



**Creation of the European micro and family business service design hub platform for fostering a sustainable digitalized economy**

## **Result 1**

# **SeDiHUB Training Approach and Curriculum**



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## Executive summary

Service design thinking is becoming increasingly important in this rapidly growing service-based economy. The Design Council states that one unit of money invested in service design brings back twenty units of turnover. The main problem why service design methodology is not used by family and micro- enterprises is the lack of knowledge and the fact that the involvement of an external service designer is generally costly. Products and services in micro of family enterprises are usually designed by managers or owners, or persons without training in service design. While new business models are being created, it is important for family and micro-enterprises to have the knowledge on how to adapt in this changing business environment, sometimes posed also by the new technologies, while creating their services in a more environmentally friendly way.

The SeDiHUB project contributes to the **up-skilling of family and micro-enterprises** to develop their management perspective, integrate design thinking methodology into strategic and tactical planning of their organizations' growth and provide services in a more sustainable and environmentally friendly way. Also, SeDiHUB provides a training approach to be used by **VET providers** which have little practical experience in teaching service design and their training effect remains still short. Therefore, SeDiHUB's innovative approach directly helps family and micro-enterprises in creating greater value through service design methodology.

The main objectives of the SeDiHUB project are:

- Raise awareness of micro & family enterprises about service design so as to develop customer-oriented services.
- Provide knowledge, skills, and competencies to develop customer-oriented services by themselves.
- Provide VET providers with a methodological approach of using new tools and online learning resources to teach service design.
- Create training material specifically for micro & family enterprises, accompanied by the necessary guidelines and tools for developing services.
- Create an online learning platform to develop service design thinking.
- Create a micro & family business hub where stakeholders can learn how to apply service design, matchmake and create joint services.
- Raise awareness among policymakers, stakeholders involved in the business development ecosystem on service design thinking necessity.

The present report "**SeDiHUB training approach and curriculum**" constitutes the first result of SeDiHub which is necessary for specifying the appropriate training approach for the achievement of the overall objective - the **up-skilling of family and micro-enterprises** in service design so as to provide services in a more sustainable and environmentally friendly way in the digitalized economy. The proposed training approach consists of the **desired learning outcomes, curriculum**, as well as the **training methodology and assessment**. The development of the training approach corresponds to the "**learners' personas**" and is based on the identified training needs, new trends in developing sustainable business models through service design, inspired paradigms of service design training and tools, as well as on inputs from all partner countries about the skills gaps related to service design, sustainability skills and most effective training methods for the target group.

The **first part** of the report presents the curriculum of SeDiHUB which refers to the training content outline and includes the five modules structured in coherent learning units developed to correspond to the real needs of micro and family enterprises. The expected learning outcomes accompany the content of each module and are organized in terms of knowledge, skills, and competences, at EQF level 5. The proposed



training modules consist of the theoretical and practical side of the service design process accompanied by the most important service design tools for developing sustainable and environmentally friendly businesses in the digitalized economy. Each module has also the potential to be adapted in relevant courses of other training institutions across the EU. The whole training is equivalent to 5 ECTS/ECVET. The five modules are the following:

Module 1	<ul style="list-style-type: none"><li>• Discover the customer through service design methods</li></ul>
Module 2	<ul style="list-style-type: none"><li>• Sustainability and business models for micro and family enterprises</li></ul>
Module 3	<ul style="list-style-type: none"><li>• Develop and test service for micro and family enterprises</li></ul>
Module 4	<ul style="list-style-type: none"><li>• Managing changes in micro and family enterprises</li></ul>
Module 5	<ul style="list-style-type: none"><li>• Facilitation practices expanding micro and family businesses – Marketing, Funding, Sharing and connecting</li></ul>

More information about the SeDiHUB Curriculum can be found [here](#).

The **second part** of the report consists of the **training** and **the assessment methodology** to be followed in the SeDiHUB project. The training methodology presents the theoretical foundation and the proposed methodology in a way easy to be followed by VET providers. The training methodology is based on self-directed and online learning principles. The methods include a combination of gamification, process-oriented training, design thinking, problem-solving, co-creation, and propose user-centered tools promoting experiential, active and transformative learning using digital learning technologies. More information about the Training Methodology of SeDiHUB can be found [here](#). The SeDiHub **assessment methodology** is accounting on the recommended training methodology, which is in accordance with the theoretical background. It also encompasses diagnostic, formative summative and self-assessment approaches, with particular emphasis in authentic assessment activities, applied in online learning environments. More information about the Assessment Methodology of SeDiHub can be found [here](#).

In the **third part** of this report the SeDiHub **desired learning outcomes** are presented as were derived from the mapping of the theoretical foundation and the training needs analysis. The desired learning outcomes were identified in terms of knowledge, skills, and competencies according to the EQF 5 definitions and feed the development of the curriculum and expected learning outcomes presented in the first part of the report. More information about the Desired Learning Outcomes can be found [here](#).

In the ANNEX of this report the outcomes of the research for the mapping of the theoretical foundation and micro and family enterprises' training needs that determine the development of the SediHub training approach are presented. Desk Research and analysis of first-hand data collected through survey (field research) were employed. More specifically this part includes:

- ✓ Training needs in Service Design identified in the SeDiHUB partners countries (desk research)
  - Family & micro-enterprises training needs in each country
  - Service Design good practices and existent results from previous projects
- ✓ New trends related to the development of sustainable business models and environmentally friendly services through service design in all project countries (desk research)
- ✓ Service design perceptions and application of service design in all countries (Field research)
  - Trainings needs for service design
  - Desired online learning methods and learning styles
- ✓ Identification of the “clients’ personas”



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## 1. Introduction

The **SeDiHUB training approach and curriculum** aim to the upskilling of **micro and family enterprises** on developing sustainable and environmentally friendly business through service design in the digitalized economy. The proposed training approach consists of the **desired learning outcomes, curriculum**, as well as the **training methodology and assessment**. The development of the training approach was based on the identified training needs, new trends in developing sustainable business models through service design, inspired paradigms of service design training and tools, as well as on inputs from all partner countries about the skills gaps related to service design, sustainability skills and most effective training methods for the target group.

The proposed training approach address the special characteristics, challenges, training needs, studying styles of micro and family enterprises, and involves a training curriculum accompanied with the expected learning outcomes at EQF level 5, structured in a set of **5 training modules** applied in **VET context**. The proposed training modules consist of the theoretical and practical side of the service design process accompanied by the most important service design tools for developing sustainable and environmentally friendly businesses in the digitalized economy. Each module is equivalent to specific ECTS/ECVET and have also the potential to be adapted in relevant courses of other training institutions across the EU.

The SeDiHUB approach is based on online and self-directed learning. The proposed **training methodology** includes a combination of gamification, process-oriented training, interactive learning, design thinking, problem-solving, co-creation, and propose user-centred tools promoting experiential, active and transformative learning, using digital learning technologies. An **assessment methodology** is also proposed which is accounting on the recommended training methodology. It encompasses diagnostic, formative summative and self-assessment approaches, with particular emphasis in authentic assessment activities, applied in online learning environments.

The SeDiHUB curriculum (training modules and expected learning outcomes), the training and assessment methodology as well as the desired learning are presented in the following sections. At the ANNEX of this report the outcomes of the mapping of the theoretical foundation and micro and family enterprises' training needs, as well as the "learners' personas" are also provided.



## 2. SeDiHUB training curriculum

The SeDiHUB training curriculum sets the framework for planning the learning experiences. It includes the learning outcomes, objectives, contents, and duration of learning.

The learning outcomes as stated by the recommendations of the European Parliament and council (2008) for the European Qualification Framework (EQF) are defined as “statements of what an individual should know, understand and is able to do at the end of a learning process, which are defined in terms of knowledge, skills and competences”. Each of these attributes has been defined by the European Qualifications Framework (EQF):

“‘Knowledge’ means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.”

“‘Skills’ means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).”

“‘Competence’ means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.”

SeDiHUB adopts the EQF level 5. Therefore, the description of the learning outcomes (knowledge skills and competences) has been done by reference to the descriptors of EQF level 5 as presented below.

EQF Level	Knowledge	Skills	Competence
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of the EQF, competence is described in terms of responsibility and autonomy. Responsibility and Autonomy are described as the ability of the learner to apply knowledge and skills autonomously and with responsibility.
Level 5 Relevant LO:	Comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.

The methodology applied for the development of the SeDiHUB curriculum is based on the constructive alignment approach which maximizes the conditions for quality learning by ensuring the alignment of the form of the learning outcomes, with the choice of the content and the training and assessment methods applied (Blumberg, 2009). The process of constructive alignment emphasizes that learners are central to the creation of meaning, and must be provided with opportunities to actively select, and cumulatively construct their own knowledge.

The SeDiHUB curriculum follows a modular approach to fit to the specific needs of each learner and permit to each learner to build its own learning path. The learners are able to select a specific module(s) or unit(s) to learn based on their needs, competences, skills and knowledge they want to acquire and/or interest. It is structured by training modules and learning units. The structure of the curriculum is depicted in the following Table.

<b>Table 1. Structure and duration of the modules</b>	
<b>Modules</b>	<b>Duration</b>
<b>Module 1. Discover the customer through service design methods</b> <ul style="list-style-type: none"> <li>– Introduction to Service Design</li> <li>– Customer Research/Design research</li> <li>– Creating Personas (how to interpret customer data)</li> </ul>	<b>22 hours</b>
<b>Module 2. Sustainability and business models for micro and family enterprises</b> <ul style="list-style-type: none"> <li>– Introduction to Sustainability and Sustainable Business model canvas</li> <li>– Costs and benefits of sustainability</li> <li>– Circular economy</li> </ul>	<b>20 hours</b>
<b>Module 3. Develop &amp; test service for micro and family enterprises</b> <ul style="list-style-type: none"> <li>– Diamond frame - find the best solution to the customer's problem</li> <li>– Prototyping and testing</li> <li>– Value proposition and business model</li> </ul>	<b>30 hours</b>
<b>Module 4. Managing changes in micro and family enterprises</b> <ul style="list-style-type: none"> <li>– Management of change posed by the implementation of Service Design in micro and family businesses</li> <li>– Digitalization: how it changes your business?</li> <li>– Risk management - Reducing risks</li> </ul>	<b>28 hours</b>
<b>Module 5. Facilitation practices expanding micro and family businesses – Marketing, Funding, Sharing and connecting</b> <ul style="list-style-type: none"> <li>– Marketing strategies for new services</li> <li>– Funding, growing, investors (initial budgeting for new service)</li> <li>– Sharing and connecting a new service</li> </ul>	<b>25 hours</b>
<b>Total duration</b>	<b>125 hours</b>

The modules are analyzed further as follows.

## Training modules

### Module 1: Discover the customer through service design methods

<p><b>Short Description / Motivation text</b></p>	<p>The purpose of service design is to bring a <b>customer-centric view</b> to service development, i.e., to develop the company's services based on the customer needs, using the same work methodology that designers have so far applied, for example, to the design of products, packaging and web pages.</p> <p>This requires that the company has a comprehensive overview of the customer's needs and expectations. However, the question is always how do we know what the customer needs when he or she often doesn't even know it.</p> <p>This is why service design comes into play with its own methodology, where it is possible to discern and understand the customer's real problems by using various tools, and then develop solutions to solve these problems in such a way that the customer is happy to pay for it.</p>
<p><b>Learning Objectives</b></p>	<p>This module aims to help learners to:</p> <ul style="list-style-type: none"> <li>● Conceptualize the service design</li> <li>● Understand the importance and benefits of service design for the sustainability of micro and family businesses</li> <li>● Identify and realize the customer needs</li> <li>● Comprehend the Personas and know how to use them</li> </ul>
<p><b>Expected learning outcomes (knowledge, skills, competences)</b></p>	<p><i>By the end of the training, the trainees will:</i></p> <p><b><u>Knowledge</u></b></p> <ul style="list-style-type: none"> <li>▪ Be familiar with the service design definition and concepts</li> <li>▪ Explain why and how service design is vital for the sustainability of micro and family businesses</li> <li>▪ Relate service design with the long-term business survival</li> <li>▪ Relate service design with the quality of customer service</li> <li>▪ Relate service design with innovation</li> <li>▪ Be acquainted with the customer-oriented and interactive service development</li> <li>▪ Be familiar with methods and tools for collecting and analyzing data about the customer needs</li> <li>▪ Be aware of the importance of addressing the customer needs and the value that is offered when they design a service</li> <li>▪ Be aware of the importance of collecting feedback from customers</li> <li>▪ Identify the role of the staff in reaching the customer's needs</li> </ul> <p><b><u>Skills</u></b></p> <ul style="list-style-type: none"> <li>▪ Be able to calculate in numbers the effectiveness of using service design</li> <li>▪ Be able to adapt to different customers when they use media platforms</li> <li>▪ Be able to keep, categorize and analyze customer's data</li> <li>▪ Be able to describe customer's needs</li> <li>▪ Be able to use specific methods and tools to collect customer's feedback and level of satisfaction</li> <li>▪ Be able to identify Personas as fictional representation of prospect customers</li> </ul>

	<p><b>Competences</b></p> <ul style="list-style-type: none"> <li>▪ Be competent to think customer-centrally and understand the customer's needs</li> <li>▪ Integrate service design in the business strategic priorities</li> <li>▪ Be competent to use a variety of resources to produce customer-based data</li> </ul>
<b>Key words</b>	service design, design thinking, customer research, Personas, customer need/problem
<b>References/Sources</b>	<p><i>Klaas, J.M (2014). Kuidas tootest rohkem kasu lõigata: sissejuhatus teenusedisaini. BIS Publishers, Amsterdam.</i></p> <p><i>Lehari, I., Meister, L., Melioranski, R-H., Pärn M., Siimar, J. (2012). Kuidas leiutada jalgratast? Publishers, Eesti Kunstiakadeemia, Eesti Disainikeskus</i></p>

## Learning Unit 1.1 – Introduction to Service Design

<b>Short Description / Motivation text</b>	<p>Today, customers can choose from many different services. Why do customers prefer one company over another? The difference here is how the company's service is designed. Does the customer feel that it is just for him/her? With the help of Design thinking, we can provide services that are user-centered. At the heart of design thinking is the person for whom we create solutions, i.e., the user. This means understanding the user - first identifying, then researching and empathizing with him, then defining the exact problem, and only then conceptualizing solutions, prototyping, testing and learning from constant feedback.</p> <p>Service design's primary purpose and meaning is the organization of the company's work from the customer's point of view. The goal is to provide a positive customer experience at every contact between the company and the customer.</p>
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>– Understand the definition and concept of service design and design thinking</li> <li>– Understand the necessity of service design for ensuring business sustainability</li> <li>– Learn how to start with re-designing a service, or creating a new one</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Service design and design thinking</li> <li>– The necessity of user-centeredness</li> <li>– Perception of design</li> <li>– Trends in business - (which indicate the necessity of service design)</li> <li>– Mapping the company's external environment and key stakeholders</li> <li>– Case studies of the service design successful use by small and family businesses</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies,</i>
<b>Duration</b>	<i>6 hours</i>

## Learning Unit 1.2 – Customer Research/Design research

<b>Short Description / Motivation text</b>	Market research alone is not enough to launch a new service. It is necessary to conduct a design study to understand the client and understand his/her problems.
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	It makes sense to conduct design research. The purpose of design research is not so much to find out the existing situation as to find new possibilities. The goal is to find out how things could work in the future and how many people would be willing to do things in a new way or on a larger scale.
<b>Learning unit objectives</b>	This learning unit aims to help learners to: <ul style="list-style-type: none"> <li>– Understand the importance of identifying customer needs and problems when offering company's service</li> <li>– Learn customer research based on service design methods</li> <li>– Learn how to get the right information from customer research</li> <li>– Understand the difference between market research and design research</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Why is it necessary to understand the customer's problem?</li> <li>– Design research</li> <li>– Desk and field research</li> <li>– How to conduct customer research - focus group interviews, user monitoring, etc.</li> <li>– What questions to ask?</li> <li>– Experience study and in-depth research</li> <li>– Interpretation of collected data using service design methods (empathy map, insights, etc.)</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>10 hours</i>

### Learning Unit 1.3 – *Creating Personas (how to interpret customer data)*

<b>Short Description / Motivation text</b>	After conducting a design study, the next step is to create Personas and understand their problems. What is a Persona and why is it a better tool than simply formulating a customer segment? This learning unit helps you to understand the necessity of establishing Personas and how to create them. In short, a Persona is a personalized character (not a real person) representing a customer segment, created as the most typical universal example of its user group. Personas are usually characters that are very memorable.
<b>Learning unit objectives</b>	This learning unit aims to help learners to: <ul style="list-style-type: none"> <li>– Know how to see deeper into the customer's target group</li> <li>– Understand how to create Personas in order to identify with the customer at an emotional level</li> <li>– Learn how to describe the customer's Pains, Gains and Jobs</li> <li>– Know how to use digital tools to create Personas</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Customer segments vs. Personas</li> <li>– Creating a Persona and using the empathy map</li> <li>– Understanding the customer's problem</li> <li>– Mapping Personas Pains, Gains and Jobs</li> <li>– Digital tools to apply for creating Personas</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>6 hours</i>

## Module 2: Sustainability and business models for micro and family enterprises

<p><b>Short Description / Motivation text</b></p>	<p><b>Environmental</b> and social trends such as climate change, energy crisis and resource scarcity are disrupting traditional <b>business models</b>. Under this assumption, are the micro and family businesses able to create, deliver and capture value for their stakeholders without depleting the natural, economic, and social capital that they rely upon? Can sustainability be integrated into the core business? Is it a compelling brand value? Is circular economy much more than just recycling?</p>
<p><b>Learning Objectives</b></p>	<p>This module aims to help learners to:</p> <ul style="list-style-type: none"> <li>● Comprehend business survival and sustainability</li> <li>● Know how to integrate green services and think green</li> <li>● Know how to embed environmental, social and financial sustainable practices</li> <li>● Understand the definition and concept of circular economy</li> </ul>
<p><b>Expected learning outcomes (knowledge, skills, competences)</b></p>	<p><i>By the end of the training, the trainees will:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>▪ Define sustainability and relate it with ecological goals</li> <li>▪ Be aware of how micro and family businesses can contribute to Sustainable Development Goals (SDGs)</li> <li>▪ Relate sustainability with the survival of their business</li> <li>▪ Define sustainable development</li> <li>▪ Be acquainted with sustainable business models</li> <li>▪ Define the concept of circular economy</li> <li>▪ Explain the transition to low-carbon, energy efficient and circular economy</li> <li>▪ Relate green service production with their long-term sustainability strategy</li> <li>▪ Recognize how social and environmental consequences can jeopardize business success</li> <li>▪ Be familiar with the environmental standards management and relate it with the increase of the efficiency of their operational procedures</li> <li>▪ Relate economy with ecology</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>▪ Be able to set sustainable specific goals</li> <li>▪ Be able to develop and apply a sustainable business model</li> <li>▪ Be able to integrate green solutions in their businesses</li> <li>▪ Be able to develop and deliver green services</li> <li>▪ Be able to produce and offer high value innovative green services</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>▪ Be competent to harmonize their business services with the local environment</li> <li>▪ Be competent to foster sustainable development integrated into a view of community development that links the social, economic, and environmental dimensions</li> <li>▪ Be capable of to recognize that sustainability should be seen as a change of thinking and philosophy that has to start from the top of the company's organization chart to the bottom</li> <li>▪ Be competent to think green</li> </ul>

	<ul style="list-style-type: none"> <li>Be competent to invest on new eco-friendly practices for attracting new environment-conscious population</li> </ul>
<b>Key words</b>	Sustainability; sustainable; ecological; green; waste; renewable; circular
<b>References/Sources</b>	<p>Breuer, H. &amp; Lüdeke-Freund, F. (2014): <i>Normative Innovation for Sustainable Business Models in Value Networks</i>, in: Huizingh, K.</p> <p>Boons, F. &amp; Lüdeke-Freund, F. (2013): <i>Business Models for Sustainable Innovation: State-of-the-Art and Steps towards a Research Agenda</i>, <i>Journal of Cleaner Production</i>, Vol. 45, pp. 9-19.</p> <p>Upward, A. &amp; Jones, P. (2016): <i>An Ontology for Strongly Sustainable Business Models: Defining an Enterprise Framework Compatible With Natural and Social Science</i>, <i>Organization &amp; Environment</i>, Vol. 29, No. 1, pp. 97-123.</p> <p>David Young and Marine Gerard, (2021): <i>Four Steps to Sustainable Business Model Innovation</i>, BCG</p> <p>Steve Evans, Doroteya Vladimirova, Maria Holgado, Kirsten Van Fossen, Miying Yang, Elisabete A. Silva, Claire Y. Barlow (2017): <i>Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models</i></p> <p>Bocken, N. M. P., et al. "A literature and practice review to develop sustainable business model archetypes." <i>Journal of cleaner production</i> 65 (2014): 42-56.</p> <p>Peter Lacy, Jessica Long, Wesley Spindler (2020): <i>The Circular Economy Handbook: Realizing the Circular Advantage</i></p> <p>Bocken, NMP, de Pauw, I, Bakker, C, van der Grinten, B (2016) <i>Product design and business model strategies for a circular economy</i>, <i>Journal of Industrial and Production Engineering</i>, 33:5, 308-320</p> <p>Braungart &amp; McDonough, 2008, <i>Cradle to Cradle: Re-making the way we make things</i>, p. 56-60.</p> <p>Joyce, A., Paquin, R., &amp; Pigneur, Y (2015): <i>The triple layered business model canvas: A tool to design more sustainable business models</i></p>

## Learning Unit 2.1 – Introduction to Sustainability and Sustainable Business model canvas

<b>Short Description / Motivation text</b>	Micro and family enterprises must combine environmental, societal and financial priorities in designing their business models, so they can be able to shift the competitive edge. This unit searches for answers by applying the key concepts of sustainable business model canvas in micro and family businesses.
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>Understand how sustainability business model canvas differs from the basic one</li> <li>Be acquainted with the rationale of how sustainable business model takes into account the impact that the business has on the world</li> <li>Be aware of how this impact influences the business itself</li> <li>Be competent in mapping a wider ecosystem of stakeholders and societal issues in which micro and family business operate</li> </ul>

<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- Concepts of business sustainability and sustainable development</li> <li>- Business sustainability management</li> <li>- Establishing sustainable principles and practices in micro and family businesses</li> <li>- Creating a sustainable business model</li> </ul>
<b>Material</b>	Manuals available as documents or as online tools; recorded audio or video; interactive e-lessons; checklists; technical glossaries.
<b>Duration</b>	8 hours

### Learning Unit 2.2 – *Costs and benefits of sustainability*

<b>Short Description / Motivation text</b>	Opportunity spaces exist that have the potential for both financial return and social value. A sustainable business model should integrate and reinforce both business advantage and environmental and societal benefits also without ignoring its costs.
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>- identify costs and benefits tied to environmental and societal issues, looking at today's trends and thinking about how these might evolve over time</li> <li>- be able to see how environmental benefits and costs can affect the business model</li> <li>- Have a greater understanding of the impact of sustainability on day-to-day business is expected</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- Ecological or social costs and benefits within a business model</li> <li>- Common good balance sheet</li> <li>- Transforming eco-social benefits into value proposition</li> </ul>
<b>Material</b>	Manuals available as documents or as online tools; recorded audio or video; interactive e-lessons; checklists; technical glossaries.
<b>Duration</b>	6 hours

### Learning Unit 2.3 – *Circular Economy*

<b>Short Description / Motivation text</b>	Businesses that are based on a circular economy, besides being more sustainable, allow significant savings in a perspective of sharing resources. But what is circular economy? What are the fundamentals behind it? This learning unit provides an overview on the definition and concepts of the circular economy.
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>- move towards a more sustainable service production cycle throughout the entire value chain</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- principles of circular economy</li> <li>- assessment of the life cycle of services and important environmental problems</li> <li>- the company's environmental activities and opportunities to improve environmental activities</li> </ul>
<b>Material</b>	Manuals available as documents or as online tools; recorded audio or video; interactive e-lessons; checklists; technical glossaries.

<b>Duration</b>	6 hours
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### Module 3: Develop and test service for micro and family enterprises

<b>Short Description / Motivation text</b>	<p>Micro and family businesses deal with new problems on a daily basis. It might be coming up with a great new design for the business web page, or overcoming a challenging brief from a customer.</p> <p>But how can micro and family businesses process information in order to create solutions? The <b>Double Diamond</b> structure is an excellent framework you can use to help you create solutions to those problems. You may use the Double Diamond to understand your business customers and their problems and explore creative and innovative ways to solve their problems and delight them.</p> <p>Then how can you be sure that the different solutions you come up with are indeed suitable for your customers? How can you understand which is the best one to apply and which is the most convenient for the company? To provide answers to the above questions, a prototype must be used. Through <b>prototyping and testing</b>, you can refine your service step by step, yet without having to develop your final service or make a substantial financial investment right away.</p> <p>The results generated through prototyping and testing are often used to redefine one or more further problems. This increased level of understanding may help you investigate the conditions of use of your services, along with how people think, behave and feel towards them. This can even lead you to loop back to previous stages in the design thinking process. Then, you can proceed with further iterations and make alterations and refinements to rule out alternative solutions and re-describe your business model to take into account all the changes that are needed to offer the most suitable service. The ultimate goal is to get as deep an understanding of the service and its users as possible. To do this, you have to build the <b>Value Proposition</b> and tie it to the customer Personas identified. After that, the entire company's business model will be possible to be described explicitly.</p>
<b>Learning Objectives</b>	<p>This module aims to help learners to:</p> <ul style="list-style-type: none"> <li>● Apply customer-oriented service development using service design methods and tools</li> <li>● Prototype and test service ideas</li> <li>● Be aware of the concept of value proposition for services and how to make the value proposition</li> <li>● Develop business model innovation</li> </ul>
<b>Expected learning outcomes (knowledge, skills, competences)</b>	<p><i>By the end of the training, the trainees will:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>▪ Be familiar with the concept of value proposition</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Be familiar with the concept and use of service design tools (service concept, service delivery system, Personas, customer journeys, service blueprints, storyboards, customer service Scenarios, experience prototypes, service ecology maps etc.)</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>▪ Be able to develop value proposition</li> <li>▪ Be able to define the service delivery system, the content of the services as well as roles and responsibilities</li> <li>▪ Be able to develop the customer journeys, the distinct stages a customer goes through with a service</li> <li>▪ Be able to use service blueprints</li> <li>▪ Be able to develop storyboards, visual representation of a service</li> <li>▪ Be able to develop customer Service Scenarios, to assist agents how to handle requests from customers</li> <li>▪ Be able to develop experience prototypes, replication of the customer experience</li> <li>▪ Be able to develop service ecology maps</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>▪ Be competent to customize service according to their customer's needs</li> <li>▪ Be competent to use service design to adapt their services to different customer segments</li> <li>▪ Be competent to use service design tools</li> </ul>
<b>Key words</b>	<i>Double diamond, prototype, service blueprint, customer journey, value proposition</i>
<b>References/Sources</b>	<p><i>Klaas, J.M (2014). Kuidas tootest rohkem kasu lõigata: sissejuhatus teenusedisaini. BIS Publishers, Amsterdam.</i></p> <p><i>Lehari, I., Meister, L., Melioranski, R-H., Pärn M., Siimar, J. (2012). Kuidas leiutada jalgratast? Publishers, Eesti Kunstiakadeemia, Eesti Disainikeskus</i></p>

### Learning Unit 3.1 – *Diamond frame - find the best solution to the customer’s problem*

<b>Short Description / Motivation text</b>	In this learning unit, we look at what to do next with Personas and new knowledge regarding sustainability. Let's take all the previously collected data and put it to work now. We will use service design tools for this and follow the double diamond process. In order to develop a new service or re-design an already existing one, it is reasonable to find many different solutions to solve the customer's problem. Within this Learning Unit, you will learn how to come up with new ideas.
<b>Learning unit objectives</b>	This learning unit aims to help learners to: <ul style="list-style-type: none"> <li>– understand the double diamond process of service development</li> <li>– use service design tools to generate ideas</li> <li>– understand the customer journey and service blueprint</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Double diamond process</li> <li>– Formulation of the main problem according to the Personas</li> <li>– Preparing service development</li> <li>– Finding solutions <ul style="list-style-type: none"> <li>○ user stories</li> <li>○ brainstorming</li> <li>○ map me</li> <li>○ co-creation with a potential client</li> </ul> </li> <li>– customer journeys, service blueprints, storyboards,</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>12 hours</i>

### Learning Unit 3.2 – *Prototyping and testing*

<b>Short Description / Motivation text</b>	After we have received many different ideas on how to develop our new service or improve the one already existing, more questions arise. How to understand which is the best solution, which is not convenient for the company but is the most suitable for the customer? To answer such questions a prototype must be used to understand which solution is most suitable for the customer. Through prototyping, you can refine your service step by step without having to make a large financial investment right away.
<b>Learning unit objectives</b>	This learning unit aims to help learners to: <ul style="list-style-type: none"> <li>– Understand the need for prototyping and testing</li> <li>– Understand prototyping methods</li> <li>– Know how to choose the best solution for the client's problem</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– What is prototyping and why is it necessary to test the suitability of a solution</li> <li>– Case studies of successful and unsuccessful service tests</li> <li>– Different ways to prototype and test <ul style="list-style-type: none"> <li>○ Review of the service concept</li> <li>○ Experience Prototyping - Touchpoints</li> <li>○ Role playing games</li> <li>○ Playing through the customer journey - LEGOD</li> <li>○ Paper, scissors, glue and pencils - the initial prototype</li> <li>○ User scenario</li> <li>○ digital tools for prototyping</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Testing and analyzing results</li> <li>- Choosing best solution for the market</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>12 hours</i>

### Learning Unit 3.3 – Value proposition and business model

<b>Short Description / Motivation text</b>	After the development of the service, it is necessary to re-describe the business model to take into account all the changes that are needed to offer an updated service or an entirely new one. To do this, you have to start with the value proposition and tie it to the customer Persona. After that, you have to describe the entire company's business model.
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>- Create a connection between the Personas and the developed service</li> <li>- Recognize the principles of designing a customer-oriented business and understand how to actually create value for consumers</li> <li>- Formulate a proper value proposition</li> <li>- Design a business model based on value proposition, resources, etc.</li> <li>- Formulation of competitive advantage according to the value proposition</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- The importance of a value proposition and how to use it</li> <li>- Customer Empathy Map and Value Proposition Canvas.</li> <li>- Understanding the business model</li> <li>- Business model canvas, lean canvas</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>6 hours</i>

### Module 4: Managing changes in micro and family enterprises

<b>Short Description / Motivation text</b>	<p>In this module you will learn how to <b>manage change</b> in your company. You will learn how digitalization changes the world and impacts your business. You will also understand the benefits of digitalization and how digital tools can boost your business.</p> <p>While implementing the new services created by Service Design methods, you will also understand the meaning of risk management in general and learn how to manage and reduce risk in your business.</p>
<b>Learning Objectives</b>	<p>This module aims to help learners to:</p> <ul style="list-style-type: none"> <li>● Understand why the change is needed in businesses in terms of digitalization</li> <li>● Be aware on how to manage change in their company effectively</li> <li>● Understand risk management</li> <li>● Assess risks and comprehend how to reduce risks</li> </ul>
<b>Expected learning outcomes (knowledge, skills, competences)</b>	<p><i>By the end of the training, the trainee will:</i></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>▪ Define the term of change management</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Be aware on how to design communication that promotes the implementation of changes in a company.</li> <li>▪ Be aware of cultural and social aspects that influence change management processes.</li> <li>▪ Be acquainted with the ways to digitalize the provided services</li> <li>▪ Explain how new technologies can result to increased operational efficiency, reduced waste and increased service differentiation</li> <li>▪ Relate digital technologies with the improvement of business processes and profitability</li> <li>▪ Recognize digital transformation as a result of changing consumer habits</li> <li>▪ Explain how digitalization changes the way companies operate and the customer's behavior,</li> <li>▪ Recognize digitalization meaning for operations and competition</li> <li>▪ Be acquainted with risk management</li> <li>▪ Know how to manage risk in a service design project</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>▪ Be able to implement changes in the company according to needs of the new service defined in Service Design process</li> <li>▪ Be able to implement strategies that increase the online presence of a company</li> <li>▪ Be able to digitalize the offered services</li> <li>▪ Be able to define risks and manage them in a micro or family business service design project</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>▪ Be competent in leading a change management procedure</li> <li>▪ Be able to communicate the necessary changes in the company</li> <li>▪ Be competent to using digital tools for boosting business</li> <li>▪ Be competent in digitalizing services</li> <li>▪ Be able to deal with risks if they occur</li> </ul>
<b>Key words</b>	<i>Managing change, Digitalization, Risk management - Reducing risks</i>
<b>References/Sources</b>	<p><i>David Hillson: The Risk Management Handbook: A Practical Guide to Managing the Multiple Dimensions of Risk, 2016.</i></p> <p><i>Harvard Business Review: Robert S. Kaplan and Anette Mikes: Managing Risks: A New Framework, 2016.</i></p> <p>Lindsay Herbert Digital Transformation: Build Your Organization's Future for the Innovation Age, 2017.</p> <p><i>Muntés-Mulero, V. et al. (2019). Agile risk management for multi-cloud software development. IET Softw., 2019, Vol. 13 Iss. 3, 172–181.</i></p> <p><i>Nyffjord, J. &amp; Kajko-Mattsson, M. (2007). Commonalities in Risk Management and Agile Process Models. 2nd International Conference on Software Engineering Advances (ICSEA 2007), 18-25.</i></p> <p><i>Odzaly, E.E, Greer, D. &amp; Stewart, D. (2017). Agile risk management using software agents. J Ambient Intell Human Comput (2018) 9:823-841.</i></p> <p><i>Stanley, Chris (2007) Navigating the change process: the experience of managers in the residential aged care industry. Journal of Organizational Change Management 20(5):700-720.</i></p> <p><i>Tharawat Magazine, <a href="https://www.tharawat-magazine.com/grow/change-management-in-the-family-business/">https://www.tharawat-magazine.com/grow/change-management-in-the-family-business/</a></i></p> <p><i>Ulrich, Dave (1998) A New Mandate for Human Resources. Harvard Business Review 76(1):124-134.</i></p>

	<a href="https://thescalers.com/how-digital-transformation-can-change-your-business-in-2020/#4-how-can-digital-transformation-benefit-your-business">https://thescalers.com/how-digital-transformation-can-change-your-business-in-2020/#4-how-can-digital-transformation-benefit-your-business</a> <a href="https://hbr.org/2012/06/managing-risks-a-new-framework">https://hbr.org/2012/06/managing-risks-a-new-framework</a> <a href="https://www.ekathimerini.com/opinion/238575/digitalization-a-global-megatrend/">https://www.ekathimerini.com/opinion/238575/digitalization-a-global-megatrend/</a>
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### Learning Unit 4.1 – Management of change posed by the implementation of Service Design in micro and family businesses

<b>Short Description / Motivation text</b>	<p>In this learning you will learn how to <b>manage change</b> in your company regarding the implementation of service design. Change management is defined as the methods and manners in which a company describes and implements change within both its internal and external processes. This includes preparing and supporting employees, establishing the necessary steps for change, and monitoring pre- and post-change activities to ensure successful implementation.</p> <p>Change management is guiding people from the starting point towards a common goal.</p>
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>– Comprehend change management</li> <li>– Know how to design communication that promotes changes in company</li> <li>– Identify cultural and social aspects that influence change management process</li> <li>– Apply changes in their business according to the needs of new services defined in the Service Design process</li> <li>– Lead change management while implementing service design</li> <li>– Communicate the necessary changes within the company</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Understanding the concept of change management process</li> <li>– Change management action plan (in the implementation of service design)</li> <li>– Leading and motivating the staff</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets</i>
<b>Duration</b>	<i>8 hours</i>

### Learning Unit 4.2 – *Digitalization: how it changes your business?*

<b>Short Description / Motivation text</b>	<p>In this learning unit you will learn how digitalization changes the world and your business. You will also understand the benefits and how digital tools can boost your business. You can have more effective process, increase overall efficiency, empower your staff and develop new exciting digital services. Consider to make digitalization strategy or an action plan to help your company grow.</p>
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>– Identify ways to digitalize your services</li> <li>– Explain how new technologies can result to increased operational efficiency reduced waste and increased service differentiation</li> <li>– Use digital technologies to improve their business processes and profitability</li> <li>– Recognize digital transformation as a result of changing consumer habits</li> <li>– Explain how digitalization changes business operation and customer's behavior</li> <li>– Recognize digitalization meaning for operations and competition</li> </ul>

	<ul style="list-style-type: none"> <li>- Adjust digitization in micro and family businesses</li> <li>- Use digital tools for service production and digitalize their business services</li> <li>- Implement strategies that increase their online presence</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- The benefits of digitalization</li> <li>- How using digital technologies improves business processes and profitability</li> <li>- Introducing digital tools</li> <li>- Digitalization strategy or action plan</li> <li>- How to manage and purchase e-services</li> </ul>
<b>Material</b>	<i>Readings, Video, Power Point Presentation, Website Links, Case studies, online team activities</i>
<b>Duration</b>	<i>16 hours</i>

