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The Synergy Platform

Inspiring collaborative behaviour in a corporate venturing environement

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Graduation Report
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Preface

Acknowledgements

I would like to thank everyone who has been around me for the last five months. You have either supported me, listened to me, or entertained me during this period of graduation.

Starting with Kerfegar, I would like to thank my company mentor for providing me with this opportunity to graduate at Philips, for always challenging me, trying to bring the best out of me, and providing me with the right resources to successfully graduate.

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Furthermore, I would like to thank everyone at Philips for their support during my internship. It is because of you all that I could conduct so many interviews and really uncover the root challenges of internal corporate venturing at Philips. In specific I would like to thank Pieter, Carina and Wouter of the NBX Office for always being open for a chat or a meeting and guiding me throughout the working environment at Philips. Next to that, Simon and Julian for their excellent collaboration during the interviewing of all NBX stakeholders and Jeroen for his helpful tips and supportive attitude towards my project. Last, but not least, I would like to thank Japheth for being a good sparring partner and helping me to understand the real essence of the feedback that I received.

Lastly, I would like to thank my family and friends for their support. My parents for taking the time to listen and providing advice during my graduation and to be to be critical reviewers of my report. All of my friends who have been distracting and entertaining me during the weekends. And in particular Jozine, for advising me weekly on what obstacles there are to come. And last, but not least, Luca, for almost daily listening to my struggles, positively distracting me from my thesis, and being a critical reviewer of my report.

Graduation was a lot of fun and has left a positive impression on me. However, I do feel that I am now really ready to finish being a student and finally start working. (I might regret this last sentence in a few years...)

Glossary

NBX Program – Internal Philips venture that is supported by the NBX Office

New Business Creation – All forms of creating of new business practices. This can range from introducing a new business model for an existing product or developing new to the world innovations.

Internal Corporate Venturing – The activity of establishing new, smaller businesses in an already established company with the aim to nurture and grow those ventures to be incorporated in- or spin-off from the already existing company.

Start-up – A small newly set-up business that aims to introduce an innovation in order to win customers and therefore market share.

Venture - A new business initiative within a company that aims to develop an innovation that is adjacent to the core or in an emerging business area.

Design Thinking – A design methodology that incorporates development activities with quick user testing and short feedback loops.

Abbreviations

BG – Business Group
BM – Business Model
BMI – Business Model Innovation
BU – Business Unit
CoP – Community of Practice
FBM - Fogg Behavior Model
ICV – Internal Corporate Venturing
KSP - Knowledge Sharing Platform
MVP - Minimum Viable Product
NBC – New Business Creation
NBX Office – New Business Creation/ Development Office
SME - Subject Matter Expert
TMT – Top Management Team
UI - User Interface
UX - User Experience
VPC - Value Proposition Creation
WPM - Words Per Minute
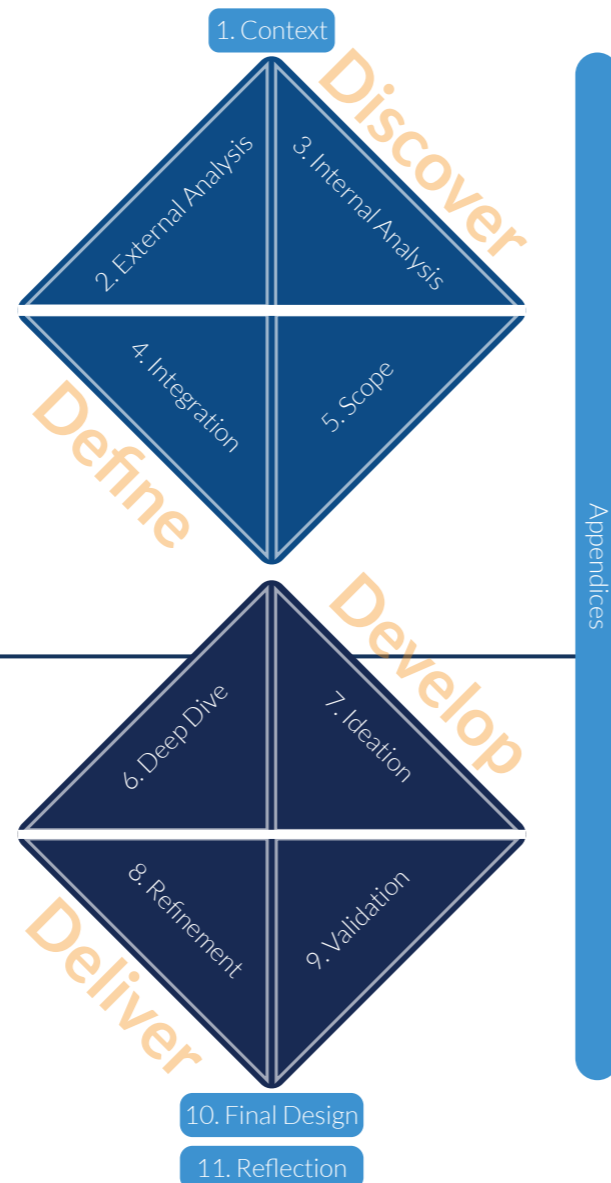
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Abstract

Many huge companies are struggling to keep their innovation funnel filled and to transform their ventures into successful new businesses, Philips is one of those. This thesis focuses on improving the performance of ventures through collaboration and knowledge sharing.

A literature review of Internal Corporate Venturing (ICV) revealed the challenges that ventures within big multinational companies are facing. Twenty-two interviews with ICV stakeholders within Philips revealed which challenges intrapreneurs at Philips are facing. Furthermore, different meetings were attended to determine best practices of transferring knowledge.

Integrating the internal and external analyses resulted in a clear overview of why the core business in Philips is performing so well, while the ventures are not. An RCA+ analysis led to the exploration of the search area of 'venture interaction'.

Another deep dive into that search area was performed to explore and define boundaries of the search area. Using different brainstorming sessions and techniques, three high-potential concepts were created. Using Harris profiles, the most promising concept was determined.

The chosen concept was refined through different iterations into the Synergy platform. The platform solves the three main information needs of users using different gamification elements; (1) sharing knowledge, (2) finding knowledge, and (3) finding experts. Next to the platform, two roadmaps were created in order to ensure user adoption to develop an active and engaging platform.

Validating the platform with potential future users provided insights into how the platform would be used and what improvements could still be made. The engagement roadmap showed to confront many of the challenges that previous platforms had faced. Furthermore, some users would use the platform, while others would not. Next to that, it would cost a lot of money to implement such a platform company-wide, however, it is still feasible. Lastly, some improvements were identified that would make the platform even more valuable to Philips. Those improvements have immediately been implemented into the final design of the Synergy platform

Reader's comfort

If you would like to know more about this project, I suggest you read the report. However, I do understand that a little bit more than 170 pages would require too much time to read all of it. Therefore, the report is structured in a way that suits all kinds of information needs. The introductions and conclusions of each chapter are written in a way that they are one coherent story. Reading only those will provide the average reader (+-300 WPM) with the essential knowledge about the process and outcome of this project within 15 minutes. Look for the dark blue chapter covers for the introductions and look for the orange boxes on the right side of the pages to find the conclusion of each chapter. If you would like to know slightly more about the project, I suggest that you read the report part only which would take the average reader about one hour and 15 minutes. When you have more time to spare or you would like to have more in-depth information on certain chapters of the report, I'd like to refer you to the Appendix starting on page 84.

1.Context

The context chapter describes the context of the graduation assignment. Philips, the NBX Office and the challenge are introduced. Based on those aspects of the graduation assignment, the approach is determined and explained.

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Philips

Philips is a well-known leading health technology company focused on improving people's health and enabling better outcomes across the health continuum from healthy living and prevention, to diagnosis, treatment and home care *(figure 1.1)*. It is headquartered in Amsterdam. Philips was founded in 1891 in Eindhoven and leverages advanced technology and deep clinical consumer insights to deliver integrated solutions. Philips' mission is to improve people's lives through meaningful innovation and it envisions to create a healthier and more sustainable world through innovation. The goal is to improve the lives of 3 billion people by 2025. Philips focuses on five pillars through which they innovate; (1) customers first, (2) quality and integrity always, (3) team up to win, (4) take ownership to deliver fast, and (5) eager to improve and inspire.

