Chapter 5 Design of a Social Innovation Competence Framework to Educate Entrepreneurs in Developing on the International Stage



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Abstract The European Commission identifies entrepreneurship as one of eight competences necessary for all members of a knowledge-based society. The Entrepreneurship Competence Framework (EntreComp framework) is a tool that European citizens and organisations can utilise to improve entrepreneurial capacity. Social entrepreneurship in particular, has been gaining momentum for numerous reasons. None more so than it being seen as an approach to offer solutions to worldwide social problems. Despite the increasing demand for social entrepreneurship, mainstream internationalization literature for social entrepreneurs require to become successful with their internationalization efforts. In this chapter, the social innovation competence framework is presented; empirical work focusing on educating social entrepreneurs to acquire and improve upon competencies needed for going international. The framework, which uses the EntreComp framework as a foundation for its descriptions of the competences, was developed as part of the Erasmus+ project ISSA.

Keywords Social innovation competence framework · Social entrepreneur competencies · Internationalization · EntreComp framework

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The Key Points of the Chapter Are the Following

- Review of EntreComp framework.
- Review of social entrepreneurship competences.
- Report on desk research and survey results in the context of ISSA project (Internationalisation for Social and Innovative Start-up's and Entrepreneurs).
- · Presentation of the ISSA Competence Framework and its four competencies.
- Contribution of the ISSA Competence Framework towards the internationalization perspectives of European Union's Social Start-Ups.

1 Introduction

The project Internationalization for Social and Innovative Start Ups and Entrepreneurs' (ISSA¹) main objectives are focused on developing quality and practical lifelong learning support, with a strategic use of information and communication technologies. The project's main target group is existing and potential social entrepreneurs interested in boosting social entrepreneurship and development of social start-ups. The entrepreneurs will be able to move their entrepreneurial efforts internationally, within and beyond the borders of the European Union. More specifically, ISSA is designed to identify core and innovative learning methods that encourage success in international activities for social start-ups and entrepreneurs. The impact of the 2007–2009 Global Financial Crisis has made it necessary to seek for an innovative vision on how to improve economic growth; one of the most attractive options are social entrepreneurs. Although social enterprises are considered as one solution to increase competitiveness and state the importance of crossborder values on European economy, it should be noted by social entrepreneurs that nowadays organisations active on international markets grow faster and are more innovative than those that limit their activities locally. Due to their social activity, it is highly interesting for social enterprises to initiate international relations with similar organisations to promote their objectives at European level (European Commission, 2015).

Participating organisations in the project carry out a project which focuses on improving the internationalization perspectives of the EU's Social Start-Ups. This entails analysing the most frequent problems and barriers for social start-ups within an internationalization process as an endeavour to address these challenges. The project will deliver self-training in practical internationalization and provide entrepreneurship education among social entrepreneurs. This means that the project will aim to reach entrepreneurs beyond the university setting, which has been the main audience in the past, but where calls for change have been made (see e.g., Wiek et al., 2015). The project's innovative self-training course for the internationalization of social start-ups serves as a guide to solve the special needs of social start-ups and

¹ISSA project website: http://issaproject.eu/

entrepreneurs to receive proper training in essential aspects of the internationalization process. The self-training course will be complemented with an e-learning platform that will work as support for social entrepreneurs. ISSA will also provide and support a proper Virtual Environment to promote social entrepreneurs' attitude about the vital importance of internationalization of the social start-up in early stages. The Virtual Environment will give the entrepreneurs experiences with and training in, for instance, cultural awareness and social opportunities, such that they can obtain insights in important concepts to consider in their internationalisation efforts.

The chapter presents the development of the content for the self-training course. A special focus is on how the competences for the project were selected based on the needs of entrepreneurs in the project partner's countries, in addition to how the development of the definition and content of these competences were prepared. To be able to develop a solid foundation for the project's self-training course, the EntreComp framework (Bacigalupo et al., 2016) serves as a basis for the development of competences adapted for social entrepreneurs. This chapter therefore starts with an introduction to the EntreComp framework. After that, a section on the approach and method employed to select and develop the competences for social and international entrepreneurs follows. The chapter is concluded with main takeaways from the project's approach and results, including a detailed look at the four competences of identifying opportunities, mobilising resources, increasing cultural awareness and an ability to identify social problems all of which are presented.

This chapter's main objectives are to present the development of the social innovation competence framework and to demonstrate an in-depth example of good practice and collaboration within the area of social innovation.