### Learning Unit 4.3 – Risk management - Reducing risks

<b>Short Description / Motivation text</b>	<p>While launching new services it is important to understand the risks.</p> <p>Risk management during the implementation of service design is the identification, evaluation, and prioritization of risks followed by coordinated the resources that are needed to support the design process and to minimize, monitor, and control the probability or impact of unfortunate events:</p> <p>Risks can come from various sources including uncertainty in markets, threats from project failures (at any phase in design, development, production, or sustaining of life-cycles), legal liabilities, credit risk, accidents, natural causes and disasters, deliberate attack from an adversary, or events of uncertain or unpredictable root-cause. There are four main risk management strategies, or risk treatment options, namely risk acceptance, risk transference, risk avoidance, risk reduction.</p> <p>In this unit you will understand the meaning of risk management in general and learn how to manage risks in your service design process.</p>
<b>Learning unit objectives</b>	<p>This learning unit aims to help learners to:</p> <ul style="list-style-type: none"> <li>- Become acquainted with risk management</li> <li>- Define and manage risks in service design for micro and family businesses</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>- Risk management strategies and remedies</li> <li>- Risk management strategy</li> <li>- Action plan for risk management</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies, worksheets, You tube</i>
<b>Duration</b>	<i>5 hours</i>

## Module 5: Facilitation practices expanding micro and family businesses – Marketing, Funding, Sharing and connecting



<p><b>Short Description / Motivation text</b></p>	<p>Like any other business, micro and family enterprises should work to develop a vision for the organization that addresses their core ideology and a sustainable future. Naturally, this entails aiming at the expansion of practices by placing their services on the market with success. To accomplish that and manage growing, it is critical for micro and family enterprises to apply <b>marketing strategies</b> based on what is going on around them, seek <b>funding</b> opportunities, engage in experience sharing and pursue connecting with the business environment.</p> <ul style="list-style-type: none"> <li>● Does your micro or family enterprise follow a proper marketing strategy for placing your services on the market efficiently?</li> <li>● What digital tools of marketing does your family or micro-enterprise use and why?</li> <li>● Have you discovered any new funding opportunities recently? Does your family or micro-enterprise actually own a fundraising plan to navigate through?</li> <li>● Have you prepared and/or keep updated a presentation for communicating your services in an appealing way to lure investors?</li> <li>● How often do you interact with your stakeholders/customers for sharing experience?</li> <li>● Is your family or micro-enterprise open for networking and connecting with the business environment?</li> <li>● Do you regularly seek opportunities for collaboration and attempt to establish creative synergies for your micro and family enterprise?</li> </ul> <p>Putting such concerns at the center of attention, this module is structured in three Learning Units (LUs) that take into account the uniqueness of micro and family enterprises and provide the basic knowledge and skills required for understanding and applying fundamental principles of marketing strategy for new or re-designed services, fundraising, business networking and experience sharing. After the completion of the module, learners will be able to practice methods, run processes and use tools of marketing, develop fundraising, pursue growing, apply sharing and connecting that will contribute to their competitiveness and long-term sustainability.</p>
<p><b>Learning Objectives</b></p>	<p>This module aims to help learners to:</p> <ul style="list-style-type: none"> <li>● Specify basic marketing principles and implement marketing strategies for services provided by family and micro-enterprises through using digital tools</li> <li>● Execute a funding plan, attract investors and raise money for introducing new services on the market</li> <li>● Discover opportunities for micro and family enterprises to network and engage in experience sharing and connecting with stakeholders/customers</li> </ul>
<p><b>Expected learning outcomes (knowledge, skills, competences)</b></p>	<p><i>By the end of the training, the trainee will:</i></p> <p><b><u>Knowledge</u></b></p> <ul style="list-style-type: none"> <li>▪ be aware of the basic principles and characteristics of marketing</li> <li>▪ recall different competitive strategies and possible sources of competitive advantage</li> <li>▪ know how to position the companies' services in the market</li> <li>▪ name different marketing strategies for new services</li> </ul>

	<ul style="list-style-type: none"> <li>▪ comprehend how to prepare a fundraising plan</li> <li>▪ explain the importance of networking, connecting and experience sharing</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>▪ be able to design marketing strategies and tactics for new services</li> <li>▪ be able to use digital marketing in planning new services</li> <li>▪ be able to communicate his/her company and ideas in an appealing way</li> <li>▪ be able to use effective digital marketing outlets (e.g., social media, email newsletters, etc.)</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>▪ be capable of creating a marketing plan for new services</li> <li>▪ be capable of selecting appropriate digital tools in marketing services</li> <li>▪ be competent to understand the competition of new services</li> <li>▪ be in position to choose between different fundraising tactics to support the design and production of new services</li> <li>▪ be capable of preparing an attractive presentation for investors</li> <li>▪ be able to recognize several cooperation opportunities</li> <li>▪ be competent to show active interest, network with others and become part in new endeavors</li> <li>▪ be competent to collaborate, establish creative synergies, interact and connect with stakeholders</li> </ul>
<b>Key words</b>	Market, Service, Customer, Marketing strategy, Competition, Funding, Investor, Networking, Connecting, Sharing, Stakeholder
<b>References/Sources</b>	<p>Agyapong, A., Osei, H. V., &amp; Akomea, S. Y. (2015). Marketing capability, competitive strategies and performance of micro and small family businesses in Ghana. <i>Journal of Developmental Entrepreneurship</i>, 20(04), 1550026.</p> <p>Niehm, L. S., Swinney, J., &amp; Miller, N. J. (2008). Community social responsibility and its consequences for family business performance. <i>Journal of Small Business Management</i>, 46(3), 331-350.</p> <p>Tokarczyk, J., Hansen, E., Green, M., &amp; Down, J. (2007). A resource-based view and market orientation theory examination of the role of “familiness” in family business success. <i>Family Business Review</i>, 20(1), 17-31.</p> <p>Vlachakis, S., Siakas, K. V., &amp; Naaranoja, M. (2015, June). Internet and social media: The main marketing tools for small family businesses. In <i>International conference on contemporary marketing issues (ICMI 2015)</i> (Vol. 30).</p> <p>Zachary, M. A., McKenny, A., Short, J. C., &amp; Payne, G. T. (2011). Family business and market orientation: Construct validation and comparative analysis. <i>Family Business Review</i>, 24(3), 233-251.</p>

### Learning Unit 5.1 – Marketing strategies for new services

<b>Short Description / Motivation text</b>	<p>One of the most significant weaknesses of micro and family enterprises today is the missing or insufficient strategy for realization of the marketing activities for their services. Usually, family and micro entrepreneurs have only some basic marketing knowledge by experience, while their customer base is very small and there is a lack of resources to be used in marketing activities. This Learning Unit (LU) will help learners navigate into the subject of marketing for family and micro-enterprises, starting from a general introduction about the main marketing principles and strategies suitable for family and micro-enterprises, with activities that will help learners experiment useful practices for their new services. It will</p>
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	provide learners the knowledge, skills and competences to plan the launch of new service and acquire a strong competitive advantage along with a clear differentiation point of reference that renders the family or micro-enterprise distinguishable within the international market. Practical examples, activities and use cases are also provided, along with several external resources to allow learners become familiar with how to use of basic marketing tools such as systematic marketing plan preparation and use of ICT in marketing
<b>Learning unit objectives</b>	This module aims to help learners to: <ul style="list-style-type: none"> <li>– Acknowledge the basic principles and strategic aspect of marketing</li> <li>– Identify the competitive environment of micro and family enterprises, the different competitive strategies to follow and possible sources of establishing a competitive advantage issuing a new service</li> <li>– Plan the launch of new services on the market</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Positioning of a new service in the market</li> <li>– Marketing planning for new services in micro and family businesses</li> <li>– Launching a new service to the market</li> <li>– Implementing marketing activities, advertising and marketing campaign plans</li> <li>– Distribution channels that micro and family enterprises use to reach their consumer/target market segments</li> <li>– Use of Information and communication technology (ICT) and social media for marketing purposes (e-marketing, m-marketing and social media marketing etc.)</li> <li>– Community-concerned CSR as a mean of serving marketing of micro and family enterprises</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies,</i>
<b>Duration</b>	12 hours

### **Learning Unit 5.2 – Funding, growing, investors (initial budgeting for new service)**

<b>Short Description / Motivation text</b>	A substantial difference rises when approaching family micro businesses in terms of funding, growing and luring investors to provide initial budgeting for new services. This Learning Unit (LU) will help learners identify the opportunities for fundraising, growing and drawing in investors so as to support the production of their services. Learners will get to know the different ways that a micro or family enterprise can raise money and involve investors for initial budgeting of a new service designed and offered. Valuable insight is also provided on how to present an idea to raise money. In this LU, practical examples, activities and use cases are also provided, along with several external resources to expand the content of the learning unit.
<b>Learning unit objectives</b>	This module aims to help learners to: <ul style="list-style-type: none"> <li>– Know how to prepare a fundraising plan</li> <li>– Discover opportunities and methods for raising funds</li> <li>– Attract and involve investors for budgeting new services</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– Preparation of funding forecasts</li> <li>– Mapping the needs for fundraising</li> <li>– Different ways to raise money (grants, investors, loans etc.)</li> </ul>

	– Preparing a presentation of an idea to raise money (elevator pitch, slide deck, etc.)
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies,</i>
<b>Duration</b>	6 hours

### Learning Unit 5.3 – *Sharing and connecting a new service*

<b>Short Description / Motivation text</b>	This Learning Unit (LU) will help learners comprehend and apply practices of experience sharing and connecting with stakeholders to better map the market needs and environment specifications for modern micro-enterprises, along with the competition level in the market. They will become familiar with opportunities to learn from others. Trainees will also acknowledge the importance of networking and relative practices at national level and abroad. Benefits of interacting, connecting and sharing experiences are introduced to help family and micro-enterprises develop partnership strategies and creative synergies that will build solid and sustainable business relationships for their new services.
<b>Learning unit objectives</b>	This module aims to help learners to: <ul style="list-style-type: none"> <li>– Become aware of the importance of networking in the business environment</li> <li>– Understand the opportunity to learn from others through experience sharing while designing and providing a new service</li> <li>– Be able to interact with stakeholders, and establish new collaborations and synergies to gain competitive advantage for their new services</li> </ul>
<b>Learning unit content</b>	<ul style="list-style-type: none"> <li>– The importance of networking and networking practices</li> <li>– Benefits of sharing business-related experiences and learning from others</li> <li>– Building business relationships</li> <li>– Partnership strategies for micro and family enterprises, types and benefits</li> </ul>
<b>Material</b>	<i>Text, Video, Power Point Presentation, Website Links, case studies,</i>
<b>Duration</b>	6 hours

Blumberg, P. 2009. *Maximizing learning through course alignment and experience with different types of knowledge*. Innovative Higher Education 34:93-103.

## 3. SeDiHUB training methodology and assessment

### The scope of SeDiHUB training and assessment methodology

The training and assessment methodology is based on self-directed and online learning principles. ICT tools and virtual environments will also be exploited such as Canva, Trello etc. The methods include a combination of gamification, process-oriented training, design thinking, problem-solving, co-creation, and propose user-centered or other tools promoting experiential, active and transformative learning. Regarding the assessment, for each type of learning outcome, appropriate assessment methods will also be defined. The SeDiHUB approach is the first structured methodology for addressing the needs of micro & family enterprises on how to create sustainable business models and provide environmentally friendly services, in the digitized



economy, proposing appropriate training practices that combine process-oriented training and interactive learning methods, digital learning technologies, tailored made material to micro & family businesses.

## Audience of training methodology and evaluation

The direct users of the training and assessment methodology are: a) the SeDiHUB partners who will undertake the implementation of any training following the SeDiHUB approach, b) VET providers and other training institutions, c) Trainers, d) the main beneficiaries, members and staff of micro & family businesses who may follow the learning resources provided for self-directed learning.

## Theoretical framework

### Principles of adult education

According to Phillips & Ertl (2003) adult learning refers to a range of formal and informal learning activities, both general and vocational, undertaken by adults after leaving initial education and training.

According to Ball (2012) Individuals pursue adult learning for a variety of reasons, to

- enhance their employment prospects
- develop personally or professionally
- obtain transferable skills, such as critical thinking

According to Lawn, M., & Grek, S. (2012) adult learning also contributes to improving social cohesion and promotes active citizenship. It also enhances the competitiveness of businesses and European economies. Adults have created profound values, beliefs and opinions. They have years of experience and a lot of information, and they relate new information to previously learned information and experience. Adult education refers to andragogy introduced by Malcolm Knowles in 1968. *The theory is described by the art and science of helping adults to learn.*

According to Lima & Guimaraes (2001) key issues of today's adult educations are as follows:

- An ability to draw on life experience to assist with learning.
- A willingness to learn when applying in new roles
- A focus on applying new knowledge to real-life situations and problems
- A tendency to be internally motivated
- A preference for self-directed learning
- Adults relate new information to previously learned information and their experience.

According to Giddens (2013) when we are teaching adults the principles are:

- Focus on the strengths, which participants bring to the course.
- It is important to ask people what they already know.
- Tap their experience to provide a major source of enrichment for the class.
- Demonstrate respect for differing beliefs, religions, value systems and life-styles.
- Allow equal time for differing viewpoints.



- Assess your group's level of knowledge prior to the training or at the beginning of class. Information needs to be relevant.

According to Saar, Ure, O.-B., & Holford (2013) safe and supportive environment creates better learning outcomes. It is important to acknowledge participants for their responses and questions and treat all questions with respect.

## Constructivism / Social Constructivism

According to Applefiel, Huber, Moallem (2000) constructivism is the theory that says learners construct knowledge rather than just passively take in information. As people experience the world and reflect upon those experiences, they build their own representations and incorporate new information into their pre-existing knowledge. According to Praile and Pransky (2005) considering the themes of constructivism and social constructivism more in detail, there is a slight difference. According to Cobb and Bauesfeld (2005) constructivism is a theory about the nature of learning that focuses on how humans make meaning from their experiences. Social constructivism is sociological theory of knowledge according to which human development is socially situated and knowledge is constructed through interaction with others. These definitions have been determined from the view of adult education.

## Experiential learning

According to WGU (2022) experiential learning is often used synonymously with the term experiential education, but while experiential education is a broader philosophy of education, experiential learning considers the individual learning process. Experiential learning is concerned with more concrete issues related to the learner, former experiences and learning context. According to WGU (2022) the basic idea of experiential learning is generated through ongoing interactions and engagement with the world around, and learning is an inevitable product of a person's experience. This theory of learning is different from cognitive and behavioral learning theories as it takes a more holistic approach. It considers that all experiences have an effect in learning, including emotions, cognition and environmental factors.

## Independent study

According to Moore (1973) independent study refers to directed study, and is an educational activity undertaken by an individual without a supervisor. Independent Study retrieved 13 March 2014 provide a way for well-motivated learners to pursue a topic of interest that does not necessarily fit into a traditional academic curriculum. They are a way for learners to learn specialized material or gain research experience. Moore, Michael Grahame (1973). "Toward a theory of independent learning and teaching". *The Journal of Higher Education*.

## Transformative learning

The Transformational Learning Theory originally developed by Jack Mezirow is described as being "constructivist, an orientation which holds that the way learners interpret and reinterpret their sense experience is, central to making meaning and hence learning" (Mezirow, 1991). The theory has two basic kinds of learning: instrumental and communicative learning. Instrumental learning focuses on learning through task-oriented problem solving and determination of cause-and-effect relationships. Communicative learning involves how individuals communicate their feelings, needs and desires.

Meaning structures (perspectives and schemes) are a major component of the theory. Meaning perspectives are defined as "broad sets of predispositions resulting from psychocultural assumptions which determine the horizons of our expectations" (Mezirow, 1991). They are divided into 3 sets of codes: sociolinguistic codes,



psychological codes, and epistemic codes. A meaning scheme is “the constellation of concept, belief, judgement, and feelings which shapes a particular interpretation” (Mezirow, 1994, 223).

Meaning structures are understood and developed through reflection. Mezirow states that “reflection involves a critique of assumptions to determine whether the belief, often acquired through cultural assimilation in childhood, remains functional for us as adults” (Mezirow, 1991). Reflection is similar to problem solving and Mezirow talks about how we “reflect on the content of the problem, the process of problem-solving, or the premise of the problem” (Mezirow, 1991). Through this reflection we are able to understand ourselves more and then understand our learning better. Mezirow also proposed that there are four ways of learning. They are “by refining or elaborating our meaning schemes, learning new meaning schemes, transforming meaning schemes, and transforming meaning perspectives” (Mezirow, 1991).

### Principles

Adult exhibit two kinds of learning: instrumental (e.g., cause/effect) and communicative (e.g., feelings)

- Learning involves change to meaning structures (perspectives and schemes).
- Change to meaning structures occurs through reflection about content, process or premises.
- Learning can involve: refining/elaborating meaning schemes, learning new schemes, transforming schemes, or transforming perspectives.

Transformative Learning theory is focused on adult learning, particularly in the context of post-secondary education (e.g., Craig et al., 2001; King, 2002).

### Theories of e-learning

According to Mayer (2003, 2016) E-learning theory consists of cognitive science principles that describe how electronic educational technology can be used and designed to promote effective, flexible learning.

Mayer, Moreno (2007), Sweller (2005) and their colleagues established e-learning design principles that are focused on minimizing extraneous cognitive load and introducing germane and intrinsic loads at user-appropriate levels. These include the following empirically established principles:

Learning is more effective when visuals are accompanied by audio narration versus onscreen text. There are exceptions for when the learner is familiar with the content, is not a native speaker of the narration language, or when printed words are the only things presented on screen. Another exception to this is when the learner needs to use the material as reference and will be going back to the presentation repeatedly.

The less the learners know about the presentation content, the more they will be distracted by unrelated content. Irrelevant video, music, graphics, etc. should be cut out to reduce cognitive load that might happen through learning unnecessary content. Learners with some prior knowledge, however, might have increased motivation and interest with unrelated content.

Learning is more effective when relevant information is presented closely together. Relevant text should be placed close to graphics, and feedback and responses should come closely to any answers that the learner gives. More effective learning happens when learning is segmented into smaller chunks. Breaking down long lessons and passages into shorter ones helps promote deeper learning. Using arrows or circles, highlighting, and pausing in speech are all effective methods of signaling important aspects of the lesson. It is also effective to end a lesson segment after releasing important information.

For most learners, being able to control the rate at which they learn helps them learn more effectively. Having just play and pause buttons can help more than having an array of controls (back, forward, play, pause). Advanced learners may benefit from having the lesson play automatically with the ability to pause when they choose.

A tone that is more informal and conversational, conveying more of a social presence, helps promote deeper learning. Beginning learners may benefit from a more polite tone of voice, while learners with prior

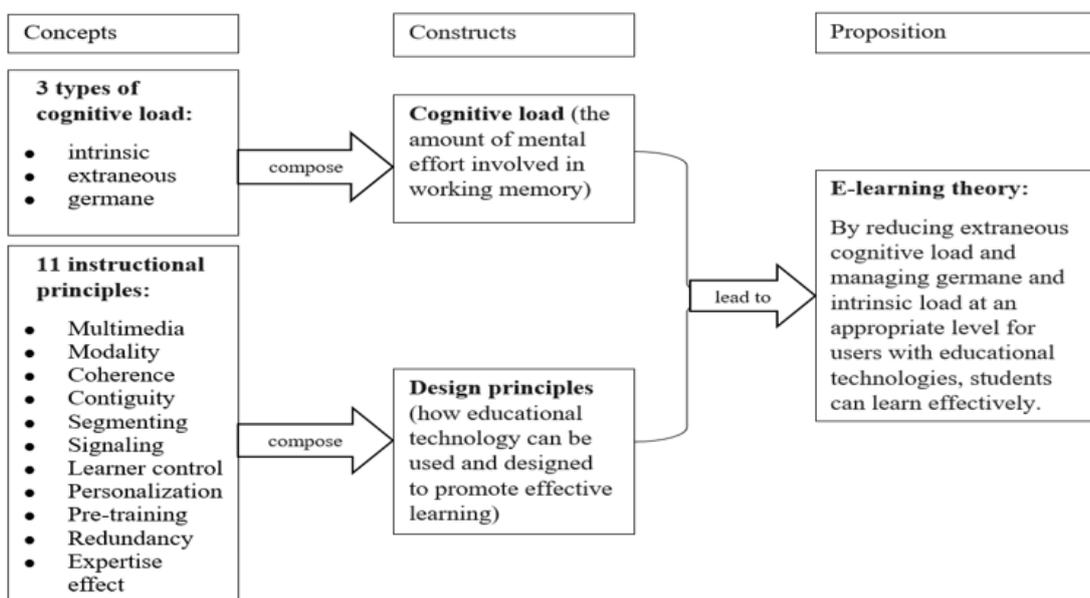


knowledge may benefit from a more direct tone of voice. Computer characters can help reinforce content by narrating the lesson, pointing out important features, or illustrating examples for the learner.

Introducing key content concepts and vocabulary before the lesson can aid deeper learning. This principle seems to apply more to low prior knowledge learners versus high prior knowledge learners. Having graphics explained by both audio narration and on-screen text creates redundancy. The most effective method is to use either audio narration or on-screen text to accompany visuals. Instructional methods that are helpful to low prior knowledge learners may not be helpful at all, or may even be detrimental, to high prior knowledge learners.

**Figure 1. A model of e-learning theory**

*A model of e-learning theory based on Mayer et al (2015)*



## Problem and project-based learning

As early as 1900, John Dewey supported a “learning by doing” method of education. Project-based learning (sometimes called problem-based learning) is similar to experiential and action learning in that the overall idea is to actually do something to help you learn, instead of reading or hearing about it. Project-based learning utilizes real-world scenarios and creates projects for learners that they could encounter in a job in the future. Learners can choose their own projects and pursue things they are interested in, which is a great option for adult learners. Problem-based learning (PBL) is a learner-centered approach in which learners learn about a subject by working in groups to solve an open-ended problem. This problem is what drives the motivation and the learning. Why Use Problem-Based Learning?

Nilson (2010) lists the following learning outcomes that are associated with PBL. A well-designed PBL project provides learners with the opportunity to develop skills related to:

- Working in teams.

- Managing projects and holding leadership roles.
- Oral and written communication.
- Self-awareness and evaluation of group processes.
- Working independently.
- Critical thinking and analysis.
- Explaining concepts.
- Self-directed learning.
- Applying course content to real-world examples.
- Researching and information literacy.
- Problem solving across disciplines.

Project-based learning or project-based instruction is an instructional approach designed to give learners the opportunity to develop knowledge and skills through engaging projects set around challenges and problems they may face in the real world. Project-based learning is more than just “doing a project,” in the way you might remember from your own school days. As the Buck Institute for Education (BIE) explains, with PBL, learners “investigate and respond to an authentic, engaging, and complex problem or challenge” with deep and sustained attention.

The Intel Corporation identified several reasons why project-based learning can represent such a radical departure from what we are used to in education: it requires you to coach more and instruct less, to embrace interdisciplinary learning instead of remaining locked in single-subject silos, and to be more comfortable with uncertainty and discovery during the learning process.

For many trainers, it is a stark contrast to the traditional education they experienced. Change takes time and is seldom without apprehension and challenges. However, when we consider the types of educational experiences we value for our modern learners, it becomes apparent the traditional “sage on the stage” instructional model falls significantly short.

The truth is, though, you can overcome these challenges. Good problems or ideas can come from your learners, parents, or community members. Instead of lectures and book learning, teachers can think through the steps required to solve a problem and use those steps as project-learning activities. Instead of planning a massive project, the learning process can be made more manageable by chunking the project into smaller parts, with frequent checkpoints built into the timeline. Instead of a traditional summative exam, authentic assessments can be developed by communicating with professionals in the field regarding what a presentation would look like related to a particular project. As challenging as it may appear at first, it can ultimately be so freeing for educators!

## Theories and pedagogies applied in the teaching of design thinking /service design

Design Thinking has been a subject of teaching, research and real-life application in almost every domain and area of education, research and industrial endeavor for the past many years. It explains how to recognize the principles of constructivist learning theory (constructivist principles) within the teaching and learning of the design thinking process. The research, established an integrative approach to theory, method, and practice by developing a taxonomy of constructivist principles to map the process and activities of design thinking.

Design thinking is used as a means for value creation and innovation in different fields including business, medicine, science and various stages of design-education (Pande & Bharathi, 2020). Literature also shows that the teachers' role in design thinking is also to be seen as a real facilitator, rather than a trainer. In a design thinking intervention, the facilitator presents learners with the context that comprises of the different challenges, collaborative groups, and tools and activities (Pande & Bharathi, 2020). Furthermore, facilitators



stimulate learners to unleash their creative potential promoting a conducive environment to develop reflection about what worked and what can be seen from things that did not work.

Today, design thinking is understood as a way of thinking which leads to transformation, evolution and innovation, to new forms of living and to new ways of managing business. Design thinking is understood also as a complex thinking process of conceiving new realities, expressing the introduction of design culture and its methods into fields such as business innovation.

Thus, design thinking (DT) is not only now a motor for innovation promoted by designers, but it offers new models of processes and toolkits which help to improve, accelerate and visualize every creative process, carried out not only by designers, but in multidisciplinary teams in any kind of organization. The new use of the term DT, specifically the combination of "thinking" and "design", offers fields such as innovation.

Gradually, with increased experiences and learnings, the mind builds models based on these experiences and learnings and applies them to future experiences to predict outcomes. Personal constructivism theories that people organize their experiences and learnings for sense making of normal everyday life, as well as psychologically anticipating outcomes (Pande & Bharathi, 2020). The mind, using the input from the stimuli through the senses, processes the information through an appropriate mental model regarding similar stimuli and aims to predict outcomes.

Teamwork is the operationalization of cooperative learning in the present DT intervention. DT has been linked to constructivist learning theories. Constructivism serves as an umbrella term for a diversity of views about the teaching-learning process, which share two main ideas: learning is not a mere transmission of knowledge, but an active process of constructing knowledge; instruction is a process of supporting that construction.

Constructivist environments should engage learners in their construction of knowledge through collaboration that inserts learning in a meaningful context and through reflection on what has been learned. Scheer et al. affirm that DT offers teacher support to bridge the gap between the theoretical advantages of constructivist learning and its practical implementation to fostering in-demand skills in the workforce. In the constructivist context and DT, teachers are seen as facilitators rather than trainers.

The above abilities are all about how a designer tackles real-world issues by discovering the phenomenon through the interaction with the world, analyzing current situation and data, conducting the experiments practically, and evaluating possible outcomes. These characteristics of design thinking track with a similar vision of the core competency, especially the concept of learning through experience within the authentic tasks, building knowledge through interaction with external contexts (Scheer et al., 2012). From a trainer perspective, teachers act as facilitators to help different learners go through their individual learning process by establishing a learning scaffold.

From a trainer point of view, teachers act as facilitators to help different learners go through their individual learning process by establishing a learning scaffold. Considering learners' participation and engagement, teachers can design the learning experience to motivate learners through selecting the theme related to their interests or background (Scheer et al., 2012). Under the design thinking process, teachers need to offer timely support and create a suitable learning atmosphere to learners.

Summa samarium design thinking is an approach to solve complex problems in a user-centered way. It's a hands-on approach, following a structured process to come to innovate solutions. Using an elaborate set of design tools, design thinking brings together what is desirable from a user's point of view. In this project it is YIB's point of view we are exploiting. Design thinking can be applied to a wide variety of fields, most obvious the field of product and service innovation.

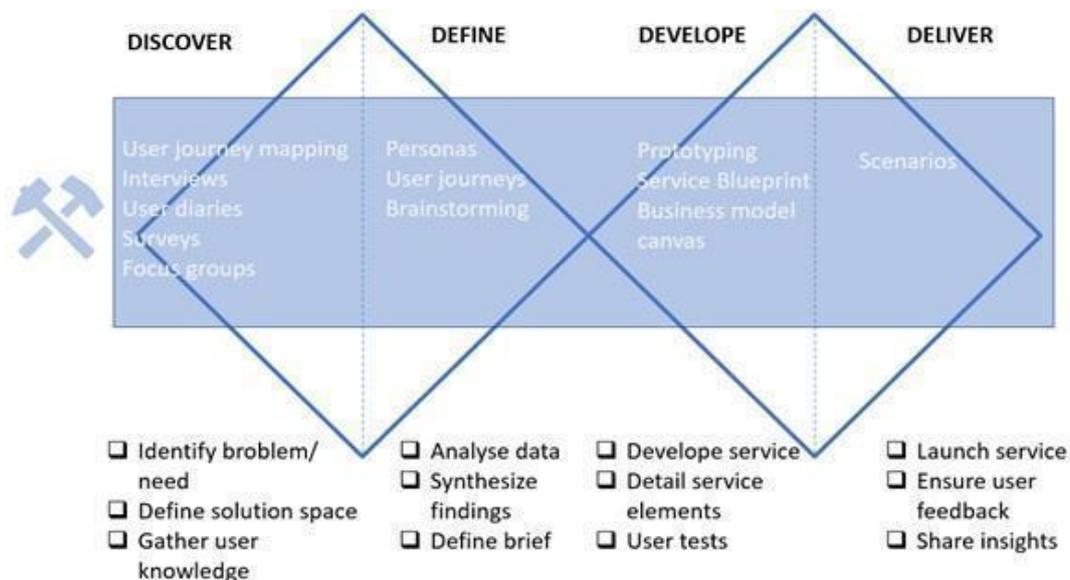
Design thinking is a strategic mindset where creativity attempts to solve multicultural matters. Unlike other process models, DT emphasizes creative thinking and methods, experimental culture, co-development and understanding of people. It is strongly based on the principles of user-centricity, empathy and continuous prototyping and testing.

DT-thinking answers to the questions:

- What do our customers really need?
- What opportunities could we have in the current environment?
- What kind of products and services do we use or take advantage of?
- What role do our products play in the lives of our customers?
- How should we organize our cooperation and developmental transitions to succeed today and tomorrow?
- How do these developmental transitions affect the surrounding world?

E.g. This DT-thinking is used in Skills competition of entrepreneurship in Helsinki Business College and it is always used when modelling all kinds of sports activities with the learners.

**Figure 2. Double Diamond Model by Ola Möller 2015 published in MethodKit Stories.**



Every Service Design project is different and tools should be chosen to fit in a project.

Service Design addresses services from the perspective of clients. By using service design techniques that enable all levels of the service to engage with the users and understand their experiences it is possible to turn this involvement into real service improvements. Working with service design methods it is possible to support organizations to build design capability into their work process. By using these methods rather than for organizations and involving staff and users in the design of services, staff become champions of these methods and pass them on to others, one of the key factors in creating a meaningful impact in services.

Service Design aims to ensure that service interfaces are:

- Useful

- Usable and
  - Desirable from the client's point of view
- and
- Effective
  - Efficient and
  - Distinctive from the supplier's point of view

Supplier= all the collaborative organizations and stakeholders' point of view

A service design approach is holistic. It looks at systems and subsystems of relationships and interactions. It is also anchored in a human-centered design approach and it often has to understand or influence the behavior of people. Co-creation is a part of service design work in two ways: the client and customer will be thoroughly integrated into the exploration and creation process. Co-creation also concerns the service offering: by definition most services are co-produced, so design integrates customers as active parts into the service delivery process, seeing them not as passive customers but active partners and "co-creators" of value. In this case active partners are of course learners, but also companies, other organizations and stakeholders.

With the help of service design methods, there will be more collaboration between different stakeholders. Service design methods can support services to turn the ideas of staff and users into solutions that make a positive difference to people's life.

Both, Service Design and Design Thinking have more similarities than differences

- Both methodologies are very well suited to handle the complex, ambiguous phases at the beginning of the innovation process, where uncertainty rules (the fuzzy front end).
- Both are truly user-centered and rely heavily on empathizing with users.
- Both require involving multidisciplinary teams and have the ability to make people work together in order to maximize support and draw from different expertise.

Doctor Otto Burman from Business College Helsinki has research in his thesis the psychological ownership, joy of learning and entrepreneurial learning to be key elements of preventing dropouts. As a summary of this learner-centered quantitative study, it can be seen that the metric is showing as follows: The joy of learning is experienced when a person is encouraged, supported and guided in a positive spirit, one can fulfil himself and one can find something new. Psychological ownership of learning is experienced when one is working with appropriate tasks, participating in group activities, doing meaningful work, and planning and implementing his/her work. Entrepreneurial learning is experienced when it is possible to experiment, see, experience and develop something new, when investing in challenging tasks and demonstrating his/her skills.

Psychological ownership can happen when:

- having control over something strengthen this feeling by taking into co-creation processes to designing services for them and with them. In the best-case scenario finding out what this "something" could be.
- the more we know something (intimate knowledge) the more we feel it

- spending time and energy in something can bring greater feelings of ownership co-creation via service design

With all these actions our vision is to make customers more responsible about their own lives, strengthen the sense of belonging, make them feel more accountable and this how strengthen the integration. Through all this makes customers more confident about their ability to succeed in their everyday life and become a part of society.

The core idea of LEAN thinking is to maximize customer value while minimizing waste. Simply, lean means creating more value for customers with fewer resources.

To accomplish this, lean thinking changes the focus of management from optimizing separate technologies, assets, and vertical departments to optimizing the flow of products and services through entire value streams that flow horizontally across technologies, assets, and departments to customers.

Eliminating waste along entire value streams, instead of at isolated points, creates processes that need less human effort, less space, less capital, and less time to make services at far less costs and with much fewer defects, compared with traditional business systems. Companies are able to respond to changing customer desires with high variety, high quality, low cost, and with very fast throughput times. Also, information management becomes much simpler and more accurate.

Lean applies in every business and every process. It is not a tactic or a cost reduction program, but a way of thinking and acting for an entire organization and in this project for the common service process of all stakeholders as well.

Developmental transitions actions happen when all stakeholders start to work together “without borders”. According to Toivanen’s research (2015) about intentional networks those developmental transitions help entrepreneurs to achieve their goals in their business and thus lead them to think about their customer’s needs by using service design tools and design thinking sometimes consciously and sometimes by chance.

## SeDiHUB's training methodology

The proposed training methodology of SeDiHUB Project has been developed in line with the theoretical background presented in the previous section and corresponds to its target groups’ needs and project’s scope.

SeDiHUB will follow the training methods of synchronous and asynchronous e-learning, further methods such as Self-paced online training, Learner-centered content, Personalization, Social interaction and online collaboration will also be taken into consideration in the development of the training activities and material.

These methods are presented in *Table 2*.

Table 2. Recommended training methodology for SeDiHUB Project	
Methods	Description
Synchronous e-learning	E-learning which takes place in real time. It is able to replace face to face training, especially in cases where the physical presence of the trainees in a specific class is difficult. Trainers and trainees are required to be present at a specified time. The synchronous communication between trainers and trainees is promoted.

<b>Asynchronous online training</b>	It promotes trainees' autonomy. Asynchronous e-learning activities are time-independent and thus trainees are able to participate in the online training at any time of their preference.
<b>Self-paced online training</b>	It is used to make learning flexible. Thus, the participation in training becomes easier. It can improve learning retention given that the trainees are more likely to retain content better when they have time to absorb concepts between courses.
<b>Learner-centered content</b>	It provides self-reflection possibilities, enables personalization and respond to trainees' needs. Online Open Educational Resources that are provided should be specific and pertinent to trainees' needs and responsibilities in their professional life.
<b>Personalization</b>	It can be used for the promotion of effective learning. Self-study courses are customizable to reflect trainees' interests and needs as well. Thus, trainees' can build their own customized learning paths and select specific content that they want to learn.
<b>Social interaction and online collaboration</b>	They are used for the facilitation of the social interaction and collaboration by the trainees through the e-learning content.

In addition, in the SeDiHUB project the following combination of different instructional methods will be followed under the framework of the above methodology. These methods have been described by FAO learning academy (2021) and are presented below.

**Expositive methods:** require learners to listen and read or observe. The trainers deliver knowledge on a specified topic accompanied by tests and exercises to measure learners' memorization and content comprehension. These types of methods are used for acquiring information and are able to be joint with other methods for creating various types of learning courses. The expositive component provides the orientation and the basic concepts before moving into more practical and complex stages. The expositive methods include:

- ✓ Presentations: organized information regarding specific topics
- ✓ Case studies: real, important cases
- ✓ Work examples: examples with explanations in relation to the theories
- ✓ Demonstrations: i.e., graphics showing how a task can be performed

The expositive methods will be delivered in the SeDiHUB project through the following e-learning formats (see Table 3).

