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Designing a Do It Yourself (DIY) toolkit to enable dispersed corporate entrepreneurship

Elisa's Idea box

Sheth, Riddhi

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Designing a Do It Yourself (DIY) toolkit to enable dispersed corporate innovation - Elisa's Idea box

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As businesses mature over time, companies need to find and invest in new growth opportunities. However, finding growth opportunities through innovation is difficult for well-established companies. They are better at execution than innovation, and most of them succeed by optimising their existing businesses rather than through creativity and innovations. Elisa Oyj is one such company in Finland, and the case organisation for the thesis.

The purpose of this thesis is to help Elisa generate new service innovations by creating a do-it-yourself toolkit and its governance model that would enable dispersed corporate entrepreneurship in the company. The aim of the toolkit is to help employees test if their ideas have business potential or not. The aim of the governance model is to help the managers manage such a bottom-up innovation effort.

Taking into consideration the complexity of the development project, the thesis first sheds light on the need for corporate innovation, the economics of innovation, the theories on how corporates could innovate based on the presence of a particular long-wave economic cycle and the current approach in corporate innovation and its management. Since the focus of the case organisation is on coming up with service innovations, the thesis also explores the role of service dominant logic as a theoretical base in coming up with service innovations and utilises human centred design and lean startup as two approaches to bring new service innovations to market. SDL aligns very well with Elisa in practice, because the company's management believes that no business can exist if it does not solve a customer problem.

To create the contents for the toolkit and its governance model, a service design process based on the double diamond method was adopted. Qualitative research, including interviews and workshops with Elisa's employees, decision-makers and innovators from other companies was undertaken. These insights were made actionable through design principles, which offered guidance on the features of the toolkit and its governance model. The results of the are presented through the iterations of the toolkit and its governance model, which offer an understanding of the content and the desired innovation process both for the employee who might use the toolkit as well as management who will manage it in the future.

This thesis has both scientific and practical value. The scientific value of the study comes from the results of the thesis being commensurate with literature on corporate entrepreneurship, its management, service dominant logic and new service development process. The practical value of the thesis stems from the process used in designing the toolkit, its contents and its governance model, and the considerations and analysis undertaken while designing its contents. This might help other companies create such toolkits and processes to promote entrepreneurship in their companies. As of now, Idea box will be piloted in software services business unit in Elisa, with the possibility to scale across Elisa in the future.

Keywords: Dispersed corporate entrepreneurship, service innovation, toolkit, governance model, innovation management, service design, lean startup, value, co-creation, value proposition, minimum viable product.

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1 Introduction

Established companies have to look for new opportunities as their businesses mature over time. Extending product or service offerings may be a short-term solution. In the longer run companies have to invest in new business opportunities or explore new technological areas (Vanhaverbeke et al. 2008). However, it is a fact that innovation is difficult for well-established companies, because they are better at execution than innovation, and most of them succeed by optimising their existing businesses rather than through creativity and innovations (Jong et al. 2015). There are four reasons for this, mentioned below.

Firstly, companies believe that their primary reason for existence is to maximize shareholder value. Therefore, metrics such as return on net assets (RONA), return on capital deployed, and internal rate of return (IRR) are used to measure efficiency. However, these metrics are not aligned with companies aiming to invest in long-term innovation efforts. Therefore, companies create a perception of increased shareholder value by outsourcing innovation, removing assets from the balance sheet and only investing in businesses that can generate profits. As a result, companies have closed internal R&D labs in the past and have reduced long-term investments. As a result, these business models create a false impression that the companies are very successful commercially (Blank 2016).

Secondly, due to business needs stemming from industrialisation, the leaders of these companies typically excelled at finance, supply chain or production. Competitive advantage resulted from competing through price, achieving higher quality or product performance, adding a new product feature, offering a wider range of selection or through better customer service (Morris et al. 2011). They were well-versed with the knowledge of executing the current business model and could also identify adjacencies. However, these very leaders find it difficult to identify opportunities for disruptive innovation currently.

The third reason that makes innovation challenging for companies is owing to the drastic shifts that have taken place in technology, platforms and markets since the last 15 years. These shifts include personal computers moving to mobile devices; life science breakthroughs in therapeutics, diagnostics, devices and digital health; and the emergence of new markets such as China and India (ibid).

Lastly, startups have emerged to challenge existing businesses - when capital for new ventures was rarely available for the first 75 years of the 20th century, the best engineers worked for corporate R&D labs. However, in the last quarter of the 20th century and increasingly in the 21st, risk capital emerged. Risk capital has been used to finance new ideas in the form of startups. Startups operate with speed and urgency, and have the ability to make decisions

with incomplete information. They are also better than large companies at identifying customer needs/problems and finding product/market fit by pivoting rapidly (Blank 2016).

Need for corporate entrepreneurship

These external environmental changes mentioned in the previous section signifies the need for new management practices. Companies that are more adaptable, fast and innovative are in a better position to not only adjust to a dynamic and complex external environment, but also to create change in that environment. Therefore, these companies act as change agents that create new markets and lead customers, instead of following them (Morris et al. 2011).

Large companies can learn from startups, especially the way they handle uncertainty and make quick decisions. Therefore, companies need to re-think and then re-invent their corporate innovation model, replacing the traditional business execution model with corporate entrepreneurship, also known as intrapreneurship (Blank 2016). Steven Brandt has noted in his earlier work on corporate entrepreneurship that - *“the challenge is relatively straightforward...companies must tap into the creative power of their members. Ideas come from people. Innovation is the capability of the many. That capability is utilised when people give commitment to the mission and life of the enterprise and have the power to do something with their capabilities.”* (ibid, 9).

1.1 Introduction to the case organisation

The following section introduces Elisa and its innovation history, and provides a background for the development project.

Elisa is a telecommunications, ICT and online service company serving 2.3 million consumers. These include both corporate and public administration organisation customers. Elisa is listed on the Nasdaq Helsinki Large Cap and has approximately 200,000 shareholders. During their 130-year history, the company has always been enthusiastic about utilising new technologies and ways of working. Approximately 85% of Elisa's revenue comes from telecommunication services for consumer and corporate customers, while the fastest growing new digital services account for approximately 15% of revenue. This is especially important for Elisa because its vision is to be a recognised as an international provider of digital services and a brand of excellence, owing to the megatrends affecting its core business (Elisa 2017d).

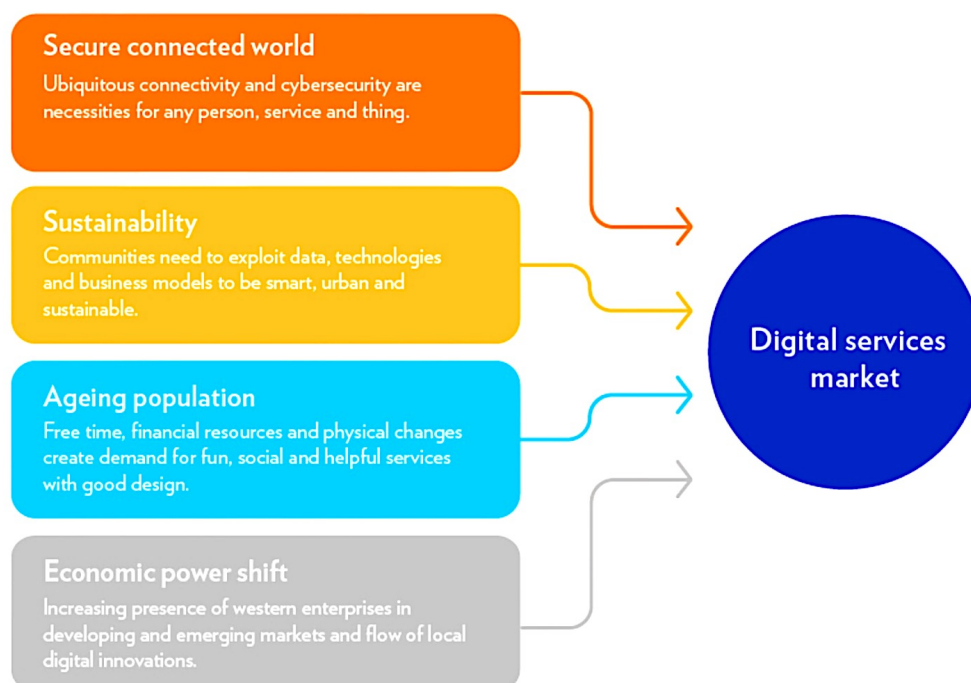


Figure 1: Megatrends impacting Elisa's business (Source: Elisa 2017a)

To elaborate on figure 1, telco companies are custodians of networks and play a pivotal role in fighting the emerging security threats. Customers expect more proactive protection from the entire internet value chain, and carriers like Elisa will have to support these expectations with different technical and operational innovations. Population growth, ageing population requiring health management, economic development and more upwardly mobile middle-class consumers will increase the global demand for new services that are smart and sustainable. The application of new technologies and shift in the supply environment will drive business model adaptation and innovation in multiple sectors, and will impact the geopolitical balance of power (Ernst & Young 2015).

Elisa's strategy

While megatrends have a role in defining Elisa's strategy, the company also faces strategic and operational risks that have helped define its execution strategy. Elisa's primary market is Finland, where the number of mobile phones per inhabitant is among the highest in the world. Therefore, the growth in subscriptions is limited. Furthermore, the volume of phone traffic on fixed network has decreased during the last few years. These factors may limit opportunities for growth (Elisa 2016, 124). Other telco operators also face a similar situation and face a growing threat to their core offering being commoditized. However, digital transformation provides a tremendous opportunity for the telecommunications industry to unlock

value by supporting rapid innovation and a persistent focus on customer experience (Wildenburg & Mauro 2016).

Elisa operates in a sector where future services are created through testing of new opportunities and cooperation between innovation networks. Therefore, Elisa's strategy is created to face these challenges and is executed by improving its core business continuously (incremental innovations) and by building new digital services that can rely on Elisa's strengths and resources as a telco operator. The execution strategy has three components mentioned below:

1. Innovation of digital services for consumer and corporate customers.
2. Services in their own network domain and international services independent of network ownership
3. World-class customer orientation, quality and cost-efficiency (Elisa 2016).

History of innovation in Elisa Oyj

While the previous section gives an overview of Elisa's strategy and need for innovation, it does not highlight any particular methodology for innovation pursued in the company. An interview was conducted with a senior business development manager at Elisa who has been in the company since 1997 till date, and has been actively involved in the R&D department since then. He has been witness to the changes that the company has undergone since the last two decades. A major component of understanding Elisa's innovation history is based on content analysis from the manager's testimony.

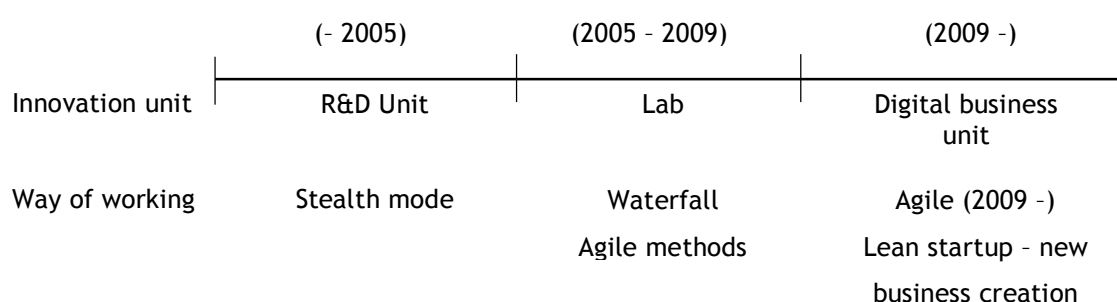


Figure 2: Time of innovation units and their ways of working in Elisa

(Source: Adapted from Elisa 2017a)

Elisa's R&D department: One of the biggest changes in Finnish industrial history or economic history more generally has been the rapid emergence and growth of the Finnish Telco industry in the 1980s and 1990s. Elisa also had a robust R&D unit during this period, where it collaborated with organisations like VTT and received funding from Tekes on several forward-looking

technology projects. Being a significant part of the Finnish Telecom industry, Nokia also pursued the same (Lemola 2016). It was an interesting period because of the prominence of world wide web. In early 2000s, Elisa moved into becoming an internet service provider. However, innovations were still predominantly seen as technological innovations.

“we saw many opportunities, but we always explored from a technical angle. That was the thinking back then.”

The manner in which technological innovations have been brought to market - using the ‘stealth mode’ and using the waterfall approach, were neither iterative, nor people-centric. Therefore, many innovations and new businesses existed as solutions in search of problems, unable to justify their existence. The current museum of failures in Stockholm houses some of these (West 2017).

Introduction of user-centred design (2003): Around 2003, user-centred design (UCD) was introduced in Elisa owing to a project undertaken by the R&D department. Thinking about innovation not singularly through the lens of technology seemed like a good idea then, because it offered a novel perspective compared to only looking through the lens of technology. A few EU funded projects that were executed, with UCD principles. However, UCD was restricted to user testing.

Closing the R&D department (- 2006): In 1990s, Elisa expanded through corporate acquisitions, and the R&D department grew to encompass over 100 employees when Radiolinja was merged with Elisa (Elisa 2017a). The R&D projects depended on public funding and the metric used to define success was the amount of visibility the company received from what these projects. The project cycle was too long - starting from defining the projects to completing them took 10 years on an average. This did not follow the success metric well enough because innovations came too far between. Another challenge that the R&D team faced was that when they took the innovations to business owners, no one was willing to take them because they were more concerned with immediate profits. These challenges with R&D is not unique of Elisa alone and has been observed globally by Blank (2016) in other companies as well.

“In 2005-2006, the R&D department was scaled down to become a lab housing around a dozen employees.”

Elisa lab (2005-2009): Elisa lab focussed on pursuing open innovation through research collaborations with universities, companies and startups. The cycle time of projects was reduced owing to the introduction of agile methodologies during implementation of the innovation. However, the lab was *“still too afraid to come out with what they had”* and new innovations

were launched through betas and closed pilots. There was a lack of rigorous business testing, and every project was treated as a grand idea that only needed to be realised rather than tested with customers. This very problem has been observed by Maurya (2012), Ries (2011) and others.

This calls for higher scrutiny at the early stages of the strategic innovation process, typically known as the fuzzy front end of innovation. The adjective 'fuzzy' is appropriate because this is the stage where organizations typically suffer from a deficit of actionable, future-oriented information, and lack the meaningful customer insights required to help them set or recalibrate goals, make design decisions, and pursue innovations with confidence (Mootee 2011).

Digital business unit (2009 -): In 2009, the digital business officially began in Elisa and the lab's projects, at this point predominantly dealt with new service creation, fell under the new unit. The open innovation model of doing projects remains till date where Elisa collaborates with startups and universities to understand new scientific breakthroughs and enable new service creation (Elisa 2017b). Elisa also has a well-defined service offering development process (SOD). While the SOD process shows how to manage service innovations in Elisa, it doesn't show how to come up with innovations in the first place.

Lean Elisa (2006 -): In 2006-2007, Elisa's strategy focussed on operational excellence, which was around lean. It focussed on the Toyota lean manufacturing model (Lean enterprise institute 2017), applied to Elisa's network to improve its efficiency to become a market leader. Therefore, Elisa indeed became lean in its operations, but not in new business development.

Lean startup in Elisa (2015 -): Similar to many companies globally, from the 1990s till 2015 the focus on innovation in Elisa shifted from discovering new knowledge to exploiting tacit knowledge possessed by employees (Kheng et al. 2013, 91).

Naturally, the attention shifted to utilise tacit knowledge possessed by employees to achieve strategic, organizational and market-related innovations (Love 2001, 137). The current lean startup fits well here, because it acknowledges that a business is successful only when it addresses a customer need. It also acknowledges that new businesses are accompanied by risks that cannot be mitigated by pre-planning as is commonly done through a traditional business plan, and provides a structured way to de-risk new innovation opportunities or business ventures through rigorous experimentation. It offers the build-measure-learn loop where a new business idea would be built, its results measured and would then be iterated on, based on

the learnings from each experiment (Ries 2011). Therefore, in summer of 2015, the CEO invited the top management of Elisa for a two days' workshop to understand and learn lean startup to accelerate new service creation as stated in the company strategy, shown in the figure 3. The figure also shows how the company's strategy is shifting from incremental innovations generated through operational efficiency improvement towards building value of data captured through its network.

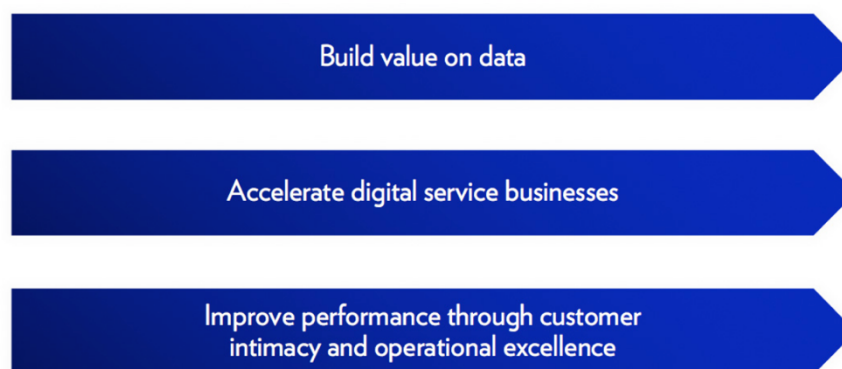


Figure 3: Elisa's current strategy (Source: Elisa 2017a)

According to lean startup methodology, every startup is a list of hypotheses that need to be tested with customers. That is essentially the method of de-risking the business. However, how might one generate those hypotheses? If an employee has not already identified the user need through his own pain point, or by being a front-line employee, how would s/he then discover that need? This is where design thinking comes in, giving the innovator a methodology to understand customer needs (Krakovsky 2016). By understanding the intrinsic needs of customers and stakeholders, new businesses can co-create value and find new avenues for growth. Therefore, while new service creation, lean startup and customer-centricity were strategic choices, how could it be taught to the employees so that they became corporate entrepreneurs/ intrapreneurs?

1.2 The development project

The vision of Elisa's CEO - Mr. Veli-Matti Mattila is that Elisa should not only use the lean startup approach for innovation, but build its own 'approach for innovation', based on what Elisa wants to achieve. Following this, the Vice President (VP) of Software Services (SoSe) business unit in Elisa provided an initial project brief to the author in summer, 2016 - create a new innovation process that would function in the form of a toolkit so that employees can validate new ideas for digital services, which is part of Elisa's strategy. The detailed brief is mentioned below:

- The process should be similar to the Adobe Kickbox. Adobe Kickbox had been awarded for the ‘Best innovation program’ in the Corporate Entrepreneur Awards in 2015 (Adobe 2017), so it would have some aspects that could be adopted by Elisa.
- What would be the assumptions that the employee is trying to validate? e.g. people like pink grapes. Create a framework so that they test these assumptions with the least amount of time and money.
- The toolkit should start with a customer problem, rather than a solution idea.
- The toolkit will first be piloted in SoSe business unit.

Governance model to manage the process:

- The employees who want the toolkit should pitch to get it, in order to prevent employees from sharing “*silly*” ideas. This is important because the person getting the toolkit would be allocated time away from their regular work to work on their idea.
- All employees who get the toolkit will work on the idea and their regular job simultaneously.
- The toolkit should be time-boxed, e.g. ideas should be validated in a month, and the toolkit comes with the responsibility that an employee needs to submit their findings in a month.
- The ideas completing the toolkit process would be sent to the portfolio team for further approval on whether they should proceed ahead or they should be killed.

Therefore, this thesis focuses on the development of a toolkit and its governance model that might help employees of Elisa Oyj validate if their ideas have business potential or not. It will provide guidance to Elisa employees who have observed a customer problem, or have an assumed customer problem, validate if solving that problem can result in a viable business for Elisa. The entire design of the toolkit and its governance model have been done by the author.

Timeline

The development project was undertaken in summer, 2016 and a testable version of the toolkit was finalised in late autumn 2016 (June - November, 2016).

Software services unit as the piloting unit

Software Services business unit in Elisa is responsible for the development of Elisa's online and emerging services, such as Elisa Viihde and Elisa Kirja. The unit has developed many other services too and continuously launches new services to test them with their customers. Human centred design methods are utilised to create experiential services.

SoSe is a horizontal unit and is part of the production unit in Elisa, as can be seen in figure 4. SoSe has about 70 employees comprising designers, developers, system architects, business development managers and people managers. SoSe functions as a supportive unit to the corporate and consumer businesses in Elisa, where the employees in SoSe have supporting roles while business decision-making rests with the consumer and corporate units.

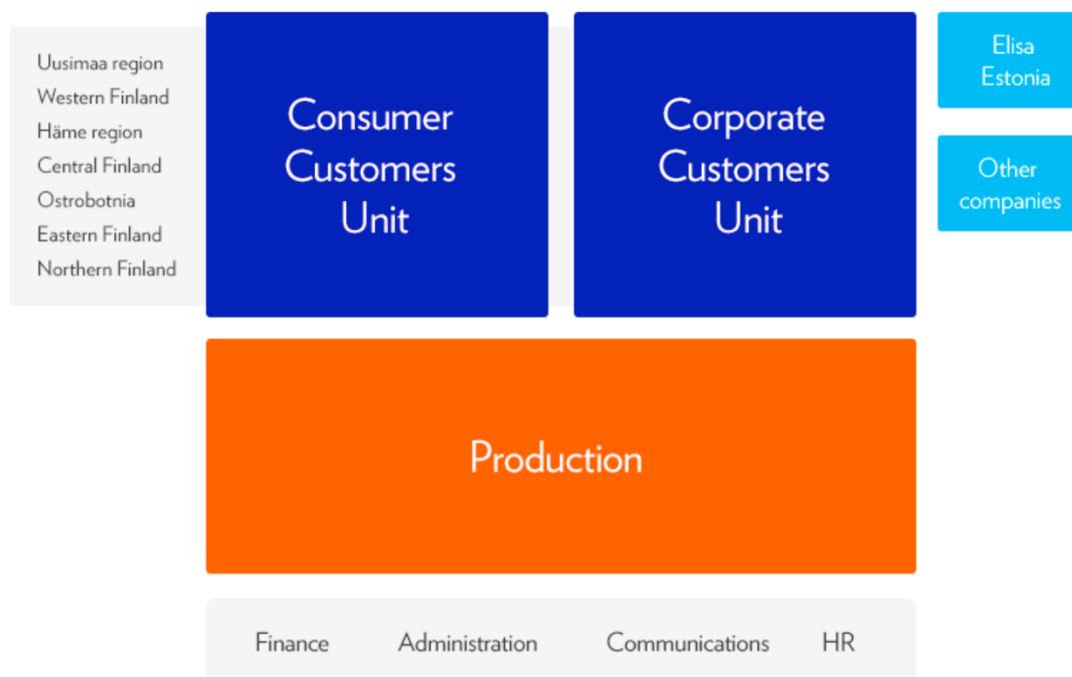


Figure 4: Elisa's operational model (Source: Elisa 2017c)

1.3 Objectives of the development project

The principal goal of the development project is the creation of a DIY toolkit, which can help employees in Elisa validate their ideas for new services. In order to create the toolkit, it is essential to understand why Elisa needs corporate entrepreneurship, identify its innovation goals, the organisational structure and existing working practices that will govern such a toolkit and its outcomes, the ideal mix of design thinking and lean startup methodologies, the decision-making structure of what the initial idea should look like and when can the management decide that the idea is ready to move ahead in the innovation pipeline or be killed. This thesis aims to address these questions through theoretical research as well by creating and testing the toolkit and the governance model that helps embed the toolkit in Elisa.

Particular emphasis is laid on how the toolkit and its governance model have been designed to embed the new process in the company. This has led the author towards the following research questions that will be addressed through this thesis. Both the research questions are addressed through empirical research as well as literature review.

1. How to design the content for a DIY toolkit that enables corporate entrepreneurs in Elisa to validate if their ideas can result in new service businesses?
2. What should the governance model of such a DIY toolkit entail, so that it facilitates the management of dispersed corporate entrepreneurship in Elisa?

Currently, many consultancy companies in Finland have identified the need to offer innovation consulting services, and have their own innovation toolkits that they offer as a service to corporates, e.g. lean service creation toolkit by Futurice. However, these toolkits do not take a corporate's organisational structure and dynamics into consideration and fail to systemically ingrain this approach of innovation in the company culture. Moreover, they are also not tailored as DIY toolkits.

The author's assumption is that such toolkits exist in abundance and the differentiating factor between them is based on how the toolkit works in conjunction with the organisational structure and whether it could be used by an individual without extra guidance. Hence, this is also the advantage that this toolkit will have over other existing toolkits: it will be a DIY toolkit and will be created, tested and piloted in-house. Moreover, it will be a 'living entity', i.e. it will be updated and modified continuously based on findings from entrepreneurs who will test it. This thesis offers an opportunity for other companies to understand how to design such toolkits and governance models that are tailored for their own companies.

1.4 Structure of the thesis

The thesis is based on a theoretical and empirical part. This first chapter introduces the thesis topic, the research and development objectives, timeline for the research, a brief overview of the key concepts and the case organisation - Elisa.

The second chapter presents the theoretical grounding for the second research question. It consists of different theories regarding corporate innovation and connects them to broader economic outcomes. In this chapter, strategic innovation theory is identified as the innovation theory most relevant to Elisa, which focusses on employee driven service innovation. The last part of the chapter elaborates on how corporate entrepreneurship can be managed.

The third chapter addressed the first research question by offering the theoretical base behind designing the toolkit. It utilises service dominant logic as the theoretical foundation for service science and elaborates on the process of new service development using human centred design and lean startup approaches.

The fourth chapter covers the service design process and methods used in empirically designing the toolkit and its governance model. This chapter shortly explains what service design is, what its characteristics are and then moves on to identify different service design processes. The chapter establishes that while there are best practices in service design, there is no one and only service design process. Next, service design tools and methods are shortly discussed but they are further elaborated on in the fifth chapter.

The fifth chapter addresses the first and second research questions through empirical work on the development project. In this chapter, the service design process together with used methods and tools are explained in more detail. The service design process is often iterative in nature, which is the case for the development project as well. However, in order to explain the process and the methods in an understandable way, it is presented in a linear order.

