessarily have the same demands for an international network as in the EU FPs, and may thus be easier accessible to researchers that does not have an international network. Thus, it will be rational to choose national funding sources, as these are more easily accessible and easier to receive than the EU FPs where the competition is very high. However, there will be variations within both EU FPs and national programmes. Researchers with experience from the FPs and a good network may calculate otherwise, since they can see it as more likely to obtain funding, than the ones with little experience and network. Researchers obtain different experiences from the programmes that they apply for, and this can increase their chances within these programmes as they gain experience with them. The network the researchers have may also influence their choices, as some networks are internationally orientated, and some operates mostly within the nations boarders. This corresponds with path dependency as the experience they have from other research programmes, can tell us something of what programme they are most likely to participate in. In addition, it also corresponds to the sociological institutionalism as the actors' choices can be a result of expectations from the environment they usually operate within, and where they have gathered experience and resources. It is therefore important to implement a long-term strategy for researchers towards the EU, so that they can acquire the resources, network and experience from this environment so that they can gain a higher chance of obtaining success within the FPs. However, the national funding situation is also important to consider in a rational choice institutionalism perspective, as this is an important veto point in the institutional structure. If national funding competes with EU funding, there must be a domestic change in the opportunity structures for the researchers if they should increase their attentions towards the EU.

Another reason for not attending the FPs, may be that the thematic call does not fit the researcher's competence. Thus, the researcher will rationally look for other funding opportunities that fits the researcher's field of interest better. The call can also be very broad, and this may attract many applicants and lead the researchers towards funding opportunities that gives better chances since there are fewer participants. Other important contributing factors that makes it unattractive to participate in the FPs are culture and communication issues, where they rather want to work with people from a culture that they easier understand, and the working procedures is more familiar. This seems like a rational choice argument. However, some researchers also see it as beneficial and educational to work with people from other cultures, and researchers evaluate this as positive or negative often based on their own individual experience. Both universities have a clear strategy of more internationalisation, and it is difficult to avoid the influence from new cultures if the researchers should try to meet the universities strategies. Still, the researchers are free to choose who they collaborate with. Agency from Norwegian actors that can influence the FPs at its initiating phase, may work beneficial to match the programmes topics towards the researchers' interests. Thus, the opportunity structure must be changed to increase participation.

A reason for not participating that may not be in line with providing a rational choice is the fear that some researchers have for the H2020. They are afraid of not getting enough support and ending up with an unmanageable project. Some of the researchers interviewed rate this fear as exaggerated, and they are of the impression that it is far from as bad as many researchers think. The support mechanisms have gotten better, but it is not certain if most researchers know very much about these opportunities. Their view may be distorted, and knowledge transfer from researchers that have been through the FPs can help to educate potential applicants. From a sociological institutionalism perspective, it is important to try to change the culture for participation among the health researchers, so that it becomes a part of the norms in the institutions. Some informants were concerned of that many researchers had wrong attitudes towards the programme, since their beliefs was established by wrong information that led to a fear for participation. Many also have bad experience from earlier programmes, and this may lead their attention elsewhere. This corresponds to the concept of path dependency where choices in the past shape the actors' further steps.

There also seems to exist some more specific reasons that may influence particularly the health researcher. This can be interpreted by a sociological institutionalism analysis of the social, cultural and institutional climate they are a part of. The researchers are often very busy, with several roles at different institutions, and it is not easy to get time for a demanding process like a EU project. It can be difficult to make arrangements, and there could be cultural issues, where it is not seen as usual to take the time off for EU projects within the institutions the researchers do their daily work. In this perspective, it would be rational to not participate, and particularly because of the low chance of success. It is also claimed that there may not be the same tradition within health sciences in Norway to do EU research. The specific attitudes and norms that influence their organizations, is of importance to explain why they participate in the EU FPs or not. Some informants have also speculated that the national funding situation also may be an important reason particularly for health researchers. The competition within health research in Europe, also makes it in line with rational choice to look for funding opportunities with higher probability for success, and with less effort.