<b>Table 3. E- learning formats of SeDiHUB that refer to the expositive methods</b>	
Synchronous e-learning	Asynchronous e-learning
– Video conference, virtual classroom presentation: content presented by the	

<p>trainer to the learners connected to the platform at the same time. Learners can interact, ask for and receive feedback.</p> <ul style="list-style-type: none"> <li>- The trainers use distinctive software that includes a range of synchronous tools such as whiteboard, audio conference, application sharing, and chat. Thus, learners are able to interact with each other and the trainer, chat, vote, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Simple learning content (i.e., PDF documents and PowerPoint presentation). There is no interactivity.</li> <li>- Interactive e-lessons using text, images, audio, etc.</li> <li>- Recorded audio or video lessons (to be watched at any time),</li> </ul>
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**Application methods** which engage the learners in practical activities. These may be simple exercises (i.e., demonstration-practice method) or more complex activities (i.e., simulations or research activities). The trainers provide guidance to facilitate the learners’ reflection. Application methods include:

- ✓ demonstration-practice method: for delivering a procedure using directive learning. The trainers demonstrate the procedure and the learners practice it by interacting with a system or software
- ✓ job aids: provide just-in time knowledge, offer immediate answers to definite questions, helping users to accomplish specific job tasks. For instance, learners may be provided with a checklist to help them draft empathy canvas
- ✓ scenario-based exercises, experiential simulations and learning games: for developing cognitive skills in a specific domain. Learners apply knowledge and principles to a concrete situation. They present a challenging situation and learners are asked to make decisions by selecting from diverse options.
- ✓ role play: for developing interpersonal skills. Learners are asked to apply behavior-related principles (e.g., communication principles) to a real situation and trainers provide them feedback on their behavior
- ✓ Simulations based on mathematical models (symbolic simulations): for developing understanding on complex issues, systems, or strategic management skills in organizations. Learners are able to interact with the system to understand its dynamics. They can simulate a natural, social or economic system.
- ✓ guided research and project work: The trainers can task learners with conducting research on a topic, guiding them in collecting and organizing information. They provide learners suggestions on how to find the required information and how to present it. Project work refers to the fact that the trainers ask learners to develop a product or a project by applying learned principles and concepts to their specific context.

The application methods will be delivered in the SeDiHUB project through the following e-learning formats (see Table 4).

Table 4. E- learning formats of SeDiHUB that refer to the application methods	
Synchronous e-learning	Asynchronous e-learning
Demonstration practice techniques	
- The trainers show the application using sharing tools in virtual classrooms and	- Interactive e-lessons using a combination of animations and operational simulations

make learners able to take control of the application to practice it.	that let learners to interact with the system and also receive feedback
Job aids	
<ul style="list-style-type: none"> <li>– Live chat assistant</li> </ul>	<ul style="list-style-type: none"> <li>– Checklists, technical glossaries, manuals available as documents or as online tools</li> <li>– Online assistance or more sophisticated interactive online systems.</li> </ul>
Scenario- based exercises, experiential simulations and learning games	
<ul style="list-style-type: none"> <li>– Activities with challenges to address, individually or in group, using whiteboards, polls, breakout rooms for group work.</li> <li>– Trainers can provide feedback during and/or at the end.</li> </ul>	<ul style="list-style-type: none"> <li>– Interactive e-learning lessons where feedback is provided to learners (i.e., comments on the appropriateness of their choices) and then they are able to proceed to the next condition</li> <li>– Experiential simulations based on branched scenarios. The feedback to the learners’ choices is provided through a follow-up situation that produces some more choices.</li> <li>– Tutored activities are provided with challenges to address, either individually or in groups using forums and wikis.</li> <li>– Trainers can provide feedback during and/or at the end.</li> </ul>
Role play	
<ul style="list-style-type: none"> <li>– It is conducted as a group activity by learners using chats, audio or video conferences. Specific roles are assigned to learners. They interact with each other to achieve individual and/or common objectives.</li> </ul>	<ul style="list-style-type: none"> <li>– Experiential simulations based on branched scenarios. The feedback to learners’ choices is provided through a follow-up situation that produces some more choices. Experiential simulations can also make use of virtual reality</li> <li>– Role play conducted as a group activity by learners using discussion forums; a specific role is assigned to each learner. Learners interact with each other to achieve individual objectives and/or a common goal.</li> </ul>
Guided research and project work	
<ul style="list-style-type: none"> <li>– Audio or video conferences are used for communicating between learner and trainers, and for presenting results.</li> </ul>	<ul style="list-style-type: none"> <li>– Discussion forums, e-mails for communicating between learners and trainers.</li> <li>– Wikis, blogs, shared documents for presenting results.</li> </ul>

**Collaborative methods:** which are based on dialogue and discussion among trainers and learners. They add the social dimension to the learning experience, applying the principles of social constructivism and collaborative learning. These methods benefit learners from having discussion partners and receiving personal feedback. These methods include:

- ✓ online guided discussions: designed for facilitating learning and improving knowledge and skills. Trainers ask learners questions to stimulate and guide reflection and critical thinking. These discussions complement the other methods (i.e., presentation, research or a case-based exercise) and facilitate communication and knowledge sharing among learners.
- ✓ collaborative work: Learner’s work with peers to perform various activities (i.e., evaluation, analysis or development of an assignment or a project). Learners should collaborate, listen to each other, argue and negotiate and thus they develop interpersonal and problem – solving skills as well
- ✓ peer tutoring: Learners monitor and support each other and have the opportunity to learn from each other’s work and also practice tutoring methods.

The collaborative methods will be delivered in the SeDiHUB project through the following e-learning formats (see Table 5).

Table 5. E- learning formats of SeDiHUB that refer to the collaborative methods	
Synchronous e-learning	Asynchronous e-learning
Online guided discussions	
– Chats, audio or video conferences	– Discussion forums, e-mails.
Collaborative work	
– Chats, audio or video conferences using whiteboards, screen sharing and breakout rooms for group work – Visual collaboration workspace platforms.	– Discussion forums, e-mails, wikis, blogs and shared documents – Visual collaboration workspace platforms
Peer tutoring	
– Chats, audio or video conferences	– Discussion forums, e-mails, wikis, blogs

## Training tools/activities proposed in SeDiHUB

In line with the above-described training methods and techniques the following tools will be used in SeDiHUB training (see Table 6).

**Table 6. Training tools**

Videos	External resources already existing - significant videos (video that summarizes the theory or concept). The videos will be short. Apart from existing videos, they might be developed by the partners.
Enriched PowerPoint presentations	The enriched PowerPoint presentations will be developed using some of the following tools: <ul style="list-style-type: none"> <li>● H5P - Interactive Presentation Tool ( <a href="https://h5p.org/">https://h5p.org/</a>)</li> <li>● Canvas ( <a href="https://www.canva.com/">https://www.canva.com/</a>)</li> <li>● Kahoot ( <a href="https://kahoot.com/schools/higher-ed/">https://kahoot.com/schools/higher-ed/</a>)</li> <li>● Mentimeter - Audience Engagement Platform ( <a href="https://www.mentimeter.com/features">https://www.mentimeter.com/features</a>)</li> <li>● Knight lab (for storytelling) - <a href="https://knightlab.northwestern.edu/">https://knightlab.northwestern.edu/</a></li> </ul>
Gamification	Gamification is the use of game design elements in non-game contexts. Some elements of games that may be used to motivate learners and facilitate learning in SeDuHub include: <ul style="list-style-type: none"> <li>● Progress mechanics (points/badges/leaderboards, or PBL's)</li> <li>● Narratives</li> <li>● Immediate feedback</li> <li>● Opportunities for collaborative problem solving</li> <li>● Scaffolded learning with increasing challenges</li> <li>● Opportunities for mastery, and leveling up</li> <li>● Social connection</li> </ul>
Canvas	Various canvases have already been developed in the design of services for carrying out processes. The goal is to collect information from different canvases and tools, and then adapt them for micro and family businesses if necessary.
Games	In order to make the service design process even more fun, it is necessary to collect information from various playful tasks or games. For example, board games about solving problems, finding ideas, etc.

Furthermore, a series of different types of activities will facilitate the synchronous and asynchronous part of e-learning such as:

- scenario-based activity case studies
- Problem solving activities
- concept mapping
- assigned reading/ text
- synchronous or asynchronous discussions (in forum)
- collaborative information sharing, using chat rooms, discussion forum, wikis, blogs, podcast, whiteboard, online-shared spaces, online reflective journals etc.



- group assignments
- response to an assigned text
- digital story development
- online simulation development
- question-based activities with immediate feedback, or answer at the end or with no answer but hints
- reflective-based activities, e.g., collection of data, practice something, new concept application
- experiential activities, e.g., writing a reflective note after completing another activity
- action planning.

## SeDiHUB training assessment methods

The SeDiHUB training Assessment seeks to provide the appropriate methods and techniques so that VET centers and learners themselves can monitor and evaluate both the development of the training course and the knowledge acquired.

Objectives of online Assessment:

- Assessing the learner needs
- Providing feedback to the learners
- User-friendly system
- Auto exam publish
- Offering several types of questions
- Automatically checked answers
- Reports and performance analysis

## Theories and methods of assessment applied in SeDiHub

The evaluation of learning processes is a process through which relevant information is observed, collected, and analyzed with respect to the learners' learning process, with the purpose of reflecting, issuing value judgments and making pertinent and timely decisions to improve the teaching-learning process. There are several types of training evaluation. Each one has different purposes during and after the training.

The assessment tool allows for both formative and summative assessment of learner learning. Formative assessment tracks learner understanding and areas of weakness during the learning process and allows for the trainer to adjust teaching accordingly. Summative assessments are a test of learning, typically conducted at the end of the learning process. Quizzes, matching exercises, self-assessments, case studies and problem-solving questions, scenario-based questions, and games are some of the best instructional tools you can use when it comes to assessing learners through an eLearning course.

Considering that the SediHub project offers an online training experience aimed at VET centers and self-directed learning of owners and staff of micro and family enterprises, these three assessment models will be adapted to this context, offering online assessment techniques:

- Diagnostic assessment: It is a type of pre-assessment in which learners' strengths, weaknesses, knowledge, and skills are assessed before the training. This way, relevant and efficient lessons can be organized and give learners a personalized learning experience using this type of assessment. When submitted before the commencement of a course, the diagnostic evaluation is a tool for trainers or training providers to better understand what trainees already know about a topic.

- **Formative assessment:** It refers to a range of approaches used to assess learners' comprehension, learning needs, and learning progress while a lesson, unit, or course is in progress. Formative assessment's overall purpose is to gather precise information that may be used to improve training and trainees learning while it's happening. It's not the design of a test, procedure, or self-evaluation that makes an assessment "formative," but how it's used—that is, to inform in-process training and learning improvements.
- **Summative assessment:** It is any assessment used at the end of a learning unit to allow a to the assessment of the user's comprehension using standardized criteria. Summative assessment is used to determine trainees' understanding of content provided at the end of a unit of work, and it is typically quantified with a grade or percentage, depending on the subject.
- **Self-assessment:** Self-assessment is a strategy that helps the student to become aware of his or her learning progress and also helps the teacher to understand the teaching and learning process carried out by the student, in relation to the difficulties encountered, the objectives achieved, etc.

For each considered assessment method, different techniques can be extracted through which the educational process can be carried out. Although the techniques recommended will be detailed in the next section, some of them will be listed for illustrative purposes.

- **Diagnostic:** By way of introduction and identification of knowledge, skills, and competences of trainees, it is recommended to develop basic questions, which allow us to extract a general picture of the trainee's situation. This can be done by:
  - Means of a dialogue
  - A query
  - A small diagnostic test, which will not be graded, but will only be useful for information purposes and for self-assessment.
- **Formative:** To try to support trainees and accompany them throughout their educational journey, some techniques as the following, are proposed:
  - Peer-to-peer evaluations
  - Self-assessment Questions
  - Quizzes with feedback
- **Summative:** Nowadays, summative assessment can be done online or face-to-face. In fact, there are thousands of online training schools that carry out the assessments remotely, using techniques such as:
  - Exams/tests
  - Quizzes
  - Assessments through interviews with virtual tools.

More assessment techniques can be found in the *Table 7* that follows

Table 7. Varied Assessment methods and examples of techniques.		
VARIED ASSESSMENT		
DIAGNOSTIC	FORMATIVE	SUMMATIVE
Survey	Comprehension Checks	Objective Tests

Informal Quizzes	Portfolios	Final Portfolio
Free-Write	Literacy Games	Group Project
Discussion	Exit Slips or Activities	Debate
Interactive Writing	Observation	Oral Examination

## Assessment techniques used in SeDiHUB

Online Assessment Techniques (CAT) are usually simple, non-evaluable, Anonymous in-classroom activities designed to give useful feedback to your learners about the teaching and learning process as it occurs. It can be used to improve teaching and learning. Increased use of CATs may:

- Provides just-in-time feedback on the teaching-learning process
- Provides information on learner learning with less work than traditional assignments (exams, Essays, etc.)
- Encourages to see that teaching is an ongoing process of research, experimentation, and reflection
- Makes it easier for learners to become better Supervisors of their own learning
- Makes it easier for learners to feel less Anonymous even in large courses
- Provides concrete evidence that the teacher cares about learning

### *How should Online Assessment Techniques be used?*

The results of CATs can guide trainers and VET providers to fine-tune their teaching strategies to better meet the needs of learners. A good strategy for using CATs is as follows.

1. Decide what you want to evaluate about learner learning using CAT.
2. Choose a CAT that provides this feedback, is consistent with your teaching style, and is easy to implement in your Classroom.
3. Specify the purpose of the assignment for learners and then complete it.
4. After an hour, review the results, determine what they tell you about what your learners are learning, and decide what changes you might make.
5. Tell your learners what you learned about CAT and how you plan to use this information.

### *Techniques Proposed in SediHUB*

- The Background Knowledge Probe (TTTK) is a simple and short questionnaire that is distributed online to trainers at the beginning of a course or before a learner introduces a new teaching unit, lesson, or new subject. Its purpose is to reveal learners' preconceptions.
- The minute paper tests how learners get or do not get information. There are two ways, the first one, the trainer concludes the course by asking learners to write a short answer to the following questions: "What was the most important thing you learned during this lesson?" and "What important question was left unanswered?". Or in the case there are no trainers, the question will appear on the platform with different answers.
- Muddiest Point is one of the simplest CAT exams to assess where trainees are having difficulty. The technique consists of asking learners to write a quick answer to one question: "What was the muddiest point in?" The term "muddiest" means "ambiguous" or "confusing".
- The What's the Principle? CAT is useful for courses that require problem solving. Once learners have figured out what type of problem they are dealing with, they often have to decide which principle (s)

they will apply to solve the problem. In this CAT, learners are given a few problems and asked to tell which principle is best suited to each problem.

- Defining Features Matrix: Can be online or physical. Prepare a program with a matrix of three columns and multiple rows. At the top of the first two columns, list two separate concepts that have potentially confusing similarities (eg, Hurricane vs. Tornado, Picasso vs. Matisse). In the third column, list the important features of both concepts in a particular order. Give trainers a Handbook and ask them to use a matrix to identify which properties Belong to each concept. Gather their answers so you can quickly find out which features are causing the most problems for your learners.

Virtual exit tickets: Using exit tickets, or learners' responses to prompts or questions on the screen at the end of class, is a popular formative assessment practice that easily transfers online. Teachers can keep a running Google Doc for each learner to keep the information private or broaden it to the whole class by posting questions on a platform like Flipgrid so that learners can see and comment on others' responses. To get a wider view into learners' thinking, use open-ended prompts like these:

- What I found most interesting today was...
  - What do you understand well?
  - What's something that's still shaky?
  - What's something I [trainer] don't realize?
  - What takeaways will be important three years from now?
  - How does this relate to [something learned before]?
  - How would you have done things differently today?
- Quizzes: Multiple choice questions (Single answer), Multiple choice (Multiple answers), Free choice, Sorting choice, matrix sorting, fill in the blank (Select from the list), Likert-scale (Select from the scale) short or long answer questions can be delivered.
  - Project work: In this case trainees are presented with problems, which must be analyzed and solved; it requires learners to perform the synthesis of many concepts as well as their evaluation and prioritization when selecting which aspects of the project to report. In addition, monitoring the development of the projects allows the trainer to evaluate the process of scaffolding the concepts, to see where the learner may have had difficulties in learning. This is facilitated:
    - To evaluate in which parts of the process problems may arise
    - Assess what prior knowledge the learner needs to possess
    - Reveal much more than simple definitions of concepts involved in projects, which provide more information than objective tests and essays.
  - Scenario-based exercises: They include problem scenarios or simulated events, which can be developed during the course with increasing levels of complexity; they require learners to
    - Discerning meaningful information
    - Using theory to interpret facts
    - Generating ideas
    - Seek consensus
    - Action planning.

They also comprise events or problems self-selected by trainees in their own workplaces, particularly effective if trainees work collaboratively with their peers to create the final outcomes.

However, it is important to identify the type of learning in SeDiHUB synchronous or asynchronous e-learning is proposed. The techniques applied will depend on the learning method. In this document, different online assessment techniques are proposed, so that VET providers are free to choose which ones best suit the dynamics adopted.

Table 8. Synchronous E- learning and Asynchronous E-Learning Techniques	
Synchronous E-Learning	Asynchronous E- Learning
Group Project	Muddiest Point
Multiple choice questions (Single answer), Multiple choice (Multiple answers), Free choice, Sorting choice, matrix sorting, fill in the blank (Select from the list), Likert-scale (Select from the scale) short or long answer questions	Quizzes. Multiple choice questions (Single answer), Multiple choice (Multiple answers), Free choice, Sorting choice, matrix sorting, fill in the blank (Select from the list), Likert-scale (Select from the scale) short or long answer questions.
Oral Examination	Scenario-Based exercises
The minute paper tests	The minute paper tests
Discussion	The Background Knowledge Probe
Interactive Writing	Literacy Games
Virtual exit tickets	Virtual exit tickets
Defining Features Matrix	Defining Features Matrix
Debate	Portfolio

**A few available Platforms for e-evaluation that can be used in SediHUB are:**

- Google Classroom
- Zoom cloud
- You Tube
- Moodie & Piazza
- Microsoft Themes
- Google hangout Meet

## 4. SeDiHUB desired learning outcomes

This section concerns the development of the desired learning outcomes based on the mapping of the theoretical foundation and training needs findings in terms of knowledge, skills and competencies according to the EQF definitions (level 5).

The learning outcomes identified in this report fed the development of the structure and content of the curriculum of SeDiHUB, as well as the selection of the appropriate training methods and techniques for their delivery.

Based on the mapping of the theoretical foundation and needs provided in the first step of the project the desired learning outcomes of SeDiHUB in terms of knowledge, skills and competences are presented in the following *Table 9*. They are grouped in five thematic areas based on the identifying needs.



## Need Analysis and desired Learning Outcomes

Table 9. SeDiHUB desired learning outcomes			
No	Thematic Areas	Training Needs Gap related to:	Learning outcomes
1	Economics and business ethics related to climate change	<ul style="list-style-type: none"> <li>– Definition and concept of circular economy</li> <li>– Energy transition, climate change, transition to circular economy and the response to environmental degradation,</li> <li>– How to integrate green services and think green</li> <li>– How to develop green services</li> <li>– Relate eco-friendly practices with the creation of new market segments</li> <li>– Importance of green advanced production methods as part of their long-term strategy</li> <li>– Environmental standards management</li> <li>– Importance of the co-development of economy and ecology</li> <li>– Effectively producing high value-added products and offering innovative products and services</li> </ul>	<p>Knowledge</p> <ul style="list-style-type: none"> <li>– Be aware of the concepts of climate change and environmental degradation</li> <li>– Define the concept of circular economy</li> <li>– Explain the transition to low-carbon and circular economy</li> <li>– Relate green production with their long strategy</li> <li>– Recognize how social and environmental consequences can jeopardize business success</li> <li>– Be familiar with the environmental standards management and relate it with the increase of the efficiency of their procedures</li> <li>– Relate economy with ecology</li> </ul> <p>Skills</p> <ul style="list-style-type: none"> <li>– Be able to integrate green solutions in their business</li> <li>– Be able to develop green services</li> <li>– Be able to produce high value-added products and offer innovative green products and services</li> </ul> <p>Competences</p> <ul style="list-style-type: none"> <li>– Be competent to think green</li> <li>– Be competent to invest on new eco-friendly practices for attracting new environment-conscious population.</li> </ul>
2	Sustainability and Sustainable service business models	<ul style="list-style-type: none"> <li>– Definition, concept and dimensions of sustainability</li> </ul>	<p>Knowledge</p> <ul style="list-style-type: none"> <li>– Define sustainability and relate it with ecological goals</li> <li>– Relate sustainability with the survival of their business</li> </ul>

		<ul style="list-style-type: none"> <li>– Definition and concept of sustainable development</li> <li>– Difference between sustainability and ecology</li> <li>– Relation between sustainability and business survival</li> <li>– The importance of sustainable development</li> <li>– The relation of sustainable development, with social development in a more ecological direction</li> </ul>	<ul style="list-style-type: none"> <li>– Define sustainable development</li> <li>– Be acquainted with sustainable business models</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>– Be able to set sustainable specific goals</li> <li>– Be able to develop sustainable services</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>– Be competent to harmonize their services with the local environment</li> <li>– Be competent to foster sustainable development integrated into a view of community development that links the social, economic, and environmental dimensions</li> <li>– Be capable of to recognize that sustainability should be seen as a change of thinking and philosophy that has to start from the top of the company's organization chart to the bottom</li> </ul>
3	Service design theory and practices	<ul style="list-style-type: none"> <li>– Service Design definition and concepts</li> <li>– Importance and benefits of service design for micro and family businesses</li> <li>– Innovation and service design</li> <li>– Service design and quality of customer service</li> <li>– Customer-oriented service development - interactive customer service</li> <li>– The concept of value proposition for services and how to make value proposition</li> <li>– Customer needs and service design</li> <li>– Service design for different customer segments</li> <li>– Service design for customized offers of services</li> <li>– Service adaptation in virtual environments</li> <li>– Measuring the effectiveness of service design</li> </ul>	<p><u>Knowledge</u></p> <ul style="list-style-type: none"> <li>– Be familiar with the service design definition and concepts</li> <li>– Explain the importance and benefits of service design for micro and family businesses</li> <li>– Relate service design with the long-term business survival</li> <li>– Relate service design with the quality of customer service</li> <li>– Relate innovation with service design</li> <li>– Be acquainted with customer-oriented service development and interactive customer service</li> <li>– Be familiar with the concept of value proposition</li> <li>– Be aware of the importance of addressing customer needs and the value that is offered when they design a service</li> <li>– Be aware of the importance of collecting feedback from their customers</li> <li>– Identify the role of the staff in reaching the customer needs</li> </ul> <p><u>Skills</u></p>

		<ul style="list-style-type: none"> <li>- Design capabilities and strategic and organizational readiness, to implement more specific circular design projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Be able to calculate the effectiveness of using service design in numbers</li> <li>- Be able to develop value proposition</li> <li>- Be able to adapt to different customers when they use media platforms</li> </ul> <p><u>Competences</u></p> <ul style="list-style-type: none"> <li>- Be competent to develop their services based on their customer needs and design the service process to be customer-oriented</li> <li>- Be competent to customize a product or service according to their customer's needs</li> <li>- Use service design to adapt their services to different customer segments</li> <li>-</li> </ul>
4	Service design methods and tools	<ul style="list-style-type: none"> <li>- Designing data sets for customers 'behavior</li> <li>- How to monitor and analyze their customer needs</li> <li>- How to produce customer-based data using a variety of resources (marketing campaign metrics, reviews, social media, surveys, google analytics, artificial intelligence tools, interviews, observation etc.)</li> <li>- How to store, categorize and analyze customers data for service experience and satisfaction</li> <li>- Knowledge and use of service design methods and tools (service concept, service delivery system, personas, service value chain, customer journeys, service blueprints, storyboards, customer service Scenarios,</li> </ul>	<p><u>Knowledge</u></p> <ul style="list-style-type: none"> <li>- Be familiar with the methods and tools of collecting and analyzing data about customer needs and customer satisfaction</li> <li>- Be familiar with the concept and use of service design tools (service concept, service delivery system, personas, customer journeys, service blueprints, storyboards, customer service Scenarios, experience prototypes, service ecology maps etc.)</li> </ul> <p><u>Skills</u></p> <ul style="list-style-type: none"> <li>- Be able to keep, categorize and analyze customers data</li> <li>- Be able to use specific methods and tools to collect customers' feedback (Facebook etc.) and satisfaction</li> <li>- Be able to use service concept, describe customer's needs and how are satisfied by the service</li> <li>- Be able to define the service delivery system, the content of the services also roles and responsibilities</li> </ul>

		<p>experience prototypes, service ecology maps etc)</p>	<ul style="list-style-type: none"> <li>– Be able to identify the personas, fictional representation of the prospect customer</li> <li>– Be able to develop the customer journeys, the distinct stages a customer goes through with a service</li> <li>– Be able to use service blueprints</li> <li>– Be able to develop storyboards, visual representation of a service</li> <li>– Be able to develop customer Service Scenarios, to assist agents how to handle requests from customers</li> <li>– Be able to develop experience prototypes, replication of the customer experience</li> <li>– Be able to develop service ecology maps</li> </ul> <p><u>Competences</u></p> <ul style="list-style-type: none"> <li>– Be competent to use a variety of resources to produce customer-based data</li> <li>– Be competent to use service design tools</li> </ul>
5	Service Business & Digital transformation	<ul style="list-style-type: none"> <li>– Innovation in adopting evolving technologies</li> <li>– How to increase their online presence</li> <li>– How to digitalize services</li> <li>– The importance of new technologies for business efficiency</li> <li>– Relation of the digital transformation with the change of consumer habits</li> <li>– Competencies in digital solutions and platforms</li> </ul>	<p><u>Knowledge</u></p> <ul style="list-style-type: none"> <li>– be acquainted with the ways to digitalize their services</li> <li>– Explain how new technologies can result to increased operational efficiency, reduced waste and increased product differentiation</li> <li>– Relate digital technologies with the improvement of business processes and profitability</li> <li>– Recognize digital transformation as a result of changing consumer habits</li> <li>– Explain how digitalization changes the way companies operate and the customer's behavior,</li> <li>– Recognize digitalization as an essential precondition for operations and competition</li> </ul> <p><u>Skills</u></p>



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			<ul style="list-style-type: none"><li>– Be able to implement strategies that increase their online presence</li><li>– Be able to digitalize their services</li></ul> <p><u>Competences</u></p> <ul style="list-style-type: none"><li>– Be competent to relate their online presence with sustainability and eco-friendly practices</li><li>– Be competent in digitalizing their services for changing consumers' habits</li></ul>
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## Annex I. Mapping the theoretical foundation and training needs

### 1. Introduction

SeDiHUB Result 1 aims to the production of a training approach and curriculum for upskilling micro & family enterprises on developing sustainable, environmentally friendly business through service design in the digitalized economy. It consists of the desired learning outcomes, curriculum, training methodology and assessment. Its development is based on a) desk research about the identified training needs, new trends in developing sustainable business models through service design, inspired paradigms of service design training and tools, and b) on inputs from the partner countries, through the conduction of a field research (survey) about the skills gaps related to service design, sustainability skills and most effective training methods for the target group.

This report provides the outcomes of the desk research and the survey and concludes to the identification of the “SeDiHub client personas” which present the typical personas of learning of SeDiHub.

### 2. Training needs in SD identified in SeDiHUB partner countries

#### GREECE

##### Family & micro-enterprises training needs in each country

##### Family & micro-enterprises profile

The percentage of SMEs in Greece is one of the largest within the EU while most of them are micro and family enterprises serving mainly in the local markets. Micro and small enterprises, account for an extremely large proportion of 99.7% over the total number of establishments in the country (European Commission, 2019). According to Athens Chamber of Commerce and Industry over 80% of companies in the country are family owned while they contribute to a total of two thirds of the country's GDP and jobs. The dominant sectors are tourism, agriculture, information technology, (Vasilakos, 2015). Small business accounts for more than 65% of total employment, indicating that they are responsible for more employment than the medium or large firms or employment in the public sector. The aforementioned numbers document the historical, social and cultural dimension of the entrepreneurial ecosystem in Greece, which is seated on micro (mainly) and small (secondarily) enterprises (Meramveliotakis & Manioudis, 2021). Even more remarkable is the fact that the large share of small businesses remained prominent, even after Greece's severe sovereign debt crisis and prolonged austerity measures have been implemented during the period 2010–2018. Specifically, during the implementation of the 3 Structural Adjustment Programs in that period, small business was called to confront high tax obligations, limited liquidity and low effective demand. It seems that the previous financial meltdown did not manage to alter the historically embedded characteristic of the considerable large share of small businesses in the Greek economy, they remain the cornerstone of the Greek economy. Micro-enterprises are of critical importance, accounting for well over 85% in all sectors.



**Table 1. Micro enterprises in Greece**

Sectors	Number of Enterprises	Micro Enterprises 0-9 Employees	Micro %
Professional, Scientific and Technical Activities	135.562	133.870	98,8%
Industry	57.171	51.854	90,7%
Electricity, Gas, Steam Production and Distribution	7.244	7.158	98,8%
Water Supply and Recycling	1.956	1.692	86,5%
Constructions	59.843	57.898	96,7%
Wholesale, Retail Trade and Repair	227.682	219.488	96,4%
Transport and Storage	59.764	57.966	97,0%
Hotel, Restaurant and Catering Services	107.764	93.230	86,5%
Media and Communications	16.605	15.650	94,2%
Real Estate, Renting and Leasing	8.497	8.210	96,6%
<b>Total</b>	<b>709.696</b>	<b>672.765</b>	<b>94,8%</b>

Source: Meramveliotakis & Manioudis, 2021, p.4

In terms of employment more than half of the workforce, or 57.1%, is employed by micro-enterprises and 85.2% of the workforce is employed by SMEs. Micro-enterprises and SMEs account for 22.7% and 63.6% of the value added in the economy, respectively. Compared to the EU-28 average, SMEs and especially micro-enterprises are more numerous and more important to the Greek economy (OECD, 2020)

In Greece general the services sector is the main contributor to growth and employment in Greece. In 2017, agriculture contributed around 4% percent to the GDP of Greece, 16% came from the industry and 80% from the services' sector. The most important subsectors in terms of their contribution to gross added value formation are:

- Real estate activities (17.13%)
- Accommodation and food and beverage service activities (6.80%)
- Education (5.70%)
- Human health activities (4.22%)
- Financial service activities, except insurance and pension funding (3.02%)
- Telecommunications (2.42%)
- Legal and accounting activities, activities of head offices; (2.15%)
- Security and investigation activities; services to buildings and landscape activities; office administrative, office support and other business support (1.07%)
- Creative, arts and entertainment activities. Libraries, archives, museums and other cultural activities. Gambling and betting activities (1.16%)

In terms of employment, most of the Greek employed persons are in the economic activities of trade, hotels and restaurants, transport and communication (34.23%) as well as in other service activities (27.19%).

In Greece the large share of small firms, which constitutes 99.7% of Greek entrepreneurship, has been seen as a structural impediment for economic recovery and growth, due to their low-productivity, lack of economies of scale, lack of innovation, lack of use of cutting-edge technologies, low extroversion, and problems in their corporate governance due to the close relationship of the key stakeholders with management (family enterprises). In the recent report about the development plan of the Greek economy, the pathway to economic development, whereby the process of economic growth is driven by and through large firms. The implication is that such a process presupposes a structural transformation of the Greek economy regarding the distribution of small businesses. In other words, the large share of small firms has to

be reduced, thus a different process of industrial concentration should be actualized since the function of the former presupposes the existence of the latter.

This tension has already been acknowledged in the measures that were taken for the mitigation of the pandemic's negative effects on small businesses. Even though in Greece, small business has the largest share in total establishments within the EU economies, the magnitude of the supporting policy measures they enjoy is the lowest one. Despite their vital importance to the Greek economy, small businesses appeared not to have adequate to their importance policy support during the COVID-19 pandemic.

This means that the micro, family and small business that they will survive are the ones which follow the path of the entrepreneurial economy, putting emphasis on technology, innovation and joint – ventures.

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### **Current qualifications and training needs in Service Design**

There is not systematic training in Greece regarding service design. Higher education institutions offer specific related courses. An indicative example is in the Department of Business Administration of the University of Patras, which has introduced an MBA in Business Administration with different specialization including management. Part of this specialization includes courses in service management with the aim to introduce students to common service design tool. The graduates of this degree are expected to introduce some of these tools to local small enterprises being active in the service sector. There are additionally various master degree programs in the field of service management which have introduced courses related to service design in various Greek Universities such as the Athens University of Economics and Business, while most of these programs focus in the industry of health.

There are scarce private organizations in Greece that offer training to family & micro-enterprises in regards to service design. Some examples of these organizations and training offers/topics are:

- Hellenic Design Centre (HDC): Get To Know Design, Design Clinic, Do It Yourself, Business Boost / Public Service Boost, Design Accelerator, Design Challenge
- Secret Key: Service Design Thinking,
- SkillUp: Workshop about Service Design,
- Design4Future: service design, open training labs - in house training - sd programme
- HIGGS: workshop for introducing service design basic tools in collaboration with Design4Future and Snook
- Business Undercover: Provision of videos<sup>1</sup>,

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[https://open.spotify.com/episode/61EvkLbtbwaVCeFEX9ceOJ?go=1&sp\\_cid=bec700d7e58d041441a31f183212eb05&utm\\_source=embed\\_player\\_p&utm\\_medium=desktop&nd=1](https://open.spotify.com/episode/61EvkLbtbwaVCeFEX9ceOJ?go=1&sp_cid=bec700d7e58d041441a31f183212eb05&utm_source=embed_player_p&utm_medium=desktop&nd=1)

- DOOR Training & Consulting: Service Design seminar
- Service Design Greece: lab of service design thinking
- Orange Grove: 1st Global Goals Jam
- Athens: service design innovative tools and methods in collaboration with Service Design Network Greece
- Hellenic American Union: 3day workshop for service design thinking
- Institute of communication: 4h service design workshop
- Athens customer experience academy: service design thinking training
- Youthnest: service design events and workshops.

The aforementioned training services offer fragmentary training and do not offer any certificate or formal accreditation. No relevant structured training was identified in the country. The training needs are enormous taking into consideration that service design is a very new process for Greek enterprises and also the fact that there is no specific support from public bodies.

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Secret Key <http://www.secretkey.gr/>  
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SkillUp <https://www.eventora.com/el/Events/workshop-service-design>  
Design4Future <https://www.design4future.org/>  
HIGGS <https://higgs3.org/>  
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DOOR Training & Consulting <https://www.doortraining.gr/el/training-seminars/it-quality/itil/service-design>  
Service Design Greece <https://servicedesign.gr/>  
Orange Grove <https://orangegrove.eu/>  
Service Design Network, <https://www.service-design-network.org/chapters/greece>  
Hellenic American Union, <http://www.hau.gr/?i=business-it-training.en.sp-events.5237>  
Institute of communication, <http://www.instofcom.gr/seminaria/service-design-workshop/>  
Youthnest <https://youthnest.com/en/>

### **Sustainability and environmentally friendly business skills and training needs of the family & micro-enterprises**

Small and micro enterprises have found increasingly difficult to investment for the green transformation of their activities (OECD, 2021). They are lagging behind in adopting green and technologically advanced production methods as part of their long-term strategy. In this context, significant knowledge and skills deficits can be identified. However, recent research (PwC Report, 2021) has revealed some improvements highlighting that the majority of Greek Family Businesses are engaged in some form of CSR and Sustainability practices as shown in the figures below. It is obvious that Greek family businesses are following the global trends in both sustainability practices and CSR dimensions. The majority of the family businesses responded to the PwC survey stated that there is an opportunity for family businesses to lead the way in sustainable business practices (64%) and that they invest in a standalone CSR program (52%).



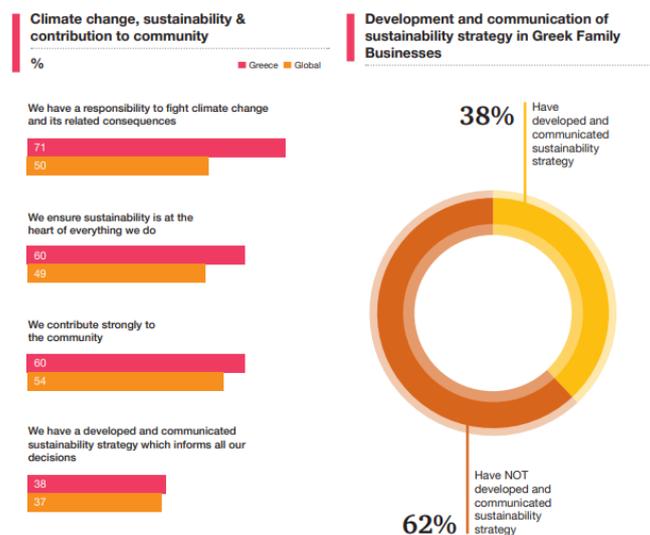
**Figure 1. Sustainable business and CSR practices by family business**



Source: PwC Greece Report March 2021. Family Business Survey, 2020

The same report highlights that although the majority of the Greek Family Businesses feel that they have a responsibility towards sustainable development, few have developed and communicated a sustainability strategy. It has been mentioned that this may cause a threat to them, as in today’s business environment, more pressure is put on companies to demonstrate environmental social and corporate governance credentials. If they fail to reveal commitment to sustainability with concrete actions, they might lose trust and goodwill and long term even the authorization to operate (PwC Report, 2021).