2 Background and Related Work

Entrepreneurship is by the European Commission reckoned as one of eight competences necessary for all members of a knowledge-based society. However, being a competence of life-long learning, few consensuses existed in the definition of which competences entrepreneurship constituted of, and thus was the EntreComp framework developed by the Joint Research Centre (JRC) of the European Commission in 2016. The framework consists of three overarching competence areas, building on the definition of entrepreneurship as acting on ideas and opportunities by mobilising resources: 'Ideas and opportunities', 'Resources' and 'Into Action'. These three competence areas constitute 15 competences that together serve as building blocks of entrepreneurship as a competence for all citizens (Bacigalupo et al., 2016).

The 15 different competences are presented along an 8-level progression model, spanning from foundation to expert level, giving learners a way to look at the different learning outcomes presented at each competence. All the 15 competences' learning outcomes sum up to 442 in total, and with an individual descriptor for all competences, the framework gives a detailed description of entrepreneurship and a valuable tool for educational purposes. Moreover, as Bacigalupo et al. (2016) write in the report, the framework should be considered as a starting point and adjusted to

the individual contexts, and as such, the ISSA project therefore adapts the framework to include its social competences. Thus, the EntreComp framework serves as a foundation for the competences included in the ISSA project, both by using two of its competences and by adapting the framework in the presentation of the social competences applied in the project.

In the past, the framework has been applied and tested in many contexts, for instance in combination with the capability approach in South African primary and secondary schools (Forcher-Mayr & Mahlknecht, 2020), but also as an assessment tool for entrepreneurship education in Romania (Strauti et al., 2018) and the UK (Dinning, 2019). In the work of Forcher-Mayr and Mahlknecht (2020), the EntreComp framework serves as a framework for inclusion of the capability approach, such that this view is included in a similar structure as the EntreComp's design. In the design of the competences included in the ISSA project, a similar approach was applied, using insights from research on social entrepreneurship as a foundation for the competence descriptions, and utilising the structure from EntreComp in the descriptions of the competences.

2.1 Social Entrepreneurship-Specific Competence for Internationalization

The rise of worldwide social problems enables young entrepreneurs to explore social entrepreneurship. Hence, it is this contextual change that has led to social start-ups and businesses being regarded as solutions to global social problems and even considered as part of a global movement (Misbauddin & Nabi, 2019). Despite this, mainstream internationalization literature for social entrepreneurs remains underdeveloped. There is an increasing demand for social entrepreneurship, but little is known about the competences social entrepreneurs need to possess to become successful (Miller et al., 2012). Social entrepreneurs have most recently increased internationalization efforts, often as a result of an increased globalisation in the world (Zahra et al., 2008). However, this globalisation development also requires additional skills and knowledge with the entrepreneurs, for instance a knowledge perspective of different social problems (Miller et al., 2012) or cultural awareness of the different contexts in which the entrepreneur pursues opportunities (Zahra et al., 2008). In the research on social entrepreneurship, little insights have been obtained regarding the internationalization process, and the competences needed for this process. However, some studies have investigated the competences necessary for social entrepreneurs.

In the work by Miller et al. (2012), the authors identify 35 competences from the literature that social entrepreneurs need in their entrepreneurial efforts, and they further compare these to the educational practices in US higher education. From the study, the authors identify ten competences that are most important for social entrepreneurs such as the ability to solve problems, interpersonal communication

skills and the ability to develop collaborative relations. The results from this study are further tested by Wronka-Pośpiech (2016) and in her study, she identifies ten competences that she explores in the Polish context. While some of the competences have the same level of importance, the results show that the social entrepreneurs in the two countries differ to some degree in their views regarding the most important competences. Hence, in the development of competences for social entrepreneurs, contextual differences are needed to be considered to ensure that the competences are representative for social entrepreneurs in the project partners' countries. The identified competences are presented in the result section, and the insights in these are partly based on the work by Miller et al. (2012).