The sixth chapter of the thesis consists of conclusions. The conclusions include a summary of the results, reflections of the contributions the thesis makes as well as offers prospects for future research.

1.5 Key concepts

Key concepts utilised for this thesis consists of corporate entrepreneurship and its management, new service development process, service innovation and approaches of human centred design and lean startup. All the key concepts are shortly explained to give the reader a good understanding of the overall subject area.

Kondratiev / Kondratieff waves: The Kondratieff wave is an economic wave that lasts for approximately 40-60 years, and is named after Nikolai Kondratieff who was a prominent long-wave scholar. Kondratieff used several indicators of economic activity such as commodity prices, wages, foreign trade turnovers, raw material production and consumption rates, and private banks savings in his analysis (Wilenius & Kurki 2012). He suggested that fluctuations occur around a long-term cycle that involves shifts over time between periods of relatively rapid economic growth and periods of relative stagnation or decline. Kondratieff suggested that an entrepreneur is the prime cause of economic development, facilitating the onset of the next long-wave cycle (Tanning et al. 2013).

Service innovation: In the context of this thesis, service innovation is seen from the lens of strategic innovation theory, which describes innovation as a stream of incremental innovations that emerge from a company's employees, often as a result of their encounters with customers, or are then initiated by the top management (Rubalcaba et al. 2015, 701).

Therefore, the definition of service innovation is the one given by Nesta, which states that *"change associated with the creation and adaptation of ideas that are new-to-world, new to nation/ region, new-to-industry or new-to-firm"* (Patterson et al. 2009, 12). This definition includes radical innovations (new to the world) as well as disruptive innovations (new business model, new to the industry).

Corporate entrepreneurship: Corporate entrepreneurship is a process through which employees in an established firm pursue entrepreneurial opportunities to innovate (Ireland et al. 2012).

Dispersed corporate entrepreneurship: This form of corporate entrepreneurship assumes that entrepreneurial activities are distributed across the organization. Entrepreneurship is not restricted to a particular unit, but it is scattered across the organization. This approach is based on the assumption that every employee has the capacity for both managerial and entrepreneurial behaviour (Birkenshaw 1997).

Intrapreneurs: Every company needs new ideas to survive and grow profitably, and hence it needs to tap into the entrepreneurial potential and tacit knowledge possessed by its employees. In 1985, Pinchot coined the term 'intrapreneurship', where intrapreneurs belong to the category of human resources who possess this entrepreneurial potential. They can enable new avenues of growth for an organisation by initiating ventures, acting creatively and defying the status quo internally. As stated by Pinchot (2000, 75) *"Intrapreneurship is not a choice, it is the only survival attitude"*.

Innovative working: An organisation's ability to innovate is highly dependent on the quality of its employees. Motivation to innovate, openness to ideas and originality while approaching problem solving are key contributing factors to promote innovative working. Organisations that actively promote and reward innovation are most effective at generating innovations. Moreover, innovative working helps employees in the current economic climate to meet the demands of an increasingly competitive marketplace (Patterson et al. 2009, 4).

Innovation funnel: A well-managed innovation process includes mechanisms to track ongoing initiatives and ensures that they are progressing according to plan. Companies typically rely on stage-gate processes to assess projects periodically and decide whether projects should go

ahead or not (Koen 2015). The stage-gate process is criticised in terms of integrated and holistic brand development, but it is inevitable in a corporation's operational management as the projects get bigger (Parkinson & Bohemia 2012).

Innovation management: Innovation management deals with the practices associated with the pursuit of innovation and their relationship with company performance. Elisa follows the innovation horizon model proposed by Baghai, Coley and White (1999), which states that the risks and management challenges involved change as a project progresses through the innovation funnel. Therefore, dividing the innovation funnel into different horizons helps in managing innovation to achieve 'problem-solution fit' in pre-horizon 3, 'product-market fit' in horizon 3, 'scaling up' in horizon 2 and mature business in horizon 1. The three horizons framework offers a way to concurrently manage both current and future opportunities for growth (McKinsey 2009).

Ambidextrous organisations: Organizational ambidexterity refers to the ability of an organization to both explore and exploit, i.e. to compete in mature technologies and markets where efficiency, control, and incremental improvement are prized and to also compete in new technologies and markets where flexibility, autonomy, and experimentation are required (O'Reilly & Tushman 2013).

Organisational culture: Organizational culture refers to the social energy that drives or fails to drive a firm. Since Elisa's intention with developing the toolkit is to enable every employee to innovate, organisational culture is viewed from that perspective. In a firm with a high degree of entrepreneurial intensity, great value is placed on viewing change and the uncertainty it often creates as the foundation for opportunities to innovate and improve an organization's performance. Thus, in an entrepreneurial culture, the company focusses on the future rather than on the past and greatly values the ability to develop and transfer knowledge (Ireland et al. 2006).

Service-dominant logic: Organizations saw value being embedded in the product, which was then delivered it to customers at the point of purchase. This was called value-in-exchange (Lusch & Vargo 2014, 23, 38). Service-dominant logic opposes this view by suggesting that value is only proposed - not provided - by an organization. Value is created together with the customer at the time the offering is experienced, known as value-in-use (Lusch & Vargo 2014, 23).

Value co-creation: A fundamental element of service-dominant logic, value co-creation suggests that multiple stakeholders are involved in creating value. This implies that value is not produced by one stakeholder alone, such as a company or an employee in the company, and

then given to the customer. Rather, value is a combination of the company's offering, the customer need, and company's resources and stakeholders that enable the realisation of value (Lusch & Vargo 2014, 57).

Service Design: According to Stickdorn & Schneider (2010) there is no common definition of service design. Therefore, it is an approach - "*an interdisciplinary approach that combines different methods and tools from various disciplines*". Moritz (2005, 39) adds that service design entails the overall design of a service experience as well as the design of the process and strategy to provide the service. Design council states that service design can be used to re-design an existing service or to develop an entirely new service (Design Council 2007a).

Lean startup: The lean startup provides a scientific approach to create and manage startups and get a desired product into customers' hands faster. This method teaches entrepreneurs how to operate a startup, how to steer, when to pivot, and when to persevere-and grow a business with maximum acceleration or then when to kill it. It is a principled approach to new product development (Ries 2011).

Design thinking: Tim Brown, CEO of the design firm Ideo states that design thinking is a human-centred approach to innovation that utilises a designer's toolkit and integrates the needs of people, the possibilities of technology, and the requirements for business success. Design thinking utilizes elements from the designer's toolkit such as empathy and prototyping to arrive at innovative solutions. This approach helps in making decisions that are based on what future customers really want instead of relying singularly on historical data or making risky bets based on instinct instead of proof (Ideo 2017).

Startup: Reis (2011) defines startup as "*a human institution designed to create new products and services under conditions of extreme uncertainty*".

Minimum viable product (MVP): An MVP is the version of a product or service that is being developed, which enables a full turn of the build-measure-learn loop with a minimum amount of effort and the least amount of development time. In order to test fundamental business hypotheses, Ries (2011) recommends testing new versions of MVPs throughout product development.

2 Corporate entrepreneurship

This chapter provides a theoretical base for the second research question - What should the governance model of the DIY toolkit entail, so that it facilitates the management of dispersed corporate entrepreneurship in Elisa? Following the introduction to Elisa and its innovation goals in the previous chapter, this research adopts the view of the strategic theory of innovation to bring new service innovations to market in the company. The theory is well aligned to be applied to service firms or to those companies in the lookout for service innovations, because the strategic innovation theory appropriately explains service innovations (Rubalcaba et al. 2015, 701). Within this theory, what service innovation encompasses is explored. The strategic theory of innovation is very valuable in a corporate environment. Therefore, a section of the chapter is devoted to understanding corporate entrepreneurship/ intrapreneurship and its management.

2.1 Connecting corporate innovation and economic cycles

Innovation has long been embraced by organizations that want to remain competitive in a dynamic business environment. A company that simply produces the same products and services in the same ways over time cannot remain viable. In order to understand why innovation needs to take place and how it has been taking place, a brief historical discourse would be beneficial.

Long form economic literature states that modern economies move in cycles of boom and slump that last for approximately 40-60 years (Tylecote 2001). In economic literature, these long economic cycles are known as Kondratieff waves (Duijn 1983). Previous research and a number of economic indicators indicate that since the economic crisis of 2008, we are now living through the last stages of the 5th wave and are about to enter the 6th wave (Wilenius & Kurki 2012). This can be observed from figure 5. The economic theory suggests that each wave is defined by a set of practices and technologies that are unique to the wave. Historically, it has been observed that the transition period between two Kondratieff waves facilitates the entry of new types of innovations in the market, thus creating the new socio-technical landscape for the next Kondratieff wave (ibid).

Radical innovations come about in cycles as well, and this regular discontinuity in innovation is what contributes to the explanation of ups and downs in long Kondratieff waves (Kleinknecht et al. 1992). While many economists disagree with long form economics because there is no fixed explanation on the occurrence of the long waves, their correlation with investment and innovation are important in the context of this thesis.

Sundbo (1999) connects innovation to the Kondratieff waves and argues that economic activity is linked to paradigm shifts in innovation. He states that innovation is essential for these waves because extensive innovation activity occurs in the recovery phase, helping to propel the economy into the next period of prosperity (Love 2001, 137). Additionally, the theory is still relevant because of the visually apparent regularity in economic time series (Wilenius & Kurki 2012).

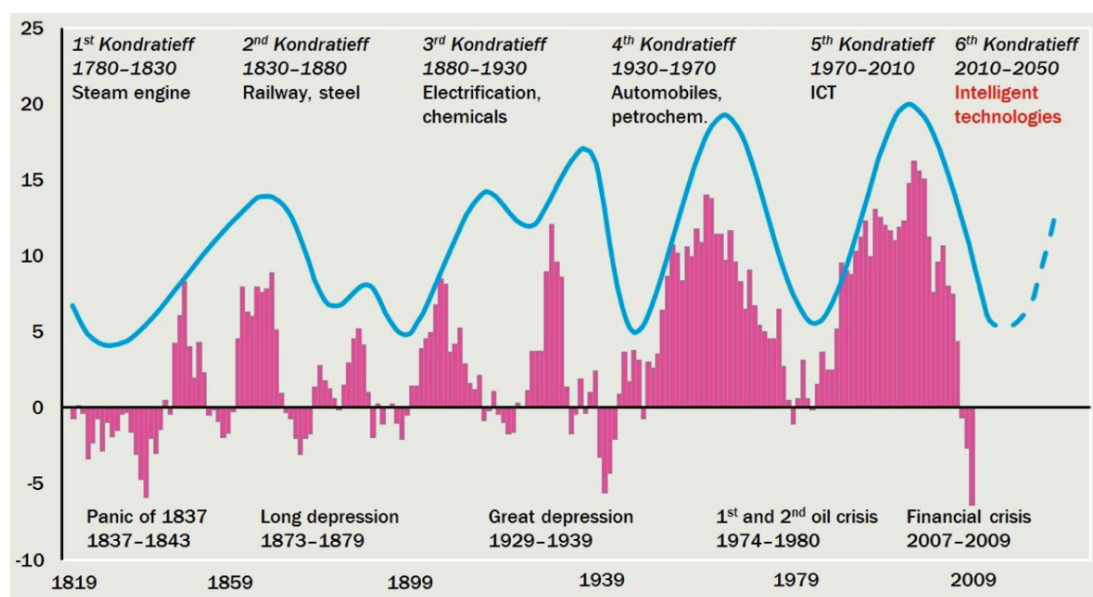


Figure 5: Kondratieff waves showing that modern economies fluctuate in a cycle of 40-60 years (Source: Wilenius & Kurki 2012, 9)

Since the nineteenth century there have been three main theories of innovation: the entrepreneur, the technology-economic, and the strategic. Each of these theories can be linked to a respective stage in the third, fourth and fifth Kondratieff wave. Paradigm shifts occur at key stages in these waves. As mentioned previously, the emerging 6th wave calls for intelligent use of resources. Table 1 shows the innovation theories used during different Kondratieff-waves. The innovation theories created for every wave is also seen in Elisa's innovation history, as explored in the previous chapter.

Kondratieff wave	Years	Innovation theory
Third wave	1880-1930	The entrepreneur
Fourth wave	1930-1970	Technology-economics
Fifth wave	1970-2010	Strategic
Sixth wave	2010-2050	No theory formulated as yet, but focus on experimentation, taking risks, embracing failure

		and continuous learning (Wilenius 2014).
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Table 1: Table showcasing the innovation theories predominantly used in different Kondratieff waves (Source: Adapted from Wilenius & Kurki 2012)

The first theory is about the entrepreneur, which is connected to Joseph Schumpeter and to the French sociologist Gabriel Tarde (Sundbo 1999). This theory states that innovation is the outcome from the activity of a single individual rather than a collection of individuals or an organization. As the inception of the 4th Kondratieff in late 1930s, a paradigm shift occurred in economic and sociological literature on innovation, which emphasised on technology as the driving force for economic development. This implied that technological developments were the primary reasons of growth and largely ignored the role of markets in innovation. This can be seen even in Elisa's innovation history, as mentioned in the previous chapter. Sundbo (1999) argues that this paradigm faced a crisis in the 1980s as technology-based innovation failed to deliver a growth wave. This called for a new innovation theory.

Simultaneously, with the rise of the service sector, none of these classic theories have adequately explained service innovation. During this period, a theory from marketing emphasised that a company's strategy was the core business determinant, implying that innovations should be largely market-driven and should be formulated to fit the strategy. This was done to have adequate control over innovations (Sundbo 1997, 436). Therefore, the attention is shifting to "*organizational, market-related and strategic innovations*", leading to the development of a new strategic theory of innovation, which might become the accepted paradigm for the fifth Kondratieff wave (Love 2001, 137). The theory is particularly applicable to service firms or companies pursuing service innovations because the strategic innovation theory framework appropriately explains service innovations (Rubalcaba et al. 2015, 701).

However, with the incoming onset of the 6th Kondratieff wave, there is a need for adopting the theory from the 5th wave, while identifying new factors that would help companies grow through the 6th wave and come up with new innovations. Wilenius (2012) has stated in his blog that - "*this sharing culture, supported by the freedom to fully express yourself, is ultimately what has made silicon valley so unique. And it is exactly the kind of sphere we need to nourish here in Finland, where the fruits of human creativity are often suffocated by envy and excessive control.*" Wilenius and Kurki (2012, 115) suggest that the 6th wave needs a culture of experimentation, which calls for testing and probing, accepting failure and enabling continuous learning. Wilenius (2014) and Kilpi (2017) also hypothesise that the success or failure of an organisation is predominantly determined by internal rather than external factors, making this a leadership issue.

Therefore, it is appropriate to follow the strategic innovation theory from the perspective of Elisa's strategy of creating digital services. Additionally, the suggestion that rapid experimentation conducted by employees is the way of working in the 6th wave aligns very well with the idea of designing a DIY toolkit for employees in Elisa. It might suffice to say that Elisa is getting ready to ride the 6th wave and will build its employees' capabilities to handle uncertainty through the toolkit, in order to bring about the next level of innovations.

2.2 Corporate entrepreneurship

Strategic innovation theory states that a steady stream of incremental innovations emerge from a service firm's employees, often as a result of their customer encounters, or are initiated by the top management team (Rubalcaba et al. 2015, 701). Top managers of a company control the innovation process, but ideas for innovations come from all parts of the organisation and from the external network of a company. Moreover, service innovations are rapidly implemented and copied, making the ability to have a continual innovation process crucial. Therefore, a combination of top-down top management driven efforts and bottom-up employee driven efforts can result in innovations (Sundbo 1997, 235).

Employees and managers develop ideas and attempt to promote them as bottom-up efforts; top innovation management would subsequently balance these efforts through innovation management processes (Sundbo, 1996). Employees' resources, i.e. ideas, creativity, competence and problem-solving abilities are the driving forces behind innovations (Saari et al. 2015, 6). The management team uses its strategy to achieve this balance and decide which ideas to promote. Through the continuous evaluation of the strategy, assessments of implemented innovations and market developments are made (Rubalcaba et al. 2015, 701).

User or customer-based innovation has received significant emphasis in service innovations (e.g. through service dominant logic). However, when customers participate as co-producers, they might find it difficult to offer ideas for innovations. Therefore, employees play a significant role in the innovation process, because they gain knowledge about customers' lives and problems (whether consumers or corporates), such that they interpret the need situation accurately and then develop ideas for new services accordingly (ibid). Consequently, every employee needs to develop skills in empathy in order to identify customer problems and offer solutions. This interplay between customers, employees and corporate management is shown in figure 6.

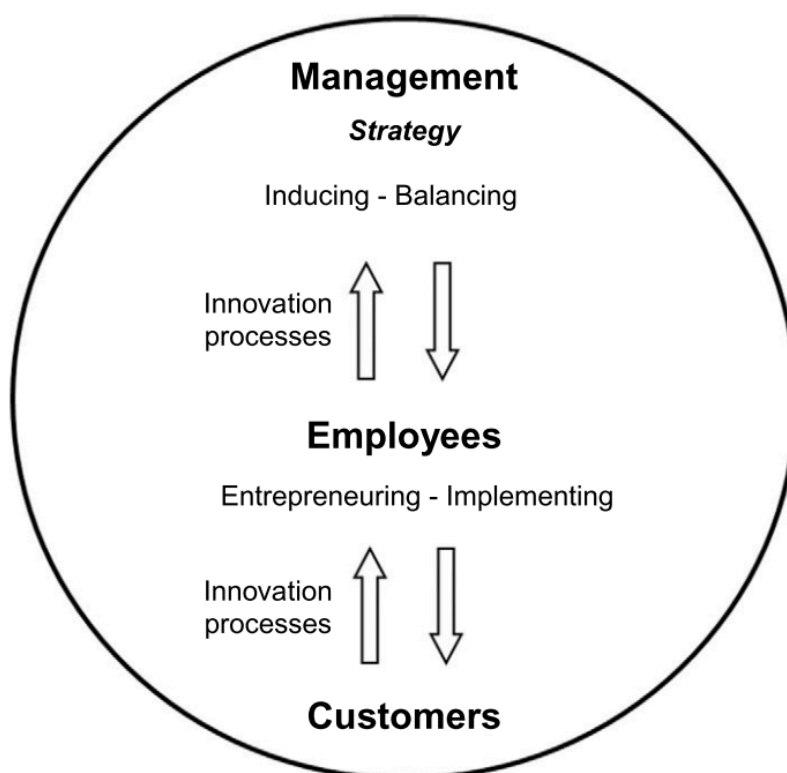


Figure 6: Strategic innovation process where employees generate innovations
(Source: Rubalcaba et al. 2015, 701)

However, the difficulty with this innovation theory is the one stated by Gadrey, Gallouj & Weinstein (1995): they state that the common lines of innovation studies, which have created distinctions between product innovations and process innovations or contrasted radical innovations with incremental innovations, do not help in understanding the content and driving forces of innovation in services.

For example, Tidd, Bessant & Pavitt (2005, 12) use the term 'incremental innovation' to describe the solutions which are new to a company; correspondingly 'a radical innovation' in their terminology alludes to solutions which are 'new to the world'. Even though 'newness' is relative, 'new to a firm' innovation must be used carefully because it leads to the incorrect conclusion that laggard companies make innovations when they adopt well-known practices. Thus, the degree of newness or radicalness of an innovation should be analysed in a broader context - e.g. in a geographical or sectoral context. The idea that a really radical innovation means usually 'new to the world' is reasonable, whereas incremental innovations could be characterised as 'new to a region or a nation' or 'new to a sector' (Toivonen & Tuominen 2009, 11-15).

Building on the understanding of radicalness and newness in innovation, the definition of service innovation that will be employed for the toolkit is the one given by Nesta - *“change associated with the creation and adaptation of ideas that are new-to-world, new to nation/ region, new-to-industry or new-to-firm”* (Patterson *et al.* 2009, 12). This definition includes both radical innovations (new to the world) as well as disruptive innovations (new business model, new to the industry).

Melton & Hartline (2015, 114) suggest that close interactions between customers and employees can help create ‘new-to-the-world’ innovations, and Ordanini and Parasuraman (2011) have found that greater collaboration with customers leads to greater volume of innovations. Therefore, such interactions should be well-accepted within the process of service innovation in the toolkit.

Typology of corporate entrepreneurship

Corporate entrepreneurs face the challenging task of recognizing opportunities and developing new businesses within existing organizations. Established firms find it difficult to recognize new business opportunities and when they do spot them, they have a difficult time obtaining the resources and approval to initiate a venture to develop the opportunities. A vice-president in Elisa who has previously served as an intrapreneur stated that *“everyone in the company is trying to kill your idea. You always need to be well-prepared and should be able to manoeuvre depending on the internal situation in the company”*.

March (1991) captured the opposite forms of searching for new possibilities and building on old certainties as exploration and exploitation respectively. He argued that exploitation in organizations is related to refining and extending existing competences, while exploration is related to experimentation with new alternatives, where the returns are very uncertain. Therefore, the fundamental challenge that corporations face is in the management of conflicts that arise between the old and the new and to overcome the tensions created by them.

In the last two decades there has been an increase in the number of studies examining ways to mix exploration and exploitation, ranging from 'bringing silicon valley inside' (Hamel 1999) to creating an entrepreneurial mind-set to internal corporate venturing and corporate venture funds. Entrepreneurship can be situated within a company through entrepreneurial initiatives and internal ventures or then outside the boundaries of the company, e.g. corporate venture capital funds (Elfring *et al.* 2005).

However, the crux of the matter is how entrepreneurship might result in different ways to address the exploitation/exploration challenge. This is where dispersed and focussed corporate entrepreneurship need to be understood and explored further. The former relates with realization of corporate entrepreneurship at various locations within the boundaries of a company, while the latter refers to the separation of corporate entrepreneurial activities in special separated units, such as specialised business development units (ibid).

Dispersed entrepreneurship is an approach of generating innovations where the assumption is that every employee has the capacity for both managerial and entrepreneurial behaviour (Birkenshaw 1997). Dispersed entrepreneurship is of relevance to this thesis because the toolkit deals with every employee being able to innovate, as compared to innovation being handled in a separate unit.

2.3 Managing dispersed corporate entrepreneurship

Companies pursuing innovation can buy, build, partner or use open innovation. However, trying to find a theory of innovation that allows established companies to balance their exploitation activities along with exploration with the speed and urgency of startups has been difficult (Blank 2013). This is due to two reasons: 1) difficulty in managing internal innovation and, 2) difficulty in mapping the stage of an innovation in the innovation funnel. These challenges have been faced by Elisa as well.

To solve these challenges, a company can use two corporate strategy tools currently - the concept of ambidextrous organisations by O'Reilly and Tushman (2013) and the 'three horizons of innovation' model by Baghai, Coley and White (1999).

2.3.1 Ambidextrous organisations

In practice, the organisation and management of the innovation process is complex and chaotic. From the managers' perspective, the overflow of ideas and solutions from employees might threaten the order of the existing system. This implies that a dispersed innovation process would meet internal organizational barriers such as conflicts, resistance, and an inability to perform multiple tasks, e.g. if employees have to perform their normal duties while also innovating. These barriers can slow or sometimes stop the innovation process, especially if management fails to take decisions at the right time (Rubalcaba et al. 2015, 702).

This is where organisational ambidexterity can play a role. Organizational ambidexterity refers to the ability of an organization to explore and exploit simultaneously, i.e. to compete in

mature technologies and markets where efficiency, control, and incremental improvement are valued and to also compete in new technologies and markets where flexibility, autonomy, and experimentation are required. Ambidexterity is an important capability because it directly correlates with growth in sales in a company.

O'Reilly & Tushman (2013) state that organisational ambidexterity can be achieved in 3 ways: sequential, simultaneous/ structural and contextual. For the toolkit's governance model, contextual ambidexterity will be utilised, where an individual's behavioural capacity exists to simultaneously exploit and explore across the entire business unit. This requires a supportive organizational context that encourages employees to make their own judgments about dividing their working time between the conflicting demands for exploration and exploitation.

However, contextual ambidexterity does not consider how a company can conduct radical forms of exploration and exploitation simultaneously (O'Reilly & Tushman 2013, 11). Therefore, four factors that can significantly help in creating an internal environment that supports dispersed corporate entrepreneurship in an organisation are explored further. These factors are - innovation culture, structure, controls and incentives.

Innovation culture: Intrapreneurship has helped to improve organizational performance by increasing the opportunities for success when facing more complex and competitive scenarios (Åmo & Kolvereid 2005). Intrapreneurs are concerned about creating new business and are therefore in a constant lookout for new business opportunities. However, Politis (2005) argues that intrapreneurs need to have the cognitive skills required to value these opportunities and the ability to successfully deal with them. Thus, learning plays a crucial role in the process of corporate entrepreneurship.

Individual learning and intrapreneurship combine to create a culture and process of organizational learning. Intrapreneurs can help companies increase performance and renew organizational structures and strategies to adapt better to environmental demands through this (Molina & Callahan 2009, 390).

As individuals continue to learn and discover, evaluate, and exploit opportunities for their companies, these regularised and repeated processes become institutionalized (Crossan et al. 1999). This creates a positive feedback loop - the culture of organizational learning that promotes continuous learning leads to new learning processes that are aligned with changing organizational needs. For e.g., intrapreneurs may work as mentors for a group of employees in order to offer guidance in decision-making by simulating the value of risk associated with business opportunities.

The organizational systems and processes that enable this individual adjustment are never concretely specified, apart from how they promote discipline and trust. Strategic reflexivity offers some guidance here. Firstly, managers could join and empower employee-driven efforts by allocating new resources and formalising them. This could be done by offering chances for education, allowing employees to visit other companies or even travel abroad to learn new ideas. Secondly, managers could facilitate the development processes by finding resources for experiments and allocating time to improving services or planning new ones (Saari et al. 2015). It has been observed that this culture of flexibility promotes creativity while the controls help with execution.

It has also been observed that middle management is significantly important in fostering communication about a company's mission, goals, and priorities. This is because middle managers interact with diverse employees directly, which allows them to utilise formal as well as informal approaches to encourage innovation and calculated risk-taking. Middle managers also communicate their ideas for innovations to upper management, allowing these ideas to be evaluated and considered within the context of a company's strategic choices (Hornsby et al. 2002, 254).