The incentives provided for the researchers may influence their choice, as this can make it easier to participate, and the incentives has become more attractive in the H2020. This includes the PES funding, and administrative support that has been provided for the H2020. The Commission's aim to make it easier to apply by simplifying the application procedure, may also contribute to the researchers' choice. However, the low chance for success is still crucial for the researchers.

It looks like the UIO and NTNU's health research has been subjects of Europeanisation, as there exist clear strategies to direct more of the research towards the EU, and to increase attendance in the EU FPs. EU research policy and the national level have a good fit as the government has been positive to the EU research policy. The universities studied have also expressed a wish for more internationalisation, with preferences towards the EU. It could of course be questioned if their strategy plan is a result of policy from a higher level. However, the universities are dependent on the researchers' interests to exploit the opportunities in the H2020. This can be an important constrain because of the deterrents mentioned, and this can enable the researchers to limit the Europeanisation, as they can have other interests that suits them better. To increase integration, the public institutions can provide different frameworks for the researchers, so that they perceive the EU programmes more attractive compared to other possibilities they may have, and in this case agency may be of importance to stimulate for more adaptation. It looks like the researchers do follow a rational choice logic of consequentialism, as they consider their possibilities and constraints in the FPs, and follow their interests. They may also follow a logic of appropriateness, where they act according to the social, cultural and institutional climate. However, they do this voluntarily.

Some of the problems of little participation can be explained by the Norwegian research culture itself, where the country tries to stimulate many researchers, but not stimulating the top researchers good enough. This seems to be a factor that corresponds to the sociological institutionalism, as this can be characteristics of the Norwegian research culture and norms. Science at the European level is at a top level, and it is important to invest in developing researchers, and preferably also from a young age, so that they have the chances to acquire the competence to have success within this type of research level. However, these claims must be researched further and more in depth in another study.

Comparison

The informants from the UIO and NTNU seemed to mostly be concerned with the same topics, and had much of the same experiences. Still, the universities differed in how they rated the support functions, and how they viewed the incentives. The NTNU researchers seemed very pleased by their support functions in general. However, the UIO was of the impression that the support team were very active, but that the activities was not always very well directed. The researchers from the NTNU also seemed more satisfied with the incentives provided from the university, and this could be an important factor for them seeking participation, while the researchers at UIO did not see them as important. An important reason for this is that the researchers see the funding going more directly to themselves, while the UIO researchers only see the indirect benefits, since the additional funds go to the institute.

Correlation to Earlier Research and New Findings

Both the study done by Forskerforbundet (2014) and the Technopolis study from 2012 looked at the application process as a major obstacle for participation. This coincides with the findings in this study. The new information provided by this study, is that the process of writing an application is regarded as something that is becoming easier. This is an impression from the advisers and several researchers interviewed with background experience. This has been an important aim from the Commission, but it is important to point out that although the process is simplified, it is still considered as something comprehensive and demanding. The study from Forskerforbundet (2014) mentioned that there were too little support functions for the researchers, but an important finding from this thesis is that this seems to have changed considerably, and that more is being done to support the researchers. Several of the researchers mentioned that they were satisfied with the support they got both administratively, and economically. The researchers from the NTNU were particularly satisfied with the new support service, and the incentives. It seems like it is becoming easier for the health researchers to find time, and to obtain resources to do a EU project.

The study from Forskerforbundet (2014) emphasised a lack of the necessary network both nationally and internationally as a general problem amongst Norwegian researchers. This seems to coincide with the findings from this study, where it is mentioned by some of the health researchers, that, it is very important to establish a good network to have success within the H2020. Many researchers seem to lack the experience to acquire the necessary network to have success within some of the EU programmes. Thus, the importance of having a good network seems to be a problem not just generally for Norwegian researchers, but for health researchers as well.

Both the Forskerforbundet study (2014) and the NIFU STEP (2009) found that it was important that the calls from the FPs matched the researchers' competence for them to participate, and this was an important finding in this study as well. Especially researchers that works within the clinical studies, seem to have problems finding calls to apply for both nationally and internationally, but the H2020 have provided some opportunities. Health have been an important within the "Societal Challenges", and this may have opened some more doors for health researchers to participate.