Misbauddin and Nabi (2019) present a conceptual framework for the internationalization process of social business (SB) based on an in-depth literature review on social entrepreneurship, SB, and internationalization of small business. Creating a social impact in a foreign location was seen as the main factor behind the internationalization decision. Other factors were entrepreneur-specific, firm-specific, and context-specific ones. The framework highlights opportunity identification and the internationalization implementation phases specifically, while their key contribution resides in the visualisation of an internationalization framework for SB, since it points to gaps and directions within this space. The framework's value towards academia is evident but by including information on the antecedents, opportunity exploitation process, and barriers in the way of SB internationalization, it serves practitioners too, since they can consider it in their expansion efforts and also be made aware of issues required for successful internationalization. The authors point to the lack of empirical research as a limitation in their work and future research opportunities are the identification of weak points of the framework, its validation and refinement through multiple methodologies, e.g. case studies, etc. change and specify (Misbauddin & Nabi, 2019). The ISSA social innovation competence framework extends work in this area by incorporating empirical work with a focus on educating social entrepreneurs to acquire and improve important competencies towards going international with their social start-ups.

3 Methodology

In this section, the ISSA methodology is described. By employing mixed-method modes of enquiry, it will be possible to accomplish the project's objectives. These are: (i) to promote the use of digital self-training for internationalization of European social entrepreneurs and start-ups; (ii) to promote and enhance use of innovative, digital tools and virtual world environments that will motivate social entrepreneurs to use; (iii) to develop a European education and training area via the strategic use of ICTs, which will be available for wide and open use; (iv) to boost internationalization among social entrepreneurships as a measure to increase their benefits; (v) to endorse distance online learning and to create the proper ground for effective

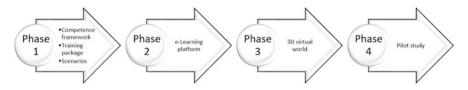


Fig. 5.1 The four-phase methodology of the project

entrepreneurial learning. The four phases of the methodology are presented in Fig. 5.1.

Phase 1 focused on the development of a self-training package that educates social entrepreneurs toward the internationalization of social enterprises. The self-training package was based on competences selected in relation to ENTRE-COMP and internationalization to ensure its perfect fitting to social enterprises in their road to internationalization. The self-training package also includes self-assessment tests for further encashment of the learning experience. Scenarios were also developed as part of the self-training package.

In Phase 2 the ISSA e-learning platform was designed and developed. Specifically, the Moodle LMS was implemented, hosting all the learning content (. learning material, the related scenarios and the self-assessment tests) Furthermore, the e-learning platform is a space where social start-ups and entrepreneurs can meet, communicate and share experiences and expertise on internationalization issues, expansion plans, sustainable and social entrepreneurship, thus contributing to a sense of a community.

Phase 3 concerns the conceptual design and system architecture of ISSA 3D Virtual World (VW) platform, in which the produced learning content (learning material, the related scenarios and the self-assessment tests) from Phase 2 are "transferred" into the VW. Learners are thus able to test their gained knowledge by implementing the related scenarios of the selected competencies by playing the simulations and/or the experiential learning activities offered in the VW.

Phase 4 is the pilot study. The piloting will aim to ensure that the developed social innovation competence framework, the self-training package, the scenarios, the ISSA e-learning platform and the ISSA 3D VW environment are quality, coherent products which adequately meet their objectives, are relevant to the needs of the social entrepreneurs and have adequate potential for internationalization. The instruments employed will include semi-structured feedback questionnaires with the aim to find out: What are the main advantages and benefits of the developed products? Do they adequately meet the needs of the target audience and the objectives? What are the main learning outcomes? What difficulties the users have met and what improvements need to be made? How to increase the international value of the intellectual products?

3.1 Phase 1: ISSA Competence Framework, Training Package and Scenarios: Social Entrepreneurs and Start-Ups Going International

Each of the four phases, as presented in Sect. 3, consist of several activities. In this chapter, an in-depth discussion on Phase 1 activities 1 and 2 specifically is presented, which lead to the development of a social innovation competence framework to educate social entrepreneurs in going international.

Phase 1 consisted of five activities (see Fig. 5.2). Activity 1 included field research on the ENTRE-COMP competences and determining the skills and competencies for ISSA learners. Activity 2 focused on the adaptation of ENTRE COMP framework and modelling of the ISSA competences description. In Activity 3, the design and development of the self-training courses was accomplished. Activity 4 focused on the design of the training scenarios and in Activity 5 guidelines for the use of the scenarios and self-training courses were drafted.