From starting as a lighting manufacturer to going into consumer electronics and being a medical equipment company whilst introducing the global standards of the Compact Audio Cassette, the Compact Disc and the Digital Video Disc, Philips has shown to be a frontrunner of technology and able to adapt to changing customer demands. See *Appendix A* for a timeline. At present, Philips is one of the leading manufacturers in the health care domain and has established a significant market base by continuously improving their products and services. Manufacturing- and sales-processes are optimized to reduce costs and improve efficiencies. However, this focus on incremental innovation has come at a cost. Philips' organization and structure have shifted so much to innovation in its established businesses that new businesses or ventures stand almost no chance. In order to provide space for these ventures to develop and to protect them, the NBX Office was set up.

Figure 1.2 - HTC 34

Figure 1.1 - Philips Health Continuum

NBX Office

The NBX Office is focused on creating an up-to-date new business creation process and ensuring the adoption of the NBX framework. The NBX Office supports the ventures that are organizationally located within the different Philips businesses. These ventures face multiple challenges like the creation of a new business platform, new business models, new ecosystems, targeting new customers/markets and setting up new teams, supply chains and partners. The magnitude of these challenges requires a development process that is better suited to the development of new businesses by active risk management, portfolio-based investment decisions and a lean framework. The NBX Office is there to guide and support these ventures during the process of developing new businesses.

The NBX process is a stage-gated process, designed to reduce risks and improve the progress of NBX programs through the four stages; Pre-seed, Seed, Alpha and Beta. Performance of the ventures is monitored by maturity assessments based on developments in the dimensions of the Bell-Mason framework. Furthermore, the NBX Office aims to drive the sharing of best practices in order to inspire and improve the management of ventures & portfolios. The goal of the Office is to improve top-down sharing of key processes, tools & guidance; while also stimulating peer-to-peer learnings via a Community of Practice.

Because the NBX Office is only recently set-up, it's first task was identifying which of the existing new business initiatives in Philips identify as ventures. Requirements for ventures are that they are different from the core in either a radically new business model or that they are a solution in the form of a combination of internally developed products and externally developed products.

The identified ventures are situated all over the company, both geographically (e.g. in Eindhoven, Bangalore or the US) and organizationally (e.g. in Personal Care or Healthcare Diagnostics). Meaning that the ventures are not all physically situated together. Furthermore, the organizational distribution means that NBX programs can be totally different business units and therefore have different management to report to. The depth of the organizational disparity is illustrated in *figure 1.3*.

Philips is organized around its businesses and markets. The businesses are clustered in three clusters; Personal Health, Diagnosis & Treatments, and Connected Care & Health Informatics. Different business groups are located in these three clusters. The business units are located in the business groups and the ventures are situated in the business units. Businesses innovate in their respective domains and collaborate with the markets (e.g. Benelux, France or Spain) in order to commercialize products.

Concluding, the NBX Office' main function is to support ventures in developing a new business. This is done using a stage-gated process called the NBX process. However, the biggest challenge the NBX Office is facing is the organizational and geographical disparity of the ventures they should support. This disparity makes it difficult for the NBX Office to provide the right support.
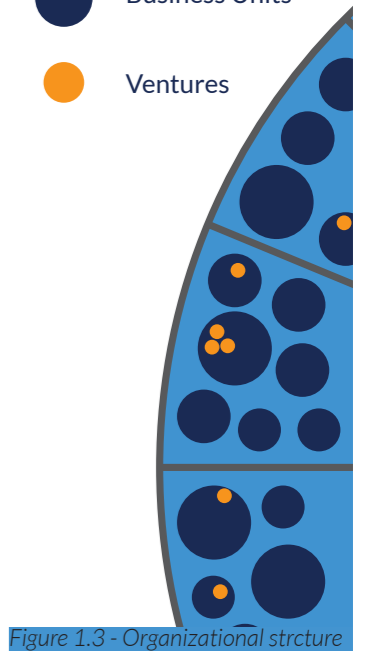

- Cluster
- Business Group
- Business Units
- Ventures

Figure 1.3 - Organizational strcture

The main goal of the NBX Office is to the improve performance of the ventures. Right now, the NBX Office is doing that by the introduction of the NBX process and by providing individual support to ventures that ask for it. Next to small, individual supportive actions, the NBX Office can also provide ventures with a maturity assessment. This assessment takes a full working week for two assessors to measure the performance and progress of the venture in order to provide an extensive set of recommendations. Right now, only a small number of ventures are using the support services of the NBX Office, which is already very demanding. There are many other ventures who are not yet supported by the NBX Office and feel left on their own.

The current supporting services of the NBX Office work well for the ventures that are using them. However, these services are not scalable to all ventures, the NBX Office would like to provide personal support to each individual venture by itself. The problem is that the NBX Office is quite a small team and not able to personally support all ventures within Philips. This causes ventures that are not in contact with the NBX Office to feel unsupported and left on their own.

When ventures feel like they are left on their own they start working even more in silos and will be even more inward-focused. That causes them to avoid reaching out for support. Of course, this prevents the NBX Office from creating the best environment for ventures to develop new businesses and to maximally perform. In an ideal environment, the ventures work together as one well-functioning system towards a common goal of creating the most successful businesses by driving best practices through meaningful and beneficial collaboration. Therefore, the research question is *"How to improve venture performance by meaningful collaboration"*?

"How to improve venture performance by meaningful collaboration"
- Challenge
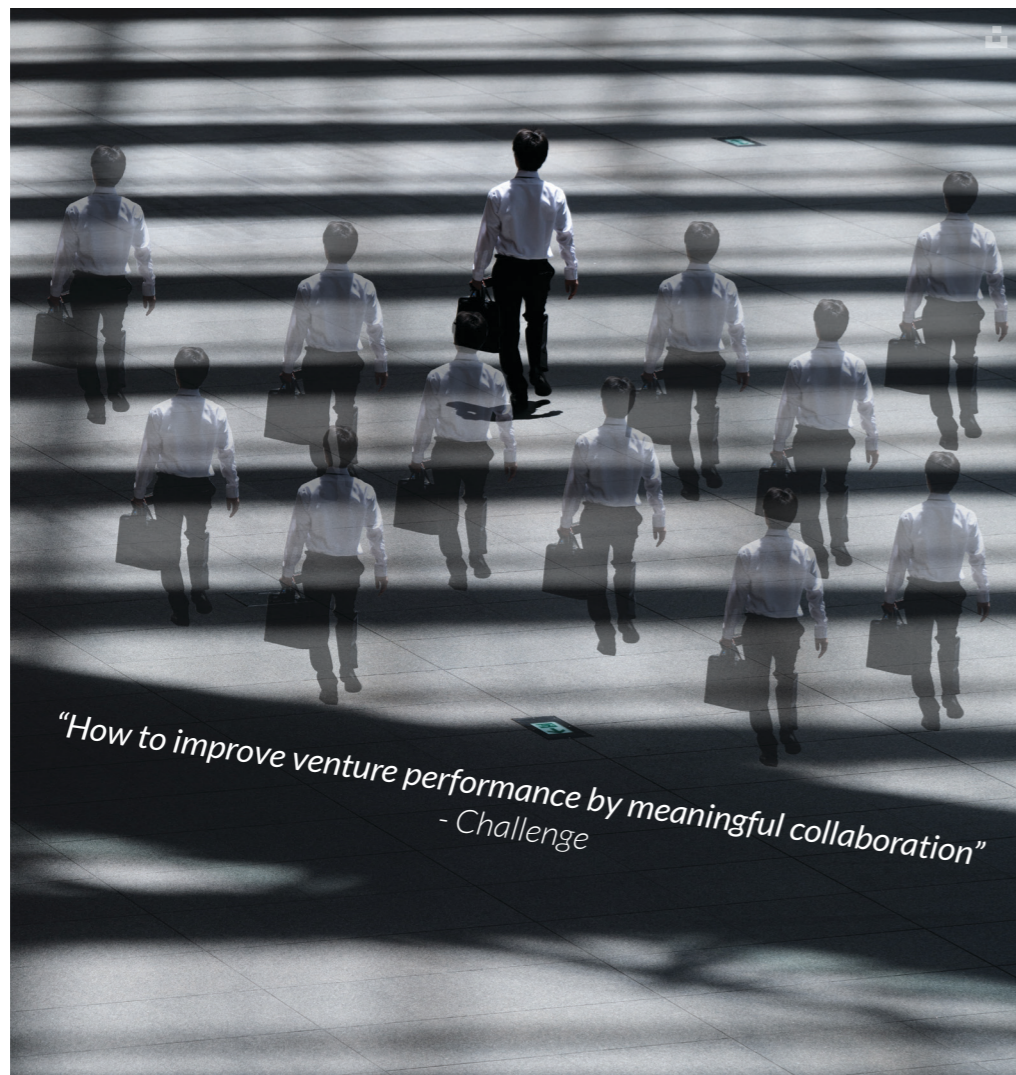
Essentially, this project starts with the 'Why' of the golden circle (Sinek, 2009) *(figure 1.4)*. There is an aspired value that every venture should have access to the best resources, skills and capabilities within Philips in order to provide every opportunity for them to perform the best they can. This is exactly the reason why the NBX Office exists; to create the best possible environment for new business creation. How this aspired value will be achieved is not necessarily clear, will this be through the provision of information or tools? Through motivation, inspiration or incentives? Moving further away from the center, it is clear that it is definitely unknown what this solution will look like. It can be anything from an information platform to a collaboration tool or an incentivizing method. Currently, there is a discrepancy between the aspired value and the current situation. This project is successful when this discrepancy between the aspired value and the current situation will be narrowed down.