When comparing the EU funding to the national programmes, the NIFU STEP (2009) study showed that many researchers valued the traditional national funding sources as good enough for many health researcher's ambitions. The study aimed at research at public and private hospitals, and the funding came from The Ministry of Health and Care Services, and down to regional health authorities. This seems to be a problem for the universities as well, as some of the informants have told that the national funding, and maybe in particular regional funding is easier available, and less demanding to apply for. Related to this, it is important to point out that a EU project often demands much communication with foreign partners, and that this requires much work. It is also important to point out that many researchers often try to apply for the programmes that they are experienced in, since this is often considered as easier. It takes effort to get to know the EU application process, and to acquire experience from it.

The Forskerforbundet (2014) study also suggested to stimulate for knowledge transfer between experienced researchers from the FPs, and unexperienced researchers. This was also something that some of the informants from this study pointed out as important, since it can change the perception of the programme, as many fears that it is very little approachable and too bureaucratic. It has been pointed out that it is important to educate other health researchers about the positive experiences, and to tell that it is not as difficult as many researchers believe. It is also important to tell about the increased support, and the incentives provided. In other words, this is something that is important for increasing the health researchers' participation in the FPs.

Findings from the Ministry of Education and Research (Kunnskapsdepartementet 2014b), suggested that many health researchers were employed both at the university hospitals and the universities. This was also confirmed by this study, and the study shows that this could be a problem for stimulating for participation towards the H2020, as it is difficult to make the arrangements and finding the time to concentrate on a large project like a EU project for these researchers. They often have obligations that makes it difficult to make a change in plans. The institutions do not necessarily have a culture for letting their employees taking the time off for working with a EU project.

The Technopolis study (2012) pointed out that it was important that the objections related to difficulties regarding the FPs was pointed out different by researchers that was experienced with the FPs, and those that was not experienced. The experienced researchers seemed to be more positive, although the objections were valid to some degree. This coincides with the findings in the thesis, since it seems like successful participants do not see the deterrents as something that is not manageable. They also seem to be very positive to the FPs although they do recognise the issues as well. Some of the researchers have also showed the demanding application process as something to learn from. Thus, they see the complications from the programmes as something they can find rewards from, and they look for different opportunities for their project plans both in the case of approval from the Commission, or if they do not receive funding. They take a positive perspective and do not see their efforts as wasted as they have gained experience, and have expanded their network. They see the sceptics' point of view as exaggerated.

The Norwegian cost level was considered to be a problem in the Technopolis (2012) study, and this is also something that was mentioned as challenging by some researchers. Still, none of the informants mentioned this as something that excluded them from taking part in projects by others.

The thesis also showed some new findings that explain why health researchers choose to not participate in the H2020. It is demonstrated that health researchers from the universities also have good sources for funding nationally. A reason for this can also be that they work at another institution as well. The thesis has also shown that the increased number of researchers that is attracted to the H2020, because of the financial crisis, makes the chances for success smaller for the health researchers. This is a result of less funding nationally in the different participating countries. This is not necessarily unique to health researchers, but still an interesting finding. Old beliefs of a very difficult and demanding process are also a challenge for participation, and this is often an exaggerated view from unexperienced researchers from the programme, as it has become easier to participate because of a simplified application process. The Norwegian research culture itself, where mass funding is prioritised before top level research programmes, can be an important factor, but more research is important to say anything sure about this. The thesis has also demonstrated some more specific findings pointed to the high competition within health research within Europe as a possible explanation for low attendance. Another reason for them to not participate is that health researchers often have positions at both the university and other health institutions, and that this can make it difficult to make arrangements for participation. They also have several duties that can make it very difficult to find time for the programme, and this may also be a result of that they have more than one position. It is not always a developed culture to engage in EU projects at different institutions, and health research does not necessarily have the same traditions doing this type of international research as other fields of subject. These findings have not been mentioned in earlier studies.

The most significant contribution from the thesis is that the study has analysed Norwegian health research in a European integration perspective. These findings are further discussed in the concluding remarks below.