In Activity 1, the ENTRE-COMP competences were reviewed, leading to field research on the main target group and in accordance with the country-specific interests of each of the participating countries. A questionnaire was designed and administered which was focused on the competences required to internationalise a social entrepreneurship, which is elaborated further upon next. Considering the

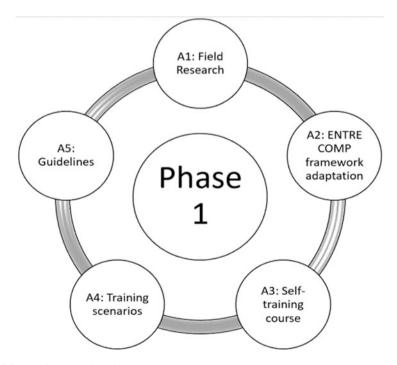


Fig. 5.2 The five activities of Phase 1

results of Activity 1, it was then possible in Activity 2 to determine the final competences. These competencies were elaborated within the development of the self-training courses (i.e. Activity 3) and respective scenarios (i.e. Activity 4). The ISSA competences descriptions were therefore modelled and presented in a report and translated into the languages of the project's partners.

Desk Research To be able to identify the competences that are needed for social entrepreneurs' internationalization efforts, thorough desk and field research investigations were conducted. As mentioned in Sect. 2, previous studies have found differences between countries' needs, hence the desk research attempted to investigate how entrepreneurship and social entrepreneurship is viewed within the different partner countries. Results from the desk research were used to ensure that the survey instrument to be designed would be applicable to investigate important questions and issues identified in the differences in terms of the general subject of social entrepreneurship and the definition of a social enterprise. Questions regarding topics that could differ between the countries were therefore included in the survey instrument.

Survey Method Based on the desk research, a survey was designed. The main objective of the survey was to identify the different competences to be included in the educational tools developed in the ISSA project. Apart from various control variables (country, organisational type, core team composition), questions regarding social entrepreneurship's level of contribution to the United Nations Sustainable Development Goals, preferred learning approach, difference in competences needed for social entrepreneurship versus traditional entrepreneurship, important competences for social entrepreneurship, and the respondents' organisation's most important entrepreneurial competences were included. The latter two are based on, respectively, Miller et al. (2012) and Wronka-Pośpiech (2016), and on the competences from the European Entrepreneurship Competence Framework. The competences investigated counted 50 in total, and the respondents answered on their level of importance on a scale from a low degree (1) to a very high degree (7).

The survey was distributed digitally through the different partners in the ISSA project to social entrepreneurs in each of the participating countries. Participation was voluntary and 93 full responses were returned. Of the 93 full responses of the survey, 20 respondents came from each of the countries Spain, Greece and Bulgaria (60 in total), nine came from Cyprus, and 24 from Norway. The low number of respondents from Cyprus came from the difficulty in identifying social entrepreneurs in the country. The data was then analysed with SPSS, and the most prominent competencies were identified from the results.

To ensure that all the competencies selected represented the countries' respondents' needs, Chi-Square tests revealed that the countries' respondents differed in terms of the type of organisation they represented, core team composition and their definition of social entrepreneurship. To control for this difference among the respondents, only competences with no significant difference with regards to the

Table 5.1 Four most important competences for social entrepreneurs in an internationalization
process were determined to be Spotting opportunities; Mobilising resources; Ability to identify
social problems; and Cultural awareness

Focus	Competence
Mobilising resources	Ability to build community support
	Develop volunteer
	Mobilising resources
	Mobilising others
Social understanding and awareness	Ability to commit to a collective purpose
	Commitment to helping people
	Empathy or compassion
	Ability to identify social problems
	Cultural awareness
	Ethical & sustainable thinking
Opportunity development	Creativity
	Vision
	Valuing ideas
	Spotting opportunities
Business development	Motivation & perseverance
	Financial & economic literacy

respondents' country of residence, organisation, core team composition and their view of social status were included. Factor and ANOVA analysis was used to identify competences that had a significant difference between the respondents. The competences with the highest level of importance reported by the respondents were included in the course, and in the end four of these were selected by the project participants.

In Table 5.1 below, the list of the competences with the most equal level of importance in all countries is presented. The list consists of competences that do not differ in importance regardless of the respondents' type of organisations, teams and views of social entrepreneurship. The team in the ISSA project then selected the competences *spotting opportunities, mobilising resources, cultural awareness* and *ability to identify social problems*. This selection was based on the score of the competence's importance, the desk research, former research, and the insights of the partners in the ISSA project. Two former competences found in the literature on social entrepreneurship. The development of the definition of the two new competences then used literature on the subject as a basis for its content, while the structure of the EntreComp framework was used to present the competences. The development of the social entrepreneurship competences are presented in Sect. 4, along with a presentation of the competences mobilising resources and spotting opportunities.