**Figure 2. Communication of sustainability strategy by family businesses**



Source. PwC Greece Report March 2021. Family Business Survey 2020

Finally, the Erasmus+ project Greensmatch has identified various green market labor needs of the companies located in Greece in the automotive industry and in recycling and waste management. These include:

- Process Improvement
- Environmental standards
- Enhancement of quality assurance standards and models of total quality, quality costs and customer supplier relationships
- Environmental management systems

- Environmental law
- Proper handling system
- Development of quality plans
- Occupational hazards prevention plan
- Maintain a safe work environment and ensuring all equipment is in proper working condition
- Environmental ethics
- Occupational hazards prevention plan
- Knowledge of risk prevention and safety

### References

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PwC Greece Report (2021). Family Business Survey 2020. Retrieved from <https://www.pwc.com/gr/en/publications/greek-thought-leadership/family-business-survey-greek-report-2021.html>

### Support for the development of Service Design

There is not systematic support in Greece regarding service design from public bodies. Scarce support in terms of training is offered by some organizations as described in the previous section. However two organizations can be said that provide some more institutionalized support and networking in the service design field.

a) The Hellenic Design Centre (HDC) / <https://kepa.e-kepa.gr/hellenic-design-centre-hdc/?lang=en>

It is established in Thessaloniki by the Business and Cultural Development Centre (KEPA) for promoting Design Thinking. KEPA is a nonprofit private legal entity founded in 1991 by the Federation of Industries of Northern Greece (FING) and Greek International Business Association (SEVE), with the aim of implementing and managing European and national programs or parts thereof for the benefit of private initiative. The HDC offers:

- Training of entrepreneurs in order to make them ready to tackle their customer future needs, today.
- Services to upgrade the public sector by promoting public services' effectiveness and customer services' efficiency.
- Services to prepare the cities of the future, so they become ready to reach participatory solutions in daily challenges.

b) Service Design Network / <https://www.service-design-network.org/>

It is established in Athens and aims to create a cohesive community of service design professionals, academics and students that are collectively committed to advancing the practice and establish the Service Design discipline in Greece. Among its aims are also to:

- Communicate the value of service design principles & methods to the market.
- Create a platform for knowledge sharing and networking among design enthusiasts.
- Showcase cases studies and role models from the rest of the SDN in order to inspire and motivate the Greek market.
- Better understand the needs of the Greek market, in which sectors and how service design tools and methodology can be best applied.



## Sectors with developed Service Design

The use of service design tools from Greek micro and small enterprises is at an infant stage, as well as the relative research. A brief review of the published literature reveals lack of systematic monitoring of the extent to which small companies exploit service design tools to strengthen their competitiveness in the market. Nonsystematic data indicates that small Greek service-oriented companies are not familiar with these kinds of tools.

## Service Design good practices and existent results from previous projects

Service Design good practices and results from previous projects regarding the development of service design, sustainability and development of environmentally friendly services skills are presented below

### GoGrren <https://gogreen-project.eu/en/>

One trend emerged through the implementation of GoGreen project is the use of augmented reality technology, simulation training and an innovative Massive Open Online Courses for offering private sector stakeholders and entrepreneurs and those willing to effectively support Green Economy training related to sustainable business models and environmentally friendly services.

### EFF TOURISM <http://www.efftourism.eu/>

Learning material, case studies and guidelines were developed to:

- decrease related-water tourism environmental footprint
- share related-water tourism sustainable good practices
- provide a set of skills to develop own sustainable initiatives and measures in their recreational activities, businesses and natural spaces
- contribute to satisfy preservation need, protection and sustainability of natural spaces and water ecosystems
- boost responsible behaviors and measures in the community, enterprises and visitors of these spaces and helping to reduce the waste and dumping as well,
- help users improve their professional profiles and be more competitive, enhancing their employability, lay foundations for new business opportunities, innovative professional initiatives, cooperation between entrepreneurs
- help users reduce activity's costs by being environmentally responsible and more efficient, and contribute to the need of innovation in fluvial tourism sector from the environmental point of view.

## Addressing Climate Change through Design Thinking for a Green, no Waste Economy

<https://design4climate.e-ce.uth.gr/#/>

Design4Climate aims to empower vocational education students aged 16-21 through effective training to redesign production towards a circular, environmentally sustainable economy. The project targets TVET in general, due to the cross-sector nature of a circular economy (i.e., waste from one sector being used in another). The project aims to build core green economy skills that are broadly applicable in TVET. Learners will be challenged to turn traditional production process to circular through design thinking principles in educational scenarios inspired by real world cases.

## Accessible interactive learning environments to support the development of circular economy entrepreneurship

The LEARNING CIRCLE project is focused on supporting innovative circular economy entrepreneurs, in an eco or social entrepreneurship context. Innovation-based entrepreneurs play an important role in boosting



economies all over the world. Although innovative entrepreneurs come from different backgrounds and environments, they share common traits, motives and competencies. Innovative entrepreneurs are known to have a strong educational background and work experience of 5-10 years prior to launching their first venture. They are neither beginners nor novices. True entrepreneurs are serial innovators who leave a portfolio of successful and not-so-successful ventures behind them at the end of their career. Supporting the growth of innovative circular economy entrepreneurs through VET can therefore expect to achieve an enduring impact. LEARNING CIRCLE will develop the following outputs:

- IO1 – In-service training for VET tutors that addresses 3 areas; (1) tutors as learners – to build an entrepreneurial spirit and an understanding of the circular economy; (2) tutors as facilitators – to build their pedagogic skills for online teaching; (3) tutors as developers – to build their digital competences to develop digital teaching resources
- IO2 – LEARNING CIRCLE EduZines & Interactive Infographics for Circular Economy Business Models – a compendium of 10 EduZines, 5 at intermediate level and 5 at advanced level, to raise awareness of 5 core circular economy business models
- IO3 – LEARNING CIRCLE EduZines & Interactive Infographics for Innovative Circular Economy Entrepreneurs – a compendium of 10 resources that address trainable competencies for innovative circular economy entrepreneurs
- IO4 – LEARNING CIRCLE MOOC and Community of Practice - to provide access to all resources developed and network VET tutors, potential innovative circular economy entrepreneurs and business across Europe

## ESTONIA

### Family & micro-enterprises training needs in each country

#### Family & micro-enterprises profile

According to the current definition of companies, most Estonian companies are small and medium-sized. Three quarters of all private sector jobs are created by small and medium-sized enterprises. When looking at statistics, the number of micro companies has grown every year since 2004. A total of registered companies in 2021 was 145 717 and 138 134 were with less than 10 workers - that makes approximately 95% of them micro companies. In Estonia, there is no separate accounting for the family enterprises. Because of that there is no statistic about the number of this type of enterprises. The only statistic can be taken from the Eesti Pereettevõtjate Liit, who is an NGO organization that gathers family enterprises. In the beginning of 2021, there were 109 members.

In 2017 there were 49 598 companies with 1-4 employees and 7731 with 5-9 employees. Their division by sector was as follows (sectors with the most nr of companies are highlighted):



**Table 2. Companies in Estonia**

Sector based on EMTAK code	1-4 employees	5-9 employees	Total nr of companies
Mining industry	55	20	75
<b>Manufacturing industry</b>	<b>3595</b>	<b>972</b>	<b>4567 (4)</b>
Electricity, gas, steam and air conditioning supply	103	33	136
Water supply; sewerage; waste and pollution management	149	41	190
<b>Construction</b>	<b>6959</b>	<b>1472</b>	<b>8431 (3)</b>
<b>Wholesale and retail trade; repair of motor vehicles and motorcycles</b>	<b>9875</b>	<b>1697</b>	<b>11 572 (1)</b>
<b>Transport and storage</b>	<b>3312</b>	<b>706</b>	<b>4018 (5)</b>
Accommodation and catering	1486	571	2057
Information and communication	3070	291	3361
Financial and insurance activities	570	67	637
Real estate activities	3136	250	3386
<b>Professional, scientific and technical activities</b>	<b>8751</b>	<b>611</b>	<b>9362 (2)</b>
Administrative and support service activities	2677	385	3062
Education	850	78	928
Health and social work	1092	276	1368
Arts, entertainment and leisure	1365	91	1456
Other service activities	2553	170	2723

Source: Eesti Statistikaamet.

The analysis of the "Survey on Diversity in Estonian Enterprises" conducted by the Center for Policy Studies in 2015 included all Estonian business enterprises with two or more members of the Management Board. 89.30% of the companies in the sample were micro-enterprises. According to this study, the average age of a micro-enterprise after the first entry is 9.43 years. Unfortunately, the demographic data of the members of the board are not differentiated according to the size of the company in this survey, but 34% of the entire sample remained in the age group 30-39 and 27% in the age group 40-49. The 20-29 and 50-59 age groups were between 10-20% and less than 10% older than 60. According to the educational distribution, 59% of the members of the Management Board had higher education, 18% equally general secondary education and secondary education and vocational education. 3% had general basic education or less and 1% basic education or less + vocational education and unknown education.

In the previously mentioned survey, mapping the use of design in Estonian companies and foundations, a total of 50% of companies have used service design in the past 2 years. In 58% of cases, the person who was using it, was the head or owner of the organization.

A survey conducted for the Estonian Association of Family Businesses revealed that although the employees of family businesses are extremely committed, this does not rule out conflicts within the family and excessive conservatism in a situation where the younger generation usually seeks faster technological change and more aggressive expansion. The disadvantage of a generally reliable work environment is that it often favors family members over outsiders whose competence could actually benefit the company. In conclusion, the study concludes that the relative competitive advantage of family businesses over other companies lies in the

consistency of management and the focus on a long-term strategy. Generations generally look in the same direction and support each other, which ensures the stability of family businesses.

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### Current qualifications and training needs in Service Design

In November 2018, research was made by EAS (Estonian Business and Innovation Agency) and Tartu University among more than 400 enterprises and organizations, where they mapped the use of design in Estonian companies and foundations and described the impact of design on the economy and the business activities of companies. This type of research was last made in 2013. The survey provides a good overview of the current level of Estonian companies' use of design. The majority of respondents were related to the service sector (83%). Most of them are related to other service activities (25%), education activities (25%) and health and social work activities (8%) and professional, scientific and technical activities (8%).

Previous research and strategic documents have shown that one of Estonia's concerns is the insufficient ability of Estonian companies to increase Estonia's prosperity by effectively producing high value-added products and offering innovative products and services. An increasingly important prerequisite for the development of innovative products or services is the company's ability to implement design and a user-centric approach.

There is still plenty of room for growth in the use of design in Estonia. One of the obstacles to the implementation of design as a strategic tool has been the general understanding of design. Rather, design tends to be associated with the appearance of products and services, and the design of the appearance of products has been considered to implement it. It can be seen that the understanding of design is changing, companies have started to associate design less with the look and feel of products and services, and see design more as a strategic tool that plays an important role in creating products and services and achieving higher sales. However, for 31% of business leaders, design is still more about how products or services look. Therefore, it is important to continue raising awareness of the possibilities of design use, the different types of design and the effects of design use.

Estonian companies still use quite a few professional designers. 45% of companies have used a professional designer in the last few years. The danger remains that while 8% of the companies surveyed said they had an in-house designer / design team, only 58% had a design education. In too many companies - more than 50% of companies that have developed new products and services in the last few years are designed by the manager or owner themselves or by a person without designer education.

The study confirms that Estonian companies have started to use design more consciously and systematically than before and to integrate it into the company's various processes. The number of companies that use design strategically has doubled compared to 2013, to 14%, which is, of course, still too low. However,



according to a survey on the use of design, 43% of companies are still at the top of the design ladder and do not use design in their activities, and 24% use design in the finishing of products or in the production of marketing materials.

More than half of the companies that have used professional design in the last two years think that the use of design has increased the company's competitiveness. More than half of the companies whose profits have grown moderately or rapidly over the last three years attributed the increase in profits and turnover to the use of design. However, we do not yet have a methodology for objectively assessing the impact of the use of design. One difficult issue is assessing the benefits of using design. Probably no one doubts that good design helps to sell better, but very few people can think of how to actually calculate it in numbers. In compiling the Estonian Research and Development, Innovation and Entrepreneurship Development Plan 2021–2035, one of the guidelines given by the field committees has been to improve the innovation capacity of the private sector. Innovation can also be associated with service design, as it helps to understand the paths of all parties and through it is possible to find and create innovative solutions.

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## **Sustainability and environmentally friendly business skills and training needs of the family & micro-enterprises**

The Estonian Research and Development, Innovation and Entrepreneurship Development Plan 2021–2035 is one of the directions to support the transition of companies from a linear economic model to a circular economy. Support the adaptation of companies' business models to the principles of the low carbon and circular economy and the development and adoption of sustainable and environmentally friendly technologies in enterprises.

According to the head of the environmental management program at the Tallinn Center of the Stockholm Environmental Institute, the experience of cooperating with companies shows that their interest in resource efficiency and circular product development has increased dramatically. This is partly due to regulatory pressure from the European Union and partly due to the fact that companies have also quickly begun to prefer environmentally friendly products and services, making it unsustainable in the long run without systematic attention to these issues. In this respect, however, companies need support and advice - both in the development of initial design capabilities and strategic and organizational readiness, as well as in the implementation of more specific circular design projects.

Circular design is a design process that aims to create innovative and sustainable solutions for products and services, emphasizing the wise use of natural resources, reducing waste and creating new innovative business models that help ensure the circulation and longevity of products and services. No material is wasted, but resources and materials circulate for as long as possible and thus generate greater value. Products shall be designed and used in such a way that the products, their components and materials can be used, reused and repaired over a long period of time. The aim is to reduce the need for new raw materials from nature and to ensure that substances returned to nature do not cause undesirable side effects.



Kaarel Ots, head of the Nasdaq Tallinn Stock Exchange, states that he increasingly sees how investment and values go hand in hand. The main reason behind this is the rise of ESG and sustainable financing as a rocket for everyone. Larry Fink, head of BlackRock, has said that ESG indicators will soon be taken into account when making investment decisions, i.e. the following will be assessed:

- (a) the environmental impact of the undertaking;
- (b) whether and how the company contributes to the development of society at large
- (c) the transparency, ethics and accountability of the management of the undertaking.

Almost 90% of the younger generation of investors takes into account the company's ESG indicators when making their investment decisions. Although Kaarel describes it as related to the stock market, it is still an important aspect that every company should think through. Therefore, it is important that entrepreneurs, regardless of their small size, take these three aspects into account when designing their business model, as consumers have gained more knowledge in these areas and monitor how companies operate in these areas and what kind of attitude they have.

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### **Support for the development of Service Design**

The possibilities for studying service design in Estonia are the following:

- University of Tartu Pärnu College offers since 2011, the master's program "Design and Management of Wellness and Spa Services" (in English) and from 2013 the master's program "Services design and management" (TDJ).
- Tallinn University of Technology offers the curriculum "Future of design and technology" which is a unique international-valued curriculum in Estonia. It deals on design-driven innovation in a wider area. It is suitable for students with a different background of technological education.
- External studies, passing the subjects of the TDJ program at your own pace, paying for studies on a credit basis - also complete individual subjects.
- Foreign universities - located mainly in Northern and Central Europe.
- Short training - for example, public in-service training on [Teenusedisain.ee](http://Teenusedisain.ee) and [Disainikeskus.ee](http://Disainikeskus.ee).
- 1-2 days of training from a design agency / training company

As part of the EcoDesign Circle project, SEI Tallinn and Design Europe Finland developed a circular design audit questionnaire, which allows companies to provide feedback on their willingness to implement circular design and guidelines on what tools to use to make their operations and product development more circular. The questionnaire can be found [HERE](#).



Master class in service design and service digitization for tourism companies 2021-2022. The masterclass was expected to be attended by tourism companies that have been operating for at least three years and want to develop and bring new tourism services to market and make them more attractive and accessible to visitors through design thinking and digital solutions. A prize fund of 10,000 euros will be given for the implementation of the best project completed in the master class. The aim of the master class is to promote the use of service design and digitization of services in Estonian tourism companies in order to increase the export and innovation capacity of companies and the attractiveness of tourism services in foreign markets. As a result of the master class, the company will complete a new prototype of tourism services. In addition, participants will gain hands-on experience working with a service designer and knowledge of how to use data and digital solutions to develop and manage their business processes. The service has been funded by Enterprise Estonia as one of the measures to support tourism companies in overcoming the crisis.

Rohetiiger (green tiger) - This is a cross-sectoral cooperation platform, the aim of which is to create a balanced economic model for Estonia and the world. The Green Tiger cooperates in four directions: entrepreneurs, individuals, the public sector, and freedom (NGOs and social enterprises). The Green Tiger initiates and contributes to change within companies and society at large by providing:

- a systematic and knowledge-based approach for companies and organizations
- representing and bringing together companies on environmental issues
- mapping regulations that prevent companies, municipalities and organizations from operating in an environmentally friendly way
- input and suggestions for policy making
- enriching democracy through the implementation and deployment of climate assemblies

Playday – service design conference that has been held in Estonia, Pärnu for 4 years. Every conference there is a specific topic and during the event, a different specialist introduces this sector development and discussion about its further development will be held between participants.

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### **Sectors with developed Service Design**

As there hasn't been any questionnaire or survey for mapping the use of service design in different sectors, there isn't any relevant information about which sectors are using service design the most.

OSKA (Labor demand monitoring and forecasting system) report on the forecasting system for future labor and skills needs shows that there is a lack of product, service and user experience designers in Estonia. According to experts, design science and design value in Estonia have great development potential and it



could be further clarified what value design can create in society. Demand for design services has grown, as evidenced by the increase in sales revenue and the number of employees in design offices in recent years.

In 2020, the Estonian DesignAwards were awarded, with the aim to recognize the best Estonian designers, design bureaus, design users and design works. According to the jury, there was a big surprise in the category of service design, where the involvement of service design in the development and implementation of comprehensive service concepts in business development stood out. An upward trend in the use of service design in the public sector, social affairs and health care was also observed. Design has been applied in both business development and public sector innovation. The latter shows the application of experimental design methods, with the desire to test a new way of operating the service in a live environment.

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## Service Design good practices and existent results from previous projects

Service Design good practices and results from previous projects regarding the development of service design, sustainability and development of environmentally friendly services skills are presented below.

### Ecodesigne Circle (2016-2021)

An international team of design centers, public authorities, research institutions and design practitioners working together since 2016 to strengthen awareness and practical application of the “design approach” to circular economy across the Baltic Sea Region. In the first three years, partners from Germany, Estonia, Finland, Lithuania, Poland and Sweden hosted exhibitions and workshops, offered consulting and education programs, and created networks. Between 2019 and 2021 eight partners (including a new partner from Russia) were adapting and promoting various tools and workshop formats developed in the first phase, such as the EcoDesign Sprint. These offers are aimed at both designers and environmental experts who want to deepen their environmental and design competence. During the project they developed several useful resources to be used: circular design toolkit, good cases & sustainability guide, circular product & service assessment.

More information from project webpage: <https://www.ecodesigncircle.eu/about/about-our-project>

## CYPRUS

### Family & micro-enterprises training needs in each country

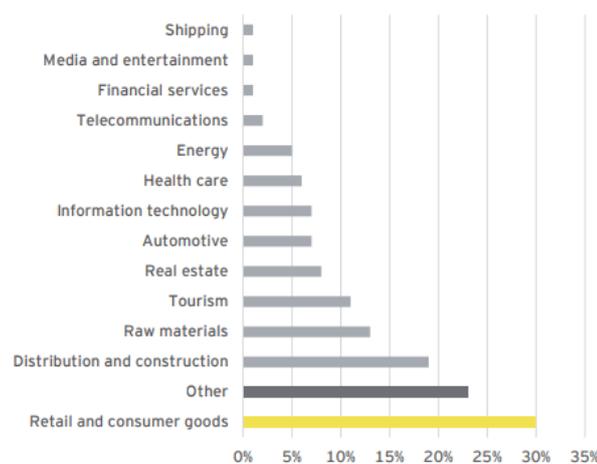
#### Family & micro-enterprises profile

The Cypriot economy is heavily reliant on family and businesses as a source of economic prosperity. In Cyprus, family businesses are amongst the oldest forms of commercial organizations and they generate approximately half of the country’s GDP, being mostly active in the construction sector, wholesale and retail sector, tourism and agroindustry as well as real estate and transport. SMEs and especially small and very small enterprises consist of 98% of all companies in the country. Consequently, it is no surprise that Cyprus



has the highest rate of self-employment (66%, followed by Greece with 60%) among all EU countries; the EU average is 45%. In terms of legal status, more than 50% of Cypriot FBs are private, sole-proprietorship enterprises, while 44% of them are companies of limited liability. The majority of FBs employ 2-3 family members. Nearly one third (30%) of the businesses operate in the retail and consumer goods sector, while 19% operate in the distribution and construction sector. According to the Statistical Service of Cyprus, 3% of all the businesses (98,765) in Cyprus are operating in the construction sector (2,812).

**Figure 3. Business sectors in Cyprus**



Source: Cyprus Chamber of Commerce - EY (2017)

The majority of FBs participating in an annual report survey for local businesses, have 10-49 employees, while 22% of the sample surveyed have less than 9 employees. The 2nd generation is currently involved in the majority of family businesses. The 1st generation is still involved in over a quarter of family businesses surveyed.

In Cyprus, a differentiation is made with regard to the enterprise's legal status: While in private limited companies at least one management team member should stem from the family this requirement is not followed in public limited companies. In Cyprus, 77 % of family businesses only have family members as managers. Furthermore, national surveys show that family businesses establish minimum qualification levels for (family) managers: In a survey in Cyprus, 63 % of the family businesses mentioned that it is necessary to have a degree to become the company manager and further 7 % stated that at least working experience is required. Furthermore, 40 % of the family businesses' management team members regularly attend formal training programs. 87 % of Cyprus' family businesses only have family shareholders (Cyprus Chamber of Commerce and Industry, 2004).

In contrast to that, there also exist employers' organizations that do not focus on family businesses. So, for example, in Cyprus the subject of family business is not of any particular concern to trade institutions and chambers.

The Family Business Academy (CIIM FBA) 49 of the Cyprus International Institute of Management (CIIM) is an annual week long module of a Master of Business Administration (MBA) program targeted at owners/managers of family firms and their advisors. It includes seminars, workshops, live case studies, guest

speakers/practitioners, family business fieldwork and tours of local entrepreneurial family enterprises and covers issues such as finance, growth, managing conflicts or drafting succession plans in family businesses.

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Cyprus Chamber of Commerce - EY (2017): Family Business Survey 2017 - Every family business has a story to tell, [circ1850.pdf \(ccci.org.cy\)](#)

Cyprus Chamber of Commerce and Industry (2004): Family Business Training for the 21st Century – Cyprus Report, Leonardo da Vinci Programme II

### **Current qualifications and training needs in Service Design**

Despite that recognition to business, the impact of service design to micro and family enterprises is less well documented. A large number of these enterprises do not combine entrepreneurial and design literacy, which creates a misunderstanding on what design can bring to their enterprise. Also, designers often poorly articulate their purpose on how they can support businesses. Moreover, SMEs are characterized by limited budget and time available and are less willing to take risky investment in design approaches, since there is no clear value of its benefits and it is also considered 'extremely' expensive for their available resources. Nevertheless, there are not many or at all design consultancies specifically, and those that do prefer working with larger organizations as a third of the projects based on SMEs fail due to lack of design management skills in the enterprise.

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### **Sustainability and environmentally friendly business skills and training needs of the family & micro-enterprises**

Given the increased competition faced by family businesses following the financial crisis, a strong brand personality and reputation is a crucial asset for long-term sustainability. A strong brand identity that is well understood and experienced by customers helps in developing trust which, in turn, results in differentiating the brand from the competition. This can result in increasing customer loyalty and achieving growth. Research shows that over a cross-section of industries, the longer a company retains a loyal customer, the more profit that customer generates. Cypriot family businesses consider an established brand and customer loyalty as the most important success factor for their company.



**Figure 4. Success factors for businesses**



Source: Cyprus Chamber of Commerce - EY (2017)

Key factors influencing decision making for significant business model changes were the general economic environment (63%), financial risks (59%) and increased competition (53%). Cypriot family businesses have not fully recovered from the turbulence in Cyprus' economy, the reduction in economic activity and limited accessibility to funding. The recent financial crisis has added significant challenges to family businesses operating on the island, with the contraction of the country's GDP, combined with stricter criteria for bank financing. The majority believe that in order to grow their business they should focus on new products/services. With increased involvement of the next generations in the family business, new ideas and product innovation gain a key role in the growth of the business. Product innovation is increasingly valued as a key component of the sustainable success of a business's operation. Product advantage, market potential, meeting customer needs, predevelopment task proficiencies, and dedicated resources are the predictors with the most significant impact on new product performance.

New technologies tend to result in increased operational efficiency, reduced waste and increased product differentiation, which help improve business processes and profitability. In fact, 49% of the sample believe these practices as highly important. Due to their conservative nature, family businesses are generally less flexible and innovative in adopting evolving technologies. However, increased competition and the predominance of digital technology has forced family businesses to embrace evolving technologies. The vast majority of micro and family businesses recognize the importance and potential of social media and e-marketing as technologies to adopt. Social media can offer increased sales combined with reduced marketing expenses. The most popular form of paid social media advertising is Facebook followed by LinkedIn and Twitter adverts.

#### References

Cyprus Chamber of Commerce - EY (2017): Family Business Survey 2017 - Every family business has a story to tell, [circ1850.pdf](http://circ1850.pdf) ([ccci.org.cy](http://ccci.org.cy))



## Support for the development of Service Design

The concept of Service Design is not widely understood as it is elaborated in the concept of this paper. Researching for any published information regarding Service Design in Cyprus, there were not any documentation that can support the implementation of the concept to business development or generally used as a concept explained in this paper. There were few documentations, specifically from website and advertising agencies mentioning the use of user experience design as part of their organization facilities, but nothing that can support published information regarding Service Design or any support offer for implementing it.

## Sectors with developed Service Design

Service Design has been understood for the purpose of the research, with no real evidence on published information regarding its use in Cyprus, especially for the support of micro and family enterprises. The only areas where Service design has been found to be used in its different forms and with a different name but similar context, was found in Digital Marketing and Web design agencies where are mostly focused on the usability and design of online services for their customers. Although we did find out if the concept can be considered similar to Design Thinking, some NGO's working with European research programs have been using it as part of their research proposals, implementation and production of their project results.

## Service Design good practices and existent results from previous projects

Service Design good practices and results from previous projects regarding the development of service design, sustainability and development of environmentally friendly services skills are presented below. As stated earlier, there are no real evidence of Service Design existence or implication applied for the context of Cyprus. Although one research blog was found from Ioannou A, 2013, where as part of his master's degree in University of Dundee Scotland, he searched, compared and applied Service Design to SME's and family businesses, specifically using a tool called the Service Blueprint. He has used this method to analyze enterprises into their customer journey, how they interact between them, what physically exists in the business that create awareness and build on their relation as well as what the business does backstage in order for all this process to work at the best possible format. When using this method, which is well documented as part of his research, Ioannou invites the participants to recognize where improvements can be made in the whole process. By doing this with 6 SME's and family enterprises both in Cyprus and Scotland, he analyses that it was an innovative approach to understand where improvement is needed to be made, and what this might look like (Ioannou, 2013). Although sustainability was not a core value as we tend to understand it nowadays, Ioannou claims that using the Service Blueprint together with other Service Design methods, it can analyze a business functionality and can bring insights for improvements in all aspects of a business (Ioannou, 2013).

No other research was found published, stating the impact of service design, and good practices regarding its development for the creation of environmentally friendly services.

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## SPAIN



## Family & micro-enterprises training needs in each country

### Family & micro-enterprises profile

It is estimated that 1.1 million companies are family businesses in Spain, 89% of the total number of companies. Their characteristics rooted in the shared vision of a business family make this type of company the largest generator of employment in Spain. They currently create 67% of private employment, with a total of more than 6.58 million jobs.

The main data shows that the family and micro enterprises constitute a total average of 88% creating around 66.7% of the overall employment in Spain and 57.1% of the GDP of the country. Going forward to the distribution of these companies along Spain, the vast majority are concentrated in the central areas of the peninsula such as the Community of Madrid with an impressive total amount of 94.3% over the community total.

Moreover, the distribution of employment in the country is led by the autonomous community of Galicia with a total of 86.3% over the total employment data for this mentioned geographical Spanish area. Therefore, looking at the GDP distribution numbers, accounts for a total of 85.0% in the before mentioned community of Galicia.

Finally, considering the representation of the data by sectors, it has been estimated that the “Agriculture, Livestock and Forestry” and “Commerce” sectors would be one of the leading top sectors, regarding the total percentage, being this 86% for each. The “Manufacturing Industry” sector follows accounting an overall of 86%. Being assigned with an 88% each, the Construction and the sector known under the name of “Other Services”, are the sectors sharing the higher percentages.

Taking a closer look at the number of employees, the employment growth by size is considered higher than the “Non-Familiar Companies” as the growth of employment related to size in the “Familiar Companies” within the interval of 25 to 49 number of employees accounts for 9.49 percentual points. Being a 10.18% of growth by size in between the frame of 50 and 99 number of employees and 10.04% in the range of 100 employees or more.

Moreover, the number of employees per 1million turnover accounted for the 4.87% in the “Familiar Companies’ which is considered higher than the “Non-Familiar Companies’ ’ as having a total of 3.11% number of employees for each million-revenue billed.

In 90% of cases, the CEO of the company belongs to the family that owns it. When it comes to succession, family membership is just as important as professional experience in the company. Regarding the years of operation, it is estimated that in between the company, the property generation falls most prominently on the first and second generation, this being the conclusions after an interpretation of the data where the first generation comprises 53.60% of the ownership and the second generation a total of 37.22%. Regarding the educational background-expertise, it is interesting to highlight that from the second generation onwards, university education is on the increase, and this is one of the three main criteria for choosing a successor, together with the family origin and professional experience in the company. On the other hand, several generations of the same family coexist within the company with different roles.

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## Current qualifications and training needs in Service Design

The main reason why service design methodology is not used by family and micro-enterprises is the lack of knowledge and the fact that the involvement of an external service designer is generally costly. These types of enterprises do not implement service design as a strategic tool due to the lack of general understanding. The lack of the use of service design strategies is a common characteristic of family and micro-enterprises in many European countries. Products and services are usually designed by managers or owners, or persons without training in service design.

Service design ensures a better customer experience. This method can be used to improve existing services or to develop entirely new ones. Among the qualities required to develop the concept of "Service Design" are the power of "digital perspective" and the control of "uncertainty". Focusing on the latter, we can confirm that uncertainty in service design is present in the work environment, too. Especially in consulting, you have to be prepared to change work environments all the time. As the higher the uncertainty the higher the risk. This situation would imply not only higher costs but also higher possible benefits.

Micro-enterprise efforts have focused mainly on economic development, although ignoring the social and environmental consequences can jeopardize success. The lessons learned from successful micro-enterprises suggest that the key is to bring together the elements of sustainable development with the importance of the key fact that the micro-enterprises are community-based. Micro-enterprises can foster sustainable development if, and only if, they are integrated into a view of community development that links the social, economic, and environmental dimensions.

Studies conducted in the Spanish business environment show that there is still much room for improvement in customer experience. While 80 percent of the companies participating in the study stated that they offer a perfect customer experience, only 8 percent of the customers involved thought they would get this perfect service. It seems that many companies fail to take the perspective of their target group.

The pandemic has forced many companies to put their innovation plans on hold. This is the case for 29% of Spanish companies in general, especially Spanish microenterprises, which admit to having postponed their innovation projects because of the pandemic.

On the other hand, Covid-19 has accelerated the digital transformation of many companies. According to the barometer, 27% of small companies recognize that they have accelerated their digital transformation as a result of changing consumer habits. In addition, 63% of companies have already chosen to implement e-commerce, increasing, or introducing capabilities focused on e-commerce and therefore focusing on "Service Design". Meanwhile, 49% of companies acknowledge that they have focused on increasing investment in marketing and innovation, while 76% of companies have made other business changes to adapt to the new needs and conditions brought about by the pandemic.

Nevertheless, for most microenterprises, innovation is more difficult than ever. Many Spanish entrepreneurs point to the regulation in Spain, but also to financing and difficult access to subsidies as the cause.

Experts agree that in the Spanish economy there are many difficulties for small companies to grow due to tax and financial competition from large companies. In order to gather more precise data, as reported in early October, 20 multinationals based in Spain paid a real corporate tax rate of less than 2% and a large majority remained below 15%, compared to the 25% that most micro-enterprises end up paying.

Unlike large corporations, micro-enterprises do not have service designers within their teams or cultural change strategies within their vision or objectives. Therefore, it is important that, in a situation of need for change in these micro-enterprises, an expert is called in to avoid risks. Bearing in mind that in microenterprises ego is a strong component of the culture and that is why the design of a shared ethos is so critical for success. The potential for growth in organizations is linked to the ability of their management team to manage resources. In their own words, if a team is able to manage a certain volume of employees or

business, when it exceeds that limit it will become inefficient. Therefore, the ability to delegate and decentralize decision-making is so important.

What it has been found in some studies is that in other countries the aforementioned ability to delegate is greater than in Spain. In a nutshell, what the research shows is that control over employees and lack of delegation means that employers waste precious time that could be spent on building and implementing growth strategies.

In the European context, Spaniards setting up a business have more limited training than the rest of the potential European economies and this also makes a difference in the ambition of the business project and the quality of management. Therefore, experts have been suggesting a possible solution to this problem as the professionalization of management. This implies that those people who built up the company through money, ingenuity and effort are able to step aside to hire managers whose level of training is comparable to that of their European neighbors.

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### **Sustainability and environmentally friendly business skills and training needs of the family & micro-enterprises**

Spain was ranked 14th in the 2019 Europe Sustainable Development Report but has shown positive progress, so we can expect to see an improved ranking in the medium term. Thanks to Spain's work in promoting Renewable Energy and Water and Sanitation access and management, Spain's best performance indicators as a country are in SDG 6 (water and sanitation) and SDG 7 (affordable and non-polluting energy).

According to The World of Organic Agriculture, a report published by the Research Institute of Organic Agriculture (FiBL), Spain ranks fourth worldwide and first in the EU in agriculture, with the largest organic agricultural area.

Mobility is another major industry that offers potential opportunities. Spain has substantial investment opportunities in mobility solutions. According to the Sustainable Cities Index published by Arcadis, and closely aligned to the UN SDG criteria, two Spanish cities rank among the top 30 sustainable cities: Madrid (21) and Barcelona (28). These and other Spanish cities aim to effectively implement low-carbon infrastructure projects that improve the well-being of both their citizens and visitors.

Spain, a world leader in tourism competitiveness for the third consecutive year (World Economic Forum), has launched its 2030 Sustainable Tourism Strategy, which will allow it to maintain its global leadership.

Digitalization is a key lever in achieving the SDGs. Spain's ICT industry is a leader in digital public services, ranking fourth in the EU in this area according to the Desi Index 2019. COVID-19 has also highlighted Spanish startups' remote working solutions.

As for commenting on the possible training needs, micro-enterprises can develop and offer efforts towards this important and global goal, bearing in mind that they cannot address the goals in the same way as large corporations or governments. The role of small and medium-sized enterprises in the Spanish and global economy is essential, therefore, their potential contribution to progress towards sustainable development goals is vital.



In a business context, sustainability is one of the most important and differentiating competitive factors that exist. Therefore, micro-enterprises need to be trained towards more sustainable practices. Sustainability is seen as a change of thinking and philosophy that has to start from the top of the company's organization chart to the bottom. Therefore, the first building block to being a sustainable company is to believe in the concept and the end results of the concept.

From the integration of the concept of the sustainability model, it is possible to develop small practices that SMEs will be able to develop without complexity. These practices could be the fact of micro-enterprises being trained to establish and enforce strict non-discriminatory policies; train and employ members of the local community; offer health benefits to employees; create programs that provide students with earlier access to the work environment; provide employees with continuous opportunities to improve their job skills for their current and future employment; establish a zero-tolerance policy towards all forms of violence in the workplace, including verbal and/or physical abuse; integrate efficient certifications; prioritize energy efficiency in all operations; track the life cycle of products and materials to understand how they are disposed of; work with sustainable, supply chain-owned suppliers and third parties; comply with laws and seek to meet international standards and, in turn, require and support business partners to do the same; be transparent and communicate responsible and sustainable actions.

It is necessary to raise the level of awareness and participation of society in the field of climate change through education, training, and dissemination (information and communication). Training for sustainable development favors the environmental education of key actors to promote the quality of life of people in local communities through the sustainable management of natural resources. Adopting the culture of cleaner production and consequently markets green products and customers.

Certification of companies under a global standard and/or agreement. ISO14.000 Voluntary standard, which requires auditing by an external organization and establishes minimum requirements for implementing an environmental management system. Moreover, participating in working groups or discussion teams on environmental issues, contributing and collecting ideas that promote environmental responsibility, i.e., carrying out those practices that the company implements to reduce the negative environmental impact of its operations.

Implement and carry out environmental audits as a mechanism to evaluate the commitment of the business leaders of the companies that make up the MSME sector. Also, approach and collaborate with the relevant bodies to follow up on government plans and programs that allow progress to be made in adapting to these new ways of dealing with climate change.