7.1 Concluding Remarks

This thesis has analysed Norwegian health researchers' experiences with the EU Framework Programmes. This has been relevant, as it has been an important political objective – shared by the Norwegian government, research organisations and universities - to be successful within the H2020. Success within the H2020 is a first and foremost a political objective for the government. Critics have highlighted that Norwegian health researchers in general have a substantially lower return rate from the programme than other research areas where Norwegian researchers participate. Norwegian health researchers have also produced and participated in fewer applications in comparison to their Scandinavian colleagues.

The thesis has been done in a European integration perspective. It has been based on the concept of Europeanisation, where the study has aimed at researching to what extent EU research policy has influenced Norwegian research policy. This has further been done to see how Europeanised the UIO and NTNU have been by EU research policy, and why. The thesis has analysed the different political levels involved to gain insights about the potential influence from the EU to the studied universities. This has demonstrated that Norway's health policy has been Europeanised to some extent because of the EEA agreement, and demands from the Single Market. Norwegian health research policy has also been Europeanised because of the political support to the ERA, and the positive attitudes towards participation in the FPs. Thus, the first theoretical assumption that Norwegian health research at the universities has been Europeanised by the EU health research is correct. One route of EU influence on Norwegian research policy and the universities studied are the research participation in the FPs that is shown to have become an important strategy for the UIO and NTNU. This has influenced the funding situation at the universities where they desire to increase external funding with the EU FPs as a preferred choice. An important reason for compliance, is the universities own agenda of internationalisation, and their wish to contribute to the world. It is also important for the universities to stay competitive in the international research environment, and the FPs are considered to provide important resources and opportunities to obtain this goal. The strategy is in line with Norwegian research policy. However, the universities can also influence EU policy by using the feedback mechanisms that exist, and this is a circular form of Europeanisation.

The thesis has also applied the neo-institutional theories *rational choice institutionalism, sociological institutionalism,* and the concept of *path dependency* from *historical institutionalism.*

The main aims for using the sociological institutionalism have been to study if the researchers' choices are influenced by expectations from the environment they are a part of. For instance, if they are influenced by public organisations or pressured because of the universities strategies. It has also been important to study the coercive mechanisms, where the pressures from other organisations are relevant. The normative pressures mechanism has also been important to study, as this analyse the institutionalisation of specific attitudes and norms. The thesis has shown the relevance of sociological institutionalist explanations. Researchers are clearly influenced by the organisations within their environment, as there is an increased expectation for them to participate in the H2020 from central actors as the government, the RCN and the university itself. Important reasons for this is expectations of a higher economic return rate from the H2020, increased competitiveness, and to contribute to European competitiveness. Thus, the research environments in Norway are expected to take part in the research collaborations, and this includes the universities that tries to establish attitudes and norms for participation in the H2020. However, the sociological institutionalist explanation is only partly correct, as researchers are free to apply from the funding sources that they want to. Thus, the second theoretical assumption that claimed that the researchers are influenced from the environment they operate within, and what is expected from them, is just partly correct. This is because the institutional climate with increased expectations may influence the researchers' decision, but they are still free to choose if they want to participate in the H2020, and this limits the universities opportunities to Europeanise their researchers.

The thesis has also demonstrated the relevance of the rational choice institutionalism, and this applies to the universities as well. The universities see it as important to have access to resources and funding that provide opportunities for research at the top-level. Thus, the universities can find this at the EU level. External expectations and inner motives lead the universities towards a position where they choose to facilitate for participation in the H2020 for their researchers. This is done by providing incentives for the researchers, and to inform on the benefits from the H2020. However, as the researchers are free to apply for funding from wherever they want, it is up to them if the integration should happen. The free position the researchers have at the universities, enables them to follow their preferences.

The third theoretical assumption was based on rational choice institutionalism perspective, where it was expected that the success of the adaptation depended on them doing a rational choice, where they are expected to follow their preferences to maximize their utility. The study confirms this assumption, as the researchers seem to calculate the pros and cons from the H2020. Their preferences determine if integration towards the EU programmes should happen or not.