4 Results

In this section the competences of the ISSA social innovation competence framework are presented. First, a summary of EntreComp's descriptions of spotting opportunities and mobilising resources will be presented, before a more thorough explanation of the competences ability to identify social problems and cultural awareness are introduced. Since the ISSA project uses the EntreComp framework as a foundation for its descriptions of the competences, the ISSA competences are therefore presented in a similar manner. The complete ISSA competences table is available online.² The Table shows the levels that social entrepreneurs are able to reach and where they are expected to start. All competences are explained in detail in terms of competence level.

4.1 Spotting Opportunities

When moving internationally, social entrepreneurs need to be able to identify opportunities that could contribute to reaching their goals. These opportunities could be sources of funding, new markets, or collaborations. Hence, having the ability to spot opportunities, entrepreneurs could identify opportunities in the international markets that will enable further expansion for their activity, while at the same time maintaining the sustainable focus existing in the business. This competence has the following descriptors (Bacigalupo et al., 2016):

- Identify and seize opportunities to create value by exploring the social, cultural and economic landscape.
- Identify needs and challenges that need to be met.
- Establish new connections and bring together scattered elements of the landscape to create opportunities to create value.

The competence therefore has the following themes in which the learning outcomes are organized: Identify, create and seize opportunities; focus on challenges; uncover needs; analyse the context (Table 5.2).

4.2 Mobilising Resources

To be able to act on the opportunities identified, social entrepreneurs need to be able to mobilise resources to reach their goals. This competence therefore revolves around obtaining and marshalling the necessary resources to be able to conduct

²ISSA competences table: http://www.cs.ucy.ac.cy/seit/wp-content/uploads/2021/02/ISSA_Competences.pdf

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Theme	Level 1	Level 2	Level 3	Level 4	Level 5
Identify, cre- ate and seize opportunities	I can find opportunities to help others.	I can recognise opportuni- ties to create value in my community and	I can explain what makes an opportunity to create value.	I can proactively look for opportunities to create value, including out of	I can describe different analytical approaches to identify entrepreneurial
Focus on challenges.	I can find different exam- ples of challenges that need solutions.	I can recognise challenges in my community and surroundings that I can contribute to solving.	I can identify opportuni- ties to solve problems in alternative ways.	I can redefine the descrip- I can redefine the descrip- tion of a challenge, so that alternative opportunities address it may become apparent. I can take apart established prac- challenge main challenge and loo tunities and loo	To an take apart established practices and challenge mainstream thought to create oppor- tunities and look at chal- lenges in different ways.
Uncover needs.	I can find examples of groups who have benefited from a solution to a given problem.	I can identify needs in my community and surround- ings that have not been met.	I can explain that differ- ent groups may have different needs.	I can establish which user group, and which needs, I want to tackle through creating value.	I can carry out a needs analysis involving rele- vant stakeholders.
Analyse the context.	I can tell the difference between different areas where value can be cre- ated (for example, at home, in the community, in the environment, or in the economy or society).	I can recognise the differ- ent roles the public, pri- vate and third sectors play in my region or country.	I can tell the difference between contexts for creating value (for example, communities and informal networks, existing organisations, the market).	I can identify my personal, social and professional opportunities for creating value, both in existing organisations or by setting up new ventures.	I can identify the bound- aries of the system that are relevant to my (or my team's) value-creating activity.

Table 5.2 Learning outcomes levels for the competence spotting opportunities

the activities as planned. Thus, by being able to mobilise resources, social entrepreneurs could for instance obtain financing for their efforts, onboard necessary individuals, and ensure the optimal and ethical utilisation of obtained resources. This competence has the following descriptors (Bacigalupo et al., 2016):

- Get and manage the material, non-material and digital resources needed to turn ideas into action.
- Make the most of limited resources.
- Get and manage the competences needed at any stage, including technical, legal, tax and digital competences.

As such, the learning objectives for this competence are organised under the following themes: Manage resources (material and non-material); use resources responsibly; make the most of your time; get support (Table 5.3).

4.3 Cultural Awareness

Helping entrepreneurs in understanding the cultural differences that might emerge when moving into different international markets and regions, reducing problems connected to cultural differences. Knowing what is and is not permitted or expected or considered legitimate by social and cultural standards is key to developing successful social entrepreneurial strategies and operational plans (Dacin et al., 2010).