In order to narrow down this discrepancy, the cause must be identified. Identification of the cause demands to dive deeper into the context of Internal Corporate Venturing (ICV) within Philips. Therefore, this assignment requires an approach in which there is room to explore the challenges faced during new business development and then to define the real problem later. The Double Diamond Design process (Design Council, 2005) is a design methodology that suits this specific assignment best *(figure 1.5)*.

Research Methodology
Using the Double Diamond Design process, this graduation project will start with discovering the context of New Business Creation (NBC) within Philips. In order to be able to correctly review the situation in Philips, state-of-the-art knowledge on NBC programs is required. For this research, the best way to acquire this knowledge is to perform a literature review on ICV. Next to that, to establish how ICV is performed within Philips, internal semi-structured interviews and observations will be conducted. Integration of both the external and internal analysis will provide an opportunity to use Root Conflict Analysis (RCA+) (Souchkov, 2005) to expose the real challenges (search areas) of ICV within Philips. The most compelling search area will then be developed into different concepts using multiple brainstorm sessions. Harris profiles will help to decide which concept to refine. Validating the final concept will be done by conducting semi-structured interviews with different NBX stakeholders.

Figure 1.4 - Simon Sinek's Golden Circle
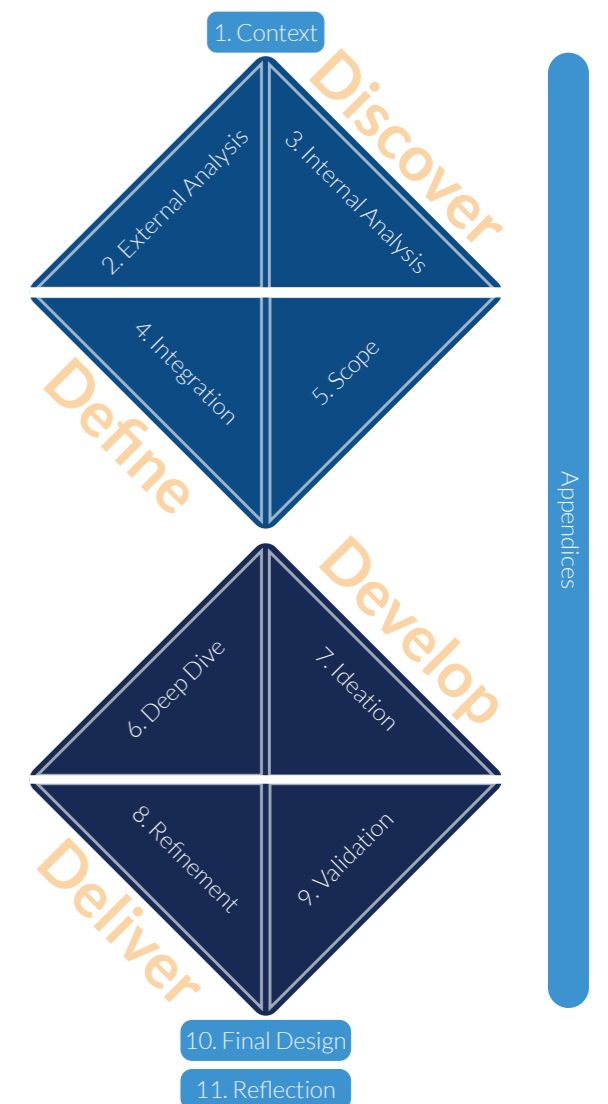
Figure 1.5 - Double Diamond Design Process

Conclusion

Philips is a well-known leading health tech company that has proven its innovative capability over the years. However, in recent years, the company has not been able to optimally use its innovation capability and consistently create new businesses from ventures. In order to improve the performance and output of those ventures, the NBX Office was set up. They support ventures using the NBX process, maturity assessments and personal consulting. However, these supporting services are not scalable and therefore they need a new approach to maximizing venture performance. Furthermore, the NBX Office has difficulties supporting the ventures because of their organizational and geographical disparity. Next to that, ventures possess a lot of knowledge which is not being shared with other ventures due to their inward focus. Therefore, this graduation assignment looks into how to improve venture performance by meaningful collaboration and is approached using the double diamond design process (Design Council, 2005).

2. External Analysis

Now that the context of the graduation assignment is known, it is time to dive deeper into the important aspects around. This chapter aims to uncover and illustrate the state-of-the-art knowledge on Internal Corporate Venturing (ICV) practices and collaborative behaviour. This is done using a review of the current literature on ICV in general, the ICV environment and Communities of Practice.

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Recently, some big, multinational companies have been overthrown by small companies that were able to disrupt the market. Have a look at how Netflix disrupted Blockbuster (Christensen, Raynor, & McDonald, 2015) or how Uber was able to get a market share of 90% in the U.S. taxi market (Levy, 2016). Both companies were using their relatively small size to their advantage; they used it to move fast and prepare radically different products and business models to accommodate changing customer demands. Smaller companies can adapt to new developments in the industry more easily and are able to change their organization accordingly (Krishna, Agrawal, & Choudhary, 2016; Sarasvathy & Menon, 2002). In contrast, big companies already have efficient and established processes in place that target mainstream customers with incremental products.

However, portfolio management literature emphasizes the importance of a diverse portfolio with a balanced ratio of incremental, radical, and breakthrough innovations with varying expectations on profitability (Cooper & Edgett, 1997). Especially multinationals seem to have trouble with creating balanced portfolios because of their focus on improving efficiency and reducing costs. In order to overcome this issue, multiple companies have started separating their core business (exploitative activities) from their radical- and breakthrough innovation efforts (explorative activities) (Osiyevskyy & Dewald, 2015). The explorative activities are bundled in New Business Creation (NBC) programs and focus on developing innovations that target new markets, new customers or use new technologies. Entrepreneurial activities within multinationals have the ability to become Internal Corporate Ventures (ICVs) with their own organizational control, team, and dedicated resources (Narayanan, Yang, & Zahra, 2009).

Internal Corporate Venturing is something that has been around for almost half a century already (Narayanan et al., 2009) but case studies and research keep illustrating how hard it can be for ventures to succeed within the environment of a multinational company (Chaganti & Chaganti, 2012; Kakati, 2003; Lee & Lee, 2004; Lerner, 2013). Despite this, today's fast moving and shifting markets, customer demands, and technology advances make it one of the most important strategic initiatives for multinationals to be able to sustain their positions through internal corporate venturing.