Structure: It has been observed that corporate entrepreneurship flourishes when a company's organisational structure has relatively few layers. This is because restricted number of layers' results in more control, which in turn allows employees to act entrepreneurially. Lesser hierarchy, authority and responsibility encourage more interactions among employees. These structural characteristics enable ideas to surface and foster unique and creative managerial styles. This form of decentralized authority and responsibility also increases the frequency and effectiveness of communication amongst employees throughout the organization. This allows knowledge sharing in ways that can promote innovation, risk taking, and proactive behaviour (Ireland et al. 2006).

Incentivising innovation: Intrapreneurs build valuable social capital when they use inclusive and supportive processes to innovate. Therefore, their reward systems should emphasize financial gains as well as formal recognition for their achievements.

Controls: Organizational controls are valuable because they can simultaneously provide the stability that companies need to exploit current competitive advantages and the flexibility needed for employees to behave entrepreneurially to help the company succeed as it innovates. Budgetary flexibility and slack resources can be built into the company's control system, thereby facilitating experimentation. Additionally, strategic controls that are primarily concerned with verifying that a company is doing the right thing, are emphasized over finan-

cial controls that are primarily concerned with verifying that a company is doing things correctly. Placing emphasis over strategic controls encourages employees to accept risk that is associated with effective entrepreneurial behaviour (Ireland, Kuratko & Morris 2006).

The toolkit's governance model will adopt the factors mentioned above that can enable organisational ambidexterity. The toolkit will be an example of a company putting trust and discipline in their employees by giving them an opportunity to learn new skills and educate themselves. While the intent of the toolkit is to come up with new service business ideas, it is not far-fetched to assume that even though a new business might not be created by going through the process, the intrapreneurs definitely might learn new skills, which upon repeated usage could result in innovation. The toolkit's governance model could allocate specific amount of time and funding to experiment on early stage ideas, thereby working separately than the day-to-day management of everyday tasks for employees. The toolkit's governance model could also include the middle management in transferring strategic knowledge to employees and transferring bottom-up innovations to the top management.

2.3.2 Three horizons of growth model

Imagine a company that has sustained profitable growth for many decades. Its core businesses are operating as fully developed profit generators, and there are younger businesses in the innovation funnel that are showing substantial growth in revenue and perhaps also profits. Further back in the funnel are businesses in an earlier stage of formation. These young ideas are a bit more advanced than explorations of promising ideas. Therefore, the funnel contains emerging and future businesses that supplement and build on the company's existing core businesses.

However, sustaining such a funnel is difficult for most companies and Elisa is no exception. The problem is that most managers are occupied with their existing businesses. They have to learn to focus their attention on two aspects of business: 1) focus on where they are heading and 2) focus on where they are today. Therefore, breaking down the business creation cycle into a staged funnel is useful for the company to distinguish between embryonic, emergent and mature businesses, and also identify where they are located in the funnel. These stages are referred to as the three horizons of growth, as shown in figure 8.

Baghai, Coley & White (1999) state that every horizon requires different focus, management, tools and goals simply because they tackle different stages of a business lifecycle. According to the model, horizon 3 (H3) represents an emerging business that is finding product-market

fit; a horizon 2 (H2) business has found product market fit and is ready to scale and is generating revenue and possibly some profit; and horizon 1 (H1) business is a mature profitable business.

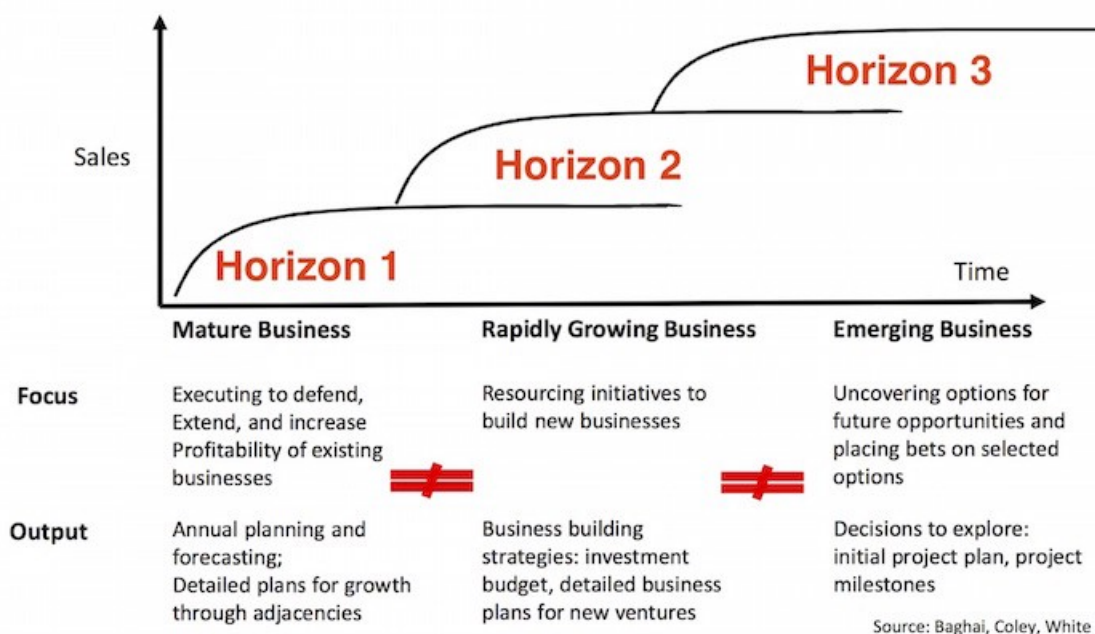


Figure 7: The three horizons of growth model (Source: Baghai et al. 1999)

H3 can effectively be run with lean startup approach to deliver the ambidextrous organisation. Elisa has divided H3 into two parts: H3 and pre-horizon 3 (pre-H3). Pre-H3 ideas are very sketchy and their focus is on identifying and validating the exact customer problem and the output is a hypothetical business model. H3 businesses focus on identifying the features of the MVP for a given market with the output garnered towards finding product-market fit and a validated business model. Both pre-H3 and H3 can be run in accordance with the lean startup approach to deliver an ambidextrous organisation.

Pre-H3 phase requires many human centred design methods and tools to empathically understand the customer, and also needs lean startup to manage the experiments and build continuity into the H3 phase. There is another stage before Pre-H3, known as domain discovery, where customer problems are identified in strategic domains identified by the company. There is a well-defined process in Elisa for domain discovery. However, there is no process that connects domain discovery with H3. Therefore, the toolkit and its governance model have been designed for the Pre-H3 stage. All the horizons in Elisa can be seen in figure 9. There is also H1 in Elisa, which represents mature business. However, H1 is not part of this innovation funnel because mature businesses do not face the same challenges as startups do. Therefore, they are managed differently.

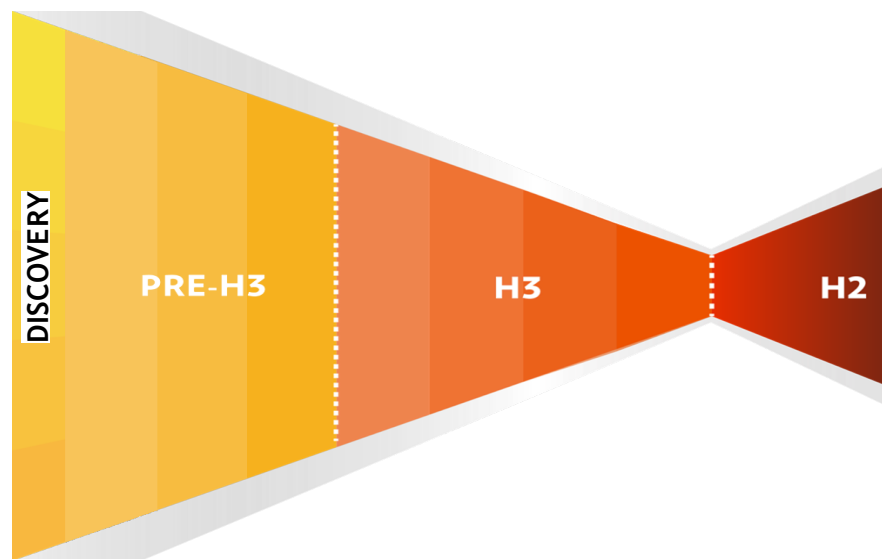


Figure 8: Horizons and innovation funnel in Elisa

Using the principles from organisational ambidexterity and the three horizons of growth model, the toolkit's governance model will be designed, and their details are mentioned in chapter 5.

2.4 Summary

The chapter began by linking corporate innovation with economic cycles/ waves and established that currently businesses are approaching the 6th Kondratieff wave (Wilenius & Kurki 2012). The model of corporate innovation that would help companies remain competitive in this wave is a combination of strategic innovation theory and employee-led entrepreneurship, referred to as corporate entrepreneurship. In order to manage corporate entrepreneurship, the models of ambidexterous organisations (O'Reilly & Tushman 2013) and 3 horizons of growth (Baghai et al. 1999) were introduced. Both the models provide theoretical knowledge base as well as practical advice for supporting the governance model of the toolkit. The components of the models used for designing the governance model have been presented in more detail in the 5th chapter. A visual summary of the theoretical framework is presented in table 2.

3 Service dominant logic

This chapter provides a theoretical framework for the first research question - How to design the content for a DIY toolkit that enables corporate entrepreneurs in Elisa to validate if their ideas can result in new service businesses? The development project requires the creation of a toolkit that would help employees come up with service innovations. However, service innovation is poorly understood because even though economies are increasingly dependent on services, the innovation processes are oriented towards products (Thomke 2003).

Maglio & Spohrer (2008) suggest that the basis for systematic service innovation lies in service science. In order to understand service science, one must first understand what constitutes a service. Service denotes the application of competences for the benefit of another and thus depends on co-creation of value. Contrary to how services were offered before global trade and technology networks came into existence, today services are much more dependent on customer participation in a myriad of ways. Therefore, service systems are value co-creation configurations comprising of people, technology, value propositions and shared information such as laws and measures. Service science is the study of such service systems and service dominant logic (SDL) provides the philosophical foundation for service science (Maglio & Spohrer 2008, 19).

Service system is interdisciplinary, and accumulates knowledge from several disciplines that focus on a specific aspect of the system. However, integration across such a broad range of disciplines calls for the creation of a shared perspective and a shared vocabulary. This is also the case with the toolkit, whose design includes perspectives from organisation theory, innovation management, human centred design, etc. This shared perspective and vocabulary is offered by service dominant logic (ibid). Therefore, SDL is an appropriate theory from the perspective of the development project.

The toolkit and its governance model utilise SDL to create new service innovations. Therefore, service innovation relates to the creation and development of value propositions that enable mutual co-creation of value after being approved by customers (Skålén *et al.* 2014, 10). Lusch and Vargo (2008) present ten foundational premises (FP), upon which SDL is built. Over the years, the foundational principles have been modified for several reasons, e.g. when the language of the FPs needed clarification or when new perspectives were offered.

Foundational premises have been presented instead of axioms because of FP4, which has been updated to “*operant resources are the fundamental source of strategic benefit*” and is not yet an axiom (Vargo & Lusch 2016). This FP is especially important for the thesis because

the development project assumes that employees, who are the operand resources of the company can help create strategic benefit for the company by using a toolkit and by managing it through the governance model.

FP1: “Service is the fundamental basis of exchange”

Lusch and Vargo (2014, 14) state that service is “*The application of operand resources (knowledge and skill) for the benefit of another actor*”. Therefore, in SDL knowledge and skills are exchanged versus goods, where the exchange offers value.

FP2: “Indirect exchange masks the fundamental basis of exchange”

This FP states that since service is provided through a complex combination of goods, institutions and money, the basis of exchange in a service is not always apparent (Vargo & Lusch 2008, 6).

FP3: “Goods are distribution mechanisms for service provision”

This FP states that as humans have become more specialized as a species, they use of goods to achieve higher-order benefits, such as satisfaction, self-fulfilment, and esteem has increased. Therefore, goods act as distribution mechanisms for services, providing satisfaction for higher order needs (Vargo & Lusch 2004, 8).

FP4: “Operand resources are the fundamental source of strategic benefit”

This FP focusses on the notion of competitive advantage, because markets involve companies competing with other companies and seeking ways to gain strategic benefit (Vargo & Lusch 2016). When actors such as employees innovate, and discover novel ways of integrating existing resources with new resources, they are able to create new markets or expand existing markets. However, Vargo and Lusch (2014) state that even growing operand resources will not be a source of sustainable strategic advantage, if it doesn’t help employees solve tomorrow’s problems or doing tomorrow’s jobs. Therefore, real strategic advantage comes not from beating today’s competition, but by fostering and developing the knowledge base of employees to face the business challenges of the future. Therefore, providing a toolkit to employees to recombine resources in novel ways, especially as a way that they can learn new skills and remain competitive can offer an opportunity towards gaining strategic advantage.

FP5: “All economies are service economies”

This FP reflects on the process of using one’s own resources for the benefit for another entity. Therefore, all exchange is done through the means of a service, making all economies as service economies (Vargo & Lusch 2008, 7).

FP6: “Value is co-created by multiple actors, always including the beneficiary”

FP6 primarily deals with the multi-actor nature of the process of value creation and its realization. Therefore, value is typically being created or anticipated for multiple actors, including not only those involved in the exchange, but also many others (Vargo & Lusch 2016, 8).

FP7: “Actors cannot deliver value but can participate in the creation and offering of value propositions”

This FP states that value cannot be delivered, and that the acceptance of value propositions by potentially beneficial actors can be achieved by resources provided through direct interaction and through goods (Vargo & Lusch 2016, 10)

FP8: “A service-centred view is inherently beneficiary oriented and relational”

This FP indicates that due to the actor to actor orientation, ‘beneficiary’ is not restricted to consumers or customers, but include all the recipients of a service. Additionally, since value is co-created, it is represented by the reciprocity of exchange, making it relational (Vargo & Lusch 2016, 10).

FP9: “All social and economic actors are resource integrators”

This FP states that economic and social actors are the resource integrators that motivate and constitute exchange (Vargo & Lusch 2008, 9).

FP10: “Value is always uniquely and phenomenologically determined by the beneficiary”

Individuals experience value in unique ways. This experience changes day to day because it is influenced by the unique and evolving context in which a service takes place. This calls for understanding the user and the context of usage, which should be addressed in the development project.

FP11: “Value co-creation is co-ordinated through actor-generated institutions and institutional arrangements”

SDL utilises the knowledge and skills of operant resources to create new resources, implying that markets are envisioned and created through institutionalization. This institutional orientation combined with the resource-generating and value co-creating framework of SDL can move SDL closer to strategic and tactical application (Vargo & Lusch 2016). This FP provides a rationale for using SDL in creating the toolkit, and designing it so that it allows Elisa’s employees to learn new skills in order to utilise them in new combinations in the future.

3.1 New service development

As mentioned in the previous section, two of SDL's foundational premises— FP8: “*A service-centred view is inherently customer oriented and relational*” and FP4: “*Operant resources (knowledge and knowledge renewal) are the fundamental source of competitive advantage*” imply that a company should be customer-oriented as well as learning-oriented simultaneously (Vargo and Lusch 2004). Therefore, combining customer orientation and innovative orientation (utilisation of new knowledge) might lead to the generation of operant resources that are capable of enhancing co-creation opportunities in the company (Ordanini & Parasuraman 2011).

Customer and learning orientation in new service development (NSD)

As customers interact with personnel, service and its supporting systems, there is a need to develop close and trusting relationships to increase the customers' perceived value. Such relationships are fostered by market orientation, which entails learning about customer needs, the influence of technology, competition, and other environmental forces, and then acting on that knowledge in order to become and then sustain competitiveness (Matthing et al. 2004).

Currently, market orientation is viewed as an organizational learning capability, where Day (1994) states that organizations continuously learn about their markets through the linked processes of market sensing and sense-making. Market sensing related to collecting data while sense-making is about analysing that data. Therefore, market sensing includes the collection and distribution of information about the needs, expectations, and requirements of customers, while sense-making includes the interpretation and utilization of the collected information. Further learning is achieved when the outcomes are evaluated. The overall learning process generates a context for market information, and converts it into knowledge about the customer.

This kind of organizational learning is valuable for a company and its customers because it can help the understanding and satisfying of customers expressed and latent needs and then offer support through new products, services, and ways of doing business. If a company can look at its environment beyond the assumptions that it is familiar with, it might be able to discover new directions and new possibilities, and thus create new innovative services (Matthing et al. 2004).

While research bolsters the importance of market-oriented innovation, there is little research about its operationalisation and implementation. Traditional market research techniques

have been criticised for their inability to offer information about customers' latent needs because customers cannot express such needs. Even though new approaches and techniques are evolving to identify customers' latent needs in order to foster organizational innovativeness, most companies still focus on satisfying the needs expressed by the customers with the belief that it creates faster sources of revenue. Therefore, there is a need to observe the customer more closely in the customer's own environment, and to involve them more in the development process of a service (ibid).

Involving the customer in NSD

Customer involvement is suggested to result in important benefits such as reduced cycle times, superior services, and user education. However, how companies achieve these benefits is not sufficiently known. While significant research has been done on customer involvement in new product development, there are comparatively few empirical studies that are related to customer involvement in new service development. This might be the case because new service development is interdisciplinary and involves organisation theory, innovation management, human computer interaction, marketing, design theory, etc. Keeping the above in mind, Matthing, Sanden & Edvardsson (2004, 487) define service innovation as *“those processes, deeds and interactions where a service provider collaborates with current (or potential) customers at the program and/or project level of service development, to anticipate customers' latent needs and develop new services accordingly.”*

New service development process

Understanding the process of service innovation is important to design the content of the toolkit, so that Elisa employees can come up with new service innovations. The primary focus of SDL is to describe how value is created, who creates it and where is it created in the process. However, since SDL is a theory, it provides few guidelines on concrete development and implementation of a service. Therefore, it has been difficult to fully integrate this holistic view of service in service-providing companies (Wetter Edman 2009, 9).

Well-tested and scientific process exist for new product development (Thomke 2003), and in the last few years, there has been significant progress in understanding the process of new service development (Papastathopoulou & Hultink 2012). Nijssen et al. (2006) suggest that there are similarities between companies practicing successful new product development (NPD) and new service development (NSD), such as strong commitment to innovation, well-structured innovation efforts (formalised and pro-active), allocation of substantial resources

for such efforts, high top management involvement, and alignment of culture and systems with innovation processes.

However, the differences between NPD and NSD processes stem from the difference in nature of services. Several scholars including Lovelock & Wirtz (2011) argue that services are activities, processes and interactions where the customer plays the role of both the consumer and the producer. Moreover, since this process of customer-company interaction is intangible and often occurs at the same time as a customer experiences the service, it is difficult to obtain relevant feedback from customers in advance. Services are also tailored towards individual customers at the point of purchase, making their testing through large samples difficult (Thomke 2003). Adding to the complexity is the fact that currently, many services are interactive and technology intensive (Matthing, Sanden & Edvardsson 2004). The following section will talk about two approaches used in new service development - human centred design and lean startup, where both the approaches offer methods to develop a new service.

3.2 Human centered design for new service development

From the previous sections, it has been observed that customer orientation is an important aspect of SDL. Human centred design (HCD) builds on this by offering a framework for creating customer oriented services. Additionally, HCD is being practiced by service designers and also a few proactive business managers in Elisa, increasing its acceptance in the toolkit.

Lockwood (2010) defines HCD as a process that focusses on observation, collaboration, fast learning, visualization of ideas, prototyping, and concurrent business analysis - thereby ultimately influencing innovation and business strategy (Liedtka 2015). In ISO 9241-210, HCD is defined as an *“approach to systems design and development that aims to make interactive systems more usable by focusing on the use of the system and applying human factors/ ergonomics and usability knowledge and techniques”* (International Organization for Standardization 2010, 2). ISO 9241-210 specifically recommends six characteristics of HCD:

- Adopt multidisciplinary skills and perspectives.
- Explicitly understand users, tasks and environments.
- User-centred evaluation driven/refined design.
- Consider the entire user experience.
- Involve users throughout design and development.
- Iteration.

Krippendorff (2004, 48) states that HCD works on the premise that human understanding and behaviour go hand-in-hand. Therefore, the artefacts are inseparably linked with their perception and usage by the customers. Therefore, Krippendorff’s view implies that the centre of

any design activity is about identification of the meaning that a product, system or service should offer to people. This suggests that design activity should concentrate first and foremost on the questions of motivation (why) before proceeding to identify the means of implementation (how and what).

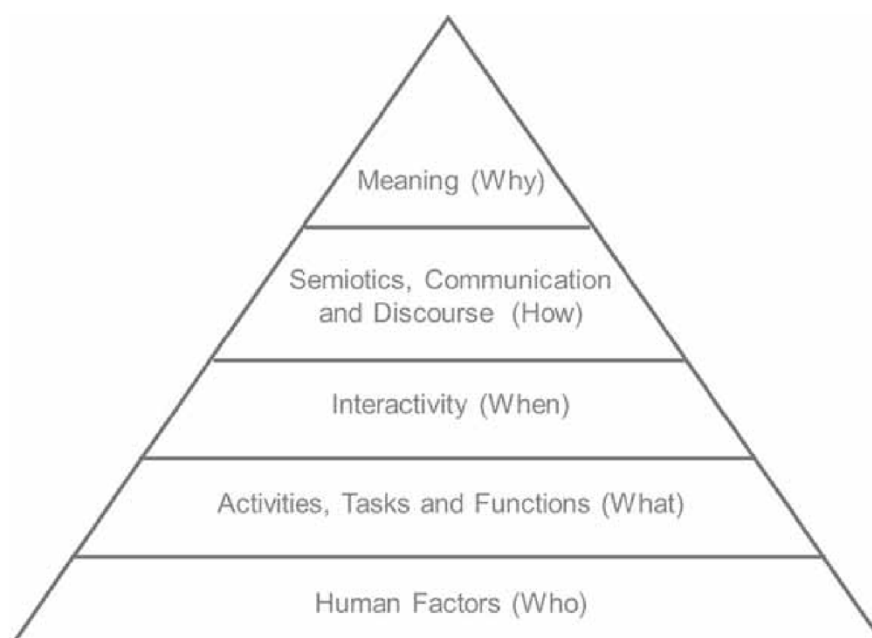


Figure 9: Human centred design pyramid (Source: Giacomini 2014, 612)

The HCD pyramid shown in figure 10 consists of a series of questions (who, what, when, how, why) and answers ranging from the physical nature (tasks, activities and functions) of people's interaction with the service to the metaphysical (meaning), with the former towards the bottom and the latter towards the top of the pyramid. The pyramid displays a hierarchy of questions and issues that start from the physical, perceptual, cognitive and interactive affordances of a service, and ends with the intrinsic meaning that the service will create or occupy for a person (Giacomini 2014).

Designs whose characteristics answer questions which are further up the pyramid and address the motivation behind the actions, would offer a possibility to embed themselves deeper in people's minds and everyday lives. Therefore, a service that provides a new meaning to a person's life or fits in very well within the existing meaning of their life has the potential for commercial success and also for brand development of the company (ibid).

Owing to the service economy, several businesses have shifted their emphasis from technology and manufacturing to services, which can be experienced by the customers. However, approximately 70% - 80% of new service development fails due to the failure in understanding users' needs'. Simultaneously, empirical evidence from failures supports the claim that HCD

improves commercial success (Giacomin 2014). Therefore, HCD approach is suitable for designing the toolkit's contents.

HCD framework

HCD functions within a framework of three intersecting constraints: technological feasibility, economically viable and desirable from a human point of view (Brown 2009). Figure 11 shows the Venn diagram representing these three intersecting constraints. It shows that HCD is a balancing act between the three constraints, which is accomplished by evaluating ideas based on their own merits and through hypothesis-driven experimentation. The process involves working with multiple alternative solutions and balancing the tensions between possibilities and constraints. This implies that the HCD framework is best suited to decision contexts in which uncertainty and ambiguity are high, e.g. internal startups (Liedtka 2015).

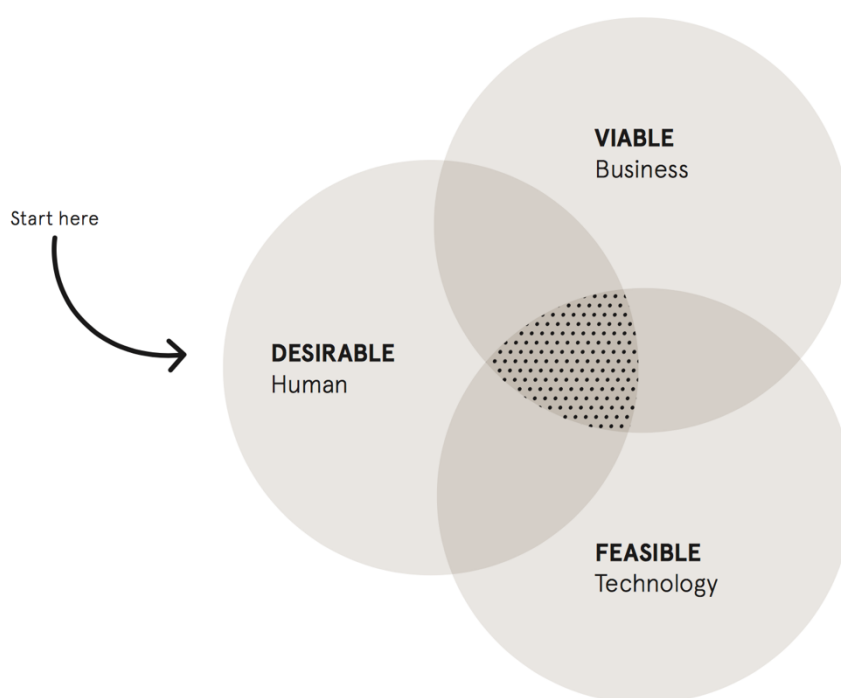


Figure 10: Human centred design framework (Source: Ideo 2014, 14)

HCD process

Innovators use HCD to move through three phases as shown in figure 12. These phases are inspiration, ideation and implementation. During *inspiration*, innovators experience a user problem or opportunity. During the *ideation* phase, they generate and test ideas to solve the

user problem or address the opportunity; and during *implementation* phase they test their idea in the market.