The predominant approach to explore cultural differences is the six cultural dimensions from Hofstede (1980, 2001), which has been extended to nine dimensions in the GLOBE study (House et al., 2004), and further applied in the context of social entrepreneurship (Canestrino et al., 2020). These nine dimensions are Power Distance, Uncertainty Avoidance, In-group Collectivism, Institutional Collectivism, Gender Egalitarianism, Performance Orientation, Future Orientation, Human Orientation and Assertiveness. Based on the above, this competence has the following descriptors (Table 5.4):

- Identify and analyse dimensions in another culture.
- See positive and negative aspects of cultures and tolerate differences.
- Manage differences by communicating effectively and see opportunities from having an "outsider perspective".
- The learning objectives for cultural awareness are therefore organised under the following themes: Cultural dimensions, tolerance and cultural differences.

4.4 Ability to Identify Social Problems

Social problems exist in many countries, regions and contexts, and as a social entrepreneur, it is necessary to be able to identify social problems in varying

Theme	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Make the			I can discuss the	I can use my time	I can manage my time	I can help others
vour time			time in different	ellectively to actileve mv onals	enecuvery, using techniques and tools	manage men ume effectively
			value-creating	in Source	that help make me	. (12, 12,217)
			activities.		(or my team)	
					productive.	
Manage			I can experiment	I can get and manage	I can develop a plan	I can get together the
resources			with different com-	the necessary	for dealing with lim-	necessary resources
(material and			binations of	resources to turn my	ited resources when	to develop my value-
non-material).			resources to turn	idea into action.	setting up my value-	creating activity.
			my ideas into action.		creating activity.	
Use resources			I can discuss the	I use resources	I take into account the	I can choose and put
responsibly.			principles of circu-	responsibly and effi-	non-material cost of	in place effective
			lar economy and	ciently (for example,	using resources when	resource- manage-
			resource efficiency.	energy, materials in	taking decisions	ment procedures (for
				the supply chain or	about my value-	example, life-cycle
				manufacturing pro-	creating activities.	analysis, solid
				cess, public spaces).		waste).
Get support.	I can look for help	I can identify sources	I can describe the	I can find and list	I can find digital	
	when I am having	of help for my value-	concepts of divi-	public and private	solutions (for exam-	
	difficulty achiev-	creating activity (for	sion of labour and	services to support	ple, free, paid for, or	
	ing what I have	example, teachers,	job specialisation.	my value-creating	open-source) that can	
	decided to do.	peers, mentors).		activity (for example,	help me manage my	
				incubator, social	value-creating activi-	
				enterprise advisors,	ties efficiently.	
				start-up angels,		
				chamber of		
				commerce).		

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Theme	Level 1	Level 2	Level 3	Level 4	Level 5
Analyse culture	I can identify examples of distinct cultural dimensions in other cultures.	I can define specific cul- tural dimensions that are important for social entrepreneurship.	I can define specific cul- tural dimensions that are important for social entrepreneurship. I can describe cultural dimensions that may affect social business opportuni- ties in a given context.	I can manage cultural dimensions which may promote or inhibit social entrepreneurship in a given context.	I can find opportunities for social value-creating activities based on cultural dimensions.
Tolerate differences	I can identify different practices in solving social needs in my own and in other cultures.	I can non-judgmentally observe practices that may be relevant for social value-creating opportunities.	I can describe positive and negative aspects of how social problems are solved in my own and in other cultures.	I can explain and utilise the I can disagree with other reasons why there are dif- ferent approaches to solve judging and learn from social problems. their practices.	I can disagree with other cultural practices without judging and learn from their practices.
Manage differences	Manage I can identify possible differences obstacles in communi- cating with people from another culture.	I can identify specific communication obsta- cles based on certain cultural dimensions.	I can describe communica- tion techniques that facili- tate cooperation despite cultural differences.	I can use my knowledge about a given culture to communicate effectively and facilitate cooperation to solve social needs.	I can identify and reflect upon opportunities and barriers from having an "outsider" perspective when working with my value-creation.

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Learning outcomes levels
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Table 5.4

situations (Miller et al., 2012). Different problems require different approaches and solutions, and often the entrepreneur need to implement innovative solutions, both at the managerial level and in the organisation's solutions (Shaw & Carter, 2007; Zahra et al., 2008). To do this, the entrepreneur need to have insights in the problems, the system the problems are embedded in, and the contextual uniqueness and similarity to other contexts. The entrepreneur needs to utilise prior knowledge about the context and be innovative in the understanding of the system to be able to develop sufficient solutions (Zahra et al., 2008).