Because of the many uncertainties, ICVs thrive in an environment that is very similar to that of start-ups. However, there are some differences between these intrapreneurs in ICVs and the entrepreneurs of start-ups (Kirsner, 2018). Compared to entrepreneurs, intrapreneurs enjoy fewer risks, but the gains are also less significant. Therefore, intrapreneurs will, to some extent, be less likely to go the extra mile or go out of their way in order to ensure the success of the venture.

Being a venture within a multinational organization can provide enormous benefits. When executed in the right way, a venture can benefit from both the startup-like environment of the NBC program and the resources from the core business. Of course, the primary task of an ICV is to create a profitable business. However, learning as much as possible is also an important task for ventures to perform. A venture does not necessarily fail when it cannot create a profitable business because it did gain a lot of knowledge that is of high value to the company. There is a huge danger that this knowledge becomes lost when the venture fails to commercialize and the venture members get reintroduced into the organization when they have not documented their knowledge.

Literature Findings

- Most big companies are not well organized for new business creation

- ICVs are different from startups in terms of personal risk and gain

- One of the important secondary task of ventures is to generate new knowledge

One of the many problems that ventures face is that the programs are sometimes only initiated when the core business' prospects are decreasing or are already taking a loss (Blank, 2014). Declining returns create awareness of the need to create new businesses. However, this puts pressure on the ventures to produce quick results. Furthermore, resources will be shifted towards the ventures that will likely be taken away from the core business, creating competition for resources. Next to that, successes of the venture are partly achieved due to existing knowledge in the core business which the venture has "borrowed" to "learn" and innovate (Govindarajan & Trimble, 2005). Although building on existing knowledge, these successes are mostly attributed to the venture itself creating even more competition between ventures and the core business.

This rivalry between the core business and ventures requires ventures to be supported by top management. More top management support seems to positively affect venture performance (Kuratko, Coving & Garret, 2009). Furthermore, ventures perform best when they operate close to the core business in areas with market familiarity. This creates an interaction effect between the venture and the core business of exchanging cumulative information. Therefore, for ventures, it is beneficial to have close collaborations with both other ventures and the core business.

Middle managers play an important role in this relationship, contributing either top-down or bottom-up (Ren & Guo, 2011). In a top-down approach, middle managers contribute through facilitating the flow of information between the top management team and the operational managers (Kuratko, Ireland, Covin & Hornsby, 2005). The bottom-up approach is based on middle managers who act as a filter by evaluating and sponsoring strategic initiatives championed by operational managers and then advertise them to the top management team. This happens through strategic decision making and organizational championing activities (Burgelman, 1983).

The ventures manager vision is important in championing the venture and aligning the venture team. The contents of the venture can even have a significant effect on the outcome of the venture (Baum, Locke & Kirkpatrick, 1988). A vision that is identifiable with- and clearly communicated to the team altogether, positively influences the team's performance to pursue that vision and translate it into a reality (Stam, Lord, Knippenberg & Wisse, 2014). Sharing this vision within the organization is positively associated with a higher organizational commitment, job satisfaction and follower performance in large organizations (Kohles, Bligh & Carsten, 2012). Illustrating the benefits of vision sharing both in the team as to other parts of the organization. Furthermore, having, sharing and communicating a detailed vision has been proven to have positive effects on the outcome of radical innovation projects (O'Connor & Veryzer, 2001; Reid & De Brentani, 2010, 2015; Reid, De Brentani & Kleinschmidt, 2014).

Furthermore, ICV requires multiple sources of knowledge, existing and new. Combining them creates unfamiliar situations for the business (Hargadon, 2002). Multiple studies also address the importance of networks for radical or breakthrough projects (Leifer et al., 2002) and entrepreneurial activities (Johannisson, 2017; Maritz, 2010). To make ventures flourish Organizational Network Capacity (ONC) should be developed. ONC consists of the willingness of members to contribute to projects and the ease of which information flows through the organization from experts with situation-specific knowledge to the ones in need of the information (Kelley et al., 2009). Furthermore, information exchange between teams has been shown to positively influence venture performance (Liu, Chen & Tao, 2015).

Literature Findings

- Without supervision and transparancy, rivalry between the core business and ventures will happen

- Ventures thrive on close collaboration with other businesses

- Sharing a clear vision improves organizational commitment and venture performance

- Information exchange in the venture environment positively influences venture performance due to the high diversity of information that is needed for ventures to thrive

Communities of Practice

One of the ways to create continuous and quick information exchange is a Community of Practice (CoP). A CoP is a group of people that are bound together in an informal way by shared expertise in- and passion for a specific interest (Wenger, McDermott, & Snyder, 2002). However, members of a CoP are not only just interested in the specific domain, they are also practitioners in that domain or interest. These CoPs range from being very structured to highly unstructured with weekly physical meetings to only online mail interaction(Wenger & Snyder, 2000). Communities of Practice can exist in hobbyist environments, but also in corporate environments and are voluntary by nature; nobody is expected to join. They are based on the sharing of experience and expertise for collaborative problem solving through informal communication activities.

CoPs can have a huge impact on organizations. They are able to solve longstanding problems, generate new knowledge, develop people's professional skills and drive strategy (Wenger & Snyder, 2000). Although CoPs are generally set-up and act in an informal way, they can benefit from supporting practices like a supporting infrastructure within the organization. Recognizing this potential of CoPs is the first step of companies to set up successful CoPs. However, this can be hard to do. The value of communities is sometimes hard to see. For example, the effects of knowledge sharing are not immediately visible. Furthermore, results of the community emerge in teams, business units and individual practices, and it is not evident if those arise due to the community or because of other activities.

Building a community is about finding the delicate balance between autonomous, informal activities and company guidance. CoPs should be informal of nature and members should be able to join the meetings voluntarily. Intrinsic motivation should be the determining factor for participation in CoPs. This means that CoPs should not be directed too much by corporate management, instead, they should play a more supportive role in providing adequate resources like meeting rooms, accessible databases and dedicated time.

Literature Findings

-        A CoP can be used for continous and quick information exchange

-        CoPs thrive on the efforts of enthusiasts that manage the community

-        Communities function best when they are entirely voluntarily and there is not too much meddling of higher management
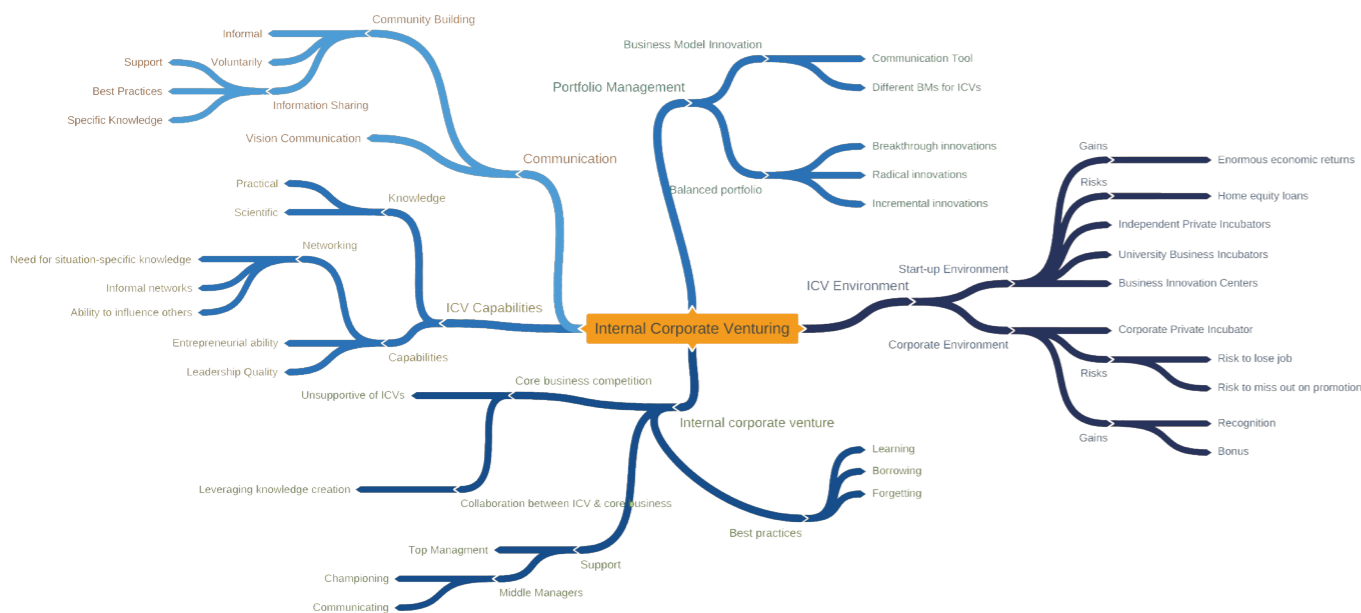
Figure 2.1 - Researched area for literature review

Conclusion

A state-of-the-art situation can be deducted from the literature review. For example, it can be seen that many big companies struggle with organizing their business in such a way that new business creation can flourish. Some examples were described that support the claim. One of the reasons that big companies struggle in creating new businesses is the huge difference in needed capabilities for explorative and exploitative activities.