Finally, it is noteworthy the existence of environmental regulations in Spain aimed at guiding companies to adopt practices that guarantee compliance with the legal framework and certify the quality of their procedures. These are the ISO environmental management standards focused on international standards for Environmental Management Systems, Quality Management, Energy Management Systems for companies and Occupational Health and Safety Management. All of them help to improve the environmental management of Spanish companies by increasing the efficiency of their procedures. Likewise, ISO certifications generate prestige and new business opportunities in different markets.

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### **Support for the development of Service Design**

Spain stands out in open innovation initiatives. Major Spanish corporations work in a wide range of industries. From ICT to energy, finance, and retail, they have the ability to combine the university's educational and scientific efforts with the business ecosystem, since most of them have their own startup programs.

The Spanish public-private cooperation program Open Innovation 4.0 won the EC's 2018 European Enterprise Promotion Awards (EEPA) prize for Open Innovation. Moreover, in 2018 the Spanish company "Acciona" won the 'Open Innovation Innovative Approach Award' granted by the EC's Startup Europe Partnership (SEP), which acknowledges and gives support to the company's efforts to develop innovation in partnership with startups in its innovation program.

Therefore, regarding the Research Talent in Spain, it has been demonstrated that is a country with talent devoted to innovation. Accounting to 215,713 people who participated in R&D activities in Spain in 2017, where 133,195 of these were researchers. This represents an increase of 6,500 over the previous year when R&D investment by companies was up 8.3%.

Also, the support offered to implement Service Design as an innovation in the company, a favorable environment for hiring talent in Spain is provided, whereby offering companies a 40% discount in Social Security contributions for common contingencies to all research staff that work solely on RDI during the time they are at the company.

In a more global framework, the Patent Box is a tax incentive that emerged in the European Union, around 2013, with the aim of promoting R&D&I in the private sector. It is a reduction for tax purposes of the income obtained from the assignment of the right to use or exploit patents and other intangible assets created by the company as part of the innovative activity: patents, industrial designs, plans, formulas, or procedures, as well as information relating to industrial, commercial, or scientific experience. It seeks to encourage companies to identify and exploit their intangible assets in order to boost their development and internationalization.

In addition, Law 14/2013 on Support for Entrepreneurs, and their Internationalization, introduces, among other tax innovations, new features applicable to this regime for those transfers of intangible assets that are made from now on (from 29 September 2013 onwards). This regime has been adopted by various European countries such as Belgium, France, Holland, Ireland, Luxembourg, and Switzerland. In Spain, very few companies have been applying it, despite the fact that it can represent a significant amount of savings in corporate income tax and is compatible with other aid and tax deductions for R&D&I activities. This is probably due to a certain lack of awareness of its existence, but all those companies that have innovation models that they can sell or transfer to third parties could apply it.

Keeping up with the Spanish initiatives to support and finance innovation projects which includes "Service Design" it has been found the "Enisa" initiative, which has announced that it will have 125.5 million euros in 2022 to finance start-ups and SMEs. The National Innovation Company has approved 560 operations, for an amount of more than 93.4 million euros in 2021 alone.

In 2021 "Enisa", the National Innovation Company, attached to the Ministry of Industry, Trade and Tourism, through the Directorate General for Industry and SMEs, has approved 560 operations, for an amount of more than 93.4 million euros, and 500 operations have been signed, for an amount close to 86.8 million euros, which have allowed the strengthening of the entrepreneurial ecosystem and the growth of startups and



SMEs, including microenterprises, which are committed to innovation and the business and social transformation of Spain.

The National Innovation Company' CEO, José Bayón, stated that from Enisa they want to encourage the creation of startups, the growth of SMEs, the disappearance of the gender gap in entrepreneurship, as well as providing the necessary tools to boost the agricultural and rural sector are great challenges that we have faced with enthusiasm, facilitating these changes through participatory loans, an impact financing.

*"In 2022, Enisa has 125.5 million euros allocated, between the General State Budget and the funds of the Recovery, Transformation and Resilience Plan. In this sense, European funds represent a great opportunity to carry out the change and transformation necessary for Spain's progress",* Bayón stressed.

According to information provided by Enisa, companies less than three years old account for 74% of the loans approved in 2021, and 62% of total investment, which confirms the trend of increasing entrepreneurial activity in our country, which has increased fivefold since 2015.

By sector, ICT continues to lead in terms of loans approved, accounting for 37% of applications and 38.5% of total investment, with 36 million euros, followed by Other Services and Professional, Scientific and Technical Activities in third place, which, unlike previous years, is ahead of the loans approved in Manufacturing Industry.

Last December, more than 1,165 million euros were invested, with more than 7,700 loans disbursed and more than 6,700 companies financed since the granting of participative loans began.

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#### **Sectors with developed Service Design**

Tourism and Retail are the sectors with the best user experience in Spain, likewise, the banking and insurance sectors are becoming more and more developed in UX, while the administration is at the bottom of the list.

The need to have user experience experts on staff has become increasingly common in the different companies, especially in the most important ones. Specifically, the tourism sector and e-commerce are the sectors that have the most and best implemented user experience (UX) design in their different sales platforms, followed by the banking and insurance sectors. On the other hand, the administration sector has barely developed this type of strategy at present.

The user experience is present, to a greater or lesser extent, in many of the large companies with which users interact. In particular, smartphones and their apps, devices in which UX is more important. In fact, according to data from Exevi, up to 45% of an application's code is dedicated to its interface and more than 30% of analyses, comparisons and recommendations refer to ease of use. It is not surprising, therefore, that every Euro invested in UX translates into €100 in profit, as Forrester points out.

As a clear statement, as consumers used to go to the bank, now the power is right in your pocket. Also, it was used to raise the hand to order a taxi and always had to have money on, nowadays, thanks to these innovation improvements, Service Design, we order an "Uber" or "Cabify" and pay for it with our mobile phone. Everything is changing and there is a common denominator, the user and how they relate to technology. Therefore, it is not surprising that little by little, it is something that has been catching on in



companies. Moreover, it is measurable and everything you put into numbers or impact is much more digestible for the management layers.

In the case of the banking sector, “Bankinter” and “BBVA” are the banks that have obtained the best score after the analysis. Both stand out for the use and optimization of their forms, where they offer the best user experience compared to the rest of the cases reviewed.

In addition to the aforementioned sectors that apparently lead in the field of innovation and Service Design, two emerging sectors such as the furniture sector, in particular a great example is offered on the mattress market where Pikolín, a renowned Spanish company. They say, the furniture sector has undergone great development and growth since the digital stage, but it has been observed uneven in the mattresses part. Towards 2016, Pikolín considered the fact of providing value beyond the components of the mattress, thanks to the digital world respecting the values of the brand and providing solutions in aspects that the user considers useful.

On the other hand, the telephone and telecommunications sector has been undergoing a great digital transformation. Specifically, in this case, Vodafone can be used as an example, being a brand committed to simplicity, technological innovation, and the customer. Therefore, this sector is considered part of the group of the 5 most developed sectors in "Service Design".

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### **Service Design good practices and existent results from previous projects**

Service Design good practices and results from previous projects regarding the development of service design, sustainability and development of environmentally friendly services skills are presented below.

As an example of service design good practices and recognized projects, the smart design company located in the USA is going to be used for being awarded in the professional commercial category.

To know more in depth the client, in between its achievements, is known for having led the hearing health market for decades as a holistic provider of devices, diagnostics, and support services. With the threat from new competitors emerging from adjacent categories, and shifts in regulation and technology, the client needed to be at the forefront of innovation to ensure its future position in the category.

Although the retail hearing care market is still characterized by relatively low penetration, approximately 15% of the world’s adult population has some level of hearing loss, out of which only 37% adopt a hearing solution. It takes an average of seven years for a person to recognize and act on a hearing loss issue. Untreated hearing loss is linked to loneliness and isolation for seniors and increases the risk of dementia by 50% and depression by 40%. Because hearing health is a complex and emotional problem, the client needed to address the stigma associated with the hearing loss by creating ways for people to seek help sooner, and live better, fuller lives.

Considering the deficiencies in this sector, the client partnered with the consultant to create a global customer experience strategy and roadmap of initiatives to address unmet customer needs and increase the value of their services to drive sustained business growth and provide greater consistency across the store



network which has grown by acquisition. With more than 11,000 stores in 28 countries, the client needed to unify the brand experience across locations and franchises.

The consultant's cross-functional team took a human-centered design approach, meeting with 160 people in five countries, in between which there was Spain, to understand their pain points and motivations by shadowing staff, audiologists, and customers, the consultant team analyzed customer value perception across the entire hearing care journey and identified key moments where there were major gaps in customers' expectations, as well as the greatest opportunities for innovation.

Therefore, the consultant deeply studied the potential consumers to understand them by gathering deep and meaningful insights about their current pain-points and their ideal experience in the future. This extensive research resulted in a customer journey map that outlines and summarizes the current experience for customers across Europe and the US.

Researching for inspirational sustainability and environmentally friendly projects, it has been found the Chatham Green Projects both conservation and education initiative focused on sustainable use of land. The projects aim to explore the most effective ways of utilizing the land for the needs of farming and nature in the 21st century. Some of the key features of the Chatham Green Project include the planting of more than 12, 000 trees, restoration of a wildflowers meadow and an education program aimed to educate over 2,000 schools each year.

Moreover, two more sustainable oriented projects have been considered as interesting and motivational as for having great results which are the "Greenhost" and the Green Alliance. Introducing first the "Greenhost" project, it is known for being an energy-efficient web hosting platform that offers a fresh approach to sustainability and supports projects in the field of education, journalism, and culture. Moreover, "Greenhost" strive towards the paper-free office and business trips in electric vehicles. The project has been focused since the beginning on the technological approach as considering the possible machine optimization.

On the other hand, the Green Alliance was found useful for the study as it is a charity organization focused on ambitious leadership for the environment. During the past decades, organization worked with a growing network, NGOs, and politics in order to increase support, stimulate new way of thinking and dialogue on environmental policy. Their work includes projects involved in deep research and advocacy by experts in the field. Green Alliance was launched in 1970 with main aim of ensuring that political priorities of the UK are determined within an ecological perspective.

Finally, to be used as community sustainable initiatives example, the "Otesha" Project which is formed by a community of people who see their lives as a powerful tool for environmental and social changes. "Otesha" is involved in day-to-day choices while at same time inspiring people to take positive and innovative action for cleaner and greener environment. Young people from various backgrounds are empowered by "Otesha" to lead in creating change for themselves, their community, and the world. During the summer season members of "Otesha" organization's next goal is to focus on bikes and travelling across the UK stopping along the way to inspire individuals and create positive action towards more sustainable future.

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## PORTUGAL

### Family & micro-enterprises training needs in each country

#### Family & micro-enterprises profile

As an important part of the country's economic life, Portuguese family businesses are strong creators of employment and play a relevant role in territorial cohesion and the promotion of different regions, due to their productive capacity and durability. These enterprises operate in different sectors of activity, such as agriculture, banking, construction, consulting, textiles, communication, energy, engineering, finance, real estate, industry, health, technology, textiles, transport or tourism. They generate wealth, create jobs and represent more than 70% of the Portuguese business tissue and contribute to 65% of the Gross Domestic Product (GDP).

One report developed by the University of Minho on family businesses in the northern region in 2018 shows that in terms of turnover, most family businesses are micro enterprises, of which 65% have a turnover of less than €250.000, 22% between €250.000 and €1 million and 13% over €1 million. In one other study on business dynamics, Bank of Portugal founded that in 2017, around 430.000 non-financial companies were operating and had their headquarters in Portugal and that the number of active companies increased by 7% between 2013 and 2017. This increase was justified by the evolution of micro-companies, which showed an accumulated growth of 6,3% in that period. In all economic sectors there was an increase in the number of companies at that time, with the exception of construction sector (4,3% decrease). Agriculture and fisheries showed the highest growth (31,3%).

In the year 2017, nearly 21.000 Portuguese companies were considered high-growth enterprises (EEC). About a fifth of these (4,4 thousand companies) were classified as "gazelles" for having only up to five years of activity. The gazelles corresponded to 1% of the number of companies, 1% of the turnover and 2% of the number of people employed in the total of companies. When considering EECs, gazelles accounted for 21% of the number of companies, 11% of the turnover and 16% of the number of people employed. Most of the gazelles were micro-enterprises (72%, compared to 89% in all the companies and 67% in the EECs). Commerce and other services sectors accounted for the highest turnover percentages.

Almost 47% of employment in Portugal currently comes from companies with a turnover of up to 2M€ (333.971 companies), meaning a total of 1.330.140 employees in 2020. Currently representing 95% of the total number of companies (340.457), micro-enterprises are only responsible for 21,4% of the overall corporate turnover.

Portuguese family businesses are characterized as modern and innovative companies that contribute to the stability of Portuguese society and seek to overcome the challenges imposed on them with their recognized resilience. They are known for their competitive advantages in innovation and internationalization. Regarding the latter, there are some strengths that favor their internationalization process, namely experience and knowledge of the business, solid values, group culture and a long-term perspective. Portuguese family businesses are fundamental for national exports and are increasingly recognized in foreign markets. They play a vital role in the economy, which is not always properly recognized.

On the other hand, the crisis caused by COVID-19 had economic and social repercussions on a global scale, also making itself felt in the Portuguese business tissue. After the evolution registered in the last few years, company births dropped by 24% in 2020, representing a retreat of four years. However, since the beginning of 2021 and until 30 September, 30.823 new companies were born in Portugal, representing a growth of 9.1% compared to the same period of the previous year. The companies created in 2021 in the sub-sector of



buying and selling of real estate activities and in two sub-sectors of retail already exceed by more than a hundred the companies created in 2019. In the case of retail, the biggest highlights are the generalist retail and mail order or internet retail (including the others sub-sector), which shows a 70% growth in start-ups compared to the same period in 2019, corresponding to 208 more companies. In transport, in the distribution subsector (with a large contribution from postal and courier deliveries) 190 new companies were created in 2021, 30 more than in 2019. As a result of the entrepreneurship in these activities, these sectors now represent more than 20% of all new companies, whereas in 2019 they only represented 16%.

Innovation, training, education, and diversification are the top priorities for family businesses as they adapt to a world that is constantly changing, while plans for succession are increasingly present. Some 43% of national family-run businesses assume they want to hand over management to the next generation, keeping the course within the family, but regarding ownership, only 27% admit they want to transfer ownership to their descendants. The biggest challenges are related to the training of the successor, the difficulties in identifying who will succeed in the leadership and the motivation to assume the position.

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## Current qualifications and training needs in Service Design

Service Design has been a growth in awareness for both private and public sector in Portugal for the past decade. The current scenario has been influenced by niches of practitioners with international experience and academics. The growing adoption of these methodologies are addressing slowly but steady innovative outcomes and digital transformation within organizations.

In the initial phase of the activity, the small entrepreneur often prefers to work alone or, eventually, with the support of one or two people, usually the family itself. Reluctance to hire staff is usually a result of the concern to avoid commitments, especially the fixed costs that such hiring implies. Sometimes, when the situation requires it, they try to meet the support needs by resorting to temporary or part-time workers and this also happens with regard to service design. Particularly in small businesses, hiring the right people and training them properly can mean the difference between mere economic survival and outright development. As far as family-run micro-companies are concerned, it is necessary to clearly define their organizational structure, functions and power and competence levels, outline objectives and correctly and realistically plan



their achievement. Human resources planning is the process of determining current and future needs and it is important that technical staff assist and participate in the preparation and installation of the various services.

The different transitions underway place emphasis on training in technological and digital areas, as well as in sectors related to the energy transition, and on specific skills areas in each sector, within the framework of a broader challenge of raising and renewing skills in all generations (from school age to young adults and throughout life) and at all levels (basic, intermediate and advanced skills).

More traditional sectors have managed to modernize, not without significant transformations in the structure and composition of employment, but maintaining significant employment levels and generating new jobs. Current skills, in many cases, will need significant adaptation to the jobs of the future and newly acquired skills may tend to become outdated and obsolete more quickly. The need for lifelong learning is even more central and imperative, both for workers and for employers/employers themselves. In this context, it is decisive and a priority to broaden and raise the qualifications base, in general, and the digital skills base especially among the adult population where qualifications deficits are more pronounced. This broadening is a condition and part of the movement that also allows investing in areas of greater specialization and incorporation/production of knowledge.

In issues related to education, training and people's qualifications, Portugal has a significant deficit at all levels, despite the remarkable recovery achieved in recent decades. A weakness that limits the potential for adaptation in a context of rapid change and increased needs for new skills and therefore compromises not only the degree of preparation to face the challenges raised by the accelerated transformation of the economy and of employment, but also, today and in the future, the levels of social cohesion of the country.

It should be noted that, according to the 2020 Economy and Society Digitality Index (IDESDESI), Portugal has a low ranking in the human capital dimension, having, however, risen two places to the 21st position among the 28 EU countries. This is the vector where the country has the greatest weaknesses in terms of the use of technology in society, so it is necessary to strengthen the digital skills of the entire population, including employed and non-employed assets.

In Portugal, the number of people per 1.000 inhabitants aged 20-29 holding university degrees in science, technology, engineering and mathematics (STEM) was 18,6 in 2017, close to the EU average of 19,1. In 2019, according to Eurostat, Portugal had a 3,2% employment rate in technology-intensive sectors (industry and services), compared to 4,2% in the European Union.

It should also be noted that Portugal has updated the Key Competences Framework for Basic Level Adult Education and Training, based on five key competences areas, one of which is 'Digital Competence', and that Portugal has already adapted the European Digital Competence Framework for Citizens (DigComp 2.1) to the national reality through the creation of the Dynamic Reference Framework for Digital Competence (QDRCD).

It has sought to develop, in articulation with social partners and agents from different sectors, training programs targeted to emerging skills, to ensure more digital employment patterns and skills profiles aligned with the needs and trends of technological developments and labor markets, and also promoting the strengthening of employers' and managers' skills.

According to a survey on the identification of qualification needs in companies carried out by the National Statistics Institute (INE) in collaboration with the National Agency for Qualification and Vocational Education (ANQEP) and the Directorate General for Education and Science Statistics (DGEEC), in the biennium 2021-2022 companies intend that 49,9% of workers to be recruited have a non-higher education (vocational) course and 32,2% have a higher education course. These recruitment intentions correspond to gross increases of 17,8% for workers with higher education and 9,1% for workers without higher education qualifications. The most referred higher education courses were computer engineering, telecommunications



and information systems engineering, software and information systems engineering and sales and commercial management (11,5%, 6,7% and 6,3% of total workers with higher education qualifications, respectively). The most mentioned reason for recruiting workers in the next 2 years was to expand business (60,4%), followed by labor replacement (24,9%). By size, it is the micro companies that most report the expansion of the activity. As for the recruitment difficulties identified by the companies, the reason most mentioned was the lack of workers available in the market with the appropriate training (57,3%), the lack of available workers (46%), and limited professional experience (44%).

Based on data from the Service Design Network Portugal, a non-profit organization that aims to become the center of reference for the Portuguese-speaking Service Designers, gathered in the study "State of the Art of Service Design in Portugal 2020", the profile of the service designer in Portugal is characterized by being a person with a master's degree (48%) or a degree (43%), and in most cases employee (68%) or company founder (18%). It was pointed out by most of them that they have maintained the same employment situation for more than 5 years. The most common areas of training for service designers are Engineering, Management, Design and Anthropology, and most of them built their experience as self-learners (36%), through continuous learning (31%), or through Academic Training (19%). The percentage of time spent working on service design is most often less than 50%.

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## Sustainability and environmentally friendly business skills and training needs of the family & micro-enterprises

In the past 10 years there has been a growth of activities by private entities that promote sustainability issues as part of their social and environmental responsibility. These activities range from the incorporation of sustainability into the company's strategy, the implementation of processes, and the development of new products and services that can be consumed by the general population. Usually, these approaches are embedded in the companies' sustainability strategies and involve local communities in a variety of ways. This trend has given rise to market opportunities that lead to the emergence of specialists in the area of sustainability, both in terms of the elaboration of educational content, communication and design, and in terms of other services that are purchased by companies and other associated bodies, highlighting the importance of placing the issue of sustainability across the various areas of knowledge, since future job opportunities may and will tend to arise. Portugal has today high levels of carbon intensity, primarily as a result of high energy intensity in the different sectors. Industry and transport assume high shares of greenhouse gas emissions (GHG), reflecting inefficiency of the production system and a still high dependence on fossil fuels. In services and Public Administration, the opportunities for resource savings through energy efficiency are far from exhausted. In the resource domain, the metabolism in Portugal is slow, that is, the Portuguese economy tends to be a material accumulator economy insofar as it extracts and imports more raw materials than it exports finished goods. If we look at material productivity (EUR generated per kg of



material consumed), Portugal has not evolved as favorably as, for example, its partners Spain and Ireland - countries that in 2005 were at the same productivity level as Portugal. In 2018, Portugal generated €1,11 of value for the economy per kg of material, while the European average is €2,04. Add to this the fact that, according to Eurostat's circular economy indicators, Portugal has a coverage rate of raw materials by recovered materials of 2,1% (EU average: 11,7%), one of the lowest in the EU.

The fragility of family micro-enterprises, usually operating in traditional businesses - trade, services, hotels and restaurants, owned and operated by family - is enormous. Family businesses are a reality with a relevant economic weight in all western economies, always representing more than 50% of all relevant economic indicators - GDP, GVA, employment, and Portugal is no exception.

Under the generic term of family business, there is a wide variety of business organizations, in terms of the size of the company, the variety and complexity of the business and the size and complexity of the family. One of the strengths of family businesses is their resilience in times of economic crisis, due to their financial conservatism and family solidarity, which forgoes dividends and reinforces the company's capital in these circumstances.

It is essential that family microenterprises develop digital skills and competencies that enable them to strategically use new technologies to rethink and improve their business models, internal processes and procedures, and acquire digital leadership.

It is worth adding the need to develop specific educational and training responses to the energy transition, climate change, the transition to a circular economy and the response to environmental degradation, responding to the transition to a low-carbon and circular economy that is triggering the need for new skills.

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## Support for the development of Service Design

A set of commitments and responses are being developed to encourage innovation and the consequent improvement of services in family & micro-enterprises in Portugal. An example of this is INCoDe.2030 (National Digital Skills Initiative e.2030), an integrated public policy initiative dedicated to strengthening digital skills. Digital skills are essential for the full exercise of citizenship, also acting as a facilitator of employability, by responding to the demands of the growing digitalization of the labor market: a more qualified workforce gives rise to new forms of work, new professions, innovative markets and products and, therefore, more robust and competitive economic activities. Portugal has to position itself as an active agent both in the global effort to produce cutting-edge computational knowledge and to develop the capacity to manage and use large volumes of information, in order to ensure a better position in Europe and the world. The Portugal INCoDe.2030 initiative is seen in a broad scope for the integrated promotion of digital development, starting with digital inclusion and literacy, through the education of new generations, from



childhood, the qualification of the active population to the specialization of graduates to occupy advanced digital jobs and research, in order to turn the country into an effective driver of new digital developments.

On the other hand, according to the National Reform Program, it is planned to foster investment with a particular focus on the digital and climate transition. With regard to promoting access to finance, in particular SMEs, and promoting investment for the recovery, the Recovery and Resilience Plan (RRP) is a nationally applicable program, with an execution period until 2026, which will implement a set of reforms and investments aimed at restoring sustained economic growth after the pandemic. It is based on two complementary approaches, leveraging private investment and strengthening public investment. Some components aim to leverage the investments necessary for Portuguese companies and their workers to adapt to the double climate and digital transition. Support for the decarbonization of industry will ensure the timely preparation of the Portuguese productive fabric to the new environmental demands. A specific component will make a decisive contribution to the digital transformation of SMEs' business models, allowing them to reposition their businesses in a digitally advanced ecosystem.

On the other hand, the Portugal 2030 Strategy establishes a medium-term path for the economic, social and environmental development of the country within a decade, advocating options to overcome the set of structural blockages that have been faced and that, in many cases, have been deepened by the pandemic crisis.

At the national level, the Portugal 2030 Strategy reflects and is consistent with the general lines of other documents of a strategic nature, namely, the National Programme for Spatial Planning Policy (PNPOT), the National Energy and Climate Plan 2030 (PNEC 2030), the National Investment Plan 2030 (PNI 2030), the Action Plan for the Digital Transition (Portugal Digital), the Programme for the Enhancement of the Interior and the Plan to Improve the Response of the National Health Service (SNS).

In terms of digitalization, innovation and skills as drivers of development, investment will continue to be made in improving qualifications and strengthening skills which, structurally, have been a constraint to the transition of the Portuguese economy to a knowledge-based model.

In terms of training offer on Service Design in Portugal, it can be seen in the dashboards of the Digital Report of the study "State of the Art of Service Design in Portugal 2020", published by the Service Design Network Portugal team, that a large majority (63%) does not know any training program in Portugal in the area of service design. Those who are aware of them point out executive training programs, undergraduate/masters degrees, intensive courses, workshops, bootcamps, professional training or conferences. However, only 37% of those who know about them claim to have done any of these programs, and their assessment of them is quite positive. As points for improvement, they highlight the organization of sessions on topics that are little explored in service design and more sessions with professionals.

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## Sectors with developed Service Design

The tertiary sector is the largest in Portugal, both in terms of active population employed and in terms of value in relation to GDP. On the Pordata portal, data is published showing that in Portugal in 2017, 69% of



the active population was employed in the tertiary sector. The Agency for Investment and Foreign Trade of Portugal stated that the weight of the tertiary sector in Portugal is between 68,6% and 75,4%. However, the number of companies offering service design or having this capability internalized is still quite residual.

The Service Design Network Portugal refers that, in recent years, service design has become institutionalized and spread across all sectors and quadrants of the market, from the public sector to large consultancies, from strategic design boutiques to Academia.

In the digital report of the study "State of the Art of Service Design in Portugal 2020" conducted by the Service Design Network Portugal, an analysis of the companies that hire service designers in Portugal is also carried out, showing that the vast majority (30%) belong to the consultancy sector, with the group of employers from the Information Technologies sector (10%) coming in second. As for the size of the design team, and considering the group of micro-companies with up to 10 employees, there is a higher number of companies with teams of only 1 person (44%), against 33% who refer to having a team of between 2 and 4 people. As regards the existence of recent project experience, the Banking, Insurance, Public Sector, Retail, Health, Transport, Construction and Tourism sectors concentrate more projects in the digital applications typology. The Education sector distributes its experience among projects related to digital transformation, research/facilitation or customer experience (a typology also mentioned by the Telecom sector). The Construction, Energy and Water sectors indicate projects in the area of employee experience or others, with the Horeca sector indicating projects to improve existing services, the public sector indicating social innovation projects and the Retail sector indicating e-commerce projects.

It should be noted that according to the perception of the Portuguese labor market, the service designer is more likely to be sought out by companies in the technology sector (40%), start-ups (26%) and traditional sectors (22%), companies that are therefore considered to be more open to service design. Also as a result of the aforementioned study and in the perception of the labor market, the sectors most open to service design are IT, Consulting, Banking, Marketing and Retail, with the innovation department being the most referred to gateway.

It should be noted that, in general, the level attributed to the maturity of the market is still on the low side, mainly due to a lack of clarity about what service design is, to the traditional business culture and to the fact that service design is not yet considered to be a strategic priority either.

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## Service Design good practices and existent results from previous projects

Service Design good practices and results from previous projects regarding the development of service design, sustainability and development of environmentally friendly services skills are presented below.



Service Design Portugal is a community to share, discuss and reflect on service design practice in Portugal. It is intended to function as a platform to foster relationships between professionals and relevant stakeholders of the industry, with the aim of creating an ecosystem for human-centered services, in Portugal. It was created in 2017 as a community of practice sharing work opportunities, debates and useful references. Functioning as a platform, the aim is to foster relationships between current and aspiring stakeholders and, in this way, create an ecosystem for people-centered services, in Portugal.

Service Design Portugal is at the origin of the Portuguese chapter of the "Service Design Network", which has similar motivations but a different scope and approach. The "Service Design Network Portugal" (SDN-PT) is an initiative that took off in July 2018 with the ambition to make Portugal a global reference in Service Design, particularly in Portuguese-speaking countries.

SDN-PT aims to bring the community, companies and knowledge together, either by sharing resources on service design among the various people who practice the discipline in Portugal, or by bringing the theoretical knowledge of universities closer to the practical needs of the market, or by explaining to companies why service design can be useful to them. The Service Design Network Portugal - made up of members from LabX, Porto Digital and other entities - intends to promote networking meetings and sessions to share ideas and case studies. Basically, the idea of the Service Design Network Portugal is to create collective awareness of the need and importance of creating good services, in a country where 75% of the economy is made up of service provision.

The Service Design Network Portugal has an open document on Google Drive where it can be seen which Portuguese companies apply service design and also consult a list of professionals connected to this area ([https://docs.google.com/spreadsheets/d/1iLnmqZCoRvn7gHI3lhE\\_AtU4f7aYk3ZB9QF0DYrzQRo/edit](https://docs.google.com/spreadsheets/d/1iLnmqZCoRvn7gHI3lhE_AtU4f7aYk3ZB9QF0DYrzQRo/edit)). It is a living and open document, with the aim of creating a database of service design companies and practitioners (freelancers) operating and working in Portugal, several of them having already experience with service design projects or have in-house service design (have service designers but do not sell service design). This open document also identifies companies providing end-to-end delivery, consulting, design research, user experience design, coaching, training and other service offers / specialties. Among the most notable, there can be found projects like "Smart Companion: Highly usable mobile technology for novice users" ([https://www.fraunhofer.pt/en/fraunhofer\\_aicos/our\\_work/projects\\_/SmartCompanion.html](https://www.fraunhofer.pt/en/fraunhofer_aicos/our_work/projects_/SmartCompanion.html)), "SmartBEAT: Solution for remote management of heart failure" ([https://www.fraunhofer.pt/en/fraunhofer\\_aicos/our\\_work/projects\\_/smartbeat1.html](https://www.fraunhofer.pt/en/fraunhofer_aicos/our_work/projects_/smartbeat1.html)), "Clockwork: Supporting shift-workers' self-care" ([https://www.fraunhofer.pt/en/fraunhofer\\_aicos/our\\_work/projects\\_/clockwork--smart-system-for-the-management-and-control-of-shift.html](https://www.fraunhofer.pt/en/fraunhofer_aicos/our_work/projects_/clockwork--smart-system-for-the-management-and-control-of-shift.html)) or the "Service Assisted Living" project ([https://www.fraunhofer.pt/en/fraunhofer\\_aicos/our\\_work/projects\\_/sal1.html](https://www.fraunhofer.pt/en/fraunhofer_aicos/our_work/projects_/sal1.html)) promoted by Fraunhofer AICOS organization. Also provided by Design Thinkers Portugal, good practices and results come from projects like "EDP digital workplace", "Definition of Go Banking concept for BPI", "Merger of L'Oréal divisions in Russia", "KPMG internal marketplace" (Global project for USA+UK+GER), "Martini Europe go to market opportunities". Based in Lisbon, one good benchmark is the Cocoon Experience (<http://cocoonexperience.com/>), whose mission is to drive human centered digital transformation into today's businesses. Cocoon Experience has a design-driven culture and cultivate a collaborative problem-solving attitude towards the creation of new solutions.

LabX, Public Administration Experimentation Lab (AMA) is a laboratory that helps the Portuguese Government to improve public services. LabX is the division responsible for research and development in service design, that is, for understanding and improving the performance and the relationship with users of services as different as a Citizen Shop or the portal of the Employment and Professional Training Institute (IEFP).



The Portuguese public administration is not alone in applying service design to public services. In other areas and other countries there is a huge investment in this area of study. Besides LabX, service design is put into practice by other entities, including private ones, often without an explicit team appointed for that purpose. Made Of Lisboa, a brand that was born to represent the capital's entrepreneurial ecosystem, also resulted from a long service design process, worked on by the agency With Company, one of Portugal's Design Thinking references.

Facilitating access to public services and centralizing information previously scattered across several portals is the goal of ePortugal, the new website for citizens and businesses to interact with public services. With a total of 1200 services for citizens and 1300 services for businesses, ePortugal allows, for instance, to renew or change the address of the Citizen's Card, revalidate the driving licence, make an appointment at a health center, open a company, obtain a licence to open a restaurant or a local accommodation establishment. ePortugal replaces the Portal do Cidadão, which was launched in 2004 in a first approach to the digitalization of public administration and renovated in 2015 with a prominent search engine. The new site also integrates the former Portal das Empresas and Mapa do Cidadão, unifying the best of each of these sites. ePortugal also includes links to other Government digital spaces, such as data.gov, the page where several public administration data are freely and freely available that any citizen can use and explore in their projects, or app.gov, a kind of "app shop" of the Government and public entities.

It should be noted, however, that despite the immense availability of online services over the years by the Public Administration, usage levels are quite low.

Another good example comes from the Municipality of Porto, which has as a central instrument of its innovation strategy to try to apply the guiding principles of service design to develop and improve the services provided to citizens and businesses, as well as to promote a sustainable organizational change. This innovation strategy aims to be transversal and systematic in the city, focusing on policies, processes and people, and empowering all areas with the knowledge and tools necessary to actively contribute to the process of transformation and improvement of services. Currently, this methodology already supports innovation projects in several areas, such as mobility in the city, technological evolution, process management and citizen services, as well as the study of behaviors in urban spaces.

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## FINLAND

### *Family & micro-enterprises training needs in each country*

#### **Family & micro-enterprises profile**

On 27 March 2008, the European Association of Family Business Organizations (GEEF) adopted the following definition of a family business <sup>2</sup>:

"A company of any size is a **family business** if

1. The natural person (s) who set up the undertaking or the natural person (s) who acquired the shares in the undertaking or their spouses, parents, children or the heirs of the child shall have a majority of the voting rights.
2. A majority of the voting rights may be indirect or direct.
3. At least one of the family or family members is involved in the operation, management or administration of the business.
4. Listed companies meet the definition of a family company if the founder of the company or the person who bought the company (share capital) or their family or descendants holds 25% of the voting rights in the company's shares. "

According to Statistics Finland<sup>3</sup> a **micro -enterprise** is defined as an enterprise which employs fewer than 10 persons. From the statistical year 2003 onwards, in addition: with an annual turnover not exceeding EUR 2 million or a balance sheet total not exceeding EUR 2 million and meeting the criterion of independence defined below.

There are 292,377 companies in Finland, <sup>4</sup>excluding agriculture, forestry and fishing. They employ 1.5 million people and generate taxes that pay for services for all. 93 per cent of the enterprises are enterprises with less than 10 employees, i.e. **there are 271,910 micro -enterprises** <sup>5</sup>.

The sectors <sup>6</sup>were: construction, HVAC, environmental cleaning, mining and quarrying, transport and storage, accommodation and food service activities, wholesale and retail trade, information and communication, financial and insurance activities, real estate, professional, scientific and technical activities, administrative and support service activities, education, health and social work, arts, entertainment and recreation, and other service activities.

The majority of companies, 93%, are so-called. micro-enterprises with less than 10 employees. These companies employ a total of almost 313,100 people, or 21% of the companies' staff <sup>7</sup>.

Throughout the 21st century, new jobs have been created in small and medium-sized enterprises in Finland <sup>8</sup>.

The number of start-ups increased by 1.1 per cent in 2021 and the number of closures increased by 15.5 per cent compared to 2020 <sup>9</sup>.

<sup>2</sup> <https://www.yrittajat.fi/lausunnot/perheyrittymaaitelma/>

<sup>3</sup> <https://www.stat.fi/meta/kas/mikroyrittys.html>

<sup>4</sup> Statistics Finland, Business Register 2019, <https://www.stat.fi/til/yri.html>

<sup>5</sup> <https://www.yrittajat.fi/yrittajarjesto/tietoa-yrittajista/yrittajyys-suomessa/>

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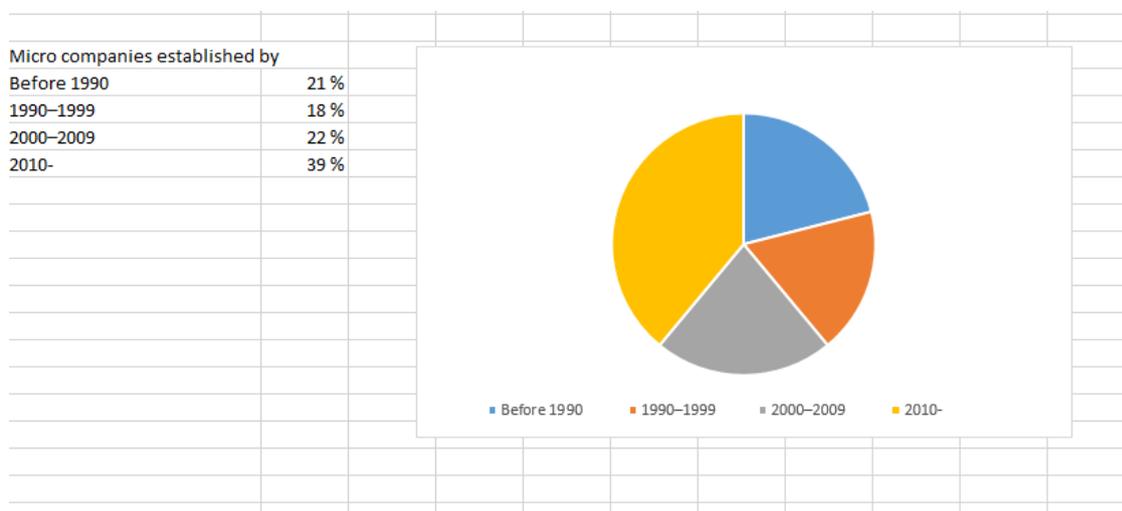
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In 2004, the educational base of entrepreneurs was: 20% of primary school graduates, 4% of students, 30% of vocational school graduates, 33% of polytechnic graduates and 12% of university or college graduates. All in all, it can be said that Finnish entrepreneurs have a relatively high educational base.<sup>10</sup>

**Figure 5. Micro-enterprises established in Finland by Suomen Yrittäjät (2022)**



In 2004, the educational base of entrepreneurs was: 20% of primary school graduates, 4% of students, 30% of vocational school graduates, 33% of polytechnic graduates and 12% of university or college graduates. All in all, it can be said that Finnish entrepreneurs have a relatively high educational base.<sup>11</sup>

The starting point is the Competence Anticipation Forum (OEF) anticipation process, in which experts in working life and education have anticipated competence and training needs and considered proposals for the development of education. At the beginning of the foresight process, a vision for the future up to 2035 was built, focusing on digitalization and technological development.