Moreover, as value creation is central in entrepreneurship, and especially the creation of social value for social entrepreneurs, an understanding of total wealth is needed in the task of identifying social problems (Sullivan Mort et al., 2003; Zahra et al., 2008). Having the necessary insights in the potential of total wealth in a system, that is, the sum of social and economic wealth, will help the entrepreneur understand the problems' complexity in the system in which they exist (Zahra et al., 2008). Thus, the competence ability to identify social problems has the following descriptors:

- Identify and analyse social problems in various contexts.
- Use social wealth as a measure to analyse and discuss social problems.
- Understand the system in which social problems exist, including the efforts needed to initiate processes intended to reduce the social problems.

Furthermore, the learning objectives for the competence are organised under the following themes (Table 5.5): Systems of social problems; contextual knowledge; social wealth.

In Table 5.6 below, the different competences in the ISSA project are summarised. The different competences, descriptors along with the competences' learning outcomes are also presented in ISSA competences table online².

5 Conclusions

This chapter illustrates the development of new competencies to be used in an online self-training course for social entrepreneurs going internationally. The competences developed utilises the EntreComp framework as a structural basis while its content is developed from subject specific literature. The chapter therefore presents practice for further inspiration and development in the creation of competencies for different contexts and subjects, especially with an international audience in focus.

The chapter contributes in several ways. First, it presents a method for the development of competencies, where cultural and contextual differences are identified in a stepwise manner and controlled for in the development. The difference between countries in terms of the importance of social entrepreneurship competences was already identified in the literature prior to the project, and the project's research confirmed and controlled for this. While the research approach took methodological considerations to ensure its results, the study was, however, conducted in

Theme	Level 1	Level 2	Level 3	Level 4	Level 5
Understand social wealth.	I can iden- tify different constituents of social wealth: Social value and social costs.	I can iden- tify differ- ent levels of social value and social costs.	I can describe the relations and interconnections between social value and costs.	I can evaluate different con- stituents and combinations of social value and costs in my work to iden- tify those that optimise a solution.	I can evaluate the social values and costs in a sys- tem including economic wealth to identify the best solutions.
Utilise con- textual knowledge.	I can iden- tify social problems in my context.	I can iden- tify the main driv- ing forces of my context's social problems.	I can identify the characteristics of my context and identify similar contexts with similar social problems.	I can identify measures to create value that could decrease my context's social prob- lems, based on other contexts' measures.	I can develop measures to reduce social problems used in other con- texts to fit in my own context.
Analyse the system.	I can iden- tify social problems that exist in a system.	I can iden- tify changes that would reduce the system's social problems.	I can think of well-known approaches that could reduce the system's social problems.	I can imagine new and novel ways of reduc- ing a system's social problems.	I can assess the plausibil- ity whether different solu- tions fit in the system.

Table 5.5 Learning outcomes levels for the competence ability to identify social problems

five European countries and with a limited number of respondents. Other countries and context might identify other competences that are of higher importance for their entrepreneur. Furthermore, the method also utilises the EntreComp framework and illustrates how this framework could serve as a structural guideline in the development of descriptions of new entrepreneurship competences.

Second, the chapter also contributes to social entrepreneurship literature through the development of the descriptions of the competences *ability to identify social problems* and *cultural awareness*. These competences' content are based on central and important literature on the topic, but should in the future be tested and verified by active social entrepreneurs with experience in internationalization of their entrepreneurial efforts. Future work is targeted towards more empirical work on the Social Innovation Competence Framework. More specifically, this includes the evaluation of the self-training packages, e-learning platform, 3D VW and scenarios with social entrepreneurs to measure whether they improve upon the competences that will support them in the internationalization process of their social enterprises.