Furthermore, the environment in which the core business and the ICVs thrive is very different. ICVs thrive in start-up-like environments and might have important objectives next to creating a profitable business. Because ICVs are on the frontline of innovation, one of their other important objectives is to generate new knowledge about new markets or new technologies. However, it is crucial that this knowledge won't evaporate when the ICV fails to commercialize its product.

A rivalry between the core business and the ICV environment can easily occur without management supervision and transparency of both parties. They could even benefit from each other through the interaction effect of exchanging cumulative information.

Communicating a clear vision for the venture helps in improving organizational commitment and even the performance of the venture. Furthermore, more information exchange in the venture environment can further positively influence venture performance due to the high diversity of information that is needed for ventures to thrive.

These findings illustrate that ventures thrive in a collaborative environment with information exchange between the core business and ventures themselves. Furthermore, a Community of Practice can advance functional venture capabilities through intrinsically motivated collaboration between enthusiasts.

3.Internal Analysis

The external analysis revealed the best practices of ICV in general. However, as my graduation assignment is focused on improving venture performance within Philips, an internal analysis is required to understand how ICV is performed at Philips and what challenges stakeholders are currently facing. This was done by identifying and interviewing multiple different stakeholders in ICV, participating in CoP meetings, and interviewing CoP practitioners. These activities provide a clear view on how ICV is practiced within Philips and what challenges that brings.

Stakeholders

During the literature review, multiple potential stakeholders for new business creation were identified. Together with the NBX Office, this initial list of stakeholders was narrowed down to five groups of stakeholders; (1) Senior management, (2) venture leads, (3) venture team members, (4) Supporting functions and (5) NBX Office *(figure 3.1)*.

Senior management was grouped as stakeholders to which the NBX program leads report. Senior management takes decisions on NBX program budget allocation and does portfolio management. He or she should decide on which NBX programs to continue and which ones to stop within his or her BU.

An NBX program lead is essentially the responsible person for an NBX program. That is the person who reports progress of the NBX program to senior management and the one who is tasked to gather the right capabilities in the team. Tasks of this person are to communicate the status and progress of the NBX program to senior management.

NBX team members are the driving forces behind the new business. NBX team members are executing different tasks in order to develop the new business. These team members are on the payroll of the NBX program itself and have dedicated hours to the program.

Supporting functions are overarching teams that enable new businesses. Supporting functions can be in the form of procurement managers, marketing managers or design. They are set-up to dedicate hours to any business that needs their support, from core businesses to NBX programs.

The NBX Office itself is also a stakeholder. They should facilitate the right environment for NBX teams to develop and work in. They provide guidance in the form of the NBX process and recommendations coming from the maturity assessments. Furthermore, the NBX Office will be the owner of the solution and will need to work with it.

- To enable the creation of stakeholder-tailored questions
- Through discussion with the NBX Office and roles substracted from the literature
- Stakeholder groups

Senior Management

Venture Lead

Supporting Function

Venture Team Member

NBX Office

Figure 3.1 - Stakeholders

Interview Preparation

In order to gather insights into the needs of the different stakeholders within NBX, several semi-structured interviews were conducted. Interviewees were identified in collaboration with the NBX Office members, who used their existing network to identify and select potential interviewees. A generic e-mail *(figure 3.2)* was set-up and sent out to the potential interviewees inviting them to participate. As some potential interviewees quite possibly did not know anything about the NBX Office or its services, a short introduction on the NBX Office was included in the invitation.

In order to ask questions that acknowledge the differences amongst the interviewed stakeholders and to be able to make sure that all topics were covered in the interviews, a semi-structured interview guide was set up. It was chosen to perform semi-structured interviews due to the range of answers that could be given on certain questions. Those answers could result in detailed conversations that would not necessarily be relevant to the graduation when not using an unstructured interview guide. A structured interview guide was also not preferred as it would be too restricting.

The interview guide *(Appendix C)* incorporated the five topics that were already stated in the invitation letter. Furthermore, for each topic multiple possible follow up questions were thought of. Finally, during the interviews, an emphasis was put on why certain activities were undertaken by the different ventures.

Dear [name]

On behalf of the NBX Office, we would like your cooperation in identifying the NBX Portal user needs via a short interview.

In Philips, we use the NBX process for the development, launch, delivery, and scaling of New Businesses and Solutions. In order to accelerate and increase the success rate of new business creation within Philips, the NBX Office has been set-up. The NBX Office provides:

- Support around the set-up and implementation of NBX programs & processes, framework, tools and governance models

- Assessment of NBX programs, to provide guidance for improvement and input to stage gate passages

- NBX best practices and peer-to-peer learnings

- Support around business model innovation

The NBX Office provides information to the Philips community, amongst other things, via the NBX Portal.

In order to improve the information sharing via the NBX Portal, we have identified different user groups. By means of short interviews with representatives of these user groups, we would like to gather insights in the information needs of the different user groups so the NBX Portal can be adjusted to better satisfy these needs.

We would be interested in also getting a better insight in your information needs with respect to new business creation.

In this interview, we would like to know your thoughts and insights on the information you need to run NBX programs. We have divided the interview in questions regarding:

- Your current situation

- Current information gathering

- Improvement of current situation

- NBX portal

- Current best practices

Kind regards,

- To keep on track during the interviews and to ensure all topics are covered.
- Through an understanding of the activities of the different stakeholder groups
- Tailored semi-structured interview guides
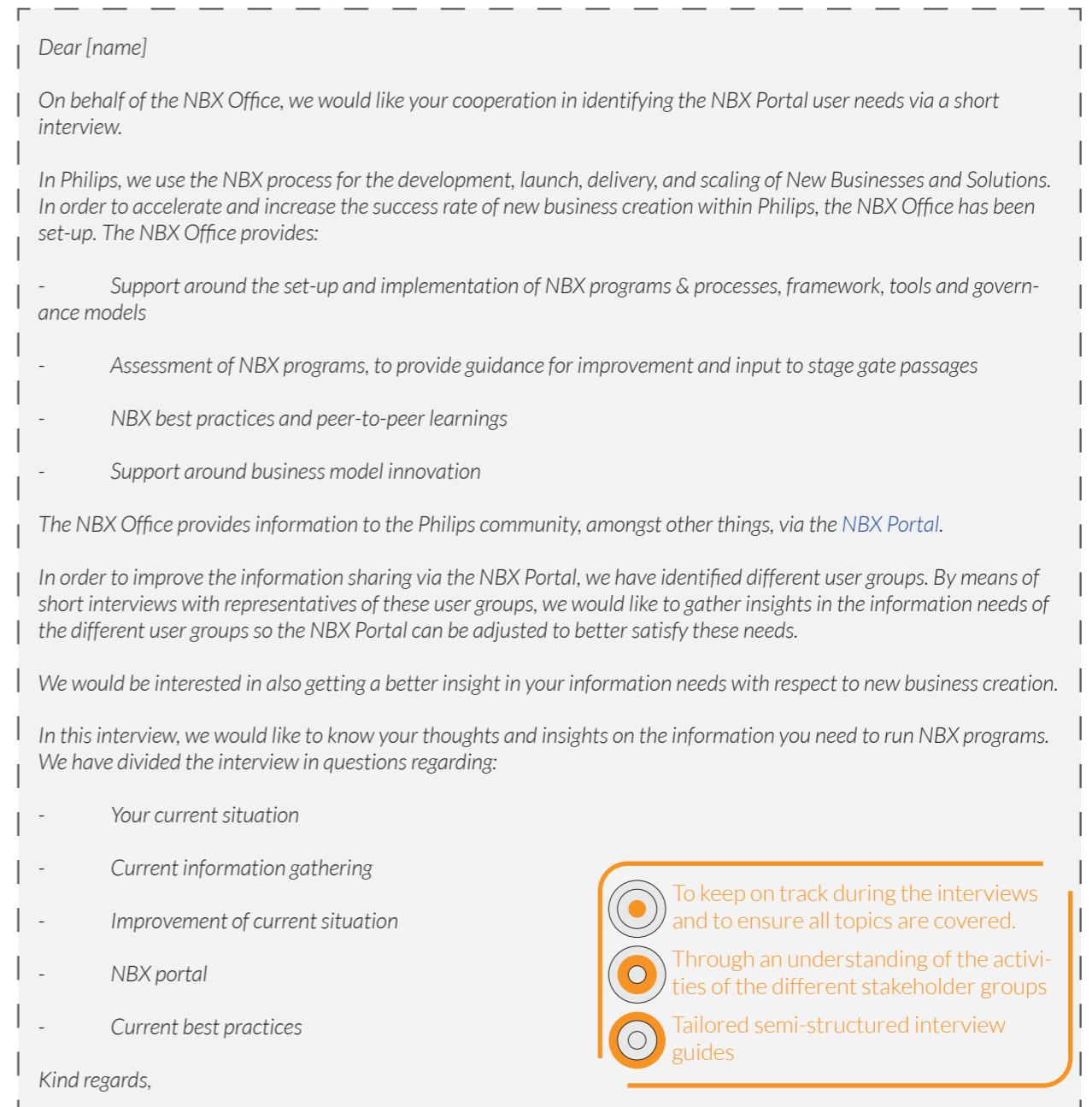
Figure 3.2 - Invitation Letter