Inspiration includes a variety of ethnographic research techniques and frameworks, such as participant observations, interviews, jobs-to-be-done, and journey mapping to find needs. *Ideation* includes sense-making tools (e.g., mind mapping and affinity clustering) and ideation tools to support brainstorming and concept development. Prototyping and testing are utilised to support evidence based experimentation, i.e. testing assumptions and field experiments, which are a part of *testing* phase (Brown 2009).

While practicing HCD, an innovator moves through four mental states.

- **Divergent thinking:** Here, an innovator generates alternatives to the present reality and provides more choices.
- **Convergent thinking:** Here, an innovator sorts the options and decides on the most appropriate option.
- **Analysis and synthesis:** During analysis, an innovator breaks down the patterns, and during synthesis, they identify meaningful patterns when they are then reassembled.

The HCD process involves shifting back and forth among these mental states in a cyclic manner, i.e. it involves generating something new, analysing it, sifting and selecting, and then examining it in practice - and perhaps starting the entire process again to gain more clarity. Divergence is used when there is a need to explore and convergence is used when there is a need to decide, which can be seen visually in figure 12. Depending on the context of the design challenge, the HCD process might have a few more steps in between or perhaps fewer steps than then ones mentioned above. However, the logic of the process still remains the same. This has also been observed by the Design Council, UK while conducting research on the design process in other global organisations (Design Council 2007a). Details on the double diamond process are given in the next chapter, because the double diamond has been used to design the toolkit and its governance model.

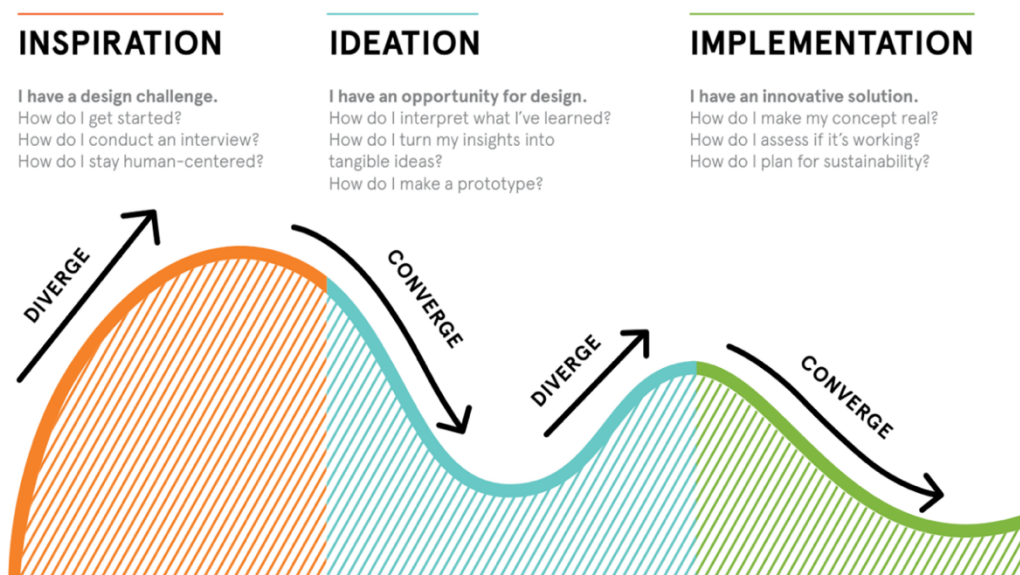


Figure 11: Human centred design process by Ideo (Source: Ideo 2014)

3.3 Lean startup for new service development

Lean principles were developed in Japan in the early seventies by Toyota, to reduce waste and optimise their manufacturing processes. Currently, lean principles have also become important for other disciplines. One example is lean startup by Eric Ries (2011), where lean startup is a set of practices to help entrepreneurs increase their odds of building a successful startup". The lean startup book has been written for entrepreneurs, and Ries (2011, 8) defines startups as *"a human institution designed to create new products and services under conditions of extreme uncertainty"*.

The idea behind lean methods is that in addition to a process for product or service development, a startup also needs a process for customer development to find customers and understand their needs, problems and aspirations. This is very similar to the HCD approach, making lean startup and HCD compatible approaches to be used together. Additionally, the aim of lean startup is to build a continuous feedback loop with customers during product development cycles (Maurya 2012), which is again similar to the HCD approach.

Lean startup tries to test the core business assumptions early in the product development process by using the build-measure-learn loop shown in figure 13. It rejects pure business analysis and long-term planning in favour of generating data to minimize uncertainty through learning. This stems from the fact that it is impossible to anticipate all the challenges a

startup might face at the inception of the startup. Therefore, careful business planning is replaced in favour of rapid experimentation and learning (ibid).

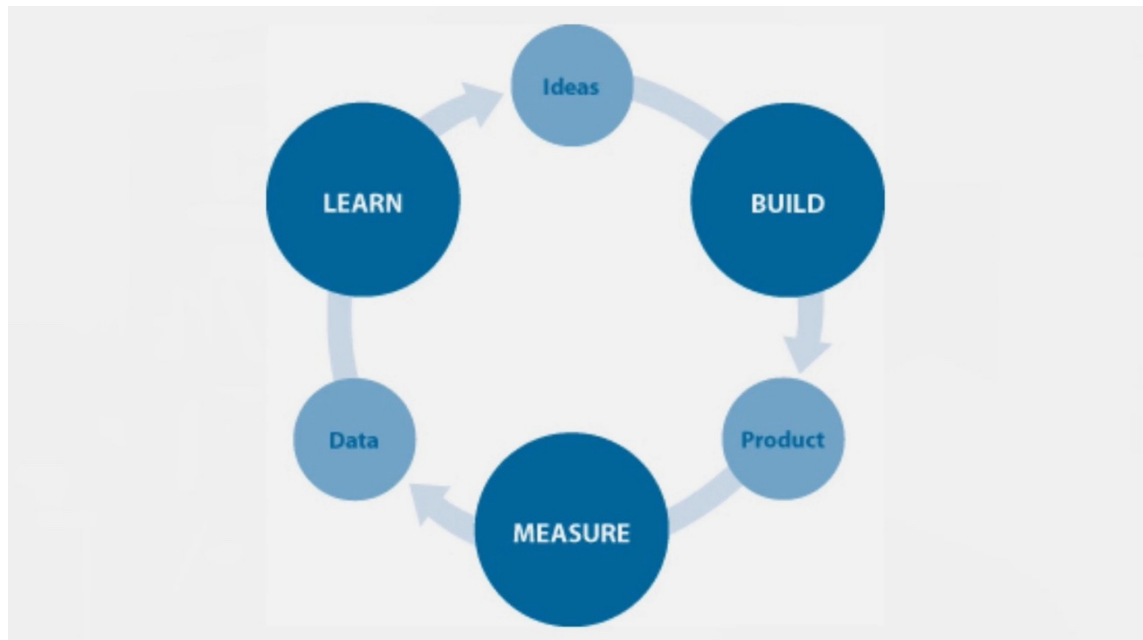


Figure 12: Lean startup's build-measure-learn loop (Source: Ries 2011)

Lean startup has six principles, which are as follows:

- **Validated learning:** It is an empirical method of measuring progress regarding the present and future business prospects of an idea. It typically starts with a hypothesis and then quickly transitions to an experiment. As an example, a common experiment involves building two versions of a prototype and then conducting A/B testing to produce empirical results on them. According to the lean startup book, entrepreneurs are advised to seek experimental results instead of accepting information from invalidated opinions in the form of estimates, projections and forecasts. This is needed to shift from opinion-based decision making to evidence-based decision making.
- **Build-measure-learn feedback loop:** The loop visually represents Ries's (2011) process that produces validated learnings. The entire loop includes ideas (preceding build), product (preceding measure) and data (preceding learning).
- **Minimum viable product:** It is a version of a product or service during its development that enables a full turn of the build-measure-learn loop with a minimum amount of effort and the least amount of development time. It is not about saving development costs as much as it is about not wasting development costs unnecessarily. To test fundamental business hypotheses, Ries (2011) recommends to test new versions of minimum viable products throughout product development.
- **Innovation accounting:** This is an approach in lean startup that uses the concepts of

MVP, tuning and pivot, persevere or kill decisions to test the assumptions in the business model. It is used to determine if a product is becoming more valuable to customers. If testing the MVP doesn't improve the outcomes for customers, entrepreneurs must empirically measure and communicate the real progress of innovation (Frederiksen & Brem 2017), especially if they are internal startups in an established company.

- Pivot and persevere: It is a strategic decision that is made using actionable, accessible and auditable metrics after completing a build-measure-learn loop. This helps to repurpose or continue the current vision to align the business and product/ service efforts.
- Continuous deployment: This is a systematic approach that combines the lean concept of small batch sizes with automated test to detect problems and return the production system to the previous state. Continuous deployment is suitable for environments such as software development where iteration can be done quickly (ibid).

Previously, internal startups in Elisa have failed for the same reason as other startups - not understanding the customer problem that they are trying to solve, consequently focussing in the wrong direction (Giardino et al. 2014), while sending millions on the wrong solution. This is where lean startup approach can play a role in Elisa, because it aims to minimize the expenditure on resources for anything other than the creation of value for customers. The goal of utilising lean startup is to answer the question - how can we as a company build a sustainable business around a new set of products or services?

Elisa's strategy states that the company aims at creating new digital services; and the toolkit will offer a way of empowering employees with the right skills to build on their knowledge to create new services. Therefore, all the employees who will use the toolkit function as intrapreneurs, working within the bounds of the company. Moreover, lean startup has been embraced by the top management in the company as a way to build new digital services business.

3.4 Combining HCD and lean startup

In the context of companies seeking new service innovations, there is a need for a steady flow of ideas and a structured framework to manage the flow, to flourish in an ever-changing business environment. Such a company therefore needs a structured framework not only on *how* it turns ideas into sellable products and distinguish between a good idea and a good business idea, but also on *how to come up with those ideas* in the first place. Both the approaches focus on different challenges and aspects in a development project lifecycle: while lean startup

helps organizations to build and ship products right, HCD focuses on building the right product in the first place (Hildenbrand & Meyer 2012, 219).

Combining lean startup and HCD approaches formally are rare in organisations, and even in literature they appear as two distinct school of thoughts, even though they have many similarities. Firstly, both recommend forming and empowering interdisciplinary teams, so that the team contains all the skills required to address a certain market or customer need and so that control is decentralized as much as possible. Secondly, both approaches look at product development through the lens of economics i.e. they take business value, viability, and revenue streams into account when managing the overall product portfolio and prioritizing requirements for particular products (Brown 2009). Thirdly, HCD focusses on prototyping to deliver fast results and generate useful feedback, while lean startup uses experiments (Brown 2009, 87; Ries 2011).

Therefore, combining these two approaches can help intrapreneurs understand the full context of a problem space from the perspectives of potential users as well as all the relevant stakeholders, while ensuring business and technical viability of an idea. This relationship can be seen in the figure below, which show HCD and lean startup along the product development path. HCD comes before lean startup and offers a way to first identify what service should be built, while lean startup de-risks the business of the service through empirical experimentation (Nessler 2016). In the context of the toolkit, the outcome of the toolkit is problem-solution fit, which does not necessarily need the development (coding) of a digital service. Therefore, HCD can be utilised at the onset of the toolkit to identify the correct customer problem and the potential solution to solve the problem; while lean startup principles can be utilised to quantitatively verify problem-solution fit before moving onto product-market fit.

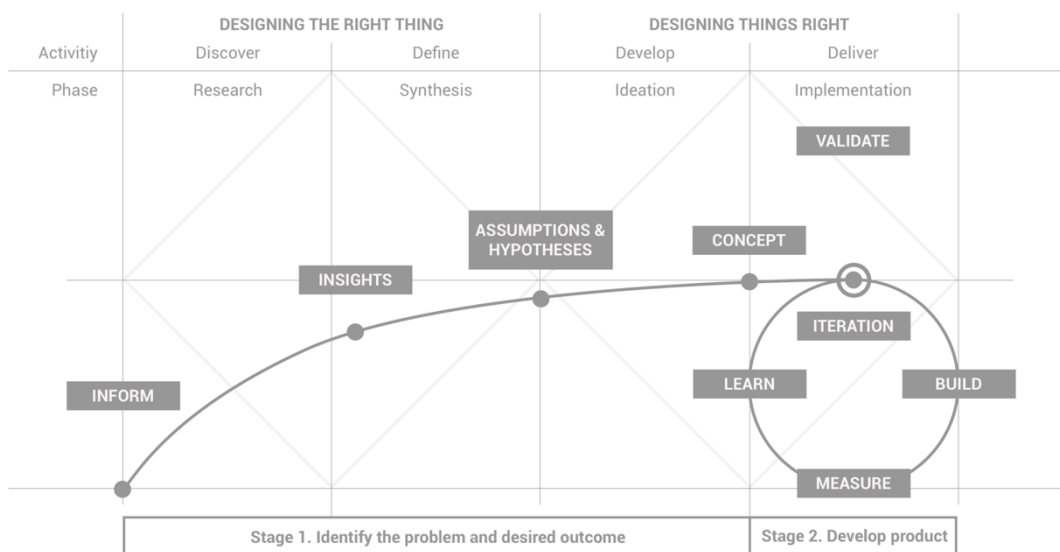


Figure 13: The HCD process mashed up with the lean startup approach (Source: Nessler 2016)

3.5 Summary

From the previous chapter, literature on corporate entrepreneurship and its management was studied to provide a theoretical base for designing the toolkit’s governance model. In this chapter, literature pertaining to designing the toolkit is explored. Service dominant logic is utilised as the overarching theory for creating service innovations. By utilising the toolkit and its governance model in Elisa, service innovations can be created, making SDL the appropriate overarching theory for the development project. The approaches of lean startup and human centred design are utilised to develop new services, making them suitable for usage while designing the toolkit and its contents. The details of using HCD and lean startup approaches have been explored further in chapter 5. Summing up, the theories and frameworks used for the design of the toolkit and its governance model are shown in table 2.

Toolkit and its contents	Toolkit’s governance model
Service dominant logic	Long wave economic theory
Service innovation	Strategic theory of innovation
New service development	Ambidextrous organisations
Human centred design	Three horizons of growth model
Lean startup	

Table 2: Theories and frameworks used for the toolkit and its governance model

4 Methodology of the development project

This chapter introduces the service design process used to create the toolkit and its governance model and elaborates on its key principles. Several different design processes are explained and compared, with an explanation on why the double diamond process was selected for the development project. The stages of the double diamond process are also explained in detail to understand the primary tasks that need to be accomplished in each stage. Several service design methods and tools are touched upon in this chapter, but are only elaborated in the next chapter, in order to help the reader, understand how they will be used contextually.

4.1 What is service design?

Alongside the growing role of the service economy in developed countries, studies into new service development (NSD) and its role in creating service innovation have increased (Zomerdijk & Voss 2011). Service design is associated with such studies. An early account of service design defines it as *“planning and shaping useful, usable, desirable, effective and efficient service experiences”* (Moritz 2005, 40). However, due to the evolving nature of service design, no single definition of service design exists. Therefore, service design is increasingly considered as an approach or a way of thinking that can be transferred to a wide variety of practices for service innovation (Stickdorn & Schneider, 2010).

While NSD describes the entire process of developing service offerings, service design helps to specify or concretize the entire structure or concept of a service through the use of tools and methods. Considered as a critical stage in service development, service design is used to design the service concept, service system and service process in order to achieve service quality. Service design has also been introduced as a human-centred and creative approach to service innovation. Stickdorn & Schneider (2010, 34) have defined five principles of service design, which are as follows; 1) it is user-centred, 2) it is co-creative, 3) it has a sequence of interrelated actions, 4) it includes evidencing by visualization through artefacts, and 5) it holistically considers the entire environment of a service. All the principles mentioned above offer support while designing the toolkit and its governance model. Therefore, they have been elaborated below.

It is user-centred: Designing services that will address the needs of different customers requires a genuine understanding of the customers which is beyond statistical descriptions. This understanding of different mind-sets is where service design begins (Stickdorn & Schneider 2010, 37).

It is co-creative: In a service design process, customers as well as all the stakeholders must be involved in understanding and defining the service proposition. This is because every group possesses different needs and expectations, and because a single service proposition might involve several different actors and groups (Stickdorn & Schneider 2010, 39)

It is sequencing: Services are dynamic processes that take place over a period of time. Therefore, the sequence of a service must be well-orchestrated to progressively improve customers' moods. This implies that services need to be iteratively tested to understand their impact on the customers (Stickdorn & Schneider 2010, 40).

It is evidencing: Services are intangible by nature, making it challenging to draw attention towards their existence. Therefore, tangibility can be incorporated in a service through the utilisation of artefacts that prolong the positive experience of a service. This balance of intangibility supplemented with tangible artefacts creates memorable service experiences (Stickdorn & Schneider 2010, 41).

It is holistic: Even though services are intangible, they take place in physical environments using physical artefacts and often generate a physical outcome. This environment is perceived by customers through all the senses, i.e. through touch, smell, vision and hearing. While creating a holistic service is almost impossible, the context in which a service occurs still helps in creating a service that is as holistic as possible (Stickdorn & Schneider 2010, 44).

Service design tools and methods help in understanding customers, organizations and markets as well as in developing ideas, translating them into solutions and then finally implementing them (Moritz 2005, 40). This implies that service design is not only about designing services for people, but rather designing the services with customers who would use the service and employees who would deliver the service (Polaine et al. 2013, 41).

4.2 Service design process

In literature as well as practice, there is no singularly accepted process for service. In fact, service design is likened to cooking, where even though there is a recipe, one might change a few ingredients and their quantities to make the recipe more suitable for one's taste. As stated by Stickdorn and Schneider (2010), service design processes are flexible and dependent on the context of each project. Hasso Plattner institute of design's service design process has five phases - empathise, define, ideate, prototype and test (Plattner 2013).

However, service design uses Design Council's double diamond model (figure 15) quite often, which identifies four main phases in the design process: discover, define, develop and deliver (Design Council 2007a). Stickdorn and Schneider (2010) also present a service design process that includes four stages that are similar to the Design Council's Double Diamond model. However, they have named the stages as - exploration, creation, reflection, and implementation based on the primary actions that need to be taken in each stage of the process.

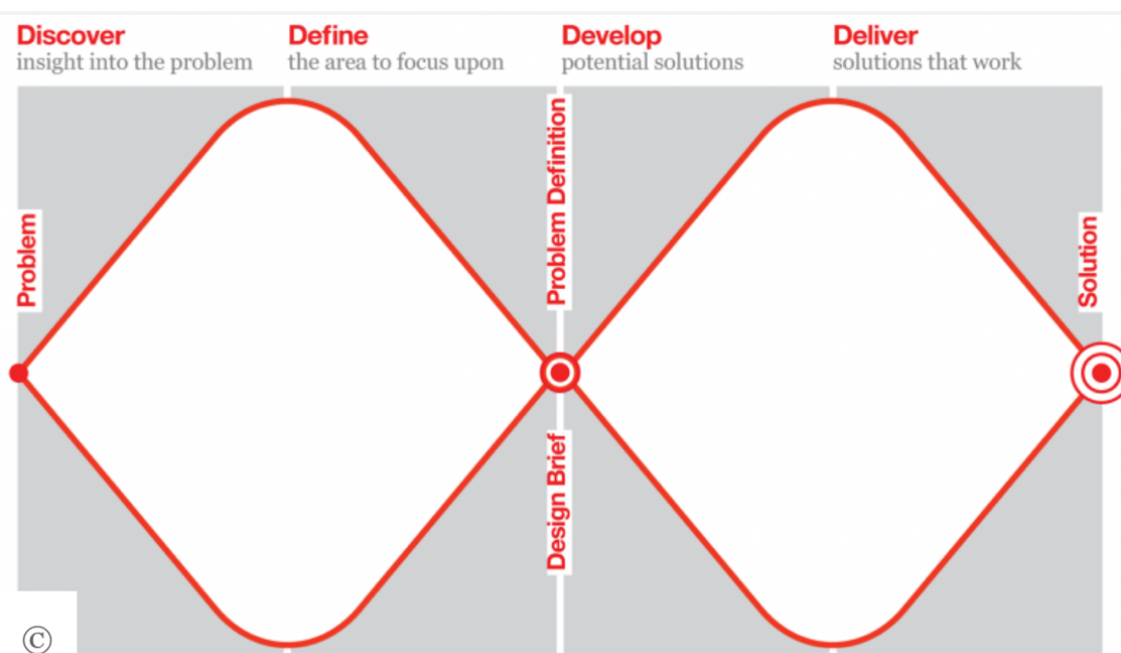


Figure 14: Double diamond service design process, showing all the stages of the design process (Source: Design Council 2007a)

The double diamond model describes how the design process passes from diverging stages where thoughts and possibilities are as broad as possible to converging stages where they are deliberately narrowed down to focus on specific objectives and tasks. Figure 15 is a visual representation of this model. Designers go forward and backward between each phase iteratively, and as mentioned previously, often start the process all over again (Stickdorn & Schneider, 2010).

Moritz (2005, 172) suggests that it is essential to describe what service design does and how it works in detail. Therefore, it is necessary to make a process diagram to show how the different elements of design are interlinked with each other, and why decisions have been taken in the way that they have. Taking into consideration that people from different backgrounds work together, illustrating the process helps in creating a shared understanding in the project. The service design process can be used in parts, as a whole or in several iterations depending on the size of a project and the intended outcomes. It can be used to create new services as well as to improve existing services.

4.3 Stages in the service design process

For the purpose of the development project, double diamond lends a good framework to visually express the service design process. It is also a well-understood and accepted process in the company. The first quarter of the double diamond model marks the inception of the project, which is about an initial idea or inspiration, often sourced from a discovery stage where user needs are identified. In the case of the development project, the project was initiated after receiving the brief from the VP of SoSe, as mentioned in Chapter 1.

Discover: The *discover* stage helps to identify the problem, opportunity or user need that should be addressed through the design process, and introduces the space within which design can provide a solution. This is a divergent stage, where the designers and other project team members keep their perspectives broad and make them even wider to allow for a broad range of ideas, influences, inspiration and information. In this stage of the design process, the team is asking a question, posing a hypothesis or is identifying a problem by analysing market data, trends and other information sources which could also be primary. This discovery often takes place throughout the design process to take into account new information, user needs, competitive contexts or challenges that arise as the project progresses (Design Council 2007a). Kumar (2013) described three sub-stages in the discover stage, comprising of 'sense intent', which is about understanding the intent of the project; 'know context', which is about understanding the content in which a problem or challenge is placed; and 'know people', which is about understanding the people and their interactions around the challenge under consideration.

Define: The *define* stage is a convergent stage, where ideas and information collected from the previous stage are reviewed, selected and the ones not selected are discarded or then kept aside. Findings in this stage are then prioritised to come up with ideas for solutions which are subsequently pitched and prototyped. A combination of ideas and information or directions identified during the *discover* stage are analysed and synthesised into a brief with actionable tasks related to new and existing service development. The *define* stage ends with a clear definition of the problem/s and a plan for how to address this through a product or a service. During the *define* stage a designer should engage with and understand the wider context in which the problem or opportunity sits, to subsequently create a product or service that is holistic in the next stages (Design Council 2007a). Kumar (2013) has named this stage 'form insights', with the focus on synthesising information collected during the previous three stages.

Develop: During the *develop* stage which is again a divergent stage, the design team, either together with key internal stakeholders or then with external design agencies, refines one or more concepts that will address the problems identified during the *discover* and *define*

stages. Multi-disciplinary teams feature strongly in the *develop* stage because input and advice from other areas of expertise are essential to finalising the product or service at this stage. Key to this is the way in which the design process aims to break down walls and silos internally, for example between design and business in the case of Elisa. The benefits of doing this include speeding up problem-solving during the project by identifying potential issues and bottle-necks as early as possible. This opinion is also shared by Stickdorn and Schneider (2010), as part of the creation stage mentioned in their service design process. It has been observed that insights from development rounds produce changes in product specifications, and this might be the case with the development project as well.

As development is often the lengthiest part of the design process, external factors can change too, such as changes in the market or competitor activities. Testing is also a part of the development phase, where it is carried out with consumers through different methods such as contextual observations, focus groups and interviews. Generally, the concept is well developed and near final before being tested with users. Here, testing is synonymous to prototyping. At the end of the *develop* stage, the design process should have helped that design team refine the product or service to an extent where it is ready for delivery to production (Design Council 2007a).

Deliver: The *deliver* stage is a converging stage of the double diamond design process, where the final concept undergoes final testing after which it is signed-off, produced and launched. It will result in a product or service that successfully addresses the problem identified during the *discover* stage. It will also include processes for feeding back lessons from the entire design process to inform future projects. These lessons could include methods used, ways of working and other relevant information (ibid).

4.4 Service design tools and methods

There is no correct or incorrect way to use service design tools and methods, and they are not necessarily tied to any specific stage of the service design process. The use of tools and methods is done to achieve the results that are required, with the focus on the outcome rather than the means. The list of tools and methods is endless also because they have been adopted from the fields of related expertise such as marketing, etc. Stickdorn & Schneider (2010) also refrain from giving a manual and instead offer a toolbox to aid a designer through the service design process.

Polaine, Løvlie & Reason (2013) state that different approaches can be explored if it seems that the current approach is not providing the right kind of insights towards the project. This

implies that any method that helps in understanding actors' motivations and behaviour in more detail will be beneficial in a service design project (Polaine, Løvlie & Reason 2013, 50).

As there are copious number of tools and methods that help in the service design process, only some of them have been used and presented in this development project. Since the development project will follow a service design process, all the methods used throughout the process are those used in service design and human centered design.

During the project process tools and methods such as desk research, interviews, focus groups, insight synthesis, ideation sessions, customer journey mapping and prototyping were used. The theoretical description of the tools and methods used for the development project are mentioned below, and the details of their contextual usage are given in the next chapter. This has been done to prevent repetitive description of the tools and methods in the next chapter.