Competences	Hints	Descriptors
Spotting opportunities	Use your imagination and abilities to identify opportunities for creating value	 Identify and seize opportunities to create value by exploring the social, cultural and economic landscape Identify needs and challenges that need to be met Establish new connections and bring together scattered elements of the landscape to create opportunities to create value
Mobilizing resources	Gather and manage the resources you need	 Get and manage the material, non-material and digital resources needed to turn ideas into action Make the most of limited resources Get and manage the competences needed at any stage, including techni- cal, legal, tax and digital competences
Ability to iden- tify social problems	Using imagination, knowledge and experience to identify social problems.	 Identify and analyse social problems in various contexts Use social wealth as a measure to analyse and discuss social problems Understand the system in which social problems exist, including the efforts needed to initiate processes intended to reduce the social problems
Cultural awareness	Identify and manage cultural differences.	 Identify and analyse dimensions in another culture. See positive and negative aspects of cultures and tolerate differences. Manage differences by communicat- ing effectively and see opportunities from having an 'outsider perspective'.

Table 5.6 ISSA competences' hints and descriptors

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References

- Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entre-preneurship competence framework*. Publication Office of the European Union. https://doi.org/ 10.2791/593884
- Canestrino, R., Ówiklicki, M., Magliocca, P., & Pawełek, B. (2020). Understanding social entrepreneurship: A cultural perspective in business research. *Journal of Business Research*, 110, 132–143. https://doi.org/10.1016/j.jbusres.2020.01.006

- Dacin, P., Dacin, M., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. Academy of Management Perspectives, 24(3), 37–57. https://doi.org/10.5465/AMP.2010.52842950
- Dinning, T. (2019). Articulating entrepreneurial competencies in the undergraduate curricular. *Education and Training*, 61(4), 432–444. https://doi.org/10.1108/ET-09-2018-0197
- European Commission. (2015). A map of social enterprises and their eco-systems in Europe. https://doi.org/10.2767/458972
- Forcher-Mayr, M., & Mahlknecht, S. (2020). A capability approach to entrepreneurship education: The sprouting entrepreneurs Programme in rural south African schools. *Discourse and Communication for Sustainable Education*, 11(1), 119–133. https://doi.org/10.2478/dcse-2020-0011
- Hofstede, G. (1980). Culture and organizations. International Studies of Management & Organization, 10(4), 15–41. https://doi.org/10.1080/00208825.1980.11656300
- Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. SAGE Publications.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). Culture, leadership, and organizations: The GLOBE study of 62 societies. SAGE Publications.
- Miller, T. L., Wesley, C. L., & Williams, D. E. (2012). Educating the minds of caring hearts: Comparing the views of practitioners and educators on the importance of social entrepreneurship competencies. Academy of Management Learning and Education, 11(3), 349–370. https:// doi.org/10.5465/amle.2011.0017
- Misbauddin, S. M., & Nabi, M. N. U. (2019). Internationalization of social business: Toward a comprehensive conceptual understanding. In societal entrepreneurship and competitiveness (pp. 117–136). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83867-471-720191009
- Shaw, E., & Carter, S. (2007). Social entrepreneurship: Theoretical antecedents and empirical analysis of entrepreneurial processes and outcomes. *Journal of Small Business and Enterprise Development*, 14(3), 418–434. https://doi.org/10.1108/14626000710773529
- Strauti, G., Dumitrache, V.-M., & Taucean, I. M. (2018). Entrepreneurial competences in economical engineering curriculum in Romania. *Procedia—Social and Behavioral Sciences*, 238, 737–742. https://doi.org/10.1016/j.sbspro.2018.04.057
- Sullivan Mort, G., Weerawardena, J., & Carnegie, K. (2003). Social entrepreneurship: Towards conceptualisation. *International Journal of Nonprofit and Voluntary Sector Marketing*, 8(1), 76–88. https://doi.org/10.1002/nvsm.202
- Wiek, A., Bernstein, M. J., Foley, R. W., Cohen, M., Forrest, N., Kuzdas, C., Kay, B., & Keeler, L. W. (2015). Operationalising competencies in higher education for sustainable development. In M. Barth, G. Michelsen, M. Rieckmann, & I. Thomas (Eds.), *Routledge handbook of higher education for sustainable development* (pp. 241–260). Routledge. https://doi.org/10.4324/ 9781315852249
- Wronka-Pośpiech, M. (2016). The identification of skills and competencies for effective management in social enterprises. A managerial perspective. *Management*, 20(1), 40–57. https://doi. org/10.1515/manment-2015-0023
- Zahra, S. A., Rawhouser, H. N., Bhawe, N., Neubaum, D. O., & Hayton, J. C. (2008). Globalization of social entrepreneurship opportunities. *Strategic Entrepreneurship Journal*, 2(2), 117–131. https://doi.org/10.1002/sej.43

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