**Digitalization** changes the way companies operate and the customer's behavior, and it becomes an essential precondition for operations and competition. In addition, it was seen that the economy and ecology will develop at the same pace in the future.

Three levels were utilized in anticipating competence needs: generic competencies, general working life competencies, and industry-specific competencies. In addition, the citizen's digital skills were examined.

In the future, meta-skills that promote change management, such as problem-solving skills, self-direction, learning ability, personal competence development and management, and knowledge assessment skills, will increase in importance. Competences related to digitalization, such as the utilization of digital solutions and platforms, are also increasing in importance.

The review of key competencies was based on lists of key competencies in 30 industry groups. Based on them, two competencies emerged in particular: **customer-oriented service development expertise and knowledge of sustainable development.**

The importance of customer-oriented service development expertise is emphasized in the service sector. In the future, new types of solutions are needed for interactive customer service, where the role of service

<sup>10</sup> <https://www.yrittajat.fi/wp-content/uploads/2021/09/koulutusprofiili2005.pdf>

<sup>11</sup> <https://www.yrittajat.fi/wp-content/uploads/2021/09/koulutusprofiili2005.pdf>

design and automation is emphasized. The importance of sustainable development know-how can continue to grow if social development continues in a more ecological direction.

Digitalization skills also emerged. The most important of these were the expertise in utilizing digital solutions and platforms. Problem-solving skills and knowledge assessment skills, in turn, are key meta-skills for both individuals and companies <sup>12</sup>.

Service design is suitable as a practical approach to implementing service or customer-centric business logic in the operations and development of various companies and organizations. The application of service design requires multidisciplinary co-development and its facilitation. Development also requires expertise from different special areas. Digital services, for example, emphasize approaches and methods in the field of computing, such as agile development methods. Service design can shape almost anything because it is a flexible and customer-oriented development method <sup>13</sup>.

The financial analysis as part of management and business objectives is particularly relevant to the context of services. In addition, when developing services, it is important to understand how the customer feels that they get value from the service they use and how it can be improved in the conditions of a sustainable and profitable business.

The long-term success of a family business requires responsible operations. 63% (PL) of PL's member companies consider responsibility to be a very essential part of their business. The preconditions for the future operation of a family business are built by taking care of stakeholders - staff, customers, subcontractors, the local community, the environment and owners - today. At the same time, the family business creates well-being for its stakeholders and society.

Responsible operations are a factor in the success of a family business - a way to ensure the financial success of the family business. Responsible operations reduce costs, help retain and attract employees, foster innovation and increase reputation capital. Responsibility deeply rooted in operations creates trust among different stakeholders. Responsible family businesses also manage their risks better and are able to anticipate strategically, which helps them stand out from their competitors. Family business owners need to act responsibly so that the business can operate responsibly <sup>14</sup>.

Only about 20 per cent of Finnish SMEs utilize design in their operations <sup>15</sup>. Increasing companies' awareness of the importance of design for business will also increase the demand for design expertise <sup>16</sup>. The concept of design has expanded from the design of products to the design of intangible services and experiences, and it is also increasingly being used in the management of companies and at the strategic level.

The operating environment for SMEs is constantly changing and traditional development methods are no longer working. Leveraging service design helps SMEs anticipate change and has been shown to bring business benefits. Design is not only the prerogative of large international companies, but can also be exploited by small and medium-sized enterprises in various industries<sup>17</sup>. The importance of customer orientation and customer experience as a strategic means of competition for companies has grown. Increased demand for service design has been driven by its direct link to an improved customer experience. Service design helps companies to develop their operations holistically.

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<sup>12</sup> <https://www.oph.fi/fi/tilastot-ja-julkaisut/julkaisut/osaaminen-2035>

<sup>13</sup>Susanna Lehto: Service Design Processes and Development, 2020.

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<sup>15</sup>Saarelainen 2019, Design for us too! 11

<sup>16</sup>Ornamo. 2019

<sup>17</sup> Miettinen 2021, 9.

In service design, the goal is to design and implement services to meet the needs of users and the company's business objectives. Service design utilizes key principles of design thinking, such as co-development and early-stage experimentation. Doing is user-driven, and user understanding is gained through a variety of methods.<sup>18</sup>

The service design approach helps companies to develop their operations holistically and this has a direct impact on the development of the customer experience. It will enable us to respond to change in the global world and remain competitive. Service design is suitable for the development of existing and new services, regardless of the industry and the size of the company.

The company benefits from service design, among other things:

- Finding new customer needs
- Outline various business opportunities
- More usable, more relevant and more appropriate services are emerging that are really in demand
- The company's operations are becoming more efficient and clearer internally
- A more interesting brand
- More satisfied and committed customers.

The effects and benefits of service design can be viewed from the perspective of economics, internal processes, work culture and competence, as well as the market perspective.

The use of design and service design is still limited for many SMEs. Raising companies' awareness of the benefits of service design is important, for example through free presentations and examples. This will also increase the demand for design expertise in companies.

companies must be concrete and put into practice. In addition to training, there would be a need for company-specific services, such as in-service training workshops and expert mentoring in companies.<sup>19</sup>

The aim of service design is to develop services that provide an excellent customer experience when implemented as efficiently as possible. The benefits are improved efficiency and focus of development as well as quality and more efficient operations. From the point of view of work culture and competence, service design makes it possible to strengthen employees' competence and develop internal operating methods. From a market perspective, the benefits of service design are related to, among other things, a better understanding of customers and their changing needs and the ability to innovate distinctive solutions for the market.<sup>20</sup>

The methods utilized in service design are particularly suitable for the development of services and the service business. Some of the methods have been developed in the field of service design expertise, but they have also been applied in other fields, such as cultural research, computer science and business, and other areas of design expertise.

There are many different methods for customer and user research, ideation, conception, prototyping and facilitation. Managing and applying them are the core competencies and professionalism of a service designer.<sup>21</sup>

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<sup>18</sup>Koivisto et al. Service Design Business Book. 2019, 20; Erlhoff 2020, 11.

<sup>19</sup> Kumpulainen, K. (2021). Development of in-service training in service design for SMEs at LAB University of Applied Sciences. <https://www.theseus.fi/handle/10024/563209>

<sup>20</sup> Koivisto et al. 2019, 151-156.

<sup>21</sup> Koivisto et al. 2019, 42.

service design process is often described as **Double Diamond**, or double diamond model, which serves as the framework for the stages of the design and innovation process and makes them easier to understand. It is based on the alternation of divergent and convergent thinking. The first diamond directs you to find the right problems to solve and the second diamond directs you to do things the right way. The process of double diamond consists of four different steps, which are: discover, define, develop, and deliver. The methods utilized in service design are particularly suitable for the development of services and the service business.

Some of the methods have been developed in the field of service design expertise, but they have also been applied in other fields, such as cultural research, computer science and business, and other areas of design expertise. There are many different methods for customer and user research, ideation, conception, prototyping and facilitation. Managing and applying them are the core competencies and professionalism of a service designer.<sup>22</sup>

Many organizations and companies have already understood the need for and relevance of service design and it is already widely used in a variety of industries, such as public services, healthcare, urban planning, electricity companies, the banking and insurance sectors, and the grocery trade.<sup>23</sup>

In Finland, companies or service providers that utilize service design prominently in the development of the service include OP and the City of Helsinki. Service design has been the first to be utilized by larger organizations and actors that have increased in-house service design expertise within the company. Some companies have also bought a service design office as part of their business, for example, digital business expert Solita bought Palmu, Finland's largest service design agency. The merger is based on a change in the operating environment and responding to it. To create a new business, companies increasingly need customer-centric design combined with strong technology and data expertise.<sup>24</sup>

From the eras of distribution and information, there has been a shift towards customer focus and the economy of experience. The most successful are those companies that have a deep understanding of customer needs and deliver a pleasurable customer experience.<sup>25</sup> The value added generated by the company to a product or service, which is based on an understanding of the customer's needs and which creates added value for the customer, is economically significant for the company. There is also talk of intangible value.<sup>26</sup> The customer experience can be used to achieve a unique competitive advantage for the company. Business models are replicable, as are many products, so experience rather than product features are increasingly the distinguishing factors.

From the perspective of companies, they need the know-how and the courage to think and act in a future-oriented way. Creative thinking and innovation are needed to find new business opportunities through changes in the operating environment. For example, sustainable development, the circular economy and the platform economy can offer new openings for companies. Solutions related to these topics are often systemic product and service solutions or service systems.<sup>27</sup>

Maintaining the up-to-date skills of the company's personnel requires a strong vision for the future. Competence development must be linked to the company's strategy and vision and what competencies are required to achieve the goals. Changing work requires a new kind of skills and continuous learning is essential. Important skills for future working life include creativity, critical thinking, empathy, interaction skills, problem-solving skills and entrepreneurship. What is needed is a new way of thinking, exploiting diversity

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<sup>22</sup> Koivisto et al. 2019, 42.

<sup>23</sup> ErLhoff 2021.

<sup>24</sup> Solita 2017.

<sup>25</sup> Koivisto et al. 2019, 20-21.

<sup>26</sup> Ministry of Employment and the Economy 2015, 17.

<sup>27</sup> Kälviäinen 2021, 6-7

and perceiving large entities. The importance of meta-competence becomes important in the transformation of work. It refers to the ability to see larger entities, to bring different people and skills together, and to act in situations that are not predetermined.<sup>28</sup>

Meanings of competencies in 2035. According to the report, skills that manage change. The role of service design and automation will be emphasized in the future in the development of new types of interactive customer service solutions.<sup>29</sup> The challenge for entrepreneurs is to use time. Entrepreneurs are different and their everyday schedules, needs and habits are different, so it is also important to have different ways of implementing training.

### Service Design good practices and existent results from previous projects

Sustainable development and service design projects for companies in Finland. In Finland we have many good examples of Sustainability and Service Design based projects with SME's.

**Seinäjoki University of Applied Sciences (SeAMK)** conducts research, development and innovation (RDI) with a distinctly practical emphasis, serving teaching and supporting industrial small and medium enterprises (SME) and service production.

Strategic Business Development and Circular Economy

<https://www.seamk.fi/en/cooperate-with-us/rdi/growth-entrepreneurship/>

Circular Economy with Sustainability

<https://www.seamk.fi/en/cooperate-with-us/rdi/circular-economy-with-sustainability/>

Laadulla kilpailukykyisempiä tuotteita ja palveluita PK- ja mikroyrityksissä –hanke – tukea laatu- ja palveluosaamisen kehittämiseen / With quality more more competitive products and services – service design approach (this is in Finnish)

<https://projektit.seamk.fi/yritysjyys-ja-kasvu/laadulla-kilpailukykyisempia-tuotteita-ja-palveluita-pk-ja-mikroyrityksissa/>

**In Helsinki Business College Ltd.** we have had a many projects dealing with sustainability and SME's

Digital study material for sustainable development –project in Helsinki Business College Ltd.:

<https://keke.bc.fi/Kestava-kehitys/>

Counting the carbon footprint of Helsinki Business College Ltd.

WWF's Green office –project in HBC Ltd. 2012->

Koppi - project

In Haaga-Helia University of Applied Sciences they have developed many projects dealing with service design.

<https://www.haaga-helia.fi/en/service-design-building-better-customer-experiences>

Acting as part of the so-called A sustainable circular economy requires a lot of new skills from organizations and their staff, which require flexible, specific training for those in employment.

In the Finnish National Board of Education's Competence 2035 publication, knowledge of the principles of sustainable development clearly became the most important generic competence. Of the working life

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<sup>28</sup> Sarvas et al., 2019, 59.66.

<sup>29</sup> Board of Education (2019). Competence 2035

competencies, customer-oriented service development competencies, utilization competencies in digital solutions and platforms and innovation competencies clearly became the most important.<sup>30</sup>

In addition to the physical decisions about the material purchases and use or consumption of resources associated with activities in products and services, the designer also plays an important role in developing identity and social connections for consumers. The products reflect value systems and are deeply committed to the poorly recognized but still existing values of our culture. Shaped products guide us as material responses to how we should function and live our lives. Design solutions can either reinforce previous lifestyles or propose completely new ones.<sup>31</sup>

The systemic perspective is also important from the perspective of researchers of behavior change design, despite a starting point focused on the study of their individual interaction situations (Niedderer et al. 2018, 250). This includes the fact that everyday practices as an operating system are taken as the primary focus of design, not the product (Kujer 2018). Marchand (2013, 158) suggests that there is both weak and strong sustainable consumption and a theory of sustainable design committed to them.

Poor sustainable consumption refers to the purchase of green and more sustainable products, and poor sustainable design refers to the effectiveness of eco-design that develops these products, which also takes into account the potential for combining technological innovation.

Strong sustainable consumption also includes the adequacy of consumption: in terms of level, patterns, and purchasing and lifestyle decisions. This adequacy requires individual behavioral changes, along with social and environmental innovations. Systemic design can also calculate impacts and target lifestyle changes to those sectors of the current lifestyle systems that produce the most disadvantages, such as the use of raw materials and energy or as unnecessary waste. Significant environmental impacts of consumption arise from housing and work environments, movement and transportation, consumption of food, and overconsumption of products. The design task here would be to find more efficient one's service and operating environment solutions for these areas of life.

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<sup>30</sup> National Board of Education Competence 2035

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### 3. New trends related to the development of sustainable business models and environmentally friendly services through SD

#### GREECE

The design process is required to have incorporated environmental criteria in its early stage to reduce environmental impacts of new products. However, nowadays this practice is very restricted. Sierra-Perez, Teixeira, Romero-Piqueras and Patrício (2021) proposed **the ECO-Service Design (ECO-SD) method that integrates eco-design and service design to conceptualize new environmentally sustainable services**. It combines environmental criteria from eco-design with the human-centered approach of service design, to foster the environmental sustainability of new services, while offering a desirable user experience. For this purpose the method encompasses four (4) stages: 1) service exploration, to understand the service context and how users interact with it; 2) service visualization, to visually identify the barriers to environmental performance and user experience during service provision; 3) service ideation, to conceptualize a new service that overcomes the identified barriers; and 4) service assessment, to understand the changes in environmental sustainability and user experience of the newly designed service.

Prendeville and Bocken (2017) explored how service design can support sustainable business model innovation by uncovering strategic as well as operational synergies between these complementary fields. According to the authors strategic design approaches can be at the heart of business model innovation. They support that processes of **service design** and **business model** innovation are **synergistic** yet still have to be unpicked within the broad context of sustainable business model innovation. *Table 3* compares the core conceptual synergies between sustainable business model innovation and service design. “The sustainable business model is underpinned by the benefit of fostering a broader remit of value exchange supported by multiple stakeholder relationships, rather than a unilateral resource transaction, or sale of a specific product. Similarly, while service design ultimately leads to the provision of a service, theoretically, service design focuses on user experiences, interactions and value to foster mutually beneficial relationships. Second, both can be seen as processes characterized by iteration and dynamic learning to foster systemic innovation. Third, both foster stakeholder-driven approaches for strategic decision-making, oriented towards value creation, beyond the financial” (Prendeville and Bocken, 2017, p. 295).



**Table 3. Conceptual comparison of Sustainable Business Model Innovation and Service Design**

Element	Sustainable Business Model Innovation	Service Design
<b>Goal-oriented</b>	Articulates strategic value for stakeholders in a business context	Uncover, articulate and deliver strategic value for multiple customers / users based on relationships and experiences
	Focus: single firm and its opportunity to extend the triple bottom-line (ecological, economic & social value)	Focus: user-centred uncovering multiple firms' needs in context of social value and traditional financial capital*
<b>Processual</b>	Transitional: initiate, ideate, integrate, implement	Iterative: design, evaluate, measure and redesign
	Systemic: the business model unit fosters a systems approach	Systemic: the service design approach is derived to tackle wicked problems involving multiple needs and contexts
<b>Functional</b>	Stakeholder-based	User-centred
	Strategic decision-making	Strategic as well as operational decision-making
	Resource, social, economic value	Social, economic value*

Sources: Sustainable business model: [4, 18, 24, 31] Service design: [10, 24, 32, 33] (\*denotes exception of sustainable PSS)

Source: Prendeville and Bocken (2017)

Ness Wright and Ellie Hale created the following set of **Principles for Designing Sustainable Services**:

- Make climate a priority
- Take responsibility
- Go for radical
- Build a community of practice
- Use data to get started
- Balance short- and long-term actions
- Seek solutions with co-benefits
- Be pragmatic and opportunistic

These eight universal principles were proposing for the design and delivery of sustainable services across the public, private and third sectors. Each of them contains guidance and practical questions to get started.

## ESTONIA

The work of designers has always been future-oriented, starting with understanding things, gathering and interpreting information, and then reaching for formal solutions.

The field of design is constantly evolving. Today, design could push Estonia's social well-being and economic development, helping Estonian companies and the public sector to better anticipate and rethink future developments in a rapidly changing world, solving complex problems by conserving environmental resources, implementing new technological opportunities and empowering users and communities. In addition, design can create humane and accessible environments in society, facilitate interdisciplinary collaboration, effectively produce high value-added products and services, and create cultural values, be part of a country's identity and lifestyle, based on local identity.

Mapping emerging design practices is a study conducted in 2020. In the cases covered by the study, the design approach has moved from being object-oriented to more holistic and contextualized, addressing the larger system and the relationships that operate within it. Instead of an object, the focus has shifted to more general goals, a broader context, and impacts related to change management. In many cases, it seems that there is no longer an "object" to design. Often, it is the process itself that brings about the change, not the result that is 'transferable'. The most obvious examples of this are community involvement projects.

Compared to the practices applied in the world, we see topics that are not covered professionally in Estonia. The most striking is the in-depth approach to sustainability issues. Nor do we seem to have the time or space for speculative or forward-looking design with critical scenarios.

It has become common to involve experts from different disciplines from adjacent fields of life, but both are affected by existing design as experts in their experience and collaborators with later design.

As design has been used not only to create an object but also to define the task itself through creative intervention, it has evolved from a service provider to an organizational partner at a strategic level. In such a value-based approach the design is seen as the result of a wider value creation that supports the initiation and implementation of desired changes. This can only happen in a situation where design is involved in making strategic decisions for both the internal and external practices of the client organization, while taking into account user value, sustainability for the organization and feasibility in terms of technology and resources.

## CYPRUS

To drive more insights on the development of sustainable business models through service design for the creation of environmentally friendly services, we have found using the approach of circular business models as a similar point of reference. They can power the transition towards a greater useful resource efficient and, in doing so, considerably lessen the environmental stress. Circular business models serve to 'reduce the extraction and use of natural resources and the generation of industrial and consumer wastes. They represent the key activities required to transition to a more efficient and circular economy. New 'sustainable' or circular business models use already existing materials and products as inputs, and therefore, their environmental footprint tends to be considerably smaller than traditional business models. The environmental outcomes of circular business models also depend on their market penetration. However, the market share of these business models is currently limited. Recycling, remanufacturing and repair, the sharing of spare capacity, and the provision of services rather than products typically only account for up to 15% of production in any given sector.'<sup>32</sup>

Accordingly, 'the goal of the business model shifts from making profits through the sale of products or artefacts to making profits through the flow of resources, materials, and products over time, including reusing goods and recycling resources. This reasoning implies that companies can reduce negative impacts on the environment by delivering and capturing value through this alternative value proposition.'

The Circular Business Model has four methods developed by Accenture (a professional services company that provides guidance to companies with innovation) to operate in more circular ways: Product as a service, Sharing Platforms, Reuse Recovery Circular Supplies and Product Life Extension. The companies use the above methods and change their business structure to grow in new industries. The above models are created to transform businesses and make them more sustainable and circular. It is essential that "the key to all of them is extracting more value out of existing products and reducing the use of new resources.

## SPAIN

One trend developed from the initial concept of sustainability is the commonly known circular economy. Not every company can be fully circular, especially if we think about the micro-enterprises, but every company

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<sup>32</sup> Ibid.

can look at ways to better manage waste, ensure their products are durable and repairable, evaluate whether there's a market for refurbished products, study whether they can implement a take-back or recycling program, etc.

Giving light to this concept, the European Commission has already adopted a Circular Economy Action Plan which provides a future-oriented agenda for achieving a cleaner and more competitive Europe in co-creation with economic actors, consumers, citizens, and civil society organizations. It aims at accelerating the transformational change required by the European Green Deal, while building on circular economy actions.

The plan presents a set of interrelated initiatives to establish a strong and coherent product policy framework that will make sustainable products, services, and business models the norm and transform consumption patterns so that no waste is produced in the first place. This product policy framework will be progressively rolled out, while key product value chains will be addressed as a matter of priority. Further measures will be put in place to reduce waste and ensure that the EU has a well-functioning internal market for high quality secondary raw materials. The capacity of the EU to take responsibility for its waste will be also strengthened.

For citizens, the circular economy would provide high-quality, functional, and safe products, which are efficient and affordable, last longer and are designed for reuse, repair, and high-quality recycling. A whole new range of sustainable services, product-as-service models and digital solutions will bring about a better quality of life, innovative jobs and upgraded knowledge and skills.

The head of Project Delivery at National Grid, an expert in the topic, is working on the "Carbon Capture" which consists of unlocking a sustainable future by locking away carbon. His studies are focused on a process known as carbon capture usage and storage. It's a technological method of capturing, transporting, and storing greenhouse gas emissions, rather than releasing them into the atmosphere. It's particularly applicable to large industries, such as steel, glass and cement manufacturing and power generation. Moreover, one of the key projects A. Benamin is looking at now aims to deliver the world's first net-zero carbon industrial cluster by 2040, which would have huge environmental and societal benefits.

Another related practice that delights the search for sustainable and environmentally friendly practices is the "net zero", a simple concept that refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away.

Net-zero is important as it's the best way we can tackle climate change by reducing global warming. What we do in the next decade to limit emissions will be critical to the future, which is why every country, sector, industry and each one of us must work together to find ways to cut the carbon we produce.

This term has been countless times referred to as carbon neutral; although zero emissions and zero carbon are slightly different, as they usually mean that no emissions were produced in the first place what seems to be quite an idealistic situation but slightly possible and realistic, even with best efforts to reduce them, there will still be some emissions.

Net-zero looks at emissions overall, allowing for the removal of any unavoidable emissions, such as those from aviation or manufacturing. Removing greenhouse gases could be via nature, as trees take carbon dioxide from the atmosphere, or through new technology, which implies R&D and Innovation efforts, or changing industrial processes.

## PORTUGAL

Service design is the design of a service, organizing the people, goods and processes that make up that service. The aim is to make the service efficient and of quality for both those who offer it (employees) and



those who use it (customers). Thinking about service design implies thinking about the design of a space, the messages that appear in writing or the functionalities of an app, that is, all the interactions between the human and the brand/institution. The whole journey has to be thought through, from the channels/products/interfaces that customers can touch to the policies/technological systems/infrastructures that support it all. It can be applied from something very concrete like a new mobile application, but also from more abstract things, like new logistics in a distribution warehouse. Service design can be seen as an ode to co-creation. By designing better services, it may allow saving resources in terms of time, budget and logistics, and provide healthier and more collaborative internal environments, while reducing redundancies in structures.

The goal is to create a new economic mindset that is never set, but always evolving. Service design may be as well the ultimate toolbox for moving to a Circular Economy. What service design does is to start with the users and learn about their needs. Based on these needs, services are designed to address those directly. Starting with user needs is highly fertile ground for circular products and business models. In the process of designing a service, we should always take all relevant stakeholders along and, although we may have our own experience in sustainability, we must make sure experts on relevant topics are involved throughout the design process. By using a customer journey, it is possible to make an informed decision of which opportunity is most interesting to start with.

Moving towards a Circular Economy will be a constant transition. Service Design works in iterations, continually testing new ideas and adjusting the service. Even when a service is live and on the market, if properly set up, it is easy to adjust and is resilient to changes going forward. Service Design and a transition to a Circular Economy are a match. By putting user needs at the core, starting small and using a continuous, iterative process, everyone can take steps in the right direction from their own starting point.

The Business Council for Sustainable Development Portugal (BCSD Portugal) is a non-profit association that brings together and represents over 130 companies in Portugal that are actively committed to the transition to sustainability. It is a reference entity in terms of corporate sustainability with a view to fulfilling the Sustainable Development Goals, the United Nations Agenda 2030 and the Paris Agreement. It argues that, along with digital transformation, the transition to sustainability will be the main vector for the transformation of economies, business models, societies and lifestyles in the next century. It is absolutely necessary to move towards a development model compatible with the pressing demands of society and the planet. Companies need to reinvent themselves and be at the center of solutions, committing to sustainability and finding new sustainable business and production models. On the other hand, sustainability is becoming a trend of the moment and the prevailing view is not of sustainability as philanthropy or corporate responsibility, but of sustainability as a key aspect of corporate strategy and governance. Shareholders, investors and financiers must have as a central concern the risks of a non-transition to the sustainable model. Sustainability is thus one of the main innovation opportunities of our time.

In its publication "Journey 2030 of Companies towards Sustainability", BCSD Portugal presents a common agenda of companies for sustainability in Portugal, which is composed of 20 objectives, 20 goals and 20 transversal environmental, social and corporate governance (ESG - Environment, Social and Governance) indicators. The BCSD Portugal Charter of Principles was published in November 2017 and is open to all companies that share the ambition of a sustainable future. It sets out the fundamental principles of sustainability that the subscribing companies voluntarily adopt for themselves and which they seek to extend to their value chain, in the sphere of their influence.



## FINLAND

Change is coming. Sustainability is now widely regarded as the next big revolution since the shift to digital and is disrupting the way that business gets done. For the environment and society, that's a very good thing. But it adds extra pressure on the teams tasked with owning sustainability. While enterprises grapple to hit their compliance and risk management goals, they are also under pressure to develop sustainable consumer products, services and responsible social engagement.

There are a number of different change drivers that have contributed to the enterprise's ongoing adoption of more sustainable models and continue to do so in Finland:

1. Circular Economy
2. Environment
3. Climate change
4. Resource-wise economy and carbon-neutral society

Finland continues to distinguish itself as a leading nation in the field of eco-innovation.

*"The most interesting companies in the circular economy"* is a list made by Sitra to showcase Finland's most inspiring examples of the circular economy in 2017. Indeed, Sitra is using the list as a way to challenge Finnish companies to meet the changing needs of the world.

The most interesting examples on the list have been divided according to different **circular economy business models**. **New types of business models are needed** in order to ensure that materials and value stay in circulation for as long as possible with minimal waste.

Circular economy solutions are needed to safeguard biodiversity and solve the climate crisis. In a circular economy companies maintain the value of what we produce through smarter design and shifting from owning products to using services.

In a circular economy, companies create added value for their products by means of services and smart approaches. The greatest increase in value is generated by, for example, the maintenance, reuse and remanufacturing of equipment. (Sitra, 2017.)

Circular economy businesses are thriving in Finland. We have hundreds of circular economy brands and products that are being developed in the happiest country in the world.

Take a look at some of the facts that make Finland an ideal place for circular economy companies:

- Finland was the **1st country** in the world to create a circular economy roadmap
- Finland ranks **#1** as the most environmentally healthy country in the world
- Finland's got the most sustainable city in all of Europe
- Finland ranks **#1** in bio-based circular economy
- Finland ranks **#1** in wood cellulose-based fibres



Research, development and innovation activities receive strong support from the Finnish government and its commitment to reach **carbon neutrality and transform its economy into a circular one by 2035**. Finland’s circular economy roadmap and [Helsinki’s roadmap](#) encourage new sustainable business all across the globe to develop new products and services in Helsinki.

**Business models:**

- Pioneers of circular textiles
- Innovations in circular packaging and new materials
- Tackling waste
- Products as a service

(HelsinkiPartners, 2022).

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## Comprehensive analysis of the findings in all partners countries

The major strengths, weaknesses, opportunities and threats in applying services design by family and micro enterprises for the **six countries** involved in the SeDiHUB project are briefly summarized in the following *Table 4*.

Table 4. SWOT analysis	
Strengths	Weaknesses
<p><b>GREECE</b></p> <ul style="list-style-type: none"> <li>● The majority of family businesses are engaged in some form of CSR and Sustainability practices and few have developed and communicated a sustainability strategy</li> </ul> <p><b>ESTONIA</b></p> <ul style="list-style-type: none"> <li>● Members of the Management Board of micro and family enterprises had higher education</li> <li>● 50% of companies have used service design in the past 2 years.</li> <li>● The number of companies that use design strategically has doubled compared to 2013,</li> </ul>	<p><b>GREECE</b></p> <ul style="list-style-type: none"> <li>● Micro and family enterprises are characterized by low-productivity, lack of economies of scale, lack of innovation, lack of use of cutting-edge technologies, low extroversion, and problems in their corporate governance due to the close relationship of the key stakeholders with management (family enterprises).</li> <li>● Micro and family enterprises serve mainly in local markets</li> <li>● The use of service design tools from Greek micro and small enterprises is at an infant stage, as well as the relative research</li> <li>● Greek service-oriented companies are not familiar with these SD tools</li> </ul>



<ul style="list-style-type: none"> <li>• More than 50% of companies that have developed new products and services in the last few years are designed by the manager or owner themselves or by a person without designer education</li> <li>• Estonian companies have started to use design more consciously and systematically and the increase in profits and turnover has been attributed to the use of design</li> <li>• The interest of companies in resource efficiency and circular product development has increased dramatically</li> <li>• The relative competitive advantage of family businesses over other companies lies in the consistency of management and the focus on a long-term strategy</li> <li>• The vast majority of micro and family businesses recognize the importance and potential of social media and e-marketing as technologies to adopt</li> <li>• Younger generation usually seeks faster technological change and more aggressive expansion</li> <li>• The understanding of design is changing, companies have started to associate design less and less with the look and feel of products and services and see design more as a strategic tool that plays an important role in creating products and services and achieving higher sales</li> <li>• 43% of companies are still at the top of the design ladder and do not use design in their activities, and 24% use design in the finishing of products or in the production of marketing materials.</li> <li>• The use of design has increased the company's competitiveness</li> <li>• More than half of the companies whose profits have grown moderately or rapidly over the last three years attributed the increase in profits and turnover to the use of design.</li> <li>• Young entrepreneurs, regardless of their small size, take ESG aspects into account when designing their business model, as consumers have gained more knowledge in these areas and monitor how companies operate in these areas and what kind of attitude they have.</li> </ul>	<ul style="list-style-type: none"> <li>• Small and micro enterprises have found increasingly difficult to invest in green transformation of their activities</li> <li>• Micro and family enterprises are lagging behind in adopting green and technologically advanced production methods as part of their long-term strategy</li> </ul> <p><b>ESTONIA</b></p> <ul style="list-style-type: none"> <li>• Obstacles to the implementation of design as a strategic tool has been the general understanding of design</li> <li>• Very few people can think of how to actually calculate the benefits of using design in numbers</li> <li>• Insufficient ability of Estonian companies to increase Estonia's prosperity by effectively producing high value-added products and offering innovative products and services</li> <li>• Estonian companies still use quite a few professional designers</li> <li>• Design helps to sell better, but very few people can think of how to actually calculate it in numbers.</li> </ul> <p><b>CYPRUS</b></p> <ul style="list-style-type: none"> <li>• A large number of micro and family enterprises do not combine entrepreneurial and design literacy, which creates a misunderstanding on what design can bring to their enterprise</li> <li>• SMEs are characterized by limited budget and time available and are less willing to take risky investment in design approaches, since there is no clear value of its benefits and it is also considered 'extremely' expensive for their available resources</li> <li>• Family businesses are generally less flexible and innovative in adopting evolving technologies</li> </ul> <p><b>SPAIN</b></p> <ul style="list-style-type: none"> <li>• Service design methodology is not used by family and micro-enterprises is the lack of knowledge and the fact that the involvement of an external service designer is generally costly</li> <li>• Micro and family enterprises do not implement service design as a strategic tool due to the lack of general understanding.</li> <li>• The lack of the use of service design strategies is a common characteristic of family and micro-enterprises</li> </ul>
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<p><b>CYPRUS</b></p> <ul style="list-style-type: none"> <li>● Family and micro businesses are considered as a source of economic prosperity</li> <li>● Family businesses establish minimum qualification levels for (family) managers</li> <li>● Cypriot family businesses consider an established brand and customer loyalty as the most important success factor for their company.</li> </ul> <p><b>SPAIN</b></p> <ul style="list-style-type: none"> <li>● Family businesses in Spain, 89% of the total number of companies</li> </ul> <p><b>PORTUGAL</b></p> <ul style="list-style-type: none"> <li>● Portuguese family businesses are strong creators of employment and play a relevant role in territorial cohesion and the promotion of different regions, due to their productive capacity and durability</li> <li>● Portuguese family businesses are characterized as modern and innovative companies that contribute to the stability of Portuguese society</li> <li>● They are known for their competitive advantages in innovation and internationalization</li> <li>● Innovation, training, education, and diversification are the top priorities for family businesses</li> <li>● The profile of the service designer in Portugal is characterized by being a person with a master's degree (48%) or a degree (43%), and in most cases employee (68%) or company founder (18%)</li> <li>● The most common areas of training for service designers are Engineering, Management, Design and Anthropology, and most of them built their experience as self-learners (36%), through continuous learning (31%), or through Academic Training (19%).</li> <li>● Growth of activities by private entities that promote sustainability issues as part of their social and environmental responsibility</li> <li>● One of the strengths of family businesses is their resilience in times of economic crisis, due to their financial conservatism and family solidarity</li> </ul>	<ul style="list-style-type: none"> <li>● Products and services are usually designed by managers or owners, or persons without training in service design.</li> <li>● Micro-enterprise efforts have focused mainly on economic development, although ignoring the social and environmental consequences can jeopardize success many companies fail to take the perspective of their target group.</li> <li>● Micro-enterprises do not have service designers within their teams or cultural change strategies within their vision or objectives</li> </ul> <p><b>PORTUGAL</b></p> <ul style="list-style-type: none"> <li>● A large majority of micro and family enterprises do not know any training program in Portugal in the area of service design</li> <li>● The fragility of family micro-enterprises, usually operating in traditional businesses - trade, services, hotels and restaurants, owned and operated by family - is enormous.</li> </ul> <p><b>FINLAND</b></p> <ul style="list-style-type: none"> <li>● Only about 20 per cent of Finnish SMEs utilize design in their operations</li> <li>● Finnish SMEs can't afford to invest in design services</li> <li>● There are not enough investments in academic research of service design.</li> </ul>
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<ul style="list-style-type: none"> <li>● It is essential that family microenterprises develop digital skills and competencies that enable them to strategically use new technologies to rethink and improve their business models, internal processes and procedures, and acquire digital leadership</li> <li>● An analysis of the companies that hire service designers in Portugal is also carried out, showing that the vast majority (30%) belong to the consultancy sector, with the group of employers from the Information Technologies sector (10%) coming in second</li> <li>● The service designer is more likely to be sought out by companies in the technology sector (40%), start-ups (26%) and traditional sectors (22%), companies that are therefore considered to be more open to service design.</li> </ul> <p><b>FINLAND</b></p> <ul style="list-style-type: none"> <li>● Finnish entrepreneurs have a relatively high educational base</li> <li>● The concept of design has expanded from the design of products to the design of intangible services and experiences, and it is also increasingly being used in the management of companies and at the strategic level.</li> <li>● Our companies are very keen on using Service Design tools</li> <li>● Finland is top country to invest in eco-innovations</li> <li>● Sustainable development is well known among companies.</li> </ul>	
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>● Regulatory pressure from the European Union</li> <li>● Service design may be as well the ultimate toolbox for moving to a Circular Economy</li> </ul> <p><b>GREECE</b></p> <ul style="list-style-type: none"> <li>● Micro and family enterprises that put emphasis on technology, innovation and joint ventures will have chances to survive in the future</li> <li>● Higher education institutions offer specific related courses in service design</li> </ul>	<p><b>GREECE</b></p> <ul style="list-style-type: none"> <li>● The large share of small firms, which constitutes 99.7% of Greek entrepreneurship, has been seen as a structural impediment for economic recovery and growth</li> <li>● The pathway to economic development, whereby the process of economic growth is driven by and through large firms. The implication is that such a process presupposes a structural transformation of the Greek economy regarding the distribution of small businesses. In other words, the large share of small firms has to be reduced, thus a different process of industrial concentration should be</li> </ul>

<p><b>ESTONIA</b></p> <ul style="list-style-type: none"> <li>• There are possibilities for studying service design in Estonia</li> <li>• Demand for design services has grown, as evidenced by the increase in sales revenue and the number of employees in design offices in recent years</li> <li>• It is important to continue raising awareness of the possibilities of design use, the different types of design and the effects of design use.</li> <li>• Innovation can also be associated with service design, as it helps to understand the paths of all parties and through it is possible to find and create innovative solutions.</li> <li>• Companies will need support and advice - both in the development of initial design capabilities and strategic and organizational readiness, as well as in the implementation of more specific circular design projects.</li> <li>• There are possibilities for studying service design in Estonia offered by universities and short trainings offered by training providers and design agencies</li> <li>• Use of service design in the public sector, social affairs and health care was also observed.</li> <li>• Design has been applied in both business development and public sector innovation</li> <li>• Increased competition and the predominance of digital technology has forced family businesses to embrace evolving technologies</li> <li>• This means that the micro, family and small business that they will survive are the ones which follow the path of the entrepreneurial economy, putting emphasis on technology, innovation and joint – ventures</li> <li>• The field of design is constantly evolving. Today, design could push Estonia's social well-being and economic development, helping Estonian companies and the public sector to better anticipate and rethink future developments in a rapidly changing world</li> </ul> <p><b>CYPRUS</b></p> <ul style="list-style-type: none"> <li>• A strong brand personality and reputation is a crucial asset for long-term sustainability. Cypriot family businesses consider an established brand and customer loyalty as the</li> </ul>	<p>actualized since the function of the former presupposes the existence of the latter.</p> <ul style="list-style-type: none"> <li>• Not systematic training regarding service design</li> <li>• Arce private organizations offer training to family &amp; micro-enterprises in regards to service design</li> <li>• Training services offer fragmentary training and do not offer any certificate or formal accreditation</li> <li>• There is no systematic support in Greece regarding service design from public bodies.</li> <li>• Lack of systematic monitoring of the extent to which small companies exploit service design tools</li> </ul> <p><b>ESTONIA</b></p> <ul style="list-style-type: none"> <li>• One of Estonia's concerns is the insufficient ability of Estonian companies to increase Estonia's prosperity by effectively producing high value-added products and offering innovative products and services</li> <li>• There is a lack of product, service and user experience designers in Estonia</li> <li>• There is not a methodology for objectively assessing the impact of the use of design.</li> <li>• Lack of product, service and user experience designers in Estonia</li> </ul> <p><b>CYPRUS</b></p> <ul style="list-style-type: none"> <li>• Cypriot family businesses have not fully recovered from the turbulence in Cyprus' economy, the reduction in economic activity and limited accessibility to funding</li> <li>• The impact of service design to micro and family enterprises is less well documented</li> <li>• Designers often poorly articulate their purpose on how they can support businesses</li> <li>• There are not many or at all design consultancies specifically, and those that do prefer working with larger organizations as a third of the projects based on SMEs fail due to lack of design management skills in the enterprise.</li> </ul> <p><b>SPAIN</b></p> <ul style="list-style-type: none"> <li>• There are many difficulties for small companies to grow due to tax and financial competition from large companies</li> <li>• The pandemic has forced many companies to put their innovation plans on hold</li> </ul>
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most important success factor for their company.