A total of 22 interviews were conducted with NBX stakeholders *(Appendix C)*. Seven venture leads, four venture team members, three senior managers, six supporting functions and two NBX Office members were interviewed. As recording was not allowed during the interviews, there were always two interviewers. One interviewer took notes while the other interviewer would lead the interview. Roles were switched between the interviewers.

The interviews did provide multiple insights on the current situation of ventures, their challenges and their needs. Needs and challenges were subtracted from the interview notes and then grouped per stakeholder to expose congruous findings between the participants. This allowed for deducting a clear image of the position of the NBX Office, the venture team members, venture leads, senior managers and the enabling functions.

The current situation can be described as a very fuzzy and wide, open space in which ventures operate. The space is so misty that many ventures cannot even see the current position and activities of other ventures. Ventures who are situated in the same business unit tend to stay close together in order to not get isolated in the open space. The obscurity of the internal venturing landscape within Philips induces almost no interaction between ventures.

A claim like "we are the first that are doing this (NBX process)" (I3, I7, I8, I16) that was said by people from multiple different ventures, perfectly illustrates the visibility of ventures towards other ventures. Furthermore, venture team members are encouraged by the venture leads to have an inward perspective in order to focus on developing the venture. Both the

senior managers and the venture leaders feel like having venture team members 100% dedicated to the venture as a best practice for new business development. Venture leads are comfortable with venture team members approaching them with questions and then reaching out to contacts in their network. From there on, the venture leads communicate the knowledge or contact information of the expert back to the team member.

The interviews revealed that the team members are content with this way of working. However, they also mentioned that it is faster and provides richer information to contact team members of other ventures directly. Contacting members of other teams only happens through a personal or mutual connection of both team members. Directly sharing information provides benefits in receiving richer information and setting up personal networks (Kelley et al., 2009).

Furthermore, venture leads all recognize the need for having experienced team members in the team. Even one senior manager said: "It might be too much to set a hard requirement of having at least one person in the team who has entrepreneurial experience, but I believe it is a big benefit and indicator for success" (I12). Especially in the uncertain environment of ICV, it is essential to have some "... experienced people who know where to cut corners..."(I9).

Other important findings were that many stakeholders, especially venture team members, did not know or use the current NBX Portal. "Just before the interview I looked at the portal through the link in the message, I haven't seen it before" (I2) exemplifies the unfamiliarity of the NBX Portal by venture team members. Others

said: "I looked at the NBX Portal about half a year ago, but I haven't used it since" (I9, I11). The majority of the venture team members explained that they had not seen or used the NBX Portal before the interviews. They were either unaware of the NBX Portal or there was no need for them to use it, they would receive all NBX related information from the venture leads.

Another goal of the interviews was to understand how interviewees envisioned a situation in which they could perfectly, or at least most efficiently, perform their roles. This especially brought differences between the needs of the stakeholders to light. Senior managers and enabling functions wanted to have overviews of how, where and what ventures were doing for different purposes. Senior managers' main goal was to be able to have an overview of all ventures in order to distribute financial resources better amongst the ventures. Furthermore, they also needed to know what was happening in other business to be aware of the full portfolio of ventures and see if different ventures were not performing identical activities. Enabling functions wanted to have an overview in order to know when and where they could step in to support the ventures most efficiently. "If I am not proactively helping ventures to find suppliers, they will start looking for their own suppliers which are not preferred" (I5) illustrates the direct need of the procurement manager to know how and what ventures are doing.

Team leaders preferred to know in what stage other ventures were in order to learn from them. venture leads explained the importance of learning from each other. One venture lead of a venture situated in Alpha explained how his NBX program is sharing knowledge with other NBX programs: "Almost bi-weekly, other

venture programs visit our space for a tour and to see our way of working" (I8). Furthermore, venture leads also want to see what other ventures are doing in order to be able to connect their venture team members to team members of other ventures when they have information needs on certain subjects.

It was also found that venture team members like to have some more handholding regarding the NBX process. They do not necessarily understand all of the steps that should be taken in order to get to certain milestones. "I would like to know how another venture did this (to set up the structure of the venture" (I2) or "It is interesting to see how other ventures do procurement" (I17) show that ventures like to see real case examples of how ventures have done certain things successfully.

Concluding, the interviews revealed that there are different opinions on the best practices for new business development. However, there was a general consensus that it is helpful to know what other ventures are doing, who the experts are, and what challenges other ventures are facing.

To get a clear understanding of how new business creation is executed within Philips

By talking to different stakeholders that are associated with NBX within Philips

Overview of stakeholder needs, challenges, responsibilities and best practices

Next to the interviews, multiple lunch- and community meetings were visited to understand the best practices during those meetings. The lunch meetings were one-hour lunch meetings accessible to all Design and Research employees and hosted in a big informal room (*figure 3.3*). The idea was to bring your own lunch, listen to a speaker on a certain topic and then discuss the topic in the last few minutes of the hour. The meetings that were joined were attended by about 30-40 participants and the presentations were followed by fruitful discussions afterwards. One of the findings from these lunch lectures is that' an informal environment makes people more comfortable in speaking up. Also, the people in the front of the room were more likely to ask questions or comment on stuff than the people in the back of the room.

Five community meetings were also joined to experience the practices used within those meetings. Four of the five community meetings were joined over Skype due to geographical limitations. All of the meetings started with introducing newly joined members and their interests to the community. The

meetings did feel slightly formal because they all started with discussing the agenda and setting goals for the community for the next meeting (mostly bi-weekly). This was generally followed by someone of the community introducing his or her community-relevant case and how that person was dealing with certain matters in the form of a presentation. During the presentation, questions and comments were allowed when the presenter asked for them. Furthermore, the people who were physically together in the meeting room provided much more lively interaction than the people who joined on Skype. After the presentations, a discussion would arise on certain topics and people would stand up to assist others outside the meeting with their challenges. The community calls ended by summarizing the call and then shortly remembering the targets for the next meeting.