Further, this leads the question in the direction of what motivates them towards the H2020, and what reasons they may have to abstain from it, and this is the main aims of the thesis. It can be argued that some of the motivations and deterrents can be interpreted in a sociological institutionalism perspective. However, it is important to emphasise that it is the researcher's cost-benefit analysis that determines integration, and not necessarily what their surroundings expect of them.

Important motivations for participation in the programmes are the generous and precise funding from the programme, prestige, an opportunity to collaborate with top researchers in Europe, a fruitful change of ideas and discussions, a possibility of working interdisciplinary, contributing to solve European societal issues, and to do projects that could not have been done outside the H2020.

When it comes to why they may choose to not participate, the researchers see the comprehensive, bureaucratic and time consuming application process as the most important reason. This is especially because the chance for receiving a grant is very small. However, the application is not necessarily wasted, as a good written application has a good potential for success if it is circulated to different funding opportunities. Cultural differences between collaborates can make the application process even more complicated, and language differences is a key factor that can make communication difficult between the partners which have to hail from different countries/member states. However, despite the negative aspects from the application process, some researchers see it as a positive experience as they can learn from the process. They can also attract more interesting persons to their network, and additional benefits may come at a later stage. The application process has also been simplified in the recent years by the Commission, and it has been invested much resources in administrative support and incentives to help the researchers in the process. It has become more manageable, but the fear of the application process is something that can make researchers choose other options. A transfer of knowledge and experience from researchers with positive experiences to potential applicants, can contribute to change the culture, and increase the amount of applications.

The programmes' thematic relevance can be another important reason for why they choose to abstain from the H2020. The calls announced by the EU do not necessarily fit the researchers' field of interest. In addition, some calls are broad and attract many participants. This makes the possibilities for success lower. Narrow calls provide a higher possibility for success as there often are fewer applicants.

The motivations and deterrents found in the thesis correspond with former research where participants from several research fields have been studied. Thus, the findings seem to correspond with general reasons for why researchers choose to not participate.

However, there also seems to be some more specific reasons why health researchers may not participate in the H2020, and they correspond to a more sociological institutionalism perspective. This is because they reflect how the environment that the researchers operate within works, and the reasons for why they do not participate characterise the situation for health researchers. However, they are also important in relation to rational choice arguments, as it contributes to their cost-benefit analysis. The national funding situation is an important finding, as generous national funding competes with the H2020 for the health researchers' attention. However, it is important to mention that some national programmes can have a very high competition as well. Another specific reason is that the health researchers at the universities often have a very busy schedule with several duties, including teaching. Many are also employed at another place like a hospital, and this complicates things further. Incentives may provide an opportunity to buy oneself free from regular duties to focus on the application, but it is not always accepted to take time off for writing an application. It can be difficult to get someone else to fill their regular duties. In addition, there is not necessarily a culture for applying towards the H2020 in the different institutions, and this is clearly a sociological institutionalist reason for the researcher to abstain from the H2020. An additional sociological institutionalist reason is that there is not necessarily a well-established culture within health research itself to apply for EU projects, and the research disciplines that performs better in the H2020 may have a stronger culture for doing this type of projects. A strong competition within health research in Europe can also be an important factor. The success rate in H2020 is generally low, and if the competition is particularly high in a discipline, the chances are even smaller for success. This can lead the researchers towards other funding sources.

The fourth assumption from the theoretical framework was that the researchers' decisions towards participation in the H2020 were experience dependent. This is confirmed, as a lack of experience may be a contributing factor for the researchers to not seek participation. Experienced researchers may see the application process as easier. In addition, they have often established the necessary network and resources to do a EU project. Further, the researchers that are successful in the H2020 may attract new opportunities and additional funding much easier. An important reason for this is that they have demonstrated their abilities and competencies. An additional reason why some choose to not participate, is that they are used to apply from programmes they have experience, and where they know the processes. Experience within a programme may give a higher chance of success, and this seems to count for the H2020 as well. Thus, researchers with experience from other programmes may choose to not participate in the H2020, since they rate the chances as higher in the programmes they have participated in before. Thus, a researcher's earlier decisions and experiences can affect the researcher's perception of the H2020, and influence the choice on participation in the programme.