- In order to grow their business micro and family business should focus on new products/services
- Product innovation is increasingly valued as a key component of the sustainable success of a business's operation. Product advantage, market potential, meeting customer needs, predevelopment task proficiencies, and dedicated resources are the predictors with the most significant impact on new product performance.
- New technologies tend to result in increased operational efficiency, reduced waste and increased product differentiation, which help improve business processes and profitability. In fact, 49% of the sample believe these practices as highly important

#### SPAIN

- Micro-enterprises will be able to foster sustainable development if, they are integrated into a view of community development that links the social, economic, and environmental dimensions.
- There is still much room for improvement in customer experience.
- Existence of environmental regulations in Spain aimed at guiding companies to adopt practices that guarantee compliance with the legal framework and certify the quality of their procedures. These are the ISO environmental management standards focused on international standards for Environmental Management Systems, Quality Management, Energy Management Systems for companies and Occupational Health and Safety Management. All of them help to improve the environmental management of Spanish companies by increasing the efficiency of their procedures. Likewise, ISO certifications generate prestige and new business opportunities in different markets.
- Covid-19 has accelerated the digital transformation of many companies

#### PORTUGAL

- Portugal has a low ranking in the human capital dimension
- In issues related to education, training and people's qualifications, Portugal has a significant deficit at all levels, despite the remarkable recovery achieved in recent decades.
- The level attributed to the maturity of the market is still on the low side, mainly due to a lack of clarity about what service design is, to the traditional business culture and to the fact that service design is not yet considered to be a strategic priority either.
- Family businesses are a reality with a relevant economic weight in all western economies, always representing more than 50% of all relevant economic indicators - GDP, GVA, employment, and Portugal is no exception.
- Weaknesses in terms of the use of technology in society

#### FINLAND

- Demographic issues, small number of taxpayers, and our population is relatively old, less work-force in the market
- Location in the Northern part of Europe and beside Russia (war)
- Small country with high expenses
- Low investment in academic research
- Low rate of investments

- Small companies recognize that they have accelerated their digital transformation as a result of changing consumer habits
- Micro-enterprises need to be trained towards more sustainable practices. Sustainability is seen as a change of thinking and philosophy that has to start from the top of the company's organization chart to the bottom
- It is necessary to raise the level of awareness and participation of society in the field of climate change through education, training, and dissemination

#### **PORTUGAL**

- Service Design has been a growth in awareness for both private and public sector in Portugal for the past decade. The current scenario has been influenced by niches of practitioners with international experience and academics.
- According to the National Reform Program, it is planned to foster investment with a particular focus on the digital and climate transition. With regard to promoting access to finance, in particular SMEs, and promoting investment for the recovery, the Recovery and Resilience Plan (RRP) is a nationally applicable program, with an execution period until 2026, which will implement a set of reforms and investments aimed at restoring sustained economic growth after the pandemic.
- There is a need to develop specific educational and training responses to the energy transition, climate change, the transition to a circular economy and the response to environmental degradation, responding to the transition to a low-carbon and circular economy that is triggering the need for new skills
- Public policy initiative dedicated to strengthening digital skills.
- It is planned to foster investment with a particular focus on the digital and climate transition.
- There are executive training programs in SD, undergraduate/masters degrees, intensive courses, workshops, bootcamps, professional training or conferences.
- Service design has become institutionalized and spread across all sectors and quadrants of

the market, from the public sector to large consultancies, from strategic design boutiques to Academia

#### **FINLAND**

- Digitalization changes the way companies operate and the customer's behavior, and it becomes an essential precondition for operations and competition.
- Economy and ecology will develop at the same pace in the future
- In the future competencies such as customer-oriented service development expertise and knowledge of sustainable development will increase in importance
- In the future, new types of solutions are needed for interactive customer service, where the role of service design and automation is emphasized. The importance of sustainable development know-how can continue to grow if social development continues in a more ecological direction
- Increasing companies' awareness of the importance of design for business will also increase the demand for design expertise
- In the Finnish National Board of Education's Competence 2035 publication, knowledge of the principles of sustainable development clearly became the most important generic competence. Of the working life competencies, customer-oriented service development competencies, utilization competencies in digital solutions and platforms and innovation competencies clearly became the most important

## 4. Conduction of the field research

### Scope and methodology of the field research

The aim of the conduction of the field research is to retrieve insights about: a. the development of sustainable business models and environmentally friendly services through service design by family & microenterprises and b. the desired online learning methods and studying styles.

The field research was conducted through interviews in each partner country. A total number of 61 participants were interviewed in all partner countries. The participants were members of micro & family enterprises, VET providers-trainers, business consultants, national, regional/local authorities supporting entrepreneurship, development agencies regarding service design, sustainability, environmental protection etc.

Due to the challenges that COVID-19 has brought; most interviews were conducted via digital means. They were conducted online via any available platform to the partners, such as Skype, Zoom, Microsoft Teams, etc. Partners provided to the participants a description of the project, the project aims, and the focus of the survey.

Semi-structured interviews were used for the purpose of the study. Open and closed questions were designed to enter more specifically on the objectives of the research. The interviews followed the below structure:

- Demographics
- How micro & family enterprises design their services/products
- What challenges and obstacles they usually face when designing services/products
- How familiar they are with service design and how they evaluate their current service design
- How micro & family enterprises evaluate the Barriers of Sustainable Service Design
- Perceptions about the application of systematic service design process
- Desire and needs for training in Service Design and on Sustainable business models and environmentally friendly services
- Desired online learning methods and learning styles

All partners provided a report with the data collected in their countries. Records of the interviews were strongly recommended.

For the conduction of the survey a questionnaire was developed in 2 versions (1 for members of micro & family enterprises and 1 for stakeholders), both of them are provided in the APPENDIX.

The implementation of the interviews adhered to the strictest rules of GDPR, the participants' name and communication will need to be redacted. A consent form was shared with interviewees before the interview.

## Participants

### Greece

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	micro & family business	Marketing and Comms	4	marketing, digital marketing, talent marketing, talent development, communication, branding, event management	Owner of micro & family enterprise
2	micro & family business	Tourism Industry	1	Consulting in Administration	Owner of micro & family enterprise
3	micro & family business	ICT	1	Software Development	Owner of micro & family enterprise
4	micro & family business	TOURISM	6	SERVICES	Owner of micro & family enterprise
5	micro & family business	Business Consultant	2	Mentoring, Tax Accounting, Export Marketing	Owner of micro & family enterprise
6	micro & family business	accounting services	3	accounting services	Owner of micro & family enterprise
7	micro & family business	Business consulting services, finance	-	Business consulting services, finance	Owner of micro & family enterprise
8	stakeholder	technical support to local organizations and small businesses, social and private	-	technical support to local organizations and small businesses, social and private	member of development agencies regarding service design, sustainability, environmental protection
9	stakeholder	Vocational Education and Training Center	-	Vocational training, consulting, EU projects	VET provider-trainer
10	stakeholder	Education	-	education, training	VET provider-trainer
11	micro & family business	ACCOUNTING & ECONOMICS	4	ACCOUNTING SERVICES AND BUSINESS CONSULTING	Manager of micro & family enterprise

### Estonia

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	Stakeholder	agriculture	330	Public sector – grants	Service designer /trainer
2	Stakeholder	education	126	Vocational center	Vocational teacher



3	Stakeholder	education	3	Training company	Service designer /trainer
4	micro & family business	construction	1	electrical work	CEO
5	micro & family business	service sector	1	hairdresser	hairdresser
6	micro & family business	Info technology	3	software for restaurants	CEO
7	micro & family business	retail trade	1	sportswear online store	CEO
8	micro & family business	production	7	bedding	CEO
9	micro & family business	Info technology	2	Time and attendance software	CEO
10	micro & family business	entertainment	15	nightclub	CEO

### Cyprus

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	Microbusiness	Business	7	food & beverages, entertainment	Manager, Owner
2	SME & family business	Business, export and trade	350	Agricultural products, fresh fruits, vegetables and salads.	Manager
3	Micro Business / Stakeholder	Education, Business	2	Design and Craft	Manager
4	International Organization/ Stakeholder	Business	32	Project activities	Worker
5	Microbusiness & family business	Business, trade	5	food & beverages	Owner
6	Micro & family business	Business	4	food & beverages	Worker
7	SME & family business	Commercial, education, business	58	cooking training services, wellbeing, food and beverages	worker
8	Microbusiness	Health and wellbeing	2	Diet health professionals	Owner
9	Micro & family business	Health	2	Oral health professionals	Manager
10	Education provider/ Stakeholder	Education, Business	3	Project activities & working life services	Manager

### Spain

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	micro & family business	Construction	11	Construction	Manager
2	micro & family business	Jewelry	3	Jewelry	Owner
3	micro & family business	Paints and Hardware	4	Paints	Owner
4	micro & family business	Printings	4	Printings	Owner
5	micro & family business	Shoes and Shoes repairing	2	Shoes	Owner
6	micro & family business	Sustainable clothing	8	Clothes	Owner
7	stakeholder	Business Consultancy	6	Legal Consultancy	Consultant
8	stakeholder	Business Consultancy	6	Economy consultancy	Consultant
9	stakeholder	Digital Marketing	12	VET	Trainer
10	stakeholder	Environment Protection	20	Environment protection	Member

### Portugal

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	micro & family business	Chemical and organic products	4	Basic pharmaceuticals and green chemistry	Owner of micro & family enterprise
2	micro & family business	Mechanical traction car assembly and repairs	27	Reconditioning, retrofits, upgrades, transformations and armoring in specialized vehicles	Owner of micro & family enterprise
3	micro & family business	Sports and human health activities	3	leisure sports activities, rehabilitation and competition, animal housing	Owner of micro & family enterprise
4	micro & family business	Information technology/ SaaS (Software as a service)	12	Computer programming and code language learning	Manager of micro & family enterprise
5	micro & family business	Construction and rehabilitation activities in buildings	5	Restoration, decoration and architecture of interiors and exteriors	Owner of micro & family enterprise

6	micro & family business	engineering solutions, systems and technologies	21	Electronic solutions for monitoring railway components, designing analogue and digital electronic systems	Owner of micro & family enterprise
7	micro & family business	computer programming, data processing	4	information technologies, communication, electronics, software installation and maintenance for vets	Owner of micro & family enterprise
8	stakeholder	Economic promotion and investment agency	3	support to investors, companies and investment search	member of development agencies regarding service design, sustainability, environmental protection
9	stakeholder	Business consultancy and entrepreneurship support	10	Coaching and mentoring, public incentives, financing, communication and marketing solutions	business consultant
10	stakeholder	Professional training	4	Human Resources, training, innovation management and R&D process	VET provider-trainer

### Finland

No	Type of organization (micro & family business / stakeholder)	Sector of activity	Number of employees	Offered services/products	Current position
1	Microbusiness	Education	1	Training services	Entrepreneur
2	Micro& family business	In the field of trade	4	Consulting services	CEO, entrepreneur
3	Microbusiness	Education	8	Training services	Manager
4	International Organization/ Finnish chapter/ Stakeholder	Business society	40	Project activities	Worker
5	Microbusiness	Health sector	5	Training services, consulting services	Volunteer
6	Education Provider/ Stakeholder	Education	120	Management training	Trainer
7	Association/ Stakeholder	Health sector	120	Training services, service design services	Service designer
8	Microbusiness	Commercial	4	Web site maintenance	Coder
9	Education provider/ Stakeholder	Education	120	Project activities & working life services	Working life Coordinator
10	Education provider/ Stakeholder	Education	100	Training	Teacher



## Service design perceptions and application of service design

### *Knowledge about service design on behalf of micro and family enterprises*

As shown in *Table 5* in most countries, with the exception of Cyprus micro and family enterprises highlighted that they know what service design is. The same opinion was expressed by stakeholders except from stakeholders in Greece.

**Table 5. Knowledge about service design**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	8	0	5	2	2	5	6	0	6	1	5	
Stakeholders	1	2	3	0	3		3	1	2	1	5	

The participants in the survey in each country provided the following descriptions about service design

### **Greece**

#### Compilation of the answers from micro & family enterprises

- Service design is the activity in which the key elements of a service / product, such as people, infrastructure and communication, are designed and organized to improve provider-customer interaction.
- It is how the business organizes its most efficient services for accomplishing its business goals.
- It is a methodology to find the needs of the customers and to plan how to cover them
- In means how a company can design carefully its services in order to satisfy its customers' needs
- Service design is designing, aligning, and optimizing an organization's operations to improve customer experience.
- In means the combination of activities so as to improve customer support
- The process that delivers new methods of intangible goods to end users
- Service design is the activity of planning and organizing people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between the service provider and its customers

#### Compilation of the answers from stakeholders

- Some enterprises might implement service design, those activated in tourism, food & beverages, training, and companies in the ICT sector, because of the need of becoming up to date and earning a bigger number of customers. Some of them might not recognize service design as a specific procedure with this name, on the contrary they exercise it more intuitive and have practical experience. But some others like VET centers, ICT companies have specific procedures that are structured and close related to the identification of the marker and target group's needs.

### **Estonia**

#### Compilation of the answers from micro & family enterprises

- The service has been made more beautiful around when applying service design

- Service design is the so-called development of a service according to the consumer / to whom the service is offered and based on their needs, taking into account their needs, the service and product are designed. It can't always be customer-driven, because the customers don't always know what they want.
- Through service design the entire route is mapped and the services are designed through surveys and validation - before that, no activity is funded. We do research and interview people from time to time. In the case of surveys, there are at least 10 people from different target groups (ie young people, middle and parents mapped by date of birth) and we will take three from each group into the survey. Research-validation-learning and then we start to design the service through this journey so that it is reasonable and logical and we improve it as we work. It is important that the service design process must be compatible with the company's business model.
- It is not a very object-oriented design (if then gently), but rather the shaping of the service concept and selling it off to the customer as a product-service. Using tools, you've come across a lot in your life.

#### Compilation of the answers from stakeholders

- Public sector employees have mainly participated in service design trainings. Many know that service design exists but the content is not really known
- Service design is necessary for the long-term survival of a business. There is a great shortage of process management and the quality of customer service continues to be low
- Very often it is still not known what the design of the services means and its content is not understood

### Cyprus

#### Compilation of the answers from micro & family enterprises

- Only two of the managers from the family enterprise knew of the term service design as a concept, but they never actually looked too much into it, although they claim to use it as part of their everyday tasks when the term is explained. Both are managers from a medium-sized enterprise.
- The rest of the micro and family enterprises have never heard the term before.

#### Compilation of the answers from stakeholders

- All stakeholders are aware of the term with some specific use of it. They are mainly used as part of a general concept when training or offering services to other business collaborators.

### Spain

#### Compilation of the answers from micro & family enterprises

- Yes, we are familiarized with this concept. We also try to differentiate ourselves by offering a faster and more personalized service, in general, a better experience to our customers. We have a personal assistant to guide
- We have been applying service design from the very beginning in order to cover all kinds of needs within our reach.
- We understand service design as the fact of providing our customers a quality service by a good company organization. Keeping our core values up to date helps to a good service design, regarding our understanding and familiarity with this concept.
- The objective of it is to offer the best service quality possible. Therefore, the service we provide can be related to this term of “service design”.
- We are a family enterprise and we have not changed that much since it was founded many years ago, this meaning that technical terms such as service design are not that much used and not familiar for our company members.
- Yes, we have adapted and designed our services regarding the different requirements of our most potential consumers and we consider this as service design.

#### Compilation of the answers from stakeholders



- Personally, I am not sure if family enterprises are familiarized to the term service design, but it is supposed that they are doing great with this as their importance in the economy is some way constantly increasing.
- Yes, family, and micro enterprises are normally aware of service strategies. Even though, training on this is needed as in multiple occasions family enterprises are stuck in the past and is important for them to develop and to innovate.
- So, it can be concluded that the micro & family company's knowledge of "service design" is basic.
- Yes, households and microenterprises generally understand service strategies. Although, training in this area is necessary, because in many cases family businesses are stuck in the old service exploitation strategy and need to innovate. So here we can conclude that knowledge of "service design" for small businesses is essential.

## Portugal

### Compilation of the answers from micro & family enterprises:

- It is a kind of service organigram.
- The way in which the design of the service is taken to marketing and delivery. It is the package that involves the execution of the service and the way we want the user to perceive it.
- Management framework that reflects an approach to the business and to various business areas, looking at the company from the point of view of its people, its resources and its processes.
- Methodology for approaching the service that the company provides to the client.
- At a first glance I would say no, although I can imagine what it is by the expression "service design", which can be understood as a structuring of how the service we want to promote should be. Structuring the way we think, the way we communicate, so that the service has a far-reaching and greater success.
- I would say that it is something from the design thinking and customer development family as a way of conceptualizing testing and validating with the client and refining it in an interactive way.

### Compilation of the answers from stakeholders:

- They often call it by different names, but in general they know what it is. They have a structure in place and there is a methodology present that matches.
- The most impulsive and immediate answer would be no. Many companies know what service design is, although they are not familiar with the concept. Even so, services are planned and designed very much in a results-oriented logic.

## Finland

### Compilation of the answers from micro & family enterprises

- All interviewees knew the basics of service design processes and service design.
- Service design was seen as part of marketing activities and client-oriented businesses that have gained a pop reputation in recent years. There should be more focus on researching service design and making concrete use of research data.

### Compilation of the answers from stakeholders

- All interviewees felt that service design training was important for both entrepreneurs and organizations.
- Service training as a business was seen as an area of the future, and service training as part of a degree in economics education is a good addition to the field of education.

### Knowledge about customer-centered service design

As depicted in *Table 6* in most countries, with the exception of Estonia and in lower degree of Cyprus micro and family enterprises highlighted that they know what customer – oriented service design is. The same opinion was expressed by stakeholders with the exception of Greek stakeholders.

**Table 6: Knowledge about customer – centered service design**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	8	0	3	4	4	3	6	0	6	1	5	
Stakeholders	1	2	3	0	3		3	1	2	1	4	1

The participants in the survey in each country provided the following descriptions about customer-centered service design

#### Greece

##### Compilation of the answers from micro and family enterprises

- Is the way of providing a service/product focused on a positive customer experience through the funnel of the entire use of the service/product.
- Is the way in which services planning has to be according your clients' needs
- It is about finding the needs of the customers and to plan how to cover them
- The services that focus more on customers need, therefore the company emphasizes more on customer satisfaction
- Customer-centered service design is about creating an approach based on customer needs.
- Designing services according to customer needs, based on grouping.
- Is the mindset that guides the above-mentioned process
- Customer-centered service design is a tool for service designers that help them to learn how to collect and process updated insights clients for the organization's products or services.

##### Compilation of the answers from stakeholders

- In some businesses, mainly in the catering sector, this may be the case. There is a perception of customer needs that are more or less known, local businesses are catering to the local community, following the consumer model and considering the needs of their customers while following fashion. There is generally a personal relationship with customers in local businesses. Other businesses, such as tourism and especially agro-tourism businesses, which target customers coming from other areas (mainly urban), do not understand the needs of their customers because they do not know them. The owners of agrotourism businesses, living in the countryside, have developed a different consumption pattern from their customers and are often not aware of this difference in order to explore their needs. They develop services, and serve needs that they are not aware of and often in the wrong way. For example, they find it difficult to promote traditional products because they do not find them attractive themselves (since they have identified them with poor lifestyles), believing that they will not be attractive to their customers either, which may not be the case
- Some small and family enterprises try to identify either the needs of the target groups or new products that will evoke customer interest.

## Estonia

### Compilation of the answers from micro and family enterprises

- In other words, the main input is the customer's feedback, his needs.
- Designing a service concept that takes into account the interests of the customer. This is not a universal approach, but focuses on the needs of the customer more broadly.
- We use customer feedback to design our service

### Compilation of the answers from stakeholders

- A small amount is used when communicating with businesses then most know the customer feedback. However, if the service is developed, it will not be taken into account for some reason. The development of the service is still based on how convenient it is for the company.
- Quite a few entrepreneurs still do not understand the real problem of the customer and cannot formulate how the customer will benefit from the company's service
- The term is generally known. At the same time, when designing a company's service, the customer's problem and what value is offered are not understood

## Cyprus

### Compilation of the answers from micro and family enterprises

- Although the term was not familiar from the start, in most cases, family enterprises have been focusing on their customer experience by mostly taking up comments and feedback, not using any method or specific tool. Others have been focused more on what they deliver, although they receive input from contacting some of their customers through the interview.

### Compilation of the answers from stakeholders

- Stakeholders have been aware of the term and methods, using design methods for service development and customers' design services.

## Spain

### Compilation of the answers from micro and family enterprises

- For us is related to service design as we design our services regarding our customers necessities and preferences. That is why we put some efforts on having a huge presence on Facebook because our public is mainly adult. We focus our marketing, publicity and service strategies on this market segment, the classical jewelry. We try to satisfy our customers by offering a really close and individualistic attention.
- We see customer-centered service design as our operational mode system. It is believed that due to our small size, all our customers receive very close and personalized attention
- The service we offer is adapted to the different customer segments as we offer a wide variety of products with different utilities (keeping the products up to date so that our customers can enjoy the innovations in the hardware and pain sector), and we also offer different services as our different experts in the store act as a coach for each type of customer. We also work through our website offering shipments (in a local scale) of our different products.
- For us customer-centered service design is our way of making business since customers directly design the service they want to receive. The personal attention from our staff to our clients seems to be not that important.
- The customer is the center of our actions and decisions. The human proximity our company offers to our clients and the customization service is the most valued feature.
- The services offerings are varied and we also adapt to the customers budgets being the customer the center in each decision we make as a company.

### Compilation of the answers from stakeholders



- Micro & family enterprises usually offer a close purchasing experience to the client. Normally physically.
- They mostly focus on the service offered, or what is the same, the Vendor Qualifications, that could be the concept of a customer- centered service design for these enterprises.
- Small, micro, and family businesses generally adapt to customers when providing in- store sales services, but when using media platforms, these businesses have difficulties in adapting to different customers.

## Portugal

### Compilation of the answers from micro and family enterprises:

- It means focusing the company on a way that the client always comes first and is always the beneficiary of our interventions, focusing our activity to satisfy him and so that he may work with us again.
- It is service from the perspective of the sale itself, in which the customer must always be the centerpiece.
- Putting the customer at the center and knowing how these impacts or reflects on the internal dimensions of the company.
- Methodology of approach to the service that the company provides to the client from a b2b perspective or to its target audience.
- Customer-centric service design is more customized, more focused and more centralized, and for different services there will always need to be adaptations.
- I would have to repeat what I answered in the previous question because for me it's the same thing.

### Compilation of the answers from stakeholders:

- Customer focus is a very present concern in this type of company. Even in start-ups there is a great concern for the customer and their mindset is much focused on satisfying their needs, building their services with them in mind.
- In terms of planning, this type of company is increasingly concerned with thinking differently and designing its services customer-oriented, putting the customer at the center of its intervention. They probably don't do it properly because there is no current practice of creating evidence and data based on the customer. They often act based on what they think is best and what the client will prefer.

## Finland

### Compilation of the answers from micro and family enterprises

- Customer centered services were familiar to the entrepreneurs and they all knew service design tools.
- People-oriented implementation of services
- Mutation of a product or service according to the customer's needs
- Designing the service process to be customer-oriented.
- Development of customer path or encounter services

### Compilation of the answers from stakeholders

- Design methods for service development
- Development of service-related processes with users in mind
- Designing services for customers

### ***Production of customer-based data***

As depicted in *Table 7* in most countries except from Cyprus and Finland micro and family enterprises produce customer- based data. Stakeholders have the same opinion with the exception of those from Greece, Spain

**Table 7. Production of customer – based data**



	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	7	1	6	1	3	4	4	2	7	0	2	3
Stakeholders	1	2	3	0	2	1	1	3	2	1	3	2

The participants in the survey in each country provided the following descriptions about the kind of data they produce.

## Greece

### Compilation of the answers from micro and family enterprises

- Feedback, marketing campaign metrics, leads, NPS, lifetime value/sales
- We use data from reviews and hotel services evaluations that come from guests – clients. Their use is to offer data for development of services
- Yes, we produce an excel customer-based data and we use it in order to contact our customers
- 1. Personal data (income and living conditions), 2. Social media insights, 3. Transactional Data
- Mainly financial data that are used to provide business solutions
- In our case the needs of customers are covered through specific projects. That is why we do not need to keep customer-based data
- This kind of these data are mostly data that help them to create successful businesses.

### Compilation of the answers from stakeholders

- They may hold some data but not consciously. If a client asks them something they may only keep what surprises them. The unexpected sometimes triggers their thinking
- For the companies that follow structured procedure for the identification of the customer needs, for example VET centers, ICT companies, they have to keep all the data emerged from the potential research related to the production of a new service

## Estonia

### Compilation of the answers from micro and family enterprises

- Mainly the information about who are the regular customers and what kind of people they are and what their wishes are
- It is planned to do so. In other words, how customers use the software, where they “stick to”, how to make their lives better, i.e. improve user convenience.
- Information is collected in connection with the E-shop. Rather, how the customer behaves in this environment. It has not been possible to calculate the value of lifetime, but loyal customers have emerged. Rather business to business projects. The interaction on the website and how the customer handles e-mails is monitored. We learned that e-mail works well, and thanks to that, we created e-mail automation flow to share information with new customers and existing ones. We also do after-sales service (e.g. that you should wash your pillows now). That is, it is not just sales letters. Sending letters is well built over a long period of time, starting with the value and awareness of soft things and ending with the customer finally buying the product.
- Rather not planned. There is no need to do email marketing, etc., because BtoB works. Uses publicly available information in the work - websites of sports associations, personal communication, provision of samples.

- A little, not much: in what field of activity the customers operate, how many employees, company names, contact information. Monthly logins. It is mainly used for invoicing. But otherwise, there is direct contact with the subscribers and improvement of the service based on it.
- The information is mainly in the head
- We have so many customers at the club and we do not collect information about them

#### Compilation of the answers from stakeholders

- mainly the company seems to have customer information on the feedback forms and then in the head of the customer service representatives
- Very little or no information is collected. They don't know how to collect or know what to do with this information
- Collecting customer data seems chaotic

### **Cyprus**

#### Compilation of the answers from micro and family enterprises

- The family businesses producing data are doing it through their online platform when selling their products, thus analyzing their customers. The one case that does not have an online platform but produces customer-based data is doing it from surveys and personal discussion, especially after some event.

#### Compilation of the answers from stakeholders

- It is mainly done through surveys and customer interviews.

### **Spain**

#### Compilation of the answers from micro and family enterprises

- In our social media, customers are free to comment on the quality of the services received in our store. Moreover, we also have a link where customers can answer a questionnaire where they are asked to make suggestions about our service and our corporate values. This questionnaire is revised once a month and really helps us to adapt ourselves to our potential consumers.
- Customer satisfaction papers retrieved from social media references and in store comments

#### Compilation of the answers from stakeholders

- Customer satisfaction questionnaires

### **Portugal**

#### Compilation of the answers from micro and family enterprises:

- A data survey is carried out with the customer to listen to their needs with a view to supplying more suitable products and services. This data is then used internally to develop and improve the service provided.
- We fundamentally work on data relating to orders, namely the number of vehicles for each client, the number of orders placed and other more commercial data.
- We only use some of the data collected to include relevant information in newsletters and campaigns supported by data from google analytics, based on which we work more on certain geographical markets. On the other hand, we also produce data that we then work on in evaluations in therapies.
- We have multiple levels of data. We categorize customers based on geography, size and type of users. We collect usage data comprehensively, such as platform interaction data.

- Personal data with customer authorization, analysis of technical data related to the type of services performed and we also work on financial data at the end of each year. Data is also processed in activities related to commercial promotion and direct marketing to the customer.
- Basically, it is usage data, to help us understand how customers use our services, the acceptance criteria and what level of detail the customer usually goes to. On the other hand, we have data that addresses issues such as our customers' preference in relation to economic price criteria or to find out which ones favor quality over price.
- We do a very high-level statistics of the use of our programs. We have a modular platform that is a 360° solution in veterinary medicine and we use the data to understand which are the areas on the platform where there is greater interaction. Data indicating the activity are collected, such as the number of consultations carried out, number of hospitalized animals and others, seeking to know how the load is and the use of the platform at a given time.

#### Compilation of the answers from stakeholders:

- Based on companies that internationalize, this happens frequently. More technological companies use some artificial intelligence tools to collect data, type of consumption and other inputs from collected data.
- Although it is possible to say that they produce some generic information by working with some data collected in the interactions carried out with their customers, they are somewhat limited to data on sales and billing volumes by segments.

## Finland

#### Compilation of the answers from micro and family enterprises

- We do not produce, we have different actors and processes for it, but I actively use it
- e.g., surveys after events
- Surveys
- With surveys
- Mainly ad data

#### Compilation of the answers from stakeholders

- With surveys
- Mainly ad data
- Primarily surveys (NPS, CES, CSAT), interviews and observation.

### *Production of systematic data on customer satisfaction*

As shown in *Table 8* micro and family enterprises from Greece, Spain and Finland when compared with other countries do not produce systematic data on customer satisfaction. Stakeholders from Greece, Estonia and Spain also commented that micro and family enterprises do not produce systematic data on consumer satisfaction.

**Table 8. Production of systematic data on customer satisfaction**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	4	4	5	2	5	2	2	4	5	2	2	3
Stakeholders	1	2	0	3	2	1	1	3	2	1	3	2

The participants in the survey in each country provided the following descriptions about the production of systematic data on consumer satisfaction.

## Greece

### Compilation of the answers from stakeholders

- To a limited extent and at the local level, there was an initiative (1999-2006) in the past to motivate local businesses to keep data, but in the long run this practice was not integrated into their culture. This initiative was developed in the context of a local quality pact which addressed local aesthetics, tourist consumption patterns, customer complaint management and price management. The result of this initiative was to keep the aesthetic profile (stone, wood) and attract large businesses to the area and lose small businesses.
- No, but keeping a data base of customer satisfaction, is becoming recognized necessity by the majority of them

## Spain

### Compilation of the answers from micro and family enterprises

- In our social media, customers are free to comment on the quality of the services received in our store. Moreover, we also have a link where customers can answer a questionnaire where they are asked to make suggestions about our service and our corporate values. This questionnaire is revised once a month and really helps us to adapt ourselves to our potential consumers.
- Customer satisfaction papers retrieved from social media references and in store comments

### Compilation of the answers from stakeholders

- Customer satisfaction questionnaires

## *Value proposition for services provided by micro and family enterprises*

As shown in *Table 9* the majority of micro and family enterprises in Estonia, Cyprus, Spain and Finland do not make value proposition for their services. Stakeholders from all countries with the exception of Spain also believe that micro and family enterprises do not develop their value proposition.

**Table 9. Value proposition for services**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	7	1	3	4	1	6	2	4	5	2	2	3
Stakeholders	0	3	0	3	1	2	4	0	1	2	1	4

Stakeholders in Greece also highlighted that micro and family enterprises do not develop their value proposition consciously. Someone may make a value proposition not as a result of an analysis of their customers' needs but because they believe they can offer an upgraded service without knowing whether the customer needs it. They do one-sided design because he simply saw something somewhere else.

## *Familiarity with service design tools and concepts for designing service experiences and interactions*

As shown in *Table 10* micro & family enterprises are familiar with the service concept in Greece, Spain, Portugal and Finland; with the service delivery system in almost all countries; with personas mostly in Estonia



and Portugal; with customer journeys almost in all countries; with storyboards in Estonia, Spain and Finland; and with experience prototypes in all countries except from Greece and Cyprus.

Micro & family enterprises in almost all countries except from Finland are not familiar with service blueprints and customer service scenarios, while only micro & family enterprises from Spain looks like being familiar with the service ecology map.

**Table 10. Familiarity of micro & family enterprises with service design tools and concepts (answers from micro & family enterprises)**

SD Tools & Concepts Answers from micro & family enterprises	Greece	Estonia	Cyprus	Spain	Portugal	Finland
<b>Service concept</b> (i.e., description of customer's needs and how are satisfied by the service)	4,13	3,17	3,00	3,83	4,43	4,60
<b>Service delivery system</b> (i.e., to define the content of the services also roles and responsibilities)	3,88	3,17	4,00	3,67	4,29	4,20
<b>Personas</b> (i.e., fictional representation of the prospect customer)	3,38	4,00	2,57	3,50	4,00	2,80
<b>Customer journeys</b> (i.e., the distinct stages a customer goes through with a service)	3,88	3,83	3,14	4,00	3,86	4,40
<b>Service blueprints</b> (i.e., is a technique for service design)	2,50	3,00	1,43	3,50	2,71	4,80
<b>Storyboards</b> (i.e., a visual representation of a service)	3,00	3,67	1,57	3,86	2,71	4,60
<b>Customer Service Scenarios</b> (i.e., assist agents how to handle requests from customers)	3,25	3,00	2,00	3,17	3,29	5,00
<b>Experience prototypes</b> (i.e., replication of the customer experience)	2,88	3,67	2,50	3,50	4,14	5,00
<b>Service ecology map</b> (i.e., helps understand how the service impacts the community)	2,25	2,67	1,57	4,00	2,71	1,80

As shown in *Table 11* stakeholders in Greece, Estonia and Portugal when comparing with stakeholders from other countries believe that micro & family enterprises are not so familiar with service design tools and concepts. They believe that they are less familiar with service concept (Portugal), Service delivery systems (Greece, Estonia, Portugal), Personas (Greece, Estonia, Cyprus, Portugal, Finland), customer journeys (Greece, Estonia, Cyprus, Spain, Portugal), service blueprints (Greece, Estonia, Cyprus, Portugal, Finland), Storyboards (Greece, Estonia, Cyprus, Portugal, Finland), Customer Service Scenarios (Greece, Estonia,

Cyprus, Portugal), Experience prototypes (Greece, Estonia, Cyprus, Portugal, Spain), Service ecology map in all countries.