Table 3 gives a quick overview of the tools and methods used in the development project. The rationale for using them will be explained in detail in the subsequent sections of 4.4.1 - 4.4.4.

Service design process stage	Tools and methods
Discover (data collection)	Desk research Interviews Focus groups
Define (data analysis and interpretation)	Affinity diagramming Design principles generation Customer journey mapping
Develop (ideation)	Ideation session
Deliver (testing)	Appearance prototype Performance prototype

Table 3: Theories and frameworks used for the toolkit and its governance model

4.4.1 Tools and methods used for data collection

Data will be collected using primary and secondary research methods. Secondary research is conducted through desk research. All the primary data collection methods that will be in the development project are qualitative in nature, i.e. they try to explore and understand the meaning individuals or a group of individuals ascribe to a social or human problem, and help

in understanding the complexity of a situation (Creswell 2014, 4). Since the development project relates with understanding the complexity of innovation in Elisa from the management as well as potential users' perspectives, qualitative data collection offers the best way to tackle the complexity.

Desk research

Gathering information from existing literature, case studies and the internet is an important part of the data collection process. It is very useful when prior knowledge is limited and when there is a need to speedily understand the basic information related to any given subject or in this case, the development project. Therefore, referring through scientific papers, case studies, blogs, etc. provides useful understanding of the current issues in a given area of inquiry. Design research is also essential because it can help a researcher formulate the questions they might ask in the primary research. Desk research is also an ongoing activity that can be utilised to learn new things as well as validate learnings that cannot be validated through primary research (Cooper-Wright 2015a).

Desk research was conducted because the author was not well aware of the service innovation process as well as its management. Therefore, in order to build knowledge about the development project before conducting any primary research, desk research was done. Secondly, owing to the time constraints on the development project, desk research was used to bolster findings from the primary research.

Interviews

Interviews are a natural and socially acceptable way to collect data on various situations, covering a variety of topics. Interviews offer a way to obtain explanations of the actions people take and is a medium to immerse into the interviewee's world view. While there are other ways like observations to collect primary data, interviews can provide the depth of information that might be useful for the purpose of the development project. Interviewing is also the best method to resolve conflicting information, because there is an opportunity to ask about the conflict during the interview (Harrell & Bradley 2009, 10). Interviews are used not only because they help understand detailed views of informants, but also because they enable interviewees to *"speak in their own voice and express their own thoughts and feelings"* (Berg 2007, 96).

Alshenqeeti (2014, 40) states that there are four types of interviews - structured, unstructured, semi-structured and focus group interviewing. Structured interviews' key feature is that it is organised around pre-determined set of questions which can mostly be answered through 'yes' or 'no' answers, offering very little freedom of expression to the interviewer

and interviewee. Unstructured interviews, on the other hand is open and allows ample freedom of expression for both interviewer and interviewee. However, keeping track of the interview and subsequently analysing it is difficult. Semi-structured interviews combine the best of both the structured and unstructured interviews by suggesting the interviewer to have a loose framework of questions which allow the interviewer to get relevant information while offering the flexibility to probe deeper when required. Lastly, focus group interviews offer a way to interview more people at one time. However, other authors (Harrell & Bradley 2009; McColl-Kennedy et al. 2009) separate individual interviews from focus group interviews because of the different dynamics involved while conducting them.

Semi-structured interviews will be conducted for the development project because it allows for collecting subjective experiences of the interviewees while having a general framework within which information was sought. More details about the interviews are provided in chapter 5, where the empirical process of designing the toolkit and its governance model is elaborated upon in detail.

Focus groups

SDL suggests that co-creation of value is accomplished through resource integration, where the resource integrators are employees as well as customers. Customers can help a company develop new services by offering information. However, SDL offers very little guidance on how to achieve co-creation. This is where focus groups can help as a co-creation method (McColl-Kennedy et al. 2009).

Barbour & Schostak (2005, 46 cited in Alshenqeeti 2014, 40) relate focus group interviews with, “...an interviewing technique in which participants are selected because they are a purposive, although not necessarily representative, sampling of a specific population, this group being ‘focused’ on a given topic”. Focus group interviews offer a way to quickly gather primary data, which might result in the identification of important themes, but might ignore the complexities of the group behaviour. However, the technique’s strength lies in developing ideas collectively, bringing ideas and priorities to the forefront and can help create a view based on real experiences (Alshenqeeti 2014).

For the purpose of the development project, focus group interviews will be utilised because the purpose of the interviews is to understand the needs, problems, personal perspectives and wishes of different employees in Elisa, while creating a shared understanding between different employee groups in the company. In context of SDL, the potential customers as well as the so-called service providers of the toolkit would be employees. Therefore, the resource integrators in the context of the development project only include Elisa’s employees.

4.4.2 Tools and methods used for data analysis

All the data that will be collected for the development project will be qualitative in nature. Therefore, data analysis methods employed to synthesise insights from qualitative data will be utilised.

Affinity diagramming

This is a method used to analyse qualitative content, and is used to cluster observations and insights from the primary and secondary research (Martin & Hanington 2012). This is done in three steps:

- **Download learnings:** Ideas, quotes, observations and impressions are first captured from all the collected data for a given project (Ideo, 2017). This is done by first annotating in a print-out or digital format of the data, e.g. printout of interviews where quotes, ideas and needs are annotated differently using different markers or symbols. Following this, those sentences annotated in the text are written on individual post-it notes, which are then pasted on a white board or a large white paper sheet. At this stage, it is also possible to use digital services like realtimeboard.com that help simulate the blank white space of the board and post-its which can be typed on and moved around. This process should be done on the same day as the interview, to ensure that the experiences and perceptions are fresh (Cooper-Wright 2015b).
- **Find insights:** Insight is a word used often by designers, but its exact meaning is interpreted differently. Therefore, insights as understood in the context of this thesis follows the definition given by Cooper-Wright (2015), which states that *“when we talk about insight (...) it’s an actionable expression of human behaviour and the associated motivation”*. Therefore, insights are formed by combining needs and the underlying behaviour for the needs to exist, identified from the previous step. These individual insights should be written in post-its.
- **Sort insights:** The post-its containing the insights are then clustered in different themes subjectively. Start by placing similar insights next to each other and form clusters. As clusters form, giving the cluster a name helps identify if the insights in a given cluster need a new cluster or then are correctly placed. There should be a similarity of meaning for insights to be in the same cluster. This step is complex and requires a bit of time to go back and forth (Cooper-Wright 2015c). However, towards the end, as insights are clustered under themes and the themes have a name, it is important to identify the next steps such as design principle identification or then need for more data.

The author has used affinity diagramming on many occasions before and found it to be a useful method to analyse qualitative data. This method is also used by reputed organisations such as Ideo (2017) and Rand corporation (Harrell & Bradley 2009) to analyse qualitative data. Since all the data collected for the development project is qualitative in nature, this method will be used for data analysis.

Design principles generation

Design principles help create statements from insights that can be used to generate ideas. Design principles are the step between insight synthesis and solution, and is a way to develop concepts that are backed by data collected previously. After conducting insight synthesis as mentioned previously in this chapter, design principles are formed. From the themes identified during insight synthesis, statements are made from which concepts can be explored (Kumar 2013, 188). These statements are formed by identifying the core principle behind the theme (Ideo 2014).

Design principles are useful when the solution for a given project is known. In the context of the thesis, the outcomes are known - a toolkit and its governance model. Therefore, the role of design principles is to help generate ideas to create the content for the toolkit and the governance model.

Customer journey mapping

Customer journey maps provide a visual way to represent a customer's experience of using a service across a period of time. The touchpoints where the user interacts with the service are used to create the journey. These touchpoints could be face-to-face or virtual. Following interviews done with users, insights can be generated from the interviews as mentioned previously. Based on the interviews, touchpoints can be identified and insights can be placed along different touchpoints to construct a journey. These maps are usually made around a persona representing the user group, in order to convey the emotions felt by the user while experiencing the journey (Stickdorn & Schneider 2010).

Customer journey mapping will be used to represent the journey through the toolkit and the governance model of the toolkit because journey maps are a useful method to visually represent the service as it unfolds over time. Since the toolkit user's journey and the governance model unfold over time, this method will be used.

4.4.3 Tools and methods for ideation

Ideation session

Ideation session is a more structured way of coming up with solution ideas, in comparison to brainstorming. The ideation session is incepted after the identification of design principles. There are three steps in this method that will be followed by the author.

1. **Planning:** Define the outcome that is expected from the ideation session, such as the number of concepts needed, how they might be organised, the schedule and multidisciplinary participants. Begin from the design principles identified in the previous step.
2. **Ideating:** In this step, the facilitator guides all the participants in the session by engaging them, keeping them focussed on ideation, encouraging succinct conversations and balancing the input from all the participants.
3. **Summarising the ideation input:** Classify the ideas generated in the previous step under different design principles and discuss with stakeholders on how to refine and evaluate the ideas before prototyping (Kumar 2013, 212).

This method was used during the ideation stage to come up with ideas because design principles were generated in the previous stage. Moreover, ideation will also be done in the focus group in the discover stage, which will be commensurate with point 2 of the method.

4.4.4 Tools and methods used for testing

Solution prototype

This is a method used to give the potential users an idea about the intended solution, and are of two types: 1) appearance prototype (appearance of the potential offering is simulated) and 2) performance prototype (functionality of the potential offering is simulated). By observing these prototypes, it can be validated if the assumptions made for the solution offering are valid or not. These observations can be made visually or then noted down as well. Solution prototyping is done in five steps, as suggested by Kumar (2013, 272). In case of the development project, the observations and feedback will be noted down on Evernote software, so that they can be referred to even after completion of the development project.

1. **Identifying proposed solutions:** Identify the solutions that need to be prototyped by reviewing the ideas generated during the previous stage.
2. **Building prototypes:** Build appearance or performance prototypes, and identify the place where participants can test it without any external stimulus.
3. **Engaging users in interacting with prototypes:** The users should be invited to test the prototype. This can be done in a group or individually by guiding them through the prototypes.

4. Observing and documenting the interactions: The manner in which users interact with the prototypes will be noted. These include cognitive, social, physical, cultural and emotional factors. This can then be followed up with interviews to clarify the observations. This stage will not be done as mentioned because only the VP of SoSe and a development director will peruse through the prototype, rather than piloting it as part of the development project. Therefore, only feedback after reading the toolkit and its governance model will be generated.
5. Analysing and iterating: After gathering the feedback from on the usage of the prototype, the solution could be updated to embed the feedback, or there might be need for more ideas. However, the steps should be repeated until the designer has the confidence that the optimal solution has been created.

This method will be utilised in the test stage because many ideas have been generated in the ideation stage, from which a few need to be selected. These will then be prototyped and tested with the managers who commissioned this project. Following this, the toolkit and its governance model will be iterated upon. However, this iterations will be made only from feedback from management, rather than from users.

4.5 Summary

In this chapter, literature on service design processes was utilised to create a theoretical base for designing the process of creating the toolkit and its governance model. While there is no singular service design process, there is a broad framework of the process that is symbolised visually and logically by the double diamond. This process comprises of the four stages of discover, define, ideate and test. The details within each stage of the process, which helped in the creation of the toolkit and its governance model will be explored in detail in the next chapter.

5 Empirical study: designing the toolkit and its governance model

This chapter elaborates on the process and methods used in designing the toolkit and its governance model, and offers details of the empirical study conducted to answer both the research questions. A design process based on Design Council's double diamond process was utilised for the purposes of this development project. First, the project's design process is visualized to help the reader quickly comprehend the entire process. Following this, the design process comprising the stages of discover, define, ideate and test is explained in a detailed and linear step by step order. However, it has to be kept in mind that while the process has been iterative, it is presented linearly to help the reader understand the details of the process.

The service design tools and methods used in this design process are explained in practice in this chapter, as they have been explained theoretically in the previous chapter. Some of the tools and methods have been used at several stages of the process, because of their multiplicity of use in different stages of the process.

5.1 Overall design process

The following section shows how the design process was implemented in practice and describes the methods used in each step. Just as businesses intentionally design their offerings and analyse their value propositions through testing, company-wide innovation processes should also be designed to utilise this approach. It has been established in the previous chapter that design is often iterative and non-linear in nature; and this process is no exception. The toolkit and its governance model will be designed to be constantly evolving, and as new views and perspectives will be introduced, the methods and process will be adjusted accordingly. The process for designing the toolkit and its governance model are mentioned in figure 15.

In figure 15, the first stage is *discover*, which is about mapping and understanding the current situation as well as discovering and gathering insights and inspiration related to the development project. The project began with the brief from VP of SoSe, from which different topics that needed to be understood further were identified. Following this, primary and secondary research was conducted.

In the second stage of *define*, data collected from the discover stage was analysed and synthesised in to a vision and design principles for the toolkit and its governance model. During *ideate* stage, different solution ideas were brainstormed to address the design principles identified in the *define* stage. Since it is never possible to implement all the ideas, they were

Methods for data collection	Receive project brief from business owner (VP of SoSe) Stakeholder interviews (head of design, senior business development manager, service offering development manager) Preliminary review of Adobe kickbox Workshop with nine SoSe employees (designers, copywriters, developers) Interviews with four innovators: from Dell, Nokia networks, Wärtsilä and Adobe.
Output	Qualitative data

Table 4: Table showcasing the objectives and methods of data collection used in the *discover* stage

5.2.1 Project brief

An initial project brief was provided by the Vice President of SoSe to build the toolkit and its governance model. The brief has already been mentioned in Chapter 1. It could be observed after reading the brief that it was vague to elucidate on the vision for what the toolkit could help Elisa achieve (increased revenue, better employee satisfaction, etc.). Moreover, it was not clear whether the company was looking for new business opportunities in its strategic domains or was it looking for new ideas in its core business areas. Therefore, to build a rationale and vision for the toolkit, the service design process shown in figure 15 was employed.

The process of redefining the project brief after formulating the vision is commonly termed as ‘ripping the brief’ in design practice, because this process helps in identifying ‘what’ actually needs to be built, rather than blindly building on the initial brief. From the brief, topics that needed to be further understood and researched upon were identified. These topics include: status quo at Elisa, service innovation processes, innovation management, employee needs and incentive structure. These topics would be understood through a combination of primary research and secondary research. The secondary research was done by reading journal articles and mainstream business articles, regarding the topics mentioned above. These have been explained in detail in chapters 2 and 3 of the thesis. The following sections deal with primary research conducted for the development project.

5.2.2 Stakeholder interviews

While there are other ways like observations to collect primary data, interviews can provide the depth of information that might be useful for the purpose of the development project. Therefore, primary data was gathered by using semi-structured interviews, which were held with three senior employees in the company, based on the recommendations from the head of design at Elisa. All the interviews were conducted by the author in the end of June on Elisa's premises, and each interview lasted for approximately an hour. The data from the interviews was analysed and insights were synthesised in the *define* stage. The details of the analysis process have been mentioned in section 5.3.2 of the thesis.

These employees also had a broad yet deep understanding of the innovation process because the senior development manager had experienced the process by being an intrapreneur previously, the design manager had a broad overview of how new services were being developed in the company and the service offering development manager was the process owner of the existing innovation process.

These recommendations also offered an opportunity to speak to employees coming from different contexts to understand their different perspectives (Galletta 2013). The questions asked during the stakeholder interviews are mentioned in Appendix 1.

5.2.3 Review of Adobe kickbox

The design brief for the toolkit suggested that Elisa was looking for a toolkit similar to Adobe's kickbox. Therefore, a review of what kickbox entailed was essential to understand whether it could be used in Elisa or not, and if it could be used, what components needed to be altered to make it more suitable for Elisa's needs. The review took place by extracting information from Adobe kickbox website, the contents of the kickbox toolkit (Adobe kickbox 2017) and supporting news articles about the innovation process and using affinity clustering to cluster them under different themes. The details of the analysis, the insights that were synthesised and the themes have been mentioned in section 5.3.3 of the thesis.

5.2.4 Focus group workshop with SoSe employees

Following the kickbox review, a need was felt to understand the applicability of the tools and methods mentioned in the kickbox, and to understand the innovation process followed by employees in Elisa. This is where co-creation can help, because it offers an opportunity to engage employees in designing a new innovation process in the company. In this approach, the

role of customers and other external stakeholders is not only restricted to defining the service, but to also extend their role in designing the company's processes (Gouillart 2014, 5). Therefore, a focus group workshop was held to involve employees from SoSe to design the contents of the toolkit. The focus group method of data collection has been mentioned in the previous chapter in detail.

Participants: The workshop was held with 9 employees (two user experience designers, two user researchers, two developers, one design lead, one copywriter and one business manager). The primary intent of the workshop was to understand the content and the format of expression that needs to be built into the toolkit, so that it would work for any employee in SoSe. The assumption made at this stage was that by understanding the needs of employees in SoSe, most of the needs of the employees in Elisa could be identified.

Workshop structure: All workshops need to be well organised because the outcome from the workshop is determined by it. The facilitator needs to plan for aspects such as, how long the workshop will be, who will be there, and where it will take place (Coward 2015). The constraints used to plan the focus group workshop were to get a good mix of SoSe employees (who know about different service design methods, innovation processes or who might be future users of the toolkit), it couldn't be for more than three hours because no employee would be able to join longer than three hours, and it had to be held in Elisa because of travel constraints by the participants.

Therefore, the workshop was held for three hours in the afternoon post-lunch in Elisa's campus in Pasila in the first week of July. It was built around eight questions identified from the project brief that acted as an outline for the workshops:

- How might we help innovators define their problem statement from a rough idea?
- Who should innovators talk to, to understand the current environment (trends, strategic business needs, etc.)?
- How can innovators find customer needs?
- Once they know the internal and external environment, how could they ideate?
- How could they narrow down the many ideas that they have generated?
- How can they prototype, test and iterate their solutions?
- What is considered to be a successful idea (metrics, clicks, views, customer feedback, etc.)?
- How might we help them present their ideas?

The author was the facilitator of the workshop. The structure of the workshop combined divergent and convergent thinking for every question. In the divergent phase, participants tried to find problems and perspectives related to a question. In the convergent phase, participants

suggested solution ideas for every question. Problem and solution identification are usually not done in one workshop. However, due to lack of time and the unavailability of participants during summer, problem identification and ideation session was done together.

Every question began as a discussion where everyone participated and the facilitator took notes, with each point being on a separate post-it. This structure was selected because the intent of the workshop was quite ambitious, but the time was limited. Therefore, allowing everyone to write their thoughts on post-its and share them with the rest of the team would be too time consuming, as has been observed from previous workshop experiences in the company. Therefore, such a format for the workshop was adopted. However, it is quite common for outspoken participants to dominate a discussion during workshop (Coward 2015). To address this challenge, the facilitator ensured that everyone's voices were heard by asking individual questions to every participant in every step of the workshop.

The data from the focus group workshop was analysed and insights were synthesised in the *define* stage. The details of the analysis process have been mentioned in section 5.3.4 of the thesis.

5.2.5 Interview with innovators

Following the review of Adobe kickbox, a need was felt to understand how other organisations innovated, and what their goals were. Therefore, online semi-structured interviews were conducted with four innovators from Adobe, Dell, Wärtsilä and Nokia Networks in the first week of July, 2016. Two of the innovators were identified through colleagues in Elisa and two were personal contacts of the author. Each interview lasted approximately for an hour, and was conducted using skype. These companies were selected because all of them had an employee-driven innovation process. The intent of the interviews was to identify common and varied practices that the innovators followed in their companies to come up with ideas and validate them.

All the innovators were experienced innovators who had been awarded at least once in their respective companies for their innovation efforts. They had also undergone through at least enough of the innovation process in their respective companies. Owing to this, they had a good understanding of the innovation process as well as the common challenges their companies faced while innovating. The interview questions to guide the discussion are mentioned in Appendix 2. All the interviews and materials from the workshop were reviewed and analysed in the *define* stage to identify insights from the *discovery* stage.

The data from the interviews was analysed and insights were synthesised in the *define* stage. The details of the analysis process of these interviews have been mentioned in section 5.3.5 of the thesis.

5.3 Define

While *discover* was a divergent step, *define* is a convergent step. During this stage information collected during the *discover* stage is analysed to define or sometimes even redefine the problem. The designer/ researcher synthesizes the data and proceeds to the next stage with actionable tasks (Design Council 2007).

The objective of *Define* is to use the information to answer the research questions: What is the vision for the toolkit? What should be the design principles that help in identifying the contents of the toolkit and its governance model? The rationale for creating the vision came from Simon Sinek's 'why, how, what' framework, while the design principles came from data analysis. These support the first and second research questions: How might we create content for the toolkit and its governance model so that every employee can use it to validate their ideas, while creating a rigorous governance process that helps manage such innovation efforts?

Define	
Objective	Set the vision for the toolkit, build it on the existing innovation process. Identify the employee requirements and motivations for the Idea box.
Data input	All data and analysis collected from the discover step.
Methods and tools	Affinity diagram Design principles Customer journey mapping
Output	Vision for the toolkit and its governance model. Design principles to generate content for the toolkit. Design principles to generate components of the governance model.

Table 5: Table showcasing the objectives and methods used to analyse the in the *define* stage

5.3.1 Insight synthesis

As mentioned in the previous chapter, insight synthesis was done using affinity diagramming method, and was done digitally using realtimeboard.com service since all the interviews were

Step 3: In this step, the post-its' are clustered to come up with themes from the workshop (figure 17) and from interviews with innovators (figure 18). This was done after all the data had been collected. The clusters are finalised after 2 rounds of clustering, to find the most optimal clusters where neither the data nor the analyses are diluted. In this step, the content from the interviews and workshops is not merged, but is treated separately to come up with insights from them individually, before moving to the next step of framing design principles. The post-it colour classification is the same as the previous step. This step has been omitted for stakeholder interviews and kickbox review because the data gathered from them is in the form of insights already, which can be seen in figure 16. This is because the author had spent a lot of time thinking about them, and had managed to identify insights in step 2 already.



Figure 17: Screenshot of thematic clustering of workshop content using realtimeboard.com

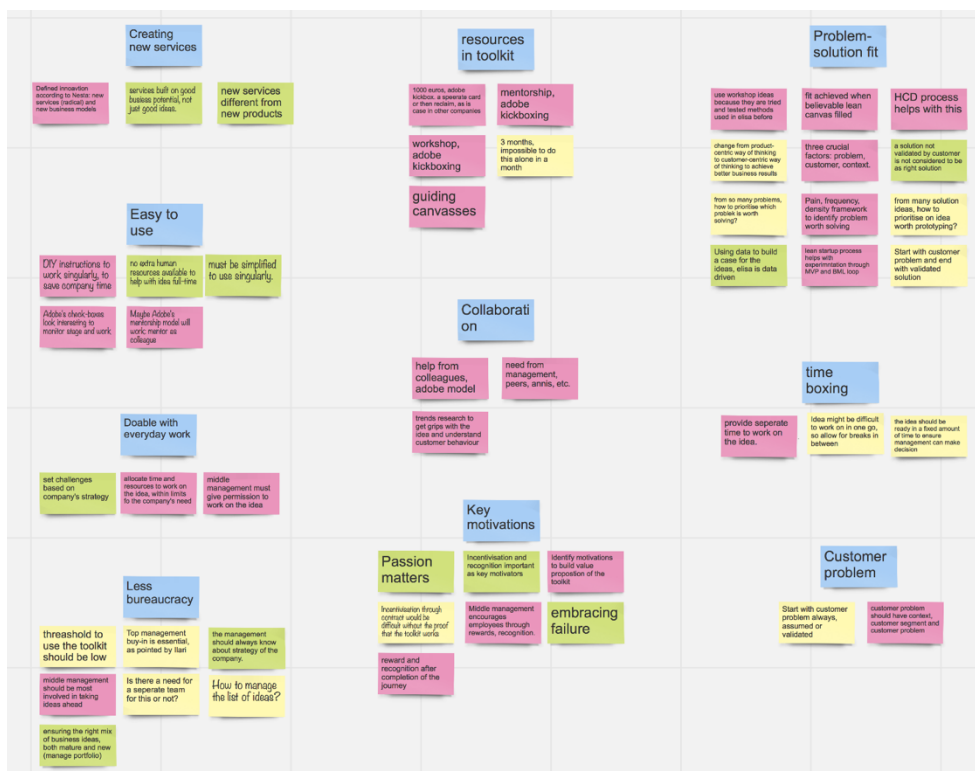


Figure 19: Screenshot of thematic clustering from all the data, to come up with design principles using realtimeboard.com

In every step, when post-its with similar ideas were encountered, the idea was represented on one post-it rather than keeping a multitude of post-its with the same representative idea. Therefore, as the analysis took place, there was a reduction in the number of post-its.

It is important to note here that the author was doing all the data collection and analysis alone. Even though affinity diagramming is a method used by a multidisciplinary team, that was not possible in the context of the development project due to unavailability of employees over summer and due to the small time-frame of the project. Therefore, all the analysis is subjectively conducted from the author's point of view, which may have resulted in biases while conducting analysis and taking decisions from it. However, the author has tried to take all the decisions in an as unbiased manner as possible, by comparing the suitability of the findings with the initial project brief.

5.3.2 Insight synthesis from stakeholder interviews

From the stakeholder interviews, the need to create the toolkit and its governance model as well as the issues with the SOD process in Elisa were identified. In case of stakeholder interviews, insights were synthesised to identify all the stakeholder frustrations when it came to the service offering development process and the needs and aspirations with regard to designing the toolkit. The analysis was done using the steps 1, 2 and 4 of affinity clustering, as presented in section 5.3.1. Step 3 was not done for the stakeholder interviews because most of the insights from them were already synthesised in step 2. More details can be observed in figures 16 and 19.

The resulting insights include:

Problems (existing):

- SOD is a process to take innovations forward once the innovation has been identified, *“but there is no process to innovate as such”*.
- SOD process is unclear and not easy to follow because it has too many business requirements, resulting in few employees wanting to be a part of it.
- There was no definitive way to ascertain where an idea was located in the innovation funnel defined by the SOD process.
- Employees *“usually have a solution rather than really addressing the customer problem”*. Therefore, there is a need to help them focus first on the customer problem.