Figure 3.3 - Inspiring Bite

Additional interviews (Appendix D) were performed with people associated with community building. The literature review on CoPs provided the basis for the interviews and setting up the questions. Two CoP moderators within Philips were interviewed on their experiences with setting up their respective CoPs. The goal of those interviews was to identify best practices and potential pitfalls when setting up CoPs. The Portfolio Management CoP moderator (I25) mentioned that the two biggest challenges of setting up a CoP were to not overload CoP members too much and to make them interact offline. Too much information sending can lead to CoP members starting to ignore the activities related to the CoP and make them less involved in the community. However, a very small amount of communication of the CoP can lead to unawareness of developments in the community. The Portfolio Management CoP monitor found best practices in a monthly call with all portfolio managers along with a monthly newsletter on new developments. The moderator of the Business Model Innovation (BMI) Community (I27) discovered that a very accessible place to share information and bi-weekly meetings and webinars worked also well to establish a CoP.

Furthermore, two interviews were done with people from external companies with who had set-up communities. A former SPD-student (I24) had previously set-up a community platform for municipalities in the Netherlands. An important finding was that motivation is the key aspect of making a community a success. It should be created one way or another and can be incentivized by involving potential users early on. A marketing director of InSided (I23) who had experience in setting up multiple customer service communities for big companies like T-Mobile, Sonos and TomTom, found that expert users are the

key to success in customer service community building. Incentivizing expert users to start creating content and posting in the community requires "….tender, love and care, it takes a lot of effort to engage users in the community" (I25).

Lastly, a consultant (I26) who had experience setting up a community in his former role as a manager explained that this was done in a very informal way. "We set-up community drinks and at one time we also set-up a speed-dating event, reactions were very positive and a lot of people got connected through that event" (I26). Because of the informal events, community members would also interact regarding work-related matters.

Conclusion

The internal analysis has shown how ICV is practised within Philips and what challenges are being faced by the ventures. One of the findings from the stakeholder interviews is that ventures currently feel like they have to discover everything by themselves. Furthermore, venture team members do not have a clear view on what other ventures are doing, what their capabilities are and how they can support each other. Ventures are not actively sharing knowledge with each other and have trouble finding others that can provide a good example of how to do certain stuff. Next to that, the current NBX top-down information source, the NBX portal, is hardly used for different reasons; Team members do not know it exists or they don't think it is very useful. Moreover, venture team members expressed a need to know how certain things are done rather than what needs to be done. They want to know the best practices of others in order to gain more perspective and determine their own most suitable approach.

Participating in the CoP meetings revealed that there are already means to share best practices within the company. For example, lunch lectures are organized almost weekly that discuss internal or external success and failure stories. At the end of these meetings, many times a valuable discussion arose regarding the stories. Furthermore, explorative interviews were performed with people who have experience in setting up communities. These interviews provided insights in best practices of how to set up CoPs and how to maintain them

It can be seen that within the venturing environment of Philips, ventures do not necessarily know what the capabilities of other ventures and how they can support each other. It is unclear which venture is situated where and which SMEs are situated in the ventures. There are smaller initiatives to share knowledge, however, there is no NBX- (or company-) wide alternative to sharing knowledge in a structured way.

4. Integration

Integrating the internal and external analyses allows to see how the Philips venturing environment differs from a state-of-the-art venturing environment. This serves as a foundation for discovering the underlying causes to why ventures at Philips are currently not performing optimally. Furthermore, the differences between the well-functioning core business environment and the venture environment are analysed. Personas were discussed and created from the insights of both analyses and Root Conflict Analysis (RCA+) was used to dive deeper into ICV at Philips and find potential search areas that arise out of conflicts.

Differences in environment

Combining the literature review with the stakeholder interviews provides insights into the differences between the core business environment and the venture environment within Philips. It is important to be aware of these differences when designing for improvements of venture performance. Innovations that might be successful in traditional working environments might not be successful in the venturing environment.

One of the differences between the core business environment is the clarity of the organizational structure *(figure 4.1)*. In the core business, the hierarchy of the organization is completely clear. However, in the venturing environment, many team members and venture leads act in multiple, ambiguous roles and have diverse responsibilities resulting in a fuzzy hierarchy within ventures.

Furthermore, ventures move much faster than traditional business who are likely to remain in one spot. As ventures are progressing they might move to a different landing spot or incorporate activities of the different business. Next to that, ventures tend to grow fast and this makes the movement of personnel a lot quicker as well.

A nice analogy to envision both environments is one of two shoals of fishes. One shoal remains quite settled on their spot. This creates a calm environment with almost no waves and little disturbance. The other group, however, moves around a lot and disturbs the environment. The movement of the fishes lifts the sand of the bottom and creates murky waters. It becomes much harder to locate the fishes, this is also happening in the venture environment

- To understand why ventures are not performing while the core business does
- Through integration of the internal and external analysis
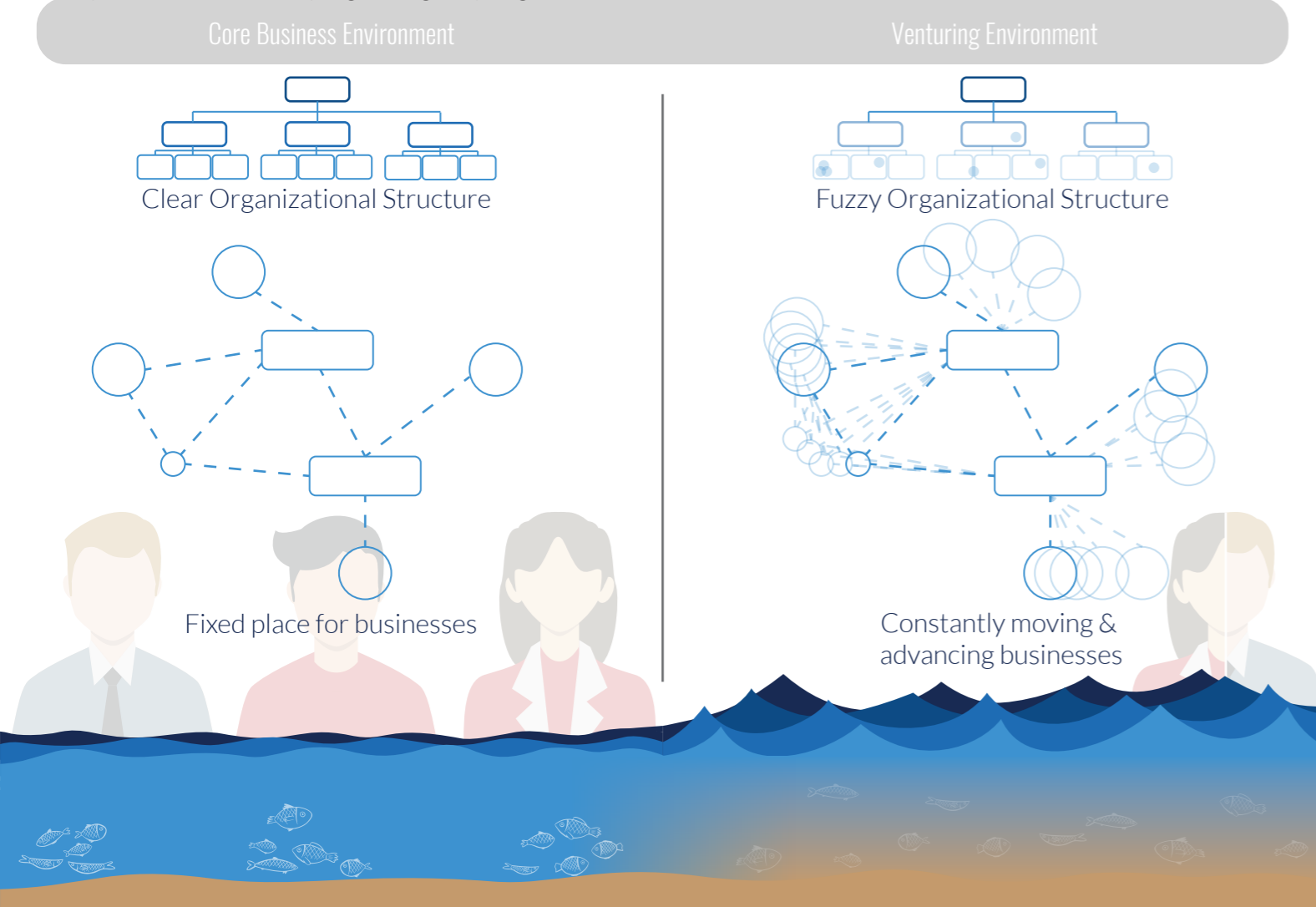- Overview of differences between both environments

Core Business Environment — Venturing Environment

Clear Organizational Structure — Fuzzy Organizational Structure

Fixed place for businesses — Constantly moving & advancing businesses

Figure 4.1 - Differences between core business environment and venturing environment

Personas

The interviews with the different stakeholders revealed the needs of the stakeholders in relation to executing their roles as well as possible. Personas were created to visualize the needs of the stakeholders and to provide easy reference to stakeholders later during the project.