**Table 11. Familiarity of micro & family enterprises with service design tools and concepts (answers from stakeholders)**

SD Tools & Concepts	Greece	Estonia	Cyprus	Spain	Portugal	Finland
<b>Answers from stakeholders</b>						
<b>Service concept</b> (i.e., description of customer's needs and how are satisfied by the service)	3,00	2,33	4,67	3,50	2,33	5,00
<b>Service delivery system</b> (i.e., to define the content of the services also roles and responsibilities)	2,67	2,00	4,00	4,25	3,00	4,20
<b>Personas</b> (i.e., fictional representation of the prospect customer)	2,00	2,33	3,00	3,75	1,67	2,60
<b>Customer journeys</b> (i.e., the distinct stages a customer goes through with a service)	2,00	1,67	3,33	3,00	2,00	5,00
<b>Service blueprints</b> (i.e., is a technique for service design)	1,00	1,00	2,33	3,75	1,67	1,80
<b>Storyboards</b> (i.e., a visual representation of a service)	1,33	1,00	3,00	3,50	1,67	5,00
<b>Customer Service Scenarios</b> (i.e., assist agents how to handle requests from customers)	2,00	1,33	2,33	4,25	2,33	5,00
<b>Experience prototypes</b> (i.e., replication of the customer experience)	1,33	1,00	2,67	3,25	1,67	4,80
<b>Service ecology map</b> (i.e., helps understand how the service impacts the community)	1,50	1,00	1,67	3,50	2,33	1,80

### Specific objectives for sustainable and green services by micro & family enterprises

As shown in *Table 12* the majority of micro & family enterprises in Greece, Estonia, and Finland set specific objectives for sustainable and green services, while no micro & family in Spain set such objectives. Stakeholders generally believe that micro & family enterprises set such objectives.

**Table 12. Objectives for sustainable and green services by micro & family enterprises**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	5	3	4	3	3	4	0	6	3	4	5	
Stakeholders	1	2	2	1	3		2	2	2	1	5	

**Table 13. Consideration to integrate objectives for sustainable and green services by micro & family enterprises**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	2	1	3	0	2	2	1	5	3	1		
Stakeholders	-	2	1	0			0	2	1	0		

The participants in the survey in each country reported the relevant objectives as follows

## Greece

### Compilation of the answers from micro and family enterprises

- The main objective is to design zero waste services.
- Green and Sustainable Hotel Services harmonized with the local environment.
- Our company set specific objectives for sustainable and green services such as bio cleaning, recycling, bike friendly
- Minimize the paper used
- Green lighting, green cooling systems
- Only in terms of energy consumption. My company develops software which means that the services are intangible.

### Compilation of the answers from stakeholders

- They follow the national regulations, energy saving, food waste reduction, recycling, decrease of their energy footprint

Those who commented No reported the following:

- Not necessarily. Maybe in some small businesses there is a sensitivity, e.g., in hotels when they work with ecologically sensitive customers to copy some ecological habits. But they do follow practices such as energy improvement, and generally what is required by law. But they do not set sustainable development targets on their own and do not develop services in a 'green' way. They only think green if they need to serve customers with similar sensitivities, and mainly as a result of imitation rather than continuous education.
- I do not think so

## Estonia

### Compilation of the answers from micro and family enterprises

- Green is that we want to eliminate paperwork and optimize waste management in restaurants in general. Through this, we also want to definitely change the consumer's eating habits. Sustainable - specific goals, many customers will need to onboard in the coming years to grow into a variety of investment opportunities.
- Baby mattress - The desire to use as much of the circular economy as possible. The emergence of three new rounds: (1) offering or renting out this service because we have the opportunity to clean it up; (2) the possibility of reusing the material; (3) life extension (the goal is to have a lifespan of 15 years, ie a 5x extension). In terms of logistics, we analyze how we work with retail to get these things back in the same

way. And as a result, we reduce our CO2 and footprint, as it has a longer lifespan and no additional material is needed, and therefore the same production. The EU finds 30 million mattresses in landfills every year and is reducing the problem.

- In the case of blankets and pillows, a more sustainable approach based on the material. The weight of the NT pillow is 90% of the plastic bottles and that is why we reduce CO2 by 67%.
- However, all of this has a long-term effect on reducing microplastic pollution. On the production side, more: We hope to produce baby mattresses in Estonia, blankets and pillows in Germany (material on site) and blankets in Bulgaria (material on site, production was before in China and we brought it closer to shorten this journey). The bed linen fabric comes from Austria (eucalyptus fiber, loop circle water or 600 liters of water needed for production is cleaned and recycled) and sewn together in Estonia. Bed linen set for 2 people. In the case of bed linen with cotton, Dreamsvill has its own cost of 20 thousand liters of water (600 above).
- Lowest possible environmental costs. I find out what is made of the material - responsible selling has this knowledge. The clothes will be produced in Poland, so I know what the materials are and where they come from. That is, the EU workforce and CO2 are lower, and it is known that most of the fabric is ordered from Europe. An overview of the product route is available.
- We sort waste very well, but this information has not been passed on to customers

#### Compilation of the answers from stakeholders

- Beginners and start-ups are very green and sustainable. Operating small businesses tend not to think about such things
- It depends on the generation and the personal value of the business owner
- Green and sustainability is a rising trend, but at the moment it is still the mindset of very few entrepreneurs

## Cyprus

#### Compilation of the answers from micro and family enterprises

- Only in the 3 cases of a micro and family enterprise are interested in developing more green solutions, in contrast with the rest considered an expensive and consuming task.

#### Compilation of the answers from stakeholders

- All were interested in providing training for their customers in the green economy.

## Spain

#### Compilation of the answers from stakeholders

- In my humble opinion, companies need training in this. Although, sustainable and green services are the good path to follow by companies nowadays. As the growth of micro and family enterprises is exponential, they look for sustainable suppliers and somehow ecofriendly raw materials in order to cover this market demands despite of the huge investment it implies.
- Nowadays we have been observing the tendency of small enterprises to innovate in sustainable terms. This meaning that this small companies apart from increasing their online presence, they invest on new ecofriendly practices as for attracting new environment-conscious population.
- Short term objectives regarding the election of suppliers.

## Portugal

#### Compilation of the answers from micro and family enterprises:



- Adherence to the Green Dot. It is one of our goals that reflects a research aspect of the company with concern for the packaging issue. We have a green perspective and we try that our research is green and that more environmentally friendly products are produced.
- Use of more environmentally friendly materials.
- We do, but it is not because we are or are not a company focused on sustainability or ecological. Our footprint is very thin, but we clearly have this concern for our customers. We want to be a catalyst and a contributor so that goals of this kind are achieved at the destination, by our customers.

Compilation of the answers from stakeholders:

- It is difficult here to identify concrete objectives. The issue of sustainability is often a flag for these companies. Even if they eventually establish specific goals in this area, but are unable to achieve them and the results are not the most desired, it is certain that there is a strong concern with the impact that their activity has on the community.
- Depending on the type of company, there may be ecological goals, but not sustainable ones. There is great concern for its survival and the issue of sustainability is, in a way, often left in the background.

## Finland

Compilation of the answers from micro and family enterprises

- All were interested in developing sustainable businesses and design green services.

Compilation of the answers from stakeholders

- All were interested in providing training for their customers in green economy.

## Digitalization of service offer

As shown in *Table 14*, the most digitalized services are offered in Cyprus, Portugal and Finland.

**Table 14. Digitalization of Service offer**

Country	1 Not at all	2	3	4	5 To a great
Greece	1	5	3	2	
Estonia	2	0	6	0	2
Cyprus		1	1	2	6
Spain			5	2	3
Portugal	1	1	2	3	3
Finland					10

## Trainings needs for service design

As shown in *Table 15* both the participants' micro & family enterprises in the survey and stakeholders believe that micro & family enterprises are interested in participating in training on Service Design

**Table 15. Interest in participating in training on Service Design**

	Greece		Estonia		Cyprus		Spain		Portugal		Finland	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Micro & Family enterprises	7	1	5	1	4	3	6	0	6	1	4	1
Stakeholders	3	0	3	0	3		4	0	3	0	5	

Related to the topics of such training the participants' micro & family enterprises preferences are shown in *Table 16* All participants in all countries prefer the given topics, with the exception of micro and family enterprises from Portugal who do not consider as so important a training in the topic of "Economics and business ethics related to climate change and environmental protection"

**Table 16. Preferences related to the topics of service design training (answers from micro & family enterprises)**

Topics	Greece	Estonia	Cyprus	Spain	Portugal	Finland
Economics and business ethics related to climate change and environmental protection	4,00	3,00	4,29	4,33	2,14	4,20
Sustainable business models	4,57	3,86	4,00	4,33	4,00	5,00
Service design process	4,14	3,86	4,00	4,50	4,29	4,80
Service design tools	4,29	3,86	4,00	4,67	4,29	4,80
Digital transformation	4,14	4,14	4,29	4,50	4,43	5,00

Participants from *Estonia* referred that they would like to get more knowledge on how to interview different people, this knowledge is always needed. As well as learn more about best practices. Participants from *Cyprus* also gave some more emphasis in training related to the development of sustainable business models and are keen to try their different service design methods. Some micro-enterprises seem to be OK with what they do and wish to keep it that way. Participants from *Finland* commented that training in Sustainable business models is needed for the future development.

Most of the stakeholders, as shown in *Table 17* in all countries commented that the proposed topics of training are important for micro and family enterprises. Stakeholders from Estonia and Portugal give less emphasis when compared with the other topics and stakeholders from other countries in the topic of "Economics and business ethics related to climate change and environmental protection".

**Table 17. Preferences related to the topics of service design training (answers from stakeholders)**

Topics	Greece	Estonia	Cyprus	Spain	Portugal	Finland
Economics and business ethics related to climate change and environmental protection	4,00	3,67	5,00	4,50	3,67	5,00
Sustainable business models	4,00	5,00	5,00	4,50	4,33	5,00
Service design process	4,67	5,00	5,00	4,00	4,33	5,00
Service design tools	4,67	5,00	5,00	4,25	4,67	5,00
Digital transformation	4,33	5,00	5,00		4,67	5,00

Stakeholders from **Greece** stated that in general, representatives of small and family businesses think they know everything. They do not want to participate in formal or non-formal training activities. But they are more attracted to informal forms of training, such as attending meetings to discuss a topic of concern and feeling actively involved. They also proposed the need of the following types of training a) Provision of examples relevant to their everyday life and involving them in informal training sessions where they can work with service design tools through scenarios and virtual enterprises and b) provision of guidelines on how to use the service design tools and examples and good practices in their sectors or case scenarios.

Stakeholders from **Estonia** commented that design thinking must be linked to the business model when thinking about the customer and the personas. Training related to the connection of money to excellent customer service is also needed as well as how customer service needs to be organized and in Process management

All stakeholders in **Cyprus** express their high intention in training and get to know more of the material produced through SeDiHUB project.

Stakeholders from **Finland** added that Training is needed in the future more and more.

## Desired online learning methods and learning styles

As shown in *Table 18* the preferences of micro & family enterprises on the desired online learning methods are different in partner countries. The most common preference of high interest in almost all countries is the personalization. Micro & family enterprises are very interesting in the personalization of the online training to their interests, and to be able to create their learning paths. Other important learning methods for them are Competency-Based or learner –centered (Greece, Cyprus, Spain, Finland), Synchronous e-learning (Greece, Cyprus, Portugal), Asynchronous e-learning (Greece, Cyprus, Finland), Social interaction and online collaboration (Greece, Portugal, Finland).

**Table 18. Desired online learning methods (answers from micro & family enterprises)**

Learning methods	Total	Greece	Estonia	Cyprus	Spain	Portugal	Finland

<b>Synchronous:</b> Takes place in real time	4. (22,94)	4,00	3,50	4,14	3,50	4,00	3,80
<b>Asynchronous:</b> Self-paced, time independent	6. (22,63)	4,00	3,86	4,29	3,25	2,43	4,80
<b>Competency-Based or learner –centered:</b> Customized to learners’ needs and professional life	2. (25,32)	4,00	3,75	4,86	4,00	3,71	5,00
<b>Personalization:</b> personalized to learner’s interests, learners create their learning paths	1. (26,18)	4,14	4,71	4,71	4,33	3,29	5,00
<b>Social interaction and online collaboration:</b> social interaction and collaboration of learners	5. (22,88)	4,00	3,14	3,71	3,83	4,00	4,20
<b>Blended:</b> combination of the above	3. (23,43)	3,86	3,71	3,29	4,00	3,57	5,00

Stakeholders as shown in *Table 19* consider as important e-learning method for micro & family enterprises in all countries the methods of Competency-Based or learner –centered and Social interaction and online collaboration.

**Table 19. Desired online learning methods (answers from stakeholders)**

Learning methods	Greece	Estonia	Cyprus	Spain	Portugal	Finland
<b>Synchronous:</b> Takes place in real time	4,67	4,50	4,00	4,00	3,67	3,40
<b>Asynchronous:</b> Self-paced, time independent	3,67	5,00	4,33	4,00	3,33	5,00
<b>Competency-Based or learner –centered:</b> Customized to learners’ needs and professional life	4,00	5,00	4,00	4,25	4,33	5,00
<b>Personalization:</b> personalized to learner’s interests, learners create their learning paths	3,67	5,00	5,00	3,50	4,67	5,00
<b>Social interaction and online collaboration:</b> social interaction and collaboration of learners	4,00	5,00	5,00	4,00	4,33	5,00
<b>Blended:</b> combination of the above	4,67	4,67	4,33	3,80	4,00	5,00

Stakeholders from *Greece* commented that modern types of education will be more effective if it is implemented in the early stages of education. They also said that some micro and family enterprises know in person their clients and empirically apply the principles and use some practices of service design. But they do not use specific tools because they do not know their existence

In *Cyprus* people from the micro and family enterprises are willing to try out new methods of training but seem to worry more about the time required; thus, having something they can work on their own time or

having a more individual/ face to face interaction would be ideal. Stakeholders also showed high interest in participating in different learning activities.

Micro and family enterprises in *Finland* commented that entrepreneurs need face to face trainings and on-line learning platforms, while stakeholders are interested in giving training in various ways and using new methods.

The preferences about learning styles and resources of micro and family enterprises are presented in the *Table 20*. The most often are highlighted (bold)

**Table 20. Learning styles and resources preferences (answers from micro & family enterprises)**

Learning styles & resources preferences	Total	Greece	Estonia	Cyprus	Spain	Portugal	Finland
Real time lecture in virtual classroom	<b>23</b>	4	3	<b>6</b>	1	4	5
E-mail communication with an instructor	18	3	1	<b>7</b>	4	1	2
Use of interactive discussion boards	18	2	3	3	0	5	5
Study material (documents, presentations, manuals, etc.)	<b>25</b>	<b>6</b>	4	2	2	<b>6</b>	5
Study of provided work examples and real significant cases	<b>27</b>	<b>6</b>	4	2	5	5	5
Study material using images, audio, animation	<b>23</b>	2	4	4	4	4	5
Pre-recorded lectures, audio/video	10	1	3	3	0	1	2
Storytelling	15	4	4	2	0	0	5
Guided research and participation in projects	16	2	2	4	1	2	5
Collaborative work	<b>21</b>	<b>5</b>	2	5	2	3	4
Scenario based exercises	17	4	3	2	2	3	3
Online Simulations	15	2	2	1	3	2	5
Learning games	14	2	3	5	0	2	2
Mobile Learning	6	0	1	0	0	1	4
Use of wikis, blogs	7	1	2	1	1	0	2
Quizzes and Puzzles	9	0		<b>6</b>	0	0	3

Collaborate and network on social platforms to discuss problems, queries, and experiences	<b>27</b>	3	4	7	5	3	5
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Stakeholders' most common preferences are presented in *Table 21*.

**Table 21. Learning styles and resources preferences (stakeholders)**

Learning styles & resources preferences	Total	Greece	Estonia	Cyprus	Spain	Portugal	Finland
Real time lecture in virtual classroom	7	2		3	1	1	5
E-mail communication with an instructor	4	0		2	2	0	3
Use of interactive discussion boards	3	1	1	1	0	0	5
Study material (documents, presentations, manuals, etc.)	6	1	2	2	1	0	5
Study of provided work examples and real significant cases	<b>12</b>	2	3	1	4	2	5
Study material using images, audio, animation	4	0	1	2	0	1	5
Pre-recorded lectures, audio/video	1	0		1	0	0	3
Storytelling	8	3	2	2	0	1	5
Guided research and participation in projects	<b>11</b>	1	1	2	4	3	5
Collaborative work	<b>9</b>	3	1	3	0	2	3
Scenario based exercises	8	2	3	1	0	2	3
Online Simulations	4	0		1	2	1	5
Learning games	5	2		3	0	0	4
Mobile Learning	1	0		1	0	0	4
Use of wikis, blogs	4	0		1	3	0	2
Quizzes and Puzzles	2	0		2	0	0	2
Collaborate and network on social platforms to discuss problems, queries, and experiences	<b>10</b>	1	2	3	1	3	5

## Conclusions

### GREECE

Micro and family enterprises in Greece possess knowledge on service design and customer-centered service design to a considerable extent. They produce customer-based data but not systematic data on customer satisfaction. The majority of them create value proposition, however stakeholders consider that that micro and family enterprises do not develop their value proposition consciously and in a systematic way. Micro and family enterprises possess medium familiarity with service design tools, and set specific objectives for sustainable and green services. They have increased interest for participating in training on Service Design and they consider as more desired topics the: a) Economics and business ethics related to climate change and environmental protection, b) Sustainable business models, c) Service design process and tools, d) Digital transformation. Synchronous and asynchronous e-learning, competency-Based or learner –centered e-learning, personalization, social interaction and online collaboration as well as blended e-learning are all desired online learning methods. Micro and family enterprises prefer the following learning styles and resources: study of material (documents, presentations, manuals, etc.), study of provided work examples and real significant cases and collaborative work. Stakeholders from Greece also proposed: a) the provision of examples relevant to their everyday life and involving micro and family enterprises in informal training sessions where they can work with service design tools through scenarios and virtual enterprises and b) the provision of guidelines on how to use the service design tools and examples and good practices in their sectors or case scenarios.

### ESTONIA

In Estonia, most of the interviews working in the business sector, either a target group or stakeholders, know what service design is, but aren't quite sure how the customer-centered service design is different (even when the meaning of it is understood). Mainly ones, who don't, have started their business recently in sectors that include more service offering and don't have any previous experience on this topic. People who are more familiar with the concept of service design understand its importance much more and are trying to use its elements in their business in order to create a better service. Their interest for data collection depends a lot on the field and the customer types, no need for that refers mainly to the companies who don't have a lot of customers and also lack knowledge on how to do it. Value proposition is mostly unknown to the people. Persona as a service design tool is well known for most of the answers for both target group and stakeholders, service ecology map the least. Regarding the tools, entrepreneurs themselves are more known with the tools than stakeholders. Estonian entrepreneurship are searching ways to integrate green services and the ones who haven't done it yet, are mostly planning to do so. It is important to notice that the "green thinking" may depend on the generation and the personal value of the business owner. Most businesses said that their service is somehow made digitally and the vast majority are interested in service design training. The most interesting subject for entrepreneurs is digital transformation, the least economics and business ethics related to climate change and environmental protection (same for stakeholders). For both target group and stakeholders, desired learning methods are personalization and asynchronous and preferences for learning is study of provided work examples and real significant cases

### CYPRUS

It was incredibly interesting to see how different enterprises, especially family-owned businesses react to the relatively new service design concept. Some show highly motivated to take the next step and evolve through their focus on services and precisely having an educational material that can explain how better their services can be for their customers. Although what we have noticed is that many family-owned enterprises seem to



understand this as an extra activity and worry that it can be time-consuming compared to their everyday activities. Nevertheless, they showed a clear interest in training in service design and learning more about the green economy and how they can transmit a more sustainable way of doing business. Stakeholders are more experienced on the topic. As they are concerned about the transition to a more service-based economy, they are keen to participate in different workshops and training further to enhance their skills and knowledge on the topic. It was interesting to see the different reactions to this matter. We believe that it was a task to show how the value of service design can be applied to business and how this can be beneficial for both the owners and managers and their customers and the people they interact with. It would be interesting to have some statistics or proof of how this can benefit micro and family enterprises and increase their motivation to participate in such trainings and research in the near future.

### *SPAIN*

Finally, the questionnaires show that both stakeholders and family companies are aware of the importance of service design. However, this has indicated that they are all interested in pursuing their education in this field. With regard to knowledge of service design, it is striking that all the companies questioned are aware of how it works. The majority of the stakeholders are also aware of it. In the questionnaire, the companies selected come from different sectors such as construction, jeweler, and clothing. What they all have in common is the importance of targeting their services to a specific consumer, which is why they all use customer-centered service design to offer a more personalized product. On the other hand, it is striking that despite being aware of the importance of service design, it is not used for the integration of green or sustainable practices. As mentioned above, all the interviewees showed a clear interest in training in this area. To this end, both family businesses and stakeholders mostly agreed on the desired methods to carry it out. They all agreed on the importance of case studies and real-life examples. On the other hand, they consider collaboration on social platforms and online simulations to be of great importance.

### *PORTUGAL*

Although most of the companies stated that they know what service design represents, we found that many have some difficulty in identifying the concept and describing it in a short sentence. Even from the stakeholders' side, the perception is that micro and family businesses, even if they already practice some of the underlying techniques, are not able to define it properly or to say what it really is in a more synthetic way. The same applies when we talk about customer-centered service design. Companies recognize that they work with customer-based data, not only to gauge needs but also to improve the services they provide to their customers. This data is often categorized and segmented in order to fine-tune the offering and better understand how their products and services are used. Companies produce systematic data in the context of satisfaction evaluation, but often do not have reports with systematized results for further analysis. The result of the stakeholder survey shows an opposite result to that of the companies in question concerning the value proposition for services provided, referring that although this may be studied in an early stage of the life cycle of the companies, most of them have nothing defined or do not work on this topic in more mature stages of business evolution. The tools and concepts that companies say they are most familiar with are the "service concept", the "service delivery system", the "personas" and the "experience prototypes", although the stakeholders generally point to a little in-depth knowledge of the tools mentioned. As to the identification of objectives for sustainable and green services, not many companies do it, although those that do not do it may be considering integrating them in the near future. The digitalization of service offers tends to be seen as a strength for many of these companies. With the exception of one company, all of them indicate an interest in participating in training on service design, a fact which is corroborated by the perception collected from the stakeholders, although opinions are very divided as to the preferred topics of service design. Within the scope of the desired online learning methods, the answers from the companies consulted fall towards the synchronous method, competency-based or learner-centered, although there is a



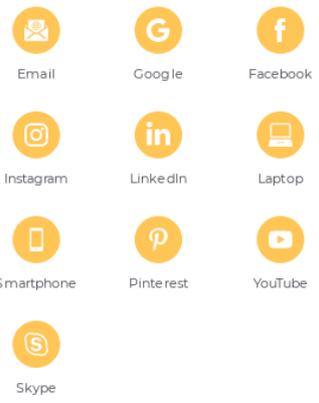
The second matrix looked at the use of service design and whether the study participants were continuous learners. More specific groups were drawn from the second matrix, on the basis of which the personas were created.



## First persona - Lazy firefighter

Lazy firefighter got his name because, as an entrepreneur, he deals with business development and strategic topics only when this topic starts to "burn". Then there is a great motivation to learn and develop.

PROJECT: SeDiHUB PERSONA: Simon

<p>NAME</p> <h1 style="margin: 0;">Simon</h1>	<p>TYPE</p> <h2 style="margin: 0;">Guardian</h2>
	<h3>Goals</h3> <p>The main goals are to keep the company running. The goal is not to grow the company very big, but it is always ready to make improvements if they are necessary.</p>
<h3>Demographic</h3> <p>♂ Male 41 years</p> <p>📍 Alicante</p> <p>Married</p> <p>Jeweler</p>	<h3>Background</h3> <p>A middle-aged man who works in a family business. On a daily basis, he is involved in the management of the company as well as the production of products.</p>
<h3>Skills</h3> <p>Basic knowledge of business</p> <p>0 25 50 75 100</p> <p>Knowledge of design thinking and service design</p> <p>0 25 50 75 100</p> <p>Knowledge of digitization</p> <p>0 25 50 75 100</p>	<h3>Motivations</h3> <p>He wants life to be comfortable and everything to work easily.</p> <p>The sustainability of a family business motivates him to move and try new things.</p>
<h3>Technology</h3> 	<h3>Frustrations</h3> <p>Fear of the state of the economy and rising prices.</p> <p>Uncertainty about the future and the sustainability of the family business.</p> <p>Feels insecure about new things and the digital world.</p>
<h3>Browsers</h3> 	<h3>Channels</h3> 



This persona was built in [uxpressia.com](https://uxpressia.com)

## Second persona - Super twins

They are young and energetic. They have a very serious ambition to grow their business and change the world. They have realized that collaboration and going with change will help them achieve their goals.

PROJECT: SeDiHUB PERSONA: Arte and It@

NAME

# Arte and It@

TYPE

## Rational



### Goals

Their main goal is to grow the company and increase market share. They want to stand out in society. One of the goals of their activity is always to conclude working partnerships for business development.

### Background

They live in the city and both have graduated from university. They are very ambitious and welcome innovation. They are fast learners and very flexible. At the same time, they have a very clear vision of what they want to change in the world.

### Demographic

♂ Male 28 years

📍 Amsterdam

Single

Art and IT creators

### Motivations

They really like to network and collaborate. They learn a lot from this.

They have time and enormous energy

They have great enthusiasm to make a difference in the world

### Frustrations

There is a lack of resources to further develop the company.

Despite good knowledge, there is a lack of experience.

Young people are not always considered reliable in the business world.

### Skills

Basic knowledge of business

0 25 50 75 100

Knowledge of design thinking and service design

0 25 50 75 100

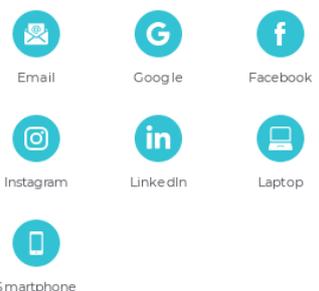
Knowledge of digitization

0 25 50 75 100

### Technology



### Channels



### Browsers



**UXPRESSIA**

This persona was built in [uxpressia.com](https://uxpressia.com)

### Third persona - A Business man

As an entrepreneur he has started and grown the business himself. However, he has no business education. He has learned everything through trial and error. He wants to grow his business and learn new things.

PROJECT: SeDiHUB PERSONA: Vassilis

<p>NAME</p> <h2 style="margin: 0;">Vassilis</h2>	<p>TYPE</p> <h2 style="margin: 0; color: white;">Idealist</h2>
	<p><b>Goals</b></p> <p>The goal is to grow your company and reach export. Wants to increase the efficiency of the company.</p>
	<p><b>Background</b></p> <p>He is actively engaged in business and is also involved in the life of the local community. Also takes part in local politics. Has a sporty lifestyle. He works long hours and is dedicated to his work. He is skilful and able to learn fast.</p>
<p><b>Demographic</b></p> <p>♂ Male <input type="text" value="35"/> years</p> <p>📍 Varssav</p> <p>Married</p> <p>E-commerce</p>	<p><b>Motivations</b></p> <p>Eager to learn new things.</p> <p>Wants to provide a sense of security to the family.</p> <p>He has the ambition not to remain a small entrepreneur.</p>
<p><b>Skills</b></p> <p>Basic knowledge of business</p> <p>0 25 50 75 100</p> <p>Knowledge of design thinking and service design</p> <p>0 25 50 75 100</p> <p>Knowledge of digitization</p> <p>0 25 50 75 100</p>	<p><b>Technology</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">    </div> <div style="text-align: center;">    </div> <div style="text-align: center;">    </div> </div>
	<p><b>Channels</b></p> <div style="display: grid; grid-template-columns: repeat(3, 1fr); gap: 10px;"> <div style="text-align: center;"> Email</div> <div style="text-align: center;"> Google</div> <div style="text-align: center;"> Facebook</div> <div style="text-align: center;"> Instagram</div> <div style="text-align: center;"> LinkedIn</div> <div style="text-align: center;"> Laptop</div> <div style="text-align: center;"> Smartphone</div> <div style="text-align: center;"> YouTube</div> </div>
	<p><b>Browsers</b></p> <div style="text-align: center;">  </div>

**UXPRESSIA**

This persona was built in [uxpressia.com](https://uxpressia.com)

## APPENDIX

### QUESTIONNAIRE FOR MICRO & FAMILY ENTERPRISES

#### DEMOGRAPHICS

1. Name of the organization (optional):
2. Sector of activity of the organization:
3. Country:
4. Name of the interviewee (optional):
5. Number of employees:
6. Offered services/products:
7. Current position of the interviewee:
  - Owner of micro & family enterprise
  - Manager of micro & family enterprise

**Service** is defined as an activity between a service provider and a service receiver to change the state of the receiver (Arai and Shimomura, 2004).

R Service Design is the planning and shaping of useful, usable, desirable, effective and efficient service experiences (**Moriz, 2005**)

#### SERVICE DESIGN PERCEPTIONS AND APPLICATION OF SERVICE DESIGN

1. Do you know what **service design** is? Yes, No.  
If YES please describe in a short sentence.

2. Do you know what **customer-centered service design** is? Yes, No.  
If YES please describe in a short sentence.



3. Do you produce customer-based data? YES NO  
If YES, what kind of data and how do you use these data?

4. Do you produce systematic data on **customer satisfaction**? YES NO

5. Have you made a **value proposition** for your services? YES NO

6. How familiar are you with the following **service design tools and concepts** for designing service experiences and interactions?

	(1) Not at all Familiar	(2) Slightly	(3) Somewhat	(4) Moderately	(5) Extremely Familiar
<b>Service concept</b> (i.e., description of customer's needs and how are satisfied by the service)					
<b>Service delivery system</b> (i.e., to define the content of the services also roles and responsibilities)					
<b>Personas</b> (i.e., fictional representation of the prospect customer)					
<b>Customer journeys</b> (i.e., the distinct stages a customer goes through with a service)					
<b>Service blueprints</b> (i.e., is a technique for service design)					
<b>Storyboards</b> (i.e., a visual representation of a service)					
<b>Customer Service Scenarios</b> (i.e., assist agents how to handle requests from customers)					
<b>Experience prototypes</b> (i.e., replication of the customer experience)					
<b>Service ecology map</b> (i.e., helps understand how the service impacts the community)					

7. Has your enterprise set specific objectives for sustainable and green services? YES, NO.  
If yes, please report these objectives?

If no, have you considered to integrate sustainable and green service objectives in the near future. YES  
NO

8. How digitalized is your service offer?

Not at all 1    2    3    4    5 To a great extent

### TRAININGS NEEDS FOR SERVICE DESIGN

9. Are you interested in participating in training on Service Design?  
Yes - NO

10. If you had the opportunity to participate in a training program about service design, what kind of knowledge would you like to gain? Please rate (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree)

Kind of knowledge	(1) Strongly Disagree	(2) Disagree	(3) Undecided	(4) Agree	(5) Strongly Agree
Economics and business ethics related to climate change and environmental protection					
Sustainable business models					
Service design process					
Service design tools					
Digital transformation					

*Other, please mention*

### DESIRED ONLINE LEARNING METHODS AND LEARNING STYLES

11. Which of the following **online learning methods** would you prefer in a training for developing skills on Sustainable business models and environmentally friendly services through Service Design?

Please rate (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree)

Online learning methods	(1)	(2) Disagree	(3)	(4) Agree	(5)

	Strongly Disagree		Undecided		Strongly Agree
<b>Synchronous:</b> Takes place in real time					
<b>Asynchronous:</b> Self-paced, time independent					
<b>Competency-Based or learner –centered:</b> Customized to learners’ needs and professional life					
<b>Personalization:</b> personalized to learner’s interests, learners create their learning paths					
<b>Social interaction and online collaboration:</b> social interaction and collaboration of learners					
<b>Blended:</b> combination of the above					

12. Please select from the following list the learning styles and resources that you would prefer in such a training (up to 6 choices)

- Real time lecture in virtual classroom
- E-mail communication with an instructor
- Use of interactive discussion boards
- Study material (documents, presentations, manuals, etc.)
- Study of provided work examples and real significant cases
- Study material using images, audio, animation
- Pre-recorded lectures, audio/video
- Storytelling
- Guided research and participation in projects
- Collaborative work
- Scenario based exercises
- Online Simulations
- Learning games
- Mobile Learning
- Use of wikis, blogs
- Quizzes and Puzzles
- Collaborate and network on social platforms to discuss problems, queries, and experiences

**Please add any comments you have here**

## QUESTIONNAIRE FOR STAKEHOLDERS

### Demographics

1. Name of the organization (optional):
2. Type of activity of the organization:
3. Country:
4. Name of the interviewee (optional):
5. Offered services:
6. Current position of the interviewee:
  - VET provider-trainer
  - business consultant
  - member of national, regional/local authorities supporting entrepreneurship
  - member of development agencies regarding service design, sustainability, environmental protection

**Service** is defined as an activity between a service provider and a service receiver to change the state of the receiver (Arai and Shimomura, 2004).

Service Design is the planning and shaping of useful, usable, desirable, effective and efficient service experiences (**Moriz, 2005**)

### SERVICE DESIGN PERCEPTIONS AND APPLICATION OF SERVICE DESIGN

1. Based on your experience, do micro and family enterprises know what service design is? Yes, No.  
If YES, how do you believe that they conceptualize service design?

2. Based on your experience, do micro and family enterprises know what **customer-centered service design** is? Yes, No.

If YES, how do you believe that they conceptualize it?



3. Based on your experience do micro and family enterprises produce customer-based data? YES NO  
If YES, what kind of data and how they use these data?

4. Based on your experience do micro and family enterprises produce **systematic data on customer satisfaction**? YES NO

5. Based on your experience do micro and family enterprises made a **value proposition** for their services? YES NO

6. Based on your experience how familiar are micro and family enterprises with the following **service design tools and concepts** for designing service experiences and interactions?

	(1) Not at all Familiar	(2) Slightly	(3) Somewhat	(4) Moderately	(5) Extremely Familiar
<b>Service concept</b> (description of customer's needs and how are satisfied by the service)					
<b>Service delivery system</b> (to define the content of the services also roles and responsibilities)					
<b>Personas</b> (fictional representation of the prospect customer)					
<b>Customer journeys</b> (the distinct stages a customer goes through with a service)					
<b>Service blueprints</b> (is a technique for service design)					
<b>Storyboards</b> (a visual representation of a service)					
<b>Customer Service Scenarios</b> (assist agents how to handle requests from customers)					
<b>Experience prototypes</b> (replication of the customer experience)					
<b>Service ecology map</b> (helps understand how the service impacts the community)					

7. Based on your experience do micro and family enterprises set specific objectives for sustainable and green services? YES, NO.  
If yes, please report these objectives?



If no, have they considered to integrate sustainable and green service objectives?

8. Based on your experience how digitalized are the services that micro and family enterprises offer?

Not at all 1    2    3    4    5 To a great extent

### TRAININGS NEEDS FOR SERVICE DESIGN

9. Do you believe that micro and family enterprises would be interested in participating in training on Service Design?

Yes - No

10. If you had the opportunity to suggest to micro and family enterprises to participate in a training program about service design, what kind of knowledge would you like them to gain? Please rate (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree)

Kind of knowledge	(1) Strongly Disagree	(2) Disagree	(3) Undecided	(4) Agree	(5) Strongly Agree
Economics and business ethics related to climate change and environmental protection					
Sustainable business models					
Service design process					
Service design tools					
Digital transformation					

*Other, please mention*

### DESIRED ONLINE LEARNING METHODS AND LEARNING STYLES

11. Which of the following **online learning methods do you believe that are more suitable** in training for developing skills of micro and family enterprises on Sustainable business models and environmentally friendly services through Service Design?

Please rate (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree)

Online learning methods	(1)	(2)	(3)	(4)	(5)
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	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
<b>Synchronous:</b> Takes place in real time					
<b>Asynchronous:</b> Self-paced, time independent					
<b>Competency-Based or learner –centered:</b> Customized to learners’ needs and professional life					
<b>Personalization:</b> personalized to learner’s interests, learners create their learning paths					
<b>Social interaction and online collaboration:</b> social interaction and collaboration of learners					
<b>Blended:</b> combination of the above					

12. Please select from the following list the learning styles and resources that you would suggest in such a training (up to 6 choices)

- Real time lecture in virtual classroom
- E-mail communication with an instructor
- Use of interactive discussion boards
- Study material (documents, presentations, manuals, etc.)
- Study of provided work examples and real significant cases
- Study material using images, audio, animation
- Pre-recorded lectures, audio/video
- Storytelling
- Guided research and participation in projects
- Collaborative work
- Scenario based exercises
- Online Simulations
- Learning games
- Mobile Learning
- Use of wikis, blogs
- Quizzes and Puzzles
- Collaborate and network on social platforms to discuss problems, queries, and experiences

**Please add any comments you have here**