Aspirations and desires (would like to have):

- The fewer employees working on an idea in the beginning, the better.
- Need to save resources that go in innovation.
- The front end of the innovation process should be simple and easy to use by any employee determined enough to take their idea forward in Elisa.
- The decision-making must be less bureaucratic so that ideas can move fast through the innovation funnel.

From the insights, similarities were found between the project brief provided by the VP of SoSe and the findings from the stakeholder interviews in terms of the problems with SOD process and what the toolkit could be.

5.3.3 Content analysis of Adobe kickbox

Adobe's kickbox was created in 2013 by Mark Randall, who is the VP of creativity at Adobe. His vision was to empower potential innovators and tap into their tacit knowledge, while removing the barriers that prevent ideas from emerging from an organisation. Randall designed the kickbox as a six-level innovation curriculum, based on his own past experience as an entrepreneur before he joined Adobe. From the kickbox website and from the article by Balmaekers (2016), text that showed the toolkit's advantages, usage patterns, its management aspects and its contents were selected; and affinity clustering was performed to analyse the content as presented in section 5.3.1. Steps 2 and 4 from section 5.3.1. were followed. Since no primary data was collected, step 1 was omitted, and since most of the insights had been synthesised in step 2, step 3 was also omitted. The themes identified during affinity clustering are mentioned below:

- It is a physical box: while innovation is a pretty fuzzy process, a physical box brings tangibility to the innovation process.
- Test with customers: by putting ideas in the real world, they are first tested by the target audience to ensure business viability. This need was also encountered in the stakeholder interviews in Elisa.
- Failure is an essential part of innovation: A lot of Kickbox ideas fail - out of 1000 ideas submitted, only 60 ideas completed the kickbox. This might at first sight indicate a very high failure rate, However, this statistic might make sense since it is common practice among venture capitalists also that only 10% of the ideas they fund will succeed.
- It is a time-boxed process: If there are no deadlines imposed for finishing the program, an idea fails. Therefore, every kickboxer is given 6 months to complete the kickbox journey.
- Kickbox is for everybody: Kickbox isn't just for the 'usual suspects' of innovation, such as engineers and product managers. Any Adobe employee can ask for a box. This is a deliberate attempt to increase the diversity of inputs at the beginning of the innovation funnel.
- Try the kickbox before using it: Employees have to attend a comprehensive two-day workshop, where they pick up their box. This workshop teaches them how to use the Kickbox tools and aims to inspire them and build their confidence (Balmaekers 2016). However, it might be difficult for employees to take out two days for the workshop.
- It has a steep learning curve: To complete the entire kickbox, an employee would have to learn basic user research and digital experimentation skills, such as building websites, making advertisements and copywriting. This poses a challenging learning curve for employees. When this insight was synthesised, this posed a question of

whether learning in the toolkit had to be so challenging, and how it might be possible to flatten the learning curve, if at all.

- The kickbox doesn't mention the organisational structure that Adobe has, its strategy or how an employee manages both his / her regular job and work on the kickbox, apart from allocating specific time on the kickbox process.
- It doesn't help with service innovations where future service ecosystems need to be created or where value chain needs to be identified.

This analysis was utilised to form questions for the focus group workshop and interview with innovators. The analysis also helped in the *ideate* phase to design the contents for the toolkit.

5.3.4 Insight synthesis from focus group workshop

Based on the eight questions addressed during the workshop, insights were drawn from each question after reviewing the post-its collected in each question. Following affinity clustering presented in section 5.3.1, all the steps were done to analyse the content. Details of the analysis can be seen in figure 16, 17 and 19. The insight synthesis resulted in the following insights that helped in the design of the toolkit.

- Different professionals need different levels of support while using the toolkit, e.g. designers might need less help with user research but might need more help with market research, while developers might need more help with both, but no help with coding.
- The innovation process should be collaborative in order to get a mix of perspectives to defend or kill the innovation. This would also help break organisational silos.
- The final outcomes must be a small pitch which is easy to share with decision-makers, because decision-makers don't have much time for every presentation.
- It is important to set incentives and tap into the motivations of employees in order to attract them to pick the toolkit and complete it.
- The workshop also resulted in several solution ideas in the form of best practices. These best practices have been placed in individual post-its. The best practices identified during the workshop include interviewing, qualitative concept validation, experimentation, what is a successful idea, etc.

5.3.5 Insight synthesis from interviews with innovators

Innovators from Adobe, Dell, Wärtsilä and Nokia Networks were interviewed over skype to understand the innovation goals in their respective companies, and the innovation process they followed. Insights were synthesised using affinity clustering presented in section 5.3.1, and all

the steps were followed to analyse the interviews. More details can be seen from figures 16, 18 and 19. The themes identified in figure 18 are mentioned below, and elaborate on the insights found under each theme.

- **Process:** Every company creates an innovation process that helps innovators reach the innovation goals that the company has previously created, e.g. Dell wanted innovations in its manufacturing process, therefore the innovation process was tailored towards increasing efficiency in the components of the supply chain. This process also depends on whether they want incremental innovations or radical innovations. However, it has been difficult for service companies like Adobe to pin down if their process might generate radical or incremental innovations at the onset of the innovation process.
- **Incentives:** Every company offers some form of incentive to their employees for innovating. That incentive could be intangible (recognition) or tangible (monetary reward upon completion, percent increase in yearly bonus) or a combination of both. However, it has been found from literature that monetary incentives are not the primary reason for innovating, but is individual motivation (Patterson et al. 2009).

“...manager was always pushing me in performance reviews. I could receive 100 euros if my idea went ahead, and if I was successful 3 times, I'd get 500 euros and a 1% bonus.”

- **Resources:** A few companies don't allocate dedicated time to pursue innovations. However, the companies that don't allocate time are also pursuing incremental innovations that didn't require much time anyways. The companies that allocate time and a small amount of money for experimentation to intrapreneurs are looking for radical innovations or new businesses.
- **Management support:** The middle management in every company supported and promoted innovation by encouraging employees through incentives and sometimes through mentorship.
- **Balancing regular work and innovation work:** In one of the companies, work was managed in quarters, making it easier to shift employees from innovation to regular job and vice-versa every quarter. This company did not expect an employee to exploit and explore at the same time, but allowed only one activity at a time.

“Work was divided into 4 quarters, and so were my objectives. I could decide 3 months in advance if I wanted to work on my idea project, and then I could get it approved from my manager.”

- Role of human resource department: In three companies, the work contracts of employees included innovation as a part of their daily work. However, changing work contracts is a lengthy process and needs support from top management.
- Embracing failure: While no company liked to fail, failure was not looked down on. Instead, failure was treated as 'practice' before success. It was observed that innovators usually were not successful at coming up with innovations in the first instance. But by trying repeatedly, they managed to succeed. This has also been observed in Adobe's kickbox process (Adobe 2017).

“But practice makes perfect, so trying again after failing once led me to success. “

- Defining success: At the start of the innovation process, success can be defined by the number of patents acquired every year or the number of ideas at the beginning of the innovation funnel.
- Innovation journey: In order to clarify how the innovation process was understood by the employees who eventually created innovations, a typical journey of an intrapreneur in all the companies was created (figure 20). Innovators become aware about the innovation process through their managers or through campaigns that are online as well through posters. They are then encouraged by their managers to innovate because their incentive structures are designed around innovation. Once an innovator is suitably motivated, he/she can innovate using the process mandated by the company and submit the findings to the management directly or to an idea portal online. While submitting their idea, they can suggest the next steps in their ideas, such as need for more resources, etc. However, one company did not have this process of seeking continuance because the management automatically decided on the next steps. If the management decided to continue with the idea, the innovator received a reward which could be a small monetary award and repeated success led to a bigger monetary award eventually. This increasing reward system created an urge amongst employees to innovate, leading to organisational transformation eventually.
- Breaking silos: All the innovators implied that there was high amount of cross-boundary interactions between them and other business units to focus on producing innovations, rather than only managing the outcomes of a singular business unit. The stakeholders involved in the innovation process are shown in figure 21. Only when all the stakeholders work with each other, can a company truly innovate. However, this process of breaking silos is time consuming and requires a mandate from the top management.

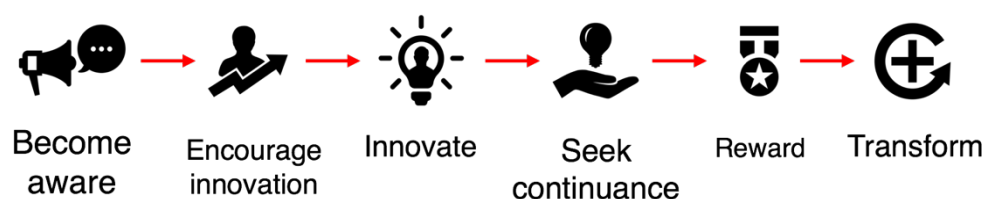


Figure 20: Innovation journey in other companies

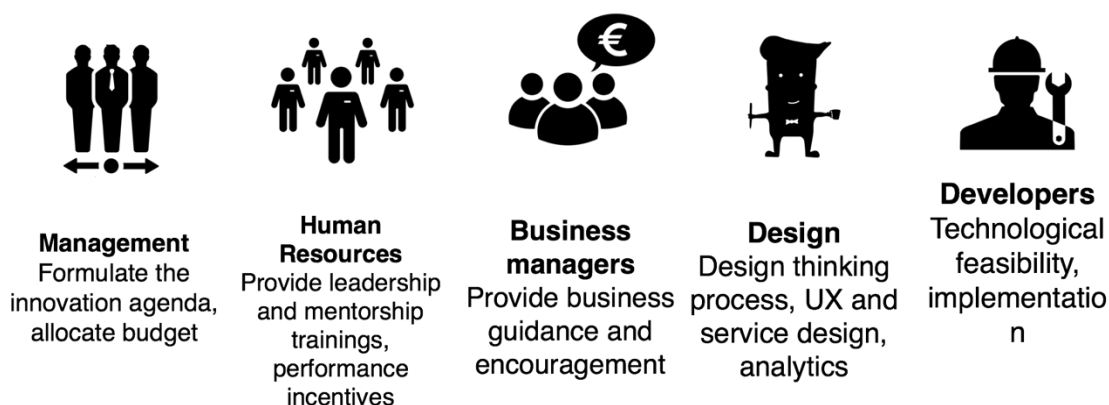


Figure 21: Different organisation stakeholders involved in an innovation process

5.3.6 Rationale and vision for the toolkit

After synthesising the insights from the interviews and focus group workshop, a vision was created for the toolkit using Simon Sinek's (2011) 'why, how, what' model shown in figure 22. This model is very helpful because it offers a visual way to understand the rationale behind the actions taken by inspiring leaders. This model is known as the golden circle - it helps in understanding "why we do what we do". Moreover, because this will be a new process in Elisa, it needs new followers who believe in the same vision as the creator. In this model, *why* represents the purpose or belief behind a project; *what* represents the job functions that are there in a company and *how* represents the rationale of why this is better than other solutions existing in the market (Sinek 2011).

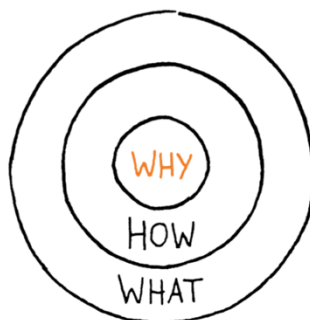


Figure 22: Simon Sinek's golden circle (Source: Sinek, 2017)

To understand the rationale behind designing the toolkit, it was essential to understand the 'why'. From the interviews with innovators from other companies and desk research, one recurring thought was that every employee had the potential to innovate, but they don't because of how a company functions. This was also the rationale of Randall who designed the Kickbox in Adobe. Therefore, the vision for the toolkit was created by following Randall's vision. It had become clear from the focus group workshop as well from the kickbox review that resources must be allocated for such activities. This is also supported by the literature review in Chapter 2 on ambidextrous organisations. This helped define the 'how'. Elisa's strategy defined the 'what' for the vision, which emphasised on the creation of new digital services.

The golden circle for toolkit looks as under:

- Why: We believe that every employee in Elisa has the potential to innovate, when given the opportunity and right environment to do so. The ability of a company to grow lies with the individual skills of its employees.
- How: We will create the toolkit and will provide all the necessary resources to help employees innovate.
- What: This will help us create new digital service innovations that support the life of our customers and help make it better.

The golden circle is very helpful for the toolkit because the *why* from the model provides the vision for the new process.

5.3.7 Employee motivations

Nesta has explored an association between innovation and employee behaviours and characteristics such as the influence of cognitive ability, personality, motivation, knowledge, behaviour, and emotion and mood states. From the research, motivation has been found to be one of the most important predictors of innovative working. Innovative people are intrinsically

motivated by change such that extrinsic rewards do not necessarily enhance innovative working (Patterson *et al.* 2009, 18). Therefore, motivating employees to innovate is a consideration in the design of toolkit as well. The commonly heard key motivators for SoSe employees found from the focus group workshop (figure 17) are as follows:

- Learn new skills.
- Challenge oneself.
- Gain recognition.
- Interact with more people in the company.
- Create a new business from scratch.
- Take an idea forward in the company.

These motivations have been utilised while doing the branding of the toolkit in the *test* stage of the design process, and will be explained in more detail in that stage. These motivations were also important, because they acted as value propositions of the toolkit for potential intrapreneurs in Elisa.

5.3.8 Design principles for the toolkit

Design principles are a method in service design that helps in building the ‘features’ of a solution, and provide integrity and form to the outcome that is being designed. Design principles are usually succinct and are easy to remember, e.g. “*Talk like people talk,*” “*The service always connects to the community,*” or “*Keep women at the centre of business.*” (Ideo 2017). Since the solution is already known - a toolkit and its governance model, design principles help in incorporating all the needs related to the solutions.

After conducting affinity clustering and identifying the themes from stakeholder and innovators’ interviews, focus group workshop and review of adobe kickbox individually, again affinity clustering was done to come up with common themes between all the data that was analysed. This can be seen in figure 19. From this, ten design principles were extracted based on the intrinsic principles behind each theme. Therefore, the design principles for the toolkit and its governance model are:

1. The toolkit must help create *new service business ideas*.
2. It must start with a *customer problem*.
3. It must end with a pitch about the validated customer problem and solution.
4. The toolkit must be *easy to use* by any employee in SoSe.
5. It should be *doable* with employees’ regular jobs.
6. The toolkit must *enable collaboration* in the company.
7. It should be *time-boxed*.

8. It should have *adequate resources* to launch the first experiment.
9. The process should *not be bureaucratic*.
10. The process must tap into the *key motivations* of the employees.

5.4 Ideate

Ideate stage is again about diverging to come up with many solution ideas. It is a stage that provides the source material to build prototypes and offer innovative solutions to the customers (Plattner 2013). The following actions were taken in the *ideate* stage to create content for the toolkit and its governance model.

Ideate	
Objective	Create content for the toolkit and design its governance model.
Methods for data collection	How might we statements. Curate content from different toolkits. Content synthesis from define stage. Design principles
Output	Content for the toolkit Governance model framework

Table 6: Table showcasing the objectives and methods used to ideate on the design principles for the toolkit

5.4.1 Content for the toolkit

Ten design principles have been identified in the *define* phase to understand what the toolkit should be and how it can help intrapreneurs in Elisa. The interviews in *discovery* stage already offered many ideas to find solutions to the 10 design principles.

Design principle 1: The toolkit must help create *new service business ideas*.

As elaborated in chapter 3, new service development can be done using a combination of methodologies from human centred design and lean start up approaches. Human centred design offers a good overarching process to identify and understand customer needs, aspirations and in building the MVP, while lean startup provides a rigorous framework to create hypotheses, value propositions and defines what an MVP entails. Following this, MVP and value propositions can be tested with customers.

This design principle is about identifying ‘new’ service business ideas. Therefore, an employee can first check if there has been a similar idea in Elisa previously. If there has been one, what happened to it to understand why it did not proceed ahead or vice versa. The other aspect of this is to distinguish between a good idea and a good business idea.

- A good business idea has many components, one of which is strategic fit with the company. Interviews with innovators suggests that all the ideas that become new businesses should fit the company’s strategy. This is also supported by Sundbo (1997), to prevent loss of control over innovations. Therefore, it would be valuable to understand the strategic focus of the company and match the idea with the strategy. To achieve this, an innovator should answer the question of why the idea should be pursued specifically by Elisa, in order to receive the toolkit. This would ensure focus on developing a new service as well. However, this perspective has two caveats - 1) it does not ensure that the idea that did fit the strategy at the onset will do so towards the end of the toolkit, and 2) at the onset of the design of the toolkit, the strategic domains were not decided in Elisa, making it difficult to align an idea with the company’s strategy.
- A good business idea should offer a solution that the customers want. Therefore, it should always address a customer problem, aligning with SDL by implying that value is always co-created with the customer. This is explored further in design principle 2.
- A good business idea states how the customer’s demand is being met through it (Nesta 2017). Therefore, it focusses on solution validation, which is elaborated in design principle 3.

Design principle 2: The toolkit must *start with a customer problem*.

Stickdorn and Schneider (2011) have stated that the role of service design is in identifying the customer problem before thinking about the solution. They suggest that a service design project is successful when a problem is contextually understood from the perspective of the customers. Ash Maurya, an expert of lean startup offers the reason for identifying the customer problem - “*You can’t define a compelling value proposition without first understanding your customers and their problems.*” (Maurya 2015).

SDL states that value is co-created contextually (Vargo 2015). This implies that a problem statement must have three components - the customer, the problem and the context. However, neither any service design process nor lean startup help in framing a customer pain or customer problem in a statement. Therefore, JTBD theory is introduced, which states that all

customer problems are essentially jobs that the customers are trying to accomplish. Therefore, JTBD theory lends a good framework to create a job statement (Gecis 2015). The JTBD theory problem framework can be seen in figure 21. This framework consists of an action verb stating what the customer is doing to trying to get done, the object of action and the context in which the action is taking place (ibid).

Moreover, using the JTBD statement as a tool helps in standardising it of the tools in the toolkit, so that it is easy for management to judge the progress and the outcome from the toolkit. It is also important to ensure that the problem statement is consistent and uses unambiguous language so that it can be easily understood. In the theory, the JTBD statement/ problem statement is in the form of a framework, show in figure 23.

Job-to-be-done statement

Verb	Object of the verb	Contextual modifier
Transport	me and my belongings	via the ground
Example of object of the verb		
for example, from my temporary work location to my hometown		

Figure 23: JTBD statement framework from JTBD theory (Source: (Gecis 2015))

The reason for creating a statement rather than using the framework is because the author found it difficult to create a job statement from the framework. However, after creating the statement from the framework, it was perceived to be easier to write the job statement.

Therefore, the problem statement for the toolkit could look as under:

“When (*the context*), the customer wants to be able to (*expected outcome*), because (*reason for the expected outcome*).”

At the onset of the toolkit, the customer problem will be ‘assumed’, which will subsequently be validated as the intrapreneur would proceed through the toolkit. The toolkit must utilise lean startup methodologies because it is a strategic choice in Elisa. Therefore, lean canvas will be incorporated in the toolkit. The lean canvas acts as an overview of an idea. Incorporating details in it can be beneficial to communicate the entire idea to the management during the decision-making stages. Therefore, once validation of the problem and the customer segment has taken place, these details could be filled in the lean canvas in later stages of the toolkit.

Design principle 3: It must end with a *pitch* about the *validated customer problem and solution*.

This design principle is the crux of the toolkit because it dictates the entire process of the toolkit.

Validating the customer problem:

The previous design principle addresses how to form a problem statement. A core component of lean startup methodology is the build-measure-learn feedback loop where the first step is figuring out the customer problem that needs to be solved (Ries 2017). At the onset of the toolkit, the assumption has been that even though the intrapreneur would have a potential solution idea, the intrapreneur should first think about the assumed customer problem that his / her potential solution might solve. The intrapreneur would begin with an assumed customer problem that needs to be validated through customer research. To help them identify the customer problems, they can use user research methods like contextual interviews, observations, focus groups, etc. (Ideo 2017). These methods were also suggested during the focus group workshop because they could help the innovator understand the problems from the customers' perspective and help the innovator find the problem worth solving.

There are several problems that a customer might face within a given market or situation. In that case, how might an innovator validate that the problem identified is big enough to build an internal startup around it, i.e. is the problem worth solving? There are three things that must be considered while thinking about a problem: frequency (does the problem occur often), density (do a lot of potential customers face this problem?) and pain (is the problem a mere annoyance or a real problem that must be solved?) (Brikman 2016). The pain-density-frequency framework is well aligned with a combinatorial approach of lean startup and service design.

Figure 24 explains which customer problems are worth solving using this framework. The figure implies that those problems that occur frequently and customers really care about it, can be easily profitable and are 'low hanging fruits'; the ones that occur frequently but customers are mostly indifferent towards the problems need marketing in order to be successful; the ones which customers really care about but they occur less frequently usually have a high price point in order to keep the service functional; and those ideas that the customers neither care about nor do they occur frequently should not be pursued because no business can be made from such ideas (Wodtke 2016).

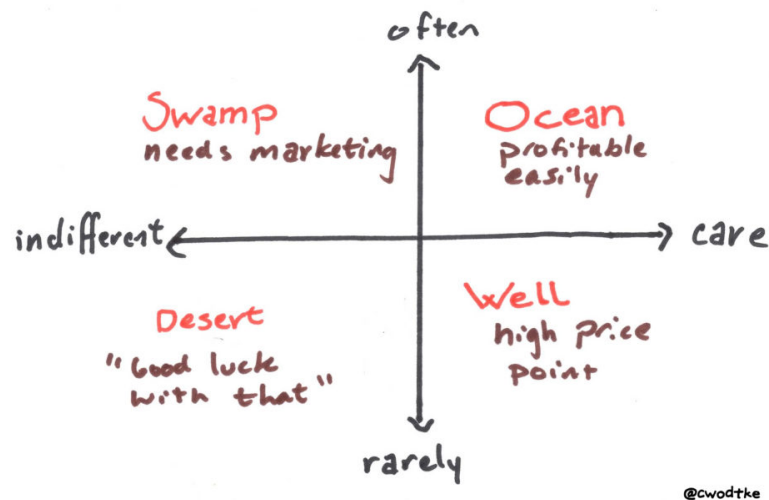


Figure 24: Frequency-pain matrix to identify which customer problems are worth solving
(Source: Wodtke, 2016)

While customer research can help identify the frequency and pain from the customers' perspective, market sizing can help to understand the density of the pain. Lean startup focusses on market development along with customer development. Lean startup also uses product adoption curve shown in figure 25, and urges innovators to focus on identifying early adopters (Ries 2011). Without early adopters willing to pay for a new service, a startup would find it difficult to scale. This is because there is a difference in the mind set between early adopters and early majority. Early adopters have the mind set to buy new products and services as soon as the new services and products have matured. In contrast, early majority are less risk taking and only adopt a new service or product when they feel the social pressure from their peers to do so, and when they feel that change is inevitable (Maeli 2016). This suggests that the toolkit should help intrapreneurs develop understanding of segmentation and market sizing of the early adopter customer segment.

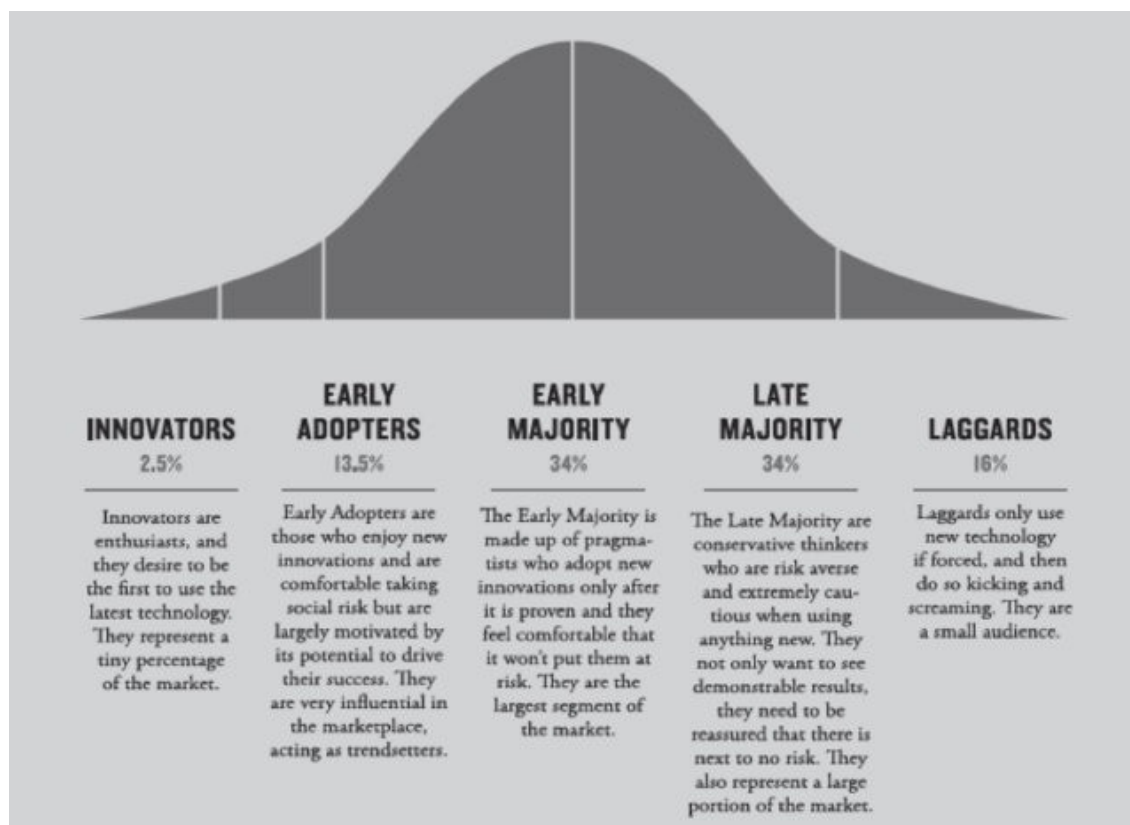


Figure 25: Adoption curve by Bohlen, Beal and Rogers from 1957 (Source: Maeli 2016)

Finding the potential solution:

After finding the customer problem worth solving, brainstorming could be used to come up with solution ideas. However, it emerged during the focus group workshop that brainstorming could utilise other service design methodologies such as analogous inspiration and competitor analysis (Ideo 2017) to help intrapreneurs come up with new solution ideas that were different from the one they had initially. However, it might be difficult to combine all the different techniques in one brainstorming session by an intrapreneur who has not used these methods before. Therefore, a canvas that combines these different methods together might be a suitable way to come up with potential solution ideas.