However, the health researchers' integration towards the EU's H2020 depends on rational choice institutionalism arguments, as they seem to follow a logic consequentialism where they calculate if it is worth using time and resources for the programme when there is a low chance for success. However, the arguments from sociological institutionalism where they follow a logic of appropriateness can also influence the researchers, as some may act according to the expectations from their institutional climate. The assumptions from the concept of path dependency can also affect their decisions. However, the researchers' decision on a potential participation in the H2020 depends most of all on their perceived attractiveness of the programme, the chances for success, and if it fits their own objectives.

Suggestions for Further Research

The other universities and colleges in Norway could be interesting targets for research. The University of Bergen have a high activity in the FPs. The University of Tromsø have a much lower activity than the three most involved universities in the FPs. The colleges also have a low participation percentage, and it could be interesting to compare them with the more involved universities. Further, it could also be an interesting study to analyse how different institutions position themselves, and how they work for achieving success within the FPs. A study of how the support mechanisms are organised would be very interesting, and could lead to a fruitful exchange of knowledge. Another interesting topic that could have been studied, is how the different institutions see the international strategy towards the EU itself, and if this is something they see as positive, or problematic. Participation demands a clear strategy, and investments of many resources. It could be interesting to interview organisation leaders and key personnel, and study how they attractive they find the FPs. It could also have been useful to do a more critical study on why Norway participate in the FPs, where the political processes are scrutinised.

Another interesting topic to do research on is how the national financing system for health research is organised, and how it competes with the EU FPs for the health researchers' interest.

The Norwegian research culture was mentioned as a possible obstacle for participation in the EU programmes, and it could be interesting to do a comparative study on Norwegian research culture compared to another country with high success within the FPs. This could be particularly useful in the health research category.

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Appendix 1: Questionnaire

Questionnaire

(Part on strategy is only for advisers interviewed)

General strategy:

What is the faculty's general policy on obtaining EU funding? Is there a specific strategy? If so, what does it involve?

Which research programmes have you participated in earlier? What have you tried, and where have you been successful?

Is it important to participate in EU research projects for the faculty?

- In general
- As compared to other sources of funding

How relevant are the research projects for the faculty's own research strategy?

How do the EU research projects compare to the faculty's own research projects?

In your view, are EU research projects for researchers more difficult to obtain than national projects?

What makes them attractive?

What makes them not so attractive compared

- To nationally funded
- To international project
- To other (e.g. industry) funding

In the light of your experience / What do you expect: in which ways do the EU research projects open new opportunities and research collaborations for the faculty?

Is the participation on research projects for specific researchers, or the organisation?

How prestigious do the faculty and researchers perceive the EU research projects? Wherein lies the specific prestige?

In your opinion, have the faculty's strategy somehow changed because of the opportunity for participation in the EU research projects?

Motivations for participation and reasons why they choose to abstain:

In your view, how popular are the research projects to researchers and why?

Do you consider yourself and the other members of the faculty well/sufficiently informed regarding the Horizon 2020 research program and EU opportunities in health research?

How does the faculty and researchers perceive the processing of applications? How do you evaluate this process?

Do you have experience from earlier or completed projects? How do you perceive the experience from these projects?

In your opinion, does earlier experience with EU projects lead to further participation? If so, why?

How does the faculty and researchers perceive the funding opportunities for the EU research projects?

Are you sufficiently supported from the university if applying for H2020?

How likely is it – in your view - to get funding?

How interesting are the funding compared to other projects?

How well positioned is the faculty for getting funding? What do you consider the most important pre-conditions for getting EU funding?

- Conditions you can fulfil
- Conditions requiring external partners' capacities

Is the funding for the EU research projects supplemented by university money, national or private funding? Are there incentives – i.e. top-up funding that make obtaining European funding more attractive? If so: Who provides such incentives?

To what extent is participation in the research projects mandatory for researchers?

Are the faculty in some way encouraged to participate in the research projects? If so, from where?

What are the main obstacles for not seeking participation in EU research programmes for the faculty?