Since brainstorming results in many ideas, affinity clustering could be done to create solution ideas clusters by clustering similar solution ideas together. Following this, prioritisation of solution idea clusters could be done. These would help in the identification of ideas that could be prototyped and tested with customers. One simple way to identify the solutions worth prototyping would be by using the feasibility-impact matrix shown in figure 26. This was suggested by one of the participants during the focus group workshop. The diagram would help identify those solution clusters that are highly feasible for Elisa and have a high impact on the customer, increasing their chances of acceptance in Elisa and for the customers.

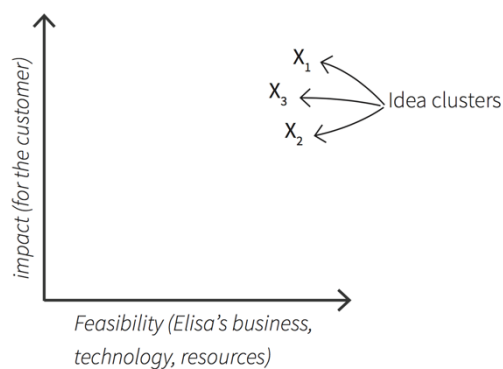


Figure 26: Impact-feasibility matrix to identify solutions worth building

However, how might an intrapreneurs share the solution ideas as an elevator pitch? This is where Adobe kickbox provided an adequate framework for defining the solution statement, which was based on JTBD theory's outcome statement (Gecis 2015). This statement combines the outcome that a solution might generate with the problem that a customer faces, and becomes the first point where problem and solution are seen together.

Solution statement: "A <product/service description> for <target customer> that <key value> enabling <primary benefits> unlike <existing alternatives>."

Validating the potential solution:

Adobe Kickbox contents were again reviewed to identify how a solution idea could be prototyped. As stated in chapter 3, SDL's foundational principle seven states that "*the enterprise cannot deliver value, but only offer value propositions*" (Ordanini & Parasuraman 2011, 5), suggesting that value for the customer is created through value propositions. The lean startup methodology also suggests developing the minimum viable product (MVP) to begin the process of learning as quickly as possible. This MVP is a part of the build-measure-learn loop. Value is created for the customer through a unique value proposition of the MVP.

Adobe's kickbox already provides good guidance on forming value propositions and validating them with customers through the creation of an MVP (Adobe 2017). The process is also tailored towards digital services, fitting in well with Elisa's strategy of creating new digital services. This process is known as concept validation in service design (Ideo 2017). The first part of the validation is qualitative, where potential customers are shown the solution prototype and their feedback on whether it is the correct solution to the problem is verified. Then second step is to identify is customers are willing to pay, to check the viability of the solution (Maurya 2012). This viability is verified quantitatively because customers say something else and do something else (Sinek 2011).

Pitching:

The VP of SoSe and the participants in the focus group workshop has suggested that pitching might be a good way to showcase the findings about the idea after using the toolkit. This was suggested because the decision-makers on the ideas has very little time to look through the ideas and also since the ideas were new services which might become potential internal startups in Elisa, it was only fit if they were presented in the format employed by startups.

To understand what constitutes a good pitch, design principle 1 was referred to which identified what a good business was. Therefore, a good pitch should have the customer problem, the customer segment that faces the problem, how was the customer segment and problem validated, what solution is being proposed for the problem and solution validation. Adobe kickbox's contents (Adobe 2017) already has a good framework for creating a pitch, which could be utilised for the toolkit as well.

5.4.2 Ideating on the toolkit's governance model

Design principle 4: The toolkit must be *easy to use singularly* by any employee in SoSe.

SoSe in Elisa is primarily made up of designers, developers, copywriters and managers (process managers, people managers, product managers and business development managers). Due to a mix of many professions, it is important to keep the toolkit as easy to understand as possible, and also provide necessary instructions where needed. This was identified from the focus group workshop. Therefore, the following ideas could be utilised to find a solution to this design principle:

- The toolkit could be made physical. The process of innovation is fuzzy and intangible and a physical box might bring tangibility to the process.
- Review service innovation toolkit instructions provided by Adobe kickbox (Adobe 2017) and Ideo (Ideo 2017). These toolkits are well-used and pioneering toolkits with simple instructions.
- Provide instructions (especially for conducting interviews and creating assumptions and hypotheses) where needed in the toolkit.
- Create canvasses with instructions to support customer research, segmentation, ideation, experimentation, scoring of the idea and the lean canvas.
- Identify video tutorials that might help with different steps in the service innovation process. While this has been an idea that has lingered, it has not been implemented because of lack of time and resources.
- Use simple English to make it accessible for all the employees, local and otherwise. English language was utilised because the designer of the toolkit is not fluent with Finnish.

Design principle 5: The process must tap into the *key motivations* of the employees.

As stated in Nesta's report, intrinsic motivation is an extremely important factor in employee-generated innovation in companies (Patterson et al. 2009). From the focus group workshop with SoSe employees, a list of motivations to innovate were collected and motivation statements were created from them. The initial idea was to create this list of motivations and add them in the physical toolkit. However, this idea was later shelved because of the need for brevity in the toolkit. However, motivation is still very important and could also become a part of branding. Moreover, the Nesta report and interviews with innovators from other companies suggest the need for incentivising innovation to motivate employees. This has also been emphasised by Ireland et al. (2006), who suggest that reward mechanisms should be commensurate with the expected financial gains as well as through formal recognition of achievements. Therefore, incentivising monetarily as well as recognising the efforts should be adopted into the toolkit's process.

Design principle 6: The toolkit must *enable collaboration* in the company.

The fourth design driver of the toolkit is that it should be easy to use by any employee singularly. However, innovation cannot happen in isolation by one person alone. There is a need to incorporate different perspectives from different professionals in the company, as suggested during the focus group workshop. A few places where this could be done is:

- Meeting professionals working on trends analysis to gather any relevant data from them.
- Speaking with market researchers in the company who might provide help with customer segmentation.
- Gaining guidance from user researchers on how to interview and observe customers and in general ethnographic methods.
- Organising a brainstorming session with other professionals to get ideas.
- Adobe kickbox provides a scorecard (Adobe 2017), that could be incorporated in the toolkit to understand the solution idea's viability from other employees and managers' perspectives.

Design principle 7: It should have *adequate resources* along the entire toolkit's journey.

The primary resources that employees might need would be time, knowledge from peers and a little money. Ireland et al (2006) suggest that flexible budget and slack resources can be

built into the company's control system, thereby facilitating experimentation. The fourth design driver of the toolkit is that the toolkit should be easy to use by any employee singularly. Therefore, one way of providing resources is of course through collaboration and tapping into the knowledge of other employees in the company. At different stages of the journey, an intrapreneur might need different sources, which could be monetary as well. Therefore, the process could incorporate resources at the following sections:

- Adobe's kickbox provides a personal mentor for every kickboxer. This model might work well in Elisa to support individual innovators and has also proved to be useful in other companies (Elfring et al. 2005). This has also been supported through literature on organisational ambidexterity, which supports the need for mentorship (Saari et al 2015).
- Provide money for online experimentation and user research, because the fourth design driver of the toolkit is that the toolkit should be easy to use by any employee singularly.

Design principle 8 and 9: It should be *doable* with employees' regular jobs, and it should be *time-boxed*.

A common issue encountered in dispersed corporate entrepreneurship is managing the time an intrapreneur spends in doing his core job along with working on his service idea (O'Reilly & Tushman 2013). The interviews with innovators from other companies suggested that there are different mechanisms to tackle this issue depending on where the innovator is situated in the innovation funnel, i.e. allocating no separate time if the innovation sought is incremental or then a dedicated time period along with regular work, if the innovation is a product or service innovation. Additionally, in the earlier stages, less dedicated time is allocated while in later stages, dedicated time becomes necessary. This indicates that separate time should be allocated as part of the toolkit, since it is designed to come up with new service innovations. At the onset, it was decided that no employee could leave their core job and only focus on their idea at such an early stage. In order to solve this dilemma, an assumption was made about how much time it might take to complete the process and then divide that time across a few months.

Articles on other companies famous for internal innovations such as Google and Atlassian suggested that they allocated time to employees to innovate, as long as they shared their findings with the company (D'Onfro 2015). However, upon deeper research, this model worked best for developers who utilised this time to hack away on making technological solutions (Atlassian 2017). The toolkit was going to be used by other professionals as well. Therefore, such a model might not work in the company.

It was assumed at the onset that the toolkit might take 40 hours to complete, based on previous employees' experience of working in internal innovations. This time period matched the time period allocated for Google sprints, which suggested that the entire process be done in 5 days in a row (Knapp et al. 2016). However, Google sprints are done by an entire team who is aware about their market and need to grow their business. The intent of Google sprints is not to come up with new service innovations from scratch. Therefore, it might be difficult to work for 40 hours and come up with service innovation because the experimentation stage might need more time and the innovators will have a learning curve as well.

Therefore, a time period of two months was decided for the toolkit, so that 40 hours of innovation time could be spread over three months and the innovator could decide when he wanted to work on his idea. This model also supported the thought that ideas need time to incubate and a longer time period might be beneficial.

Design driver 10: The process should *not be bureaucratic*.

It has been observed that corporate entrepreneurship flourishes when a company's organisational structure has relatively few layers (Ireland et al 2006). From stakeholder interviews, it was found that the SOD process was perceived to be bureaucratic, which deterred employees from pursuing innovation in the company. The interviewees also mentioned that the reason for it being too bureaucratic was owing to the large number of decision-makers and their seniority in the organisation. There are two touchpoints where decision-making is perceived to be bureaucratic in Elisa - when an innovator has an idea and needs time to work on it and when he has a validated solution and needs more resources to continue pursuing the innovation further. To solve both these problems, the toolkit's process could do the following:

- In order to work on an idea and get the toolkit, an innovator had to answer two questions to his immediate supervisor - what is the assumed customer problem and why Elisa should solve it? If the innovator could convince his manager with the rationale for both the questions, he would be given the toolkit with all the resources.
- To solve the second challenge, it might be easier to involve middle-management in decision-making rather than go to top management with the results of the ideas.

5.5 Test

The *test* stage is the next phase of convergence in the service design process, where the intention is to show the solution that is being tested, through the means of a tangible artefact. From the previous stages, the design drivers were created to identify what to prototype. Several solution ideas were also generated to address individual design drivers. However, it

would be difficult to prototype all of them. Therefore, there was a need to select the ones that would be prototyped in the next stage of the design process. The ideas that were supported by literature and had proven record of working in other companies and Elisa were given priority. It was found that most of the ideas could be selected from this prioritisation process.

These prioritised ideas were made into the first prototype of the toolkit and its governance model. Adobe had open sourced its toolkit in InDesign format, and that was used as the basis for creating the toolkit's first prototype. However, due to the difference in design drivers between Adobe's kickbox and the toolkit, there were necessary differences in many parts of the toolkit.

Develop	
Objective	Design and create the first, second and third prototype of the toolkit and its governance model.
Data input	Design principles from <i>define</i> stage Ideas from <i>ideation</i> stage Adobe's kickbox InDesign document Feedback from decision-makers in Elisa
Methods and tools	Content synthesis and organisation, impact feasibility matrix
Output	First, second and third prototype of the toolkit and its governance model.

Table 7: Table showing the data inputs and methods used during the *develop* stage (Source: Author)

5.5.1 First prototype

Before compiling the toolkit, the author decided to name the toolkit Idea box. This name was selected because of how idea box is perceived in corporate semantics. Idea box is usually a physical box located in a common area such a cafeteria. Employees can suggest different ideas to improve the processes, work practices or something else by writing them on paper and then putting them in the idea box. The management would then go through the ideas and proceed to develop the ideas that they deem fit. With this semantic connotation in mind, the toolkit was named the Idea box, because the idea box would also serve as a physical box where ideas would be taken forward in the company.

The Idea box toolkit

The toolkit contents are a combination of service design and lean startup methodologies, based on the design drivers identified previously. Using Adobe kickbox's method of organising the content, the toolkit's content also followed a similar sequence and logic. Kickbox used a service design process to organise their content. The content in Kickbox has been divided in 6 chapters, as mentioned below.

- Start
- Observe
- Ideate
- Experiment
- Iterate
- Pitch

The sequence of stages in the Idea box is mentioned below.

Start: This chapter comprises of an introduction to the toolkit process. This is where the innovator has to fill in the assumed customer problem.

Observe: This chapter deals with understanding the customers to identify the real customer problem through interviews and observations.

Ideate: After identifying the real customer problem, the intrapreneur must come up with solution ideas, identify the solution that will be prototyped, fill out the lean canvas with the details of the solution and the unique value proposition.

Experiment: In this stage, an intrapreneur must create an MVP of the solution showcasing the unique value proposition and test it with customers qualitatively. The MVP need not be coded in order to be shown to the customers. Lean startup suggests that an MVP is built so that one cycle of build-measure-learn can be completed. However, the case studies given in Reis (2011) book suggest that at the onset of the experiment, an MVP is the basic service that must be built so that potential customers can experience the basic service. Then the MVP defined by lean startup must be used to build additional features on top of the basic MVP. Figure 27 suggests how to build an MVP. And MVP should not just focus on the functional aspects of a new service, but should incorporate the minimum features that allow embedding the functional, reliable, usable and emotional aspects of the solution. Idea box utilises the understanding in MVP in accordance with figure 25.

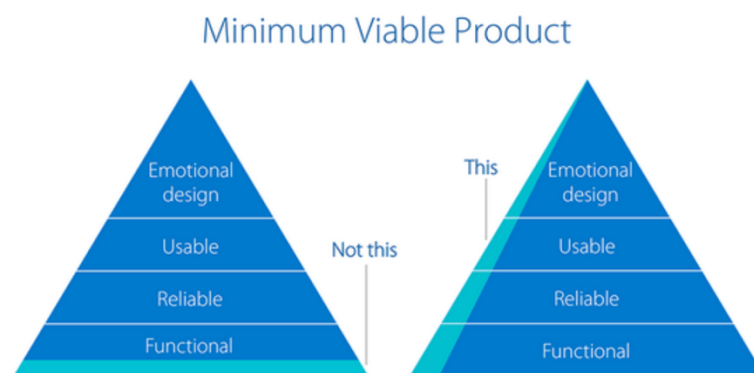


Figure 27: Minimum viable product for the Idea box (Source: Pasanen, 2014)

Iterate: If there is feedback from the customer to change anything from the previous stage, the intrapreneur should make the changes and test the solution MVP quantitatively using a website. The idea is to still not code, but use web services and app services that can build websites and apps without the intrapreneur having the code at all. Quantitative validation helps the innovator show data about customer validation in terms of sign-ups or clicks or something else (depends on what needs to be measured), which helps the decision-makers in Elisa decide whether to kill or proceed with the idea.

Pitch: A real customer problem has been identified, a solution has been validated and data is found to make decisions about the solution. Therefore, the intrapreneur shares the idea and the entire Idea box journey with decision-makers in Elisa by delivering a pitch.

As described in chapter 4, there are two kinds of prototypes - 1) appearance prototype and 2) performance prototype (Kumar 2013). The first prototype of Idea box is predominantly a performance prototype because it simulates the functionality of the solution, rather than the appearance. The box of the toolkit was handmade by the author from navy blue cardboard paper, using origami folding technique. As suggested by Ideo and Stanford D.School, the first prototype was simple enough to display all the contents, logic and process of the Idea box, without investing much time in making it look perfect (Ideo 2017), as can be seen from figure 28.



Figure 28: First version of Idea box toolkit

A journey map was also made for the content of Idea box toolkit, so that intrapreneurs could see where they are in the process and how far they need to reach in order to complete it. The journey map can be seen in figure 29. The figure shows the 6 stages mentioned previously.

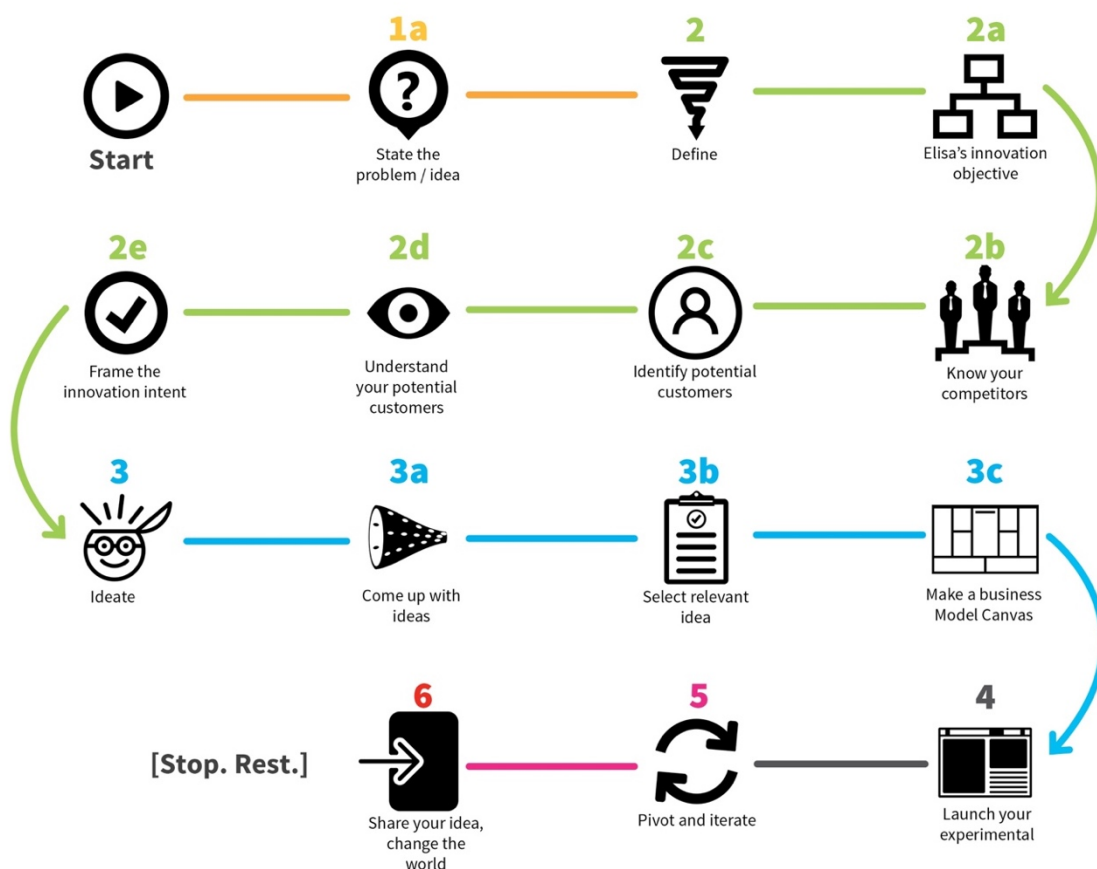


Figure 29: Journey map of the Idea

The Idea box governance model:

The governance model was designed based on the design drivers mentioned in the *ideate* stage.

- A total of three months was proposed to be allocated to every Idea boxer, so that they could complete the box along with their everyday job. This time was an assumption made the author based on how much time it would take her to complete the toolkit's process herself, for a given idea.
- Each intrapreneur was also allocated a personal mentor who would guide them through the journey and 1000 euros to experiment and conduct user research. 1000 euros was decided from Adobe kickbox, which also gave 1000 euros to intrapreneurs to use as part of kickbox (adobe 2017).
- Additionally, the management team comprising the VP of SoSe, a development director and a senior business development manager who was very experienced with business experimentation was created to judge the outcome of the intrapreneurs using the idea box. This was decided because the pilot was going to be launched in SoSe.
- At this stage, it was proposed that since ideas cannot be patented, their IPR should stay with the intrapreneurs in case the idea is killed. However, this had not been verified with the legal department as yet.

The journey map created from interviews with innovators in other companies was used to create the governance model for the Idea box. This can be seen in figure 30, which starts with promoting innovation in Elisa through posters and team get togethers. In this manner, the Idea box toolkit and process would be introduced to team members in SoSe. Following this, if the employees have an idea, they could contact their immediate supervisory manager and make a pitch about the customer problem they want to address. At this point, if the manager feels that the customer problem is not worth solving, the idea will not proceed. In case the idea is worth pursuing, the employee will get the idea box and all the resources associated with it.

To familiarise them with the Idea box tools and process, they would have to attend a two-day workshop. While the author anticipated that the two-days workshop might not be feasible in Elisa, it was still proposed to gauge the reaction from the stakeholders in the company. After completing the Idea box, they should make a pitch to the management team comprising the VP of SoSe, a development director and a development manager who is an expert of experimentation. After the pitch, the management team can decide if the idea is worth proceeding or not. If it proceeds ahead, the employee will receive a 1000 euro reward and will pitch to the portfolio team. If after the pitch, the portfolio team decides to not proceed with the

idea, the idea will be killed. But if they decide to proceed with the idea, the idea will become an H3 and will become an internal startup in Elisa.

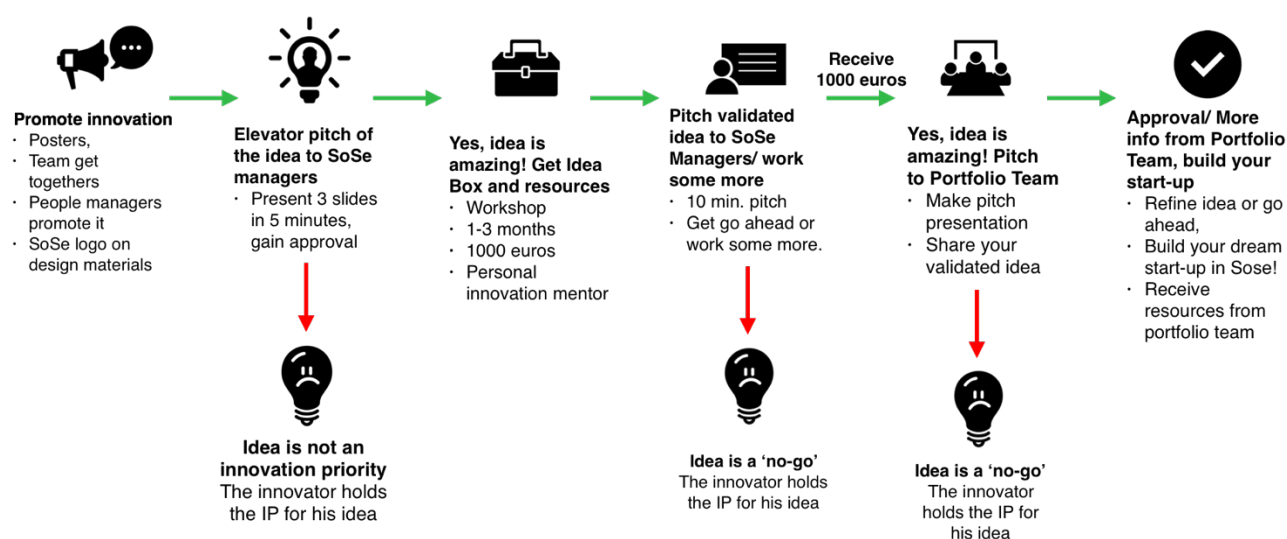


Figure 30: First version of Idea box's governance model

Feedback from the first prototype:

The first prototype was showcased to the VP of SoSe, a development director, the design manager and the senior business development manager who had been interviewed during the *discover* stage. The Idea box was then presented to few members of the higher management in Elisa, who also decided to support the project in its future pilot in SoSe.

5.5.2 Second prototype

Ideo (2017) states that when a solution is presented to the customers, they start to notice what could be made better. Therefore, continuous iteration and soliciting feedback has the potential to improve the solution (Ideo 2017). At this point, the VP of SoSe decided to showcase the Idea box during the production strategy fair of Elisa in September, 2016. Therefore, a refined version of the Idea box was designed to showcase during the fair, where only the appearance of the toolkit was refined. No change was made to the content or the governance model of the Idea box at this point because of lack of time before the strategy fair. Very minimal effort had been invested in its packaging design to brand it because the production time for the new box was only two weeks. Figure 31 shows the Idea box display during the strategy fair in Messukeskus in September, 2016. The box does look more refined than the previous prototype, but it only has the name on the side as branding.



Figure 31: Second iteration of Idea box toolkit at Elisa's Production strategy fair

5.5.3 Third prototype

After the strategy fair, the VP of SoSe and a development director at Elisa had more time to have a closer look at the content of the Idea box as well as its governance model. Therefore, a few changes were made to the content as well as the governance model. Along with that, branding was also done for the Idea box to communicate its value proposition to potential intrapreneurs at a glance.

Changes in content:

- The name of the second stage - *observe* was changed to *listen*. This decision was taken because often the situation has been that employees don't listen to the customer enough, leading to the creation of services that nobody wants.
- The fourth and fifth stages - *experiment* and *iterate* were removed from the Idea box because it was assumed that these stages might be difficult to cross by an intrapreneur alone, and required a steep learning curve. Therefore, instead of quantifying the data gathered by launching an experiment to test the MVP, the Idea box would end after conducting solution validation interviews with potential customers. However, this decision is likely to have impacts on the decision-making of ideas from the Idea box because there is no proof of solution validation through quantitative means, to decide if the idea should go ahead or not. At this point, 4 stages remained in the toolkit: start, listen, ideate and pitch.

Changes in the governance model (figure 32):

- Promote innovation: It was decided to put the Elisa logo instead of SoSe logo, to make the toolkit more future facing. 1st time when an idea is not an innovation priority is defined by the alignment of the idea with the strategy of the company. Therefore, the employee would have to answer two questions - what is the customer problem and why should Elisa solve it, in order to receive the Idea box and its resources.
- ‘Get the idea box’ stage: The initial suggestion was to organise a workshop for two days with all idea box recipients to help them understand all the tools in the Idea box as well as the entire Idea box process. However, it is almost impossible to organise a workshop over two entire days since it hampers the core job function of employees, and is expensive for Elisa. Therefore, the two-days’ workshop was reduced to three hours, where the innovators would work on defining their customer problem by using the problem statement template given in the ‘start’ phase of the Idea box. This reduction in the workshop time also might have repercussions on how employees might eventually use the Idea box, because they would have no time to familiarise themselves with the tools and methods in the box.

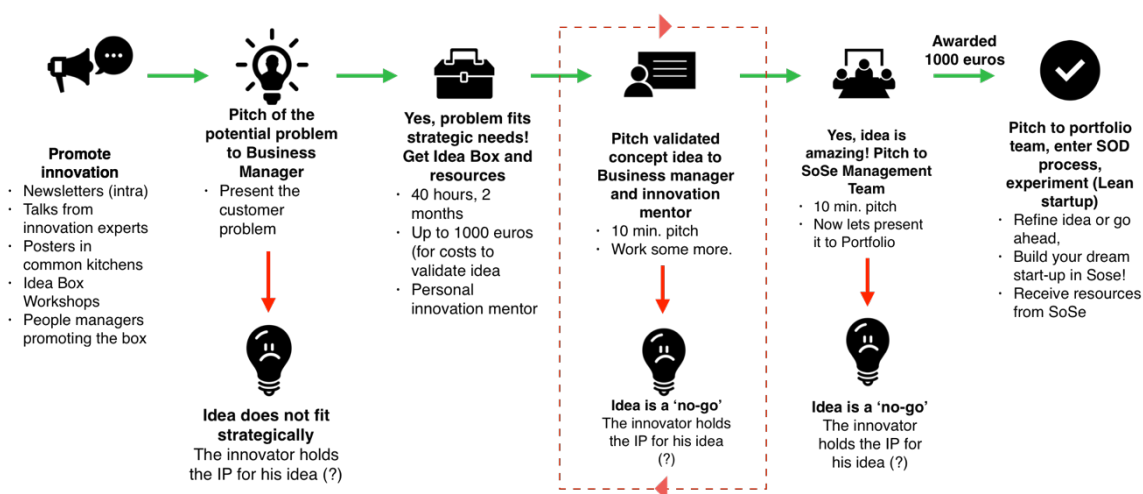


Figure 32: Third iteration of Idea box's governance model before piloting the idea box

- Validated pitch and concept idea: The red dotted lines suggest a cyclic movement. This was designed because of the realisation that with a reduction of two stages from the toolkit, it might be difficult for an intrapreneur to defend the solution. It would also not be appropriate to pitch to the portfolio team without having adequate proof of problem-solution fit. The cyclic movement shows that the innovator must refine the solution after discussion with the SoSe management team.
- Since two stages were removed from the toolkit, the time was reduced from three

months to two months.

- IPR (intellectual property rights) for the idea: At this point, the legal department confirmed that if an idea did not reach the end stage of the Idea box or the management decided to not proceed ahead with it, the IPR of the idea would remain with the intrapreneur.

Branding:

- The Idea box was already given a name during the first prototype stage. However, the toolkit needed branding because it was being introduced in the company for the first time. The VP of SoSe felt that it needed to be designed so that employees are interested to pick it up.
- The author started by benchmarking a few branding examples that she liked using Pinterest.
- It wasn't decided whether the box would follow Elisa's brand colours or not. Therefore, the author decided to use Elisa's secondary brand colours for the first iteration of the branding exercise.
- However, just writing Idea box on the cover of the box did not provide any indication of what the box contained inside. Therefore, the author utilised the employee motivation statements in the form of questions to pique the interest of the employees. This can be seen in figure 33.

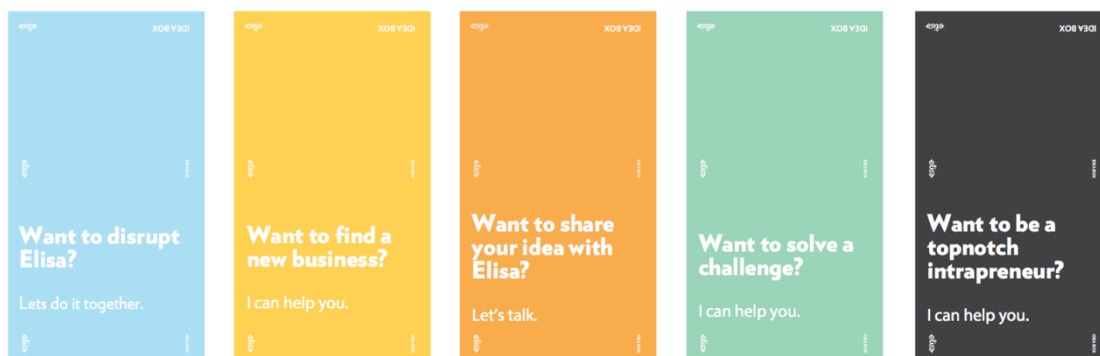


Figure 33: First iteration of Idea box's branding

- Second iteration: The secondary colours did not appeal to the organisational stakeholders and they did not perceive a need to match the Idea box' branding with the company's branding. The stakeholders and the author jointly decided that the most compelling value proposition for the toolkit was the "want to take your idea forward with Elisa? I can help you." Therefore, the new branding exercise included the value proposition and fresher colours that would attract employees to pick up the Idea box. This can be seen from figure 34.

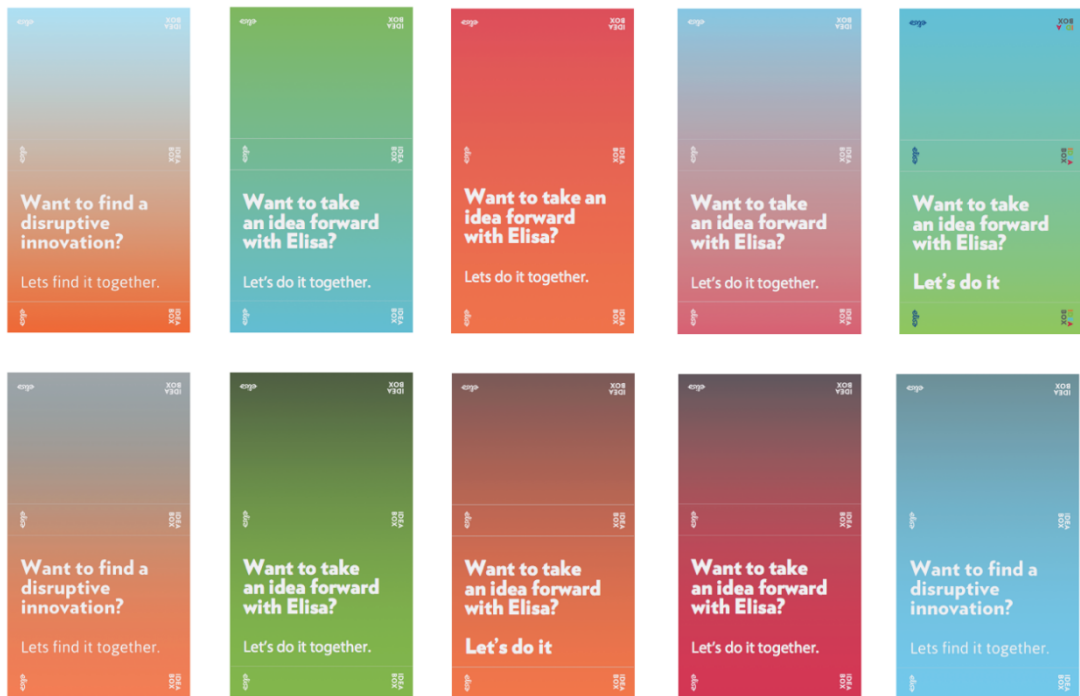


Figure 34: Second iteration of Idea box's branding

- The author decided to utilise the third template from the top row as the Idea box branding template because it looked interesting and the colour contrast allowed the value proposition to stand out. Additionally, this branding provided an opportunity to use the metaphor of torii gates from Japan, shown in figure 35. In the way that these gates mark the entrance to a sacred site and the row of gates make a journey, the toolkit marks the entrance to a professionally journey.



Figure 35: Torii gates in Japan, used for Idea box's branding (Source: Google images)

- Content design: Following a change in the exterior branding of the toolkit, the content cards were also branded using 5 colours – orange, green, blue, maroon and light grey. Grey acted as the background colour while the remaining four acted as representational colours of the four stages of the Idea box, as can be seen from figure 36.



Figure 36: Contents and exterior branding of Idea box

6 Conclusions

This is the last chapter of the thesis, and it offers a summary of the work including the key insights from the theoretical foundation and the qualitative research. It then explores the value of the work and transferability of its results. Finally, it presents opportunities with consideration for further research.

6.1 Summary

This thesis explores the process of designing a DIY toolkit, its contents and its governance model, so that it can enable dispersed corporate entrepreneurship in Elisa. This toolkit - named Idea box, is designed to help employees in Elisa validate their ideas with their potential customers, in order to find new business opportunities for Elisa. The design process includes the toolkit's governance model - the process through which managers in Elisa will manage the employees who use the Idea box toolkit. The following research questions were set out at the onset of the development project.

1. How to design the contents for a DIY toolkit that enables corporate entrepreneurs in Elisa to validate if their ideas can result in new service businesses?
2. What should the governance model of such a DIY toolkit entail, so that it facilitates the management of dispersed corporate entrepreneurship in Elisa?

It is absolutely the opportune moment for companies to encourage internal entrepreneurship to remain competitive in the future. Therefore, business leaders and top managers should help their companies harness the knowledge by developing processes through which knowledge transfer and sharing can take place across business units (Wilenius & Kurki 2012). This suggests that building the Idea box is appropriate and timely.

Chapters two and three provide a theoretical background to answer the second and first research questions respectively. Chapter four provides a theoretical background to design the process of creating the Idea box and its governance model. Chapter five elaborates on the empirical study conducted to design the contents of the toolkit and its governance model, and provide practical steps taken to answer both the research questions.

At the onset of the research process, the scope of the development project felt somewhat overwhelming, especially because the author was not familiar with corporate innovation practices and its management. Thus, the theories and topics explored in chapters two and three

in the thesis provided more understanding, guidance, initial input as well as assurance towards the research questions posed for the thesis.

First research question (conclusion from literature review)

The first research question is - 'How to design the contents for a DIY toolkit that enables corporate entrepreneurs in Elisa to validate if their ideas can result in new service businesses?' Elisa's strategic focus is on coming up with new service innovations, that are generated by the employees of the company. Therefore, the thesis explores the role of service dominant logic (Vargo & Lusch 2016) as a theoretical base in coming up with service innovations and utilises human centred design and lean startup as two approaches to develop new services. The literature review on human centred design and lean startup offer an appropriate way to design the toolkit and its contents, that is commensurate with the objectives of the project. From the theoretical base of the first research question addressed in chapter three, following conclusions are formed.

In the third chapter, foundational premises have been presented instead of axioms because of FP4, which has been updated to "*operant resources are the fundamental source of strategic benefit*" and is not yet an axiom (Vargo & Lusch 2016). This FP is especially important for the thesis because the development project assumes that employees, who are the operand resources of the company can help create strategic benefit for the company by using a toolkit and by managing it through the governance model. Therefore, providing a toolkit to employees to re-combine resources in novel ways, especially in a way that they can learn new skills and remain competitive can offer an opportunity towards gaining strategic advantage.

In an article authored by Matthing et al (2004), the authors state that companies possess greater organisational learning capability if they have high market orientation, and that learning and market orientation are precursors to innovativeness. They argue that improved performance is a result of behavioural change that is facilitated by learning. Therefore, providing learning opportunities to employees through the toolkit and mentorship can help employees become market and learning oriented, thereby benefitting the company and ultimately increasing innovativeness in Elisa.

Design has influenced business functions by facilitating innovations through interactions between customers and markets. Human centred design brings people into the new service development process. Design Council's (2007) report clearly states that by creating a fit between designing with markets, with people and the with the knowledge possessed by a company, innovations can be generated in a company. This implies that the toolkit's contents

combining customer centricity using human centred design, market development using lean startup and alignment with Elisa's strategy to build on the company's knowledge can lead to innovations in Elisa eventually.

Giacomin (2014) states that human centred design is different from several traditional design practices because the focus of the questions, insights and activities is on the people for whom the service is being designed, rather than the focus being on the designer's personal creative process. Therefore, building on the previous conclusion, service design approaches adopting human centred design methods can be used effectively in the early stages of new service development (Yu & Sangiorgi 2014), making it useful for the Idea box's contents.

Both human centred design and lean startup focus on customer development and on understanding the customer needs before building any solution (Reis 2011; Ideo 2017). Both the approaches align well with service dominant logic because both the approaches require co-creation in order to create value (Vargo & Lusch 2016). However, both the approaches co-produce value in varied ways and involve stakeholders and customers differently because they fall in different parts of the service innovation lifecycle. For e.g. in human centred design process, a designer can co-produce new services with customers by using co-creation methods to identify solutions; while in lean startup co-production happens when the designer is testing the MVP through the build-measure-learn loop and co-produces the next iteration of the service with the customer.

Lean startup is reactive in practice, i.e. it is useful when there is an existing customer problem, and does not address the latent needs that customers might have. This is because lean startup starts with the problem interview and does not use other research methods such as observations, through which latent needs can be identified (Maurya 2012). Moreover, lean startup is utilised by entrepreneurs who already have significant understanding of the business landscape they are venturing into. This is an inference from several case studies available on companies and startup using lean startup principles. However, in organisational context, this business understanding might not exist with employees from different business units. Therefore, human centred design can help employees identify existing and latent customer needs by using different HCD methods.

Second research question (conclusions from literature review)

The second research question is - 'What should the governance model of such a DIY toolkit entail, so that it facilitates the management of dispersed corporate entrepreneurship in Elisa?' Taking into consideration the complexity of the development project and its implica-

tions, the thesis first sheds light on the need for corporate innovation, the economics of innovation, the theories on how corporates could innovate based on the presence of a particular long-wave economic cycle and the current approach in corporate innovation and its management. The literature established that dispersed corporate entrepreneurship is the apt corporate innovation method for the current economic wave. The theories in chapter two highlight the ways in which dispersed corporate entrepreneurship can be managed. This has been incorporated in the governance model in Elisa. However, the governance model's final iteration is not completely commensurate with theory, and those points have been mentioned in the discussion below.

Elfring et al. (2005) state that dispersed corporate entrepreneurship usually fails, because large companies do not provide favourable conditions for entrepreneurial initiatives in the working environment. However, they suggest that when an organisational culture tolerates failure, is open to experimentation and provides support during innovation in the form of mentorship, it can help create an organisational culture that supports dispersed entrepreneurship (ibid). Therefore, the governance model of the Idea box provides mentors. However, case studies from literature state that the experience of mentors in business development is an important factor in the impact of mentorship (Elfring et al. 2005, 8). The governance model does not prescribe the kind of mentors that will be provided. Therefore, the management might select mentors who don't have significant experience in business development and therefore, the impact of mentorship might be not be substantial.

Literature on ambidextrous organisational states that exploration and exploitation happens simultaneously in organisations, and is managed by different control mechanisms (O'Reilly & Tushman 2013). However, previously, Elisa has tried exploitation and exploration simultaneously, where exploitation has won over exploration because the targets are set around exploitation. This implies that until targets are set that promote exploration, exploitation targets will always be given higher priority. This has implications for the pilot in SoSe because no changes have been made in targets for employees in the business unit. Therefore, those employees who might take up the Idea box might find it difficult to concentrate on their idea, if they have core business priorities.

Empirical findings to answer both research questions

The fifth chapter of the thesis deals with the design process of the Idea box toolkit, its content and its governance model and the subsequent iterations that the toolkit and its governance model underwent. The following offer answers towards both the research questions empirically.

Double diamond offers a logical way to represent the design process of the toolkit and its governance model. Since double diamond is well-used in Elisa, employing it to represent the process helps organisational stakeholders understand the process in detail.

Incorporating incentive mechanisms in the governance model such as monetary rewards aligns well with the literature on ambidextrous organisations which suggest the formal recognition through incentives is important in creating an organisational culture that exploits and explored simultaneously (Ireland et al 2006).

Ireland et al (2006) have observed that corporate entrepreneurship flourishes when a company's organisational structure has relatively few layers. This is because restricted number of layers' results in more control, which in turn allows employees to act entrepreneurially. Elisa's current organisational structure cannot change immediately. Therefore, reducing bureaucracy in the governance model by keeping the threshold to get the Idea box low, as well as allowing decision-making by only three managers helps in simulating a relatively less hierarchical organisation.

Management's decision to remove experimentation stage from the toolkit in the second iteration would make it easy for intrapreneurs to use the Idea box because their learning curve might be less steep. However, this might have repercussions for management because decision-makers might find it difficult to push the idea into the next stage of the innovation funnel, i.e. into H3. This is because lean startup differentiates three stages - problem-solution fit, product-market fit and scaling. Pre-H3 deals with problem-solution fit, H3 deals with product-market fit and H2 deals with scaling (Ries 2011). It would be very difficult for intrapreneurs to find problem-solution fit if the last two stages of the Idea box are removed, since the intrapreneurs can no longer validate their solution. Therefore, most ideas will not be allowed to enter H3 stage, creating a gap between both the stages.

Building on the previous point, in practice, organisational decisions are dependent on subjective reality. While management believe in the Idea box, they have no way to predict the outcome from its usage. Therefore, instead of removing the last two phases of the toolkit, the decision should have been to simplify the process, so that intrapreneurs could still validate their solution.

The governance model in the second iteration states that an intrapreneur can work on his/her idea alone, and this was an assumption while designing the toolkit as well. However, innovation is a team effort (Design Council 2007b) and it might be difficult for one person to work on an idea alone.

The governance model does not emphasise how an idea that has successfully completed the idea box process will then be taken forward in the company, if it does not become a H3 business, but still has business potential. The handoff process has not been designed into the governance model, and is a pain point of the process because there is no assurance that an idea might go forward without a formal handoff to a business manager possessing the budget to take the idea forward.

Lastly, if an innovation process could yield new businesses, everyone would be an entrepreneur. However, the crux of becoming a potential entrepreneur is continuous learning and trying the process again and again, until one can achieve success.

6.2 Value of the study and transferability of results

This thesis has both scientific and practical value. The results from the development project are in congruence with the academic literature on corporate entrepreneurship, its management and also with service dominant logic and new service development process. The results of this study emerge from particularly rich primary and secondary data that is gathered from companies, academicians and practitioners in Finland and abroad. This has allowed the utilisation of different perspectives in the analysis as well. The practical value of the thesis stems from the process used in designing the toolkit and its governance model and the contents created through the process. Focus should be placed on the considerations made and analysis undertaken while creating it, in order to replicate the Idea box in another company to build alignment with a company's existing processes and culture.

Combining the DIY toolkit and its governance model has resulted in better buy-in amongst management in the company. The findings have been considered on a strategic level in Elisa, where one of the executive board members has given a 'go ahead' signal to the toolkit to be piloted in SoSe. While there is no assurance that using the toolkit will result in any new service innovations for Elisa, there is certainly the possibility that the toolkit can act as a tool for the employees to learn new skills.

As Esko Kilpi (2017) suggests, management thinking is moving towards an understanding of human action as a process of sense making. He states that the sense-making relationships of the employees rather than the choices of a few highly-paid employees, is what creates the future version of a company. Idea box's vision follows a very similar perspective that stems from the egalitarian belief that everyone has the potential to innovate when given the opportunity and environment for it. The vision of Idea box as an innovation toolkit is to shape the future of corporate entrepreneurship and create a culture that embraces uncertainty.

Service dominant logic has been utilised as the overarching theory to design the Idea box and its contents. SDL focusses on the creation and development of value propositions through which companies can co-create value (Skålén et al. 2014). This focus on co-creation renders the use of lean startup and human centred design approaches appropriate for the Idea box.

Undergoing the design process of creating the toolkit and its governance model and perusing through literature around it has led to the assertion that applying the principles of lean startup and human centred design in the toolkit and embracing learning by doing have a long-term benefit for the company. While the process of creating the toolkit itself is challenging, the process of designing the governance model is even more so because of the organisational complexity involved. The transferability of the findings from the thesis depend significantly on following the key principles of dispersed corporate entrepreneurship, i.e. embracing failure, creating a culture of experimentation, incentivising employees to innovate, etc.

One finding from the thesis is that companies who want to remain competitive in the 6th K-wave must follow dispersed corporate entrepreneurship and embrace contextual ambidexterity. However, there is a difference when external consultants are utilised in these efforts. Interviews with innovators in other companies revealed that utilising external consultants brings in fresh perspectives, but the biggest challenge in the approach is that consultants very often fail to create practices that the company can then follow without the need of the consultant. Moreover, they don't understand the intrinsic biases in the company nor the resources that the company has in depth. In this situation, Idea box presents a novel way to enable entrepreneurial thinking in a company without the need for any external consultants.

The results of this thesis are valuable because they have the potential for transferability to other companies internationally that seek to enable or enhance dispersed corporate entrepreneurship. Furthermore, there is potential for transferability also to the public sector, especially in the context of organisational change. For instance, a government organisation can utilize this toolkit while creating new policies or new ways of working; or a service design consultancy can sell a new service development toolkit by designing the governance model based on every company's processes and culture. It can also be used to identify customer problems in existing services and solve them without the need for a large team or resources.

6.3 Prospects for future research

As stated in the introduction chapter of this report there is a clear need for further research and development of the subject area that is in scope of the larger research project. While

this thesis contributes and provides value to this area to some extent, there are still plenty of future research opportunities. The prospects for future research related to the thesis topic are discussed below.

While the Idea box was designed for the all the employees in Elisa, it has not been tested with most business units, nor have perspectives from different business units been incorporated into its design. Therefore, the next iterations of the Idea box could also be further researched and approached from the perspectives of other business units, especially those working in the core business functions of Elisa.

Entrepreneurial behaviour, i.e. innovative use of resources to pursue opportunities is widely acknowledged to be essential for companies of all sizes (Ireland et al 2012). While previous studies have focussed on explaining explain entrepreneurial behaviour contextually, there is little research to understand why some employees act more entrepreneurially and others, even though all of them are exposed to the same corporate context (Elfring et al. 2005). Therefore, while the need to incentivise innovation is justified, the means of doing so has been difficult to justify for the governance model because of many examples, but very little scientific research to support it.

Identifying the factors that determine whether or not a value proposition in practice works well is important. Future research should also focus on the relationship between a company's practices and the practices of value creation for customers (Skålen et al. 2014).

Little research has been conducted into how existing practices are developed, and how new ones are created in order to understand the implications of the relationship between practices and services innovations. Future research could look into the use of different types of resources and practices and their different combinations to understand whether or not this leads to different levels of innovativeness and competitive advantage (ibid.).

Finally, while the management has embraced Idea box and the initial intention has been to scale it across Elisa, it is essential to understand the implications of encouraging innovative behaviour in the core business unit in the company. Would incentivising innovation in the core business units lead business managers to focus more on innovations rather than the core business, leading to chaos in the company? How can the Idea box be utilised for both new service innovations as well as teaching practices to cope with uncertainty? These are practical issues that the management will have to resolve when the toolkit is scaled across the company.

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Appendix 1: List of stakeholder interviewees and the interviews questionnaire.

Semi-structured interviews were conducted with key stakeholders and employees from Elisa during the ‘*discover*’ stage of the service design process. All the notes from the interviews were typed by the author in Evernote software during the interview. None of the interviews were recorded electronically.

Interviewees:

- Vice President of Software Services business unit
- Senior development manager
- Design manager

List of interview questions:

1. Introduction to the project by the author
2. Introduce yourself (name, position in the company, job function)
3. Details for the development project
 - a. Why should this toolkit be designed?
 - b. Who should it be designed for? Why?
 - c. What outcomes are expected for the employee and Elisa after using the toolkit?
 - d. Do you have any benchmark toolkit upon which the new toolkit should be designed? What is special about the benchmark?
 - e. Is there an existing innovation process in the company?
 - f. If there is, what is the need to design a new process?
 - g. Where will the toolkit be piloted?
 - h. How would you measure the success of an idea that has come out of the toolkit?
 - i. What happens after an employee completes the toolkit?
 - j. What happens if an employee realises that his/her idea is not good enough in the middle of the toolkit?
 - k. How would management deal with failures that will inevitably result by using the toolkit?
 - l. How would we incentivise employees to use the toolkit?
 - m. How much money should we put in the toolkit to enable experimentation?
 - n. Any I missing anything? Would you like to tell me something more, anything that might be relevant for the design of the toolkit?

Appendix 2: List of innovators and interview questions for innovators

Semi-structured interviews were conducted with four innovators from Dell, Adobe, Wärtsilä and Nokia networks during the ‘*discover*’ stage of the service design process. All the notes from the interviews were typed by the author in Evernote software during the interview. None of the interviews were recorded electronically.

Interviewees:

- Innovation specialist at Nokia networks
- Technical lead at Adobe
- Senior engineering analyst at Dell
- Project manager at Wärtsilä

List of interview questions:

1. Introduction to the development project by the author
2. Introduce yourself (name, position in the company, job function)
3. Understand the details on innovation practices in companies
 - a. I understand that you have been part of innovation projects in your company before. Can you give me an example of an innovation that you worked on?
 - b. What was the intention of your project?
 - c. Did you manage to complete the innovation project?
 - d. How long did it take for you to complete your project?
 - e. How did you present your findings from the project?
 - f. What were the next steps that were taken?
 - g. Did you do such a project for the first time?
 - h. When you started this project, was there any need stated by the company about seeking innovations?
 - i. Did your project align with the need of the company?
 - j. How did you balance your everyday work with your project?
 - k. Did you receive any other resources such as mentorship or some money to work on your idea?
 - l. What were the incentives in place to encourage you to innovate?
 - m. Can you walk me through your journey of hearing about the company looking for innovation for the first time till the completion of your innovation project?
 - n. What were your personal motivations behind doing such projects?
 - o. If another company had to follow a similar innovation strategy, what would you suggest should be kept in mind while creating such a strategy?
 - p. Am I missing any information? Would you like to tell me something more?