What are the main obstacles for the researchers?

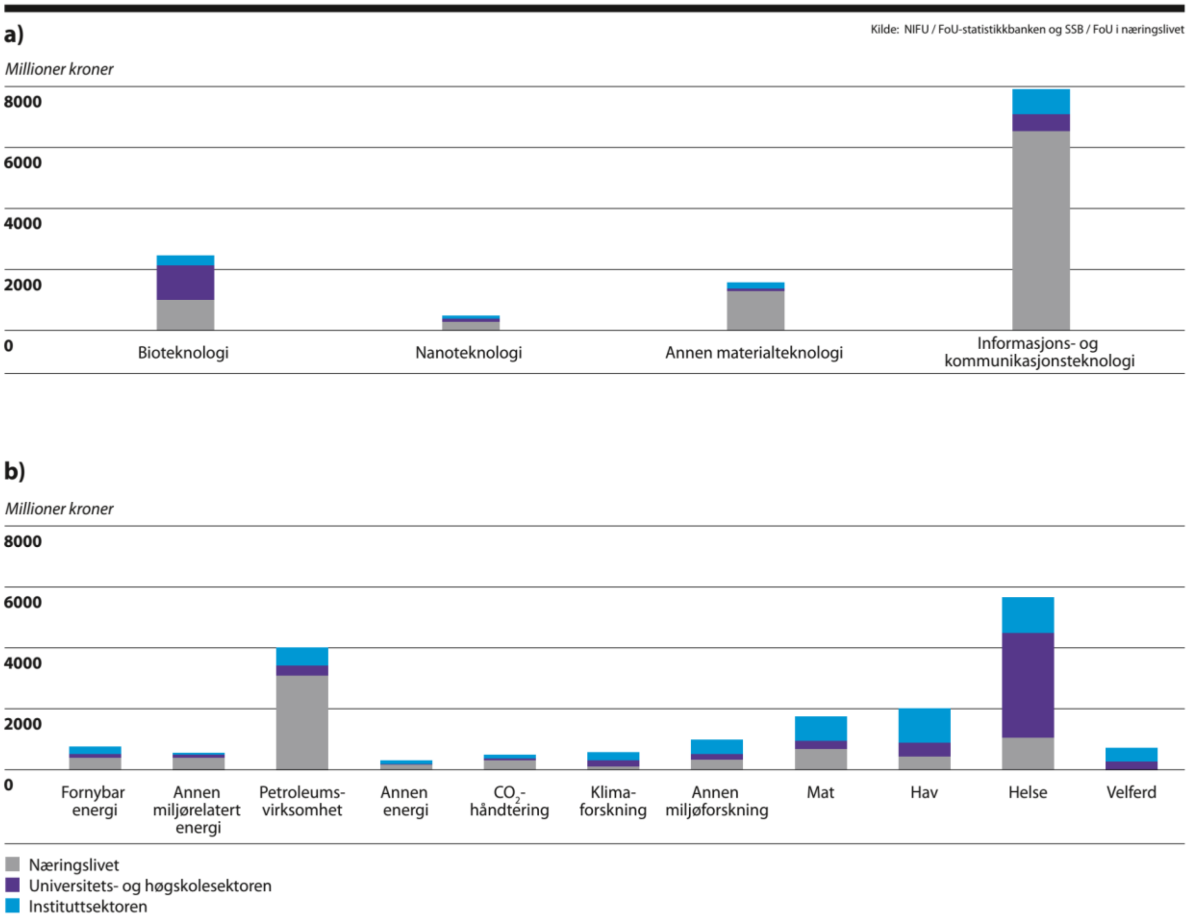
How could the EU research programmes be more attractive to the faculty and its researchers?

Are there any reasons specific to health researchers, that may describe why they choose to not participate in the H2020?

Appendix 2: Overview of Norwegian Research Activity (In Norwegian).

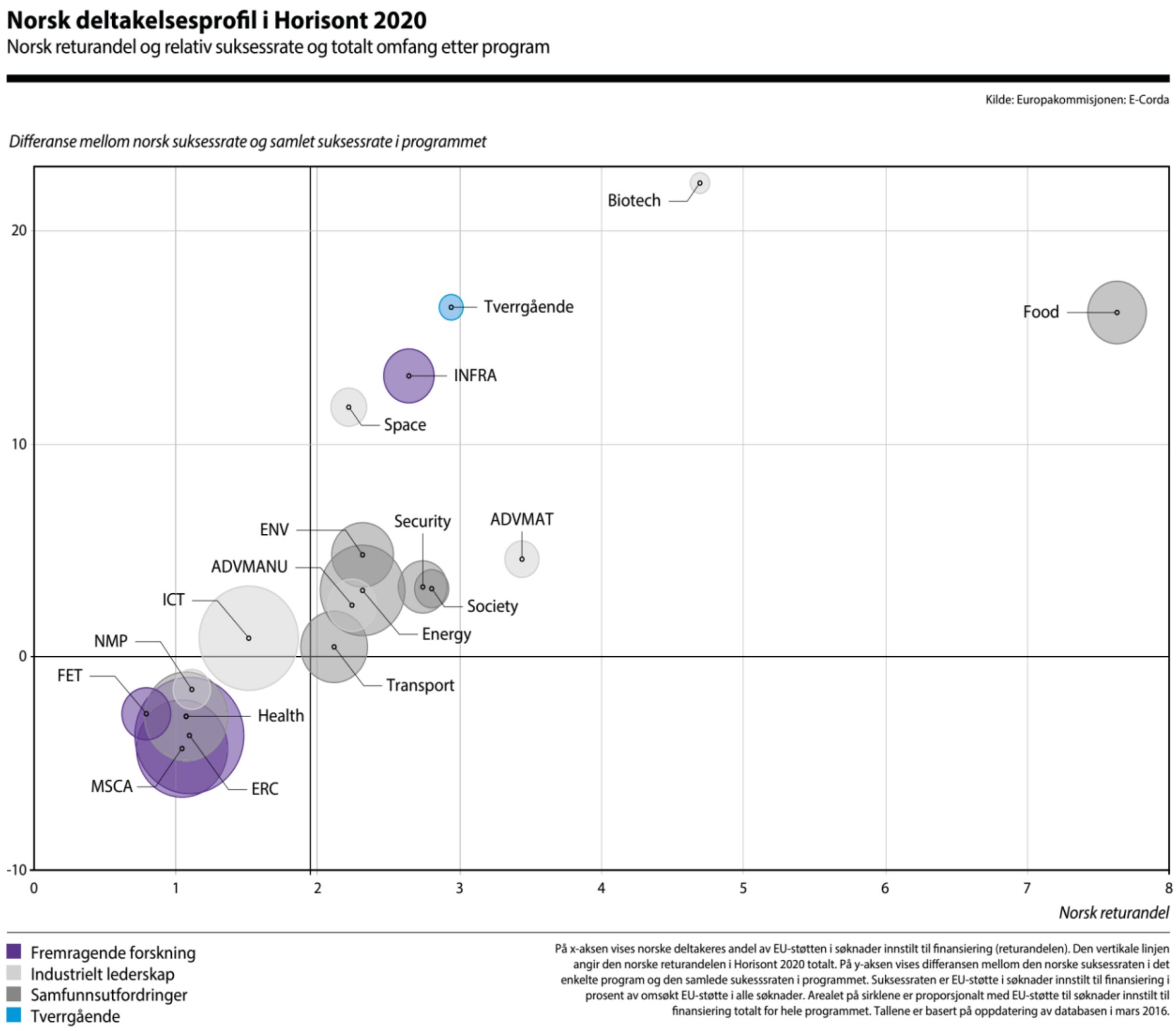
Collected from: Kunnskapsdepartementet (2011 p. 23)

14. Hvilke tema- og teknologiområder forsker vi på?



Appendix 3: Norwegian Participation Profile in H2020 (In Norwegian).

Collected from Kunnskapsdepartementet (2016 p. 49).



Appendix 4: Norwegian Return Rate (In Norwegian).

Collected from Forskningsrådet (2015) Unpublished material.