Senior Management *(figure 4.2)* is a stakeholder which has a lot of experience in the Philips core business. They do not know NBC so well, but are supportive of it. However, traditional KPIs make it hard for them to rectify decisions towards executive management. Furthermore, they need detailed information on the progress and expectations of the ventures in order to decide on budget allocation.

Venture leads *(figure 4.3)* report to the senior management. They protect and support their team and are generally very experienced in entrepreneurial activities. They receive questions from the team and use their extensive network to look for answers to the questions. They need to know what things the team is struggling with.

Venture team members *(figure 4.4)* have specific functions within the venture. They dedicate all of their hours to the ventures and their formal contact is mainly with the team and their venture lead. They expressed that they would like to have some more guidance on the NBX process because they don't have a lot of entrepreneurial experience. They would like to know how other venture members are performing similar tasks.

The Supporting Function *(figure 4.5)* is very used to using processes that are suited for the core. They would like to support ventures and would like to have an overview of all programs and when they can support them. Furthermore, they have no entrepreneurial experience and therefore do not really know how to support ventures in the best way.

The NBX Office *(figure 4.6)* supports all ventures. They have both core and entrepreneurial experience and are dedicated to making ventures flourish. They want to know how they can improve their support and have a need for scalable support activities instead of individual support services.

Main Task
Orchestrate the venture team

Reports to Senior Management
Builds plan and ensures execution
Builds the venture team

Needs to know challenges of the team
Needs to facilitate the team
Wants to know best practices

Venture Lead — *Figure 4.3 - Venture Lead*

Main Task
Develop the venture

Mainly contact within the team
Contracted by Venture Leader
Focuses on specific parts of the venture

Wants legacy program data
Wants to know best practices
Wants examples of ventures
Needs more handholding

Venture Team Member — *Figure 4.4 - Venture Team Member*
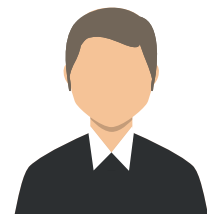
Main Task
Provide support when needed
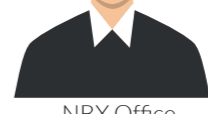
Knows core processes
Supports multiple businesses
Passive support

Needs to understand differences Core & NBX
Wants to be pro-active
Wants to know progress
Wants overview of all ventures

Supporting Function — *Figure 4.5 - Supporting Function*

Main Task
Portfolio & performance management

Main Task
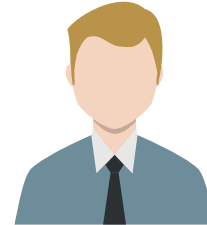Improve success rates of ventures

Controls budget for ventures
Sets priorities
Makes decisions

Needs to assess ventures
Needs information on progress
Needs different KPIs
Wants overview of ventures

Senior Management
Figure 4.2 - Senior Management

Co-owner of NBX process
Drives NBX adoption
Guidance on portfolio & performance
Main support point for NBX

Needs an overview of all ventures
Needs scalable support
Wants to know challenges of ventures
Wants ventures to support each other

NBX Office
Figure 4.6 - NBX Office

RCA+ Analysis

Root Conflict Analysis (RCA+) (Souchkov, 2005) is a problem identification tool that was created by Valeri Souchkov in collaboration with, amongst others, the University of Twente. It is different from normal RCA or Root Cause Analysis as that it helps to search for conflicts; causes with both negative and positive effects. A workshop was set-up with the NBX Office in order to kick start the RCA+ *(figures 4.7 & 4.8)* which can be found in *Appendix D*. Two NBX Office members were invited to join the workshop. Slides and examples of RCA+ supported the workshop.

The outcome of the workshop was an overview of the five main causes that lead to ventures not performing optimally; (1) lack of knowledge, (2) lack of capabilities, (3) lack of support, (4) internal organizational barriers and (5) external organizational barriers. Furthermore, the underlying causes of the lack of knowledge and lack of capabilities were further explored and discussed during the workshop. After the workshop, the new insights were digitalized and the RCA+ was expanded using the previously conducted interviews and literature review.

During the RCA+ workshop, it was decided to not focus on lack of support, internal organizational barriers and external organizational barriers because of the associated structural and organizational challenges that were inherent to Philips. The other two causes, lack of capabilities and lack of knowledge were elaborated on (Figure x). After all, causes were further investigated and dived into, potential search areas could be identified.

Figure 4.8 - RCA+

Figure 4.7 - RCA+ Set-up

The RCA+ diagram shows the findings of the RCA+ *(figure 4.9)* through a combination of input from the internal and external analysis. Four search areas were found to be interesting to look further into. Screening them for relevance in both the internal and external analysis proved that three of the four search areas were accredited for in both analyses. The fourth search area, however, only arose from internal analysis and depended too much on the organizational structure of Philips. Therefore, it was decided to drop the fourth search area and look further into the areas of "Documenting Knowledge", "Lack of Experience" and "Venture Interaction".

To explore the underlying causes to why ventures are not optimally performing

By combining RCA+ knowledge and an RCA+ workshop

An overview of the underlying causes to why ventures are not optimally performing

RCA+ Diagram:

Ventures are not performing

They don't know what they don't know (Lack of Knowledge) · Knowledge is available · Know what to do, but don't know how (Lack of Capabilities) · Know what to do, know how to do it, but don't have the right support (Wrong KPIs) · Internal Barriers · External Barriers

Dispersed knowledge · Knowledge is not accessible · Don't know where to find it · No access to experience outside the team · Lack of experience in NBX team · Existing organizational practices and processes

It is not available at all · No resources to afford outside experience · NBX venture leader hasn't attracted capabilities for all dimensions

People don't want to share knowledge · Team members are not actively looking for knowledge · Many stakeholders with different needs and information · There are experienced people, The ventures just don't know where to find them · Not enough experienced people · No priority on developing people · NBX venture leader is unaware of needed capabilities

Inventor of a new product is recognized, not the contributors · Knowledge is only present in people's heads, not on paper · Team members prefer to generate knowledge themselves · Don't know who owns what · NBX venture leader is unfit for the role

Search Area: Documenting knowledge takes a lot of time and effort · No direct benefit from documenting knowledge · Believe that they do it better themselves · People do not know the value of their knowledge · **Search Area:** No efficient people developing processes · No incentives for training

It takes effort to document knowledge in a way that is beneficial for other people · No incentive to document knowledge · There is no communication · Experienced people do not fancy the associated risks · No training available

Traditional documenting ways are time consuming

No distractions, maximum workforce available in the venture · Venture team members do not communicate with team members of other ventures · Venture leaders do not communicate with each other

Venture leaders protect the ventures from all communication · Venture team members do not know members of other ventures · Venture leaders are unaware of other venture leaders · They have no need to communicate with other venture leaders

Venture team members are 100% focused on developing the venture · Venture team members do not ask for information · No understanding of the benefits of interacting with other venture leaders

Venture leaders believe team members should be 100% focused on the venture · Venture-related activities take up all available time · **Search Area:** Venture team members of ventures do not meet each other

Team members are not reserving time for activities that are not directly beneficial for the venture

No understanding of the benefits of other activities · Team members have to do too many activities · Venture team members do not want to meet each other · Venture team members never interact (e.g. lunch, online meetings)

Figure 4.9 - RCA+ Outcome

Conclusion

By integrating both analyses it became clear on what aspects the venture environment within Philips is not optimally arranged to make ventures flourish within Philips. Within the venturing environment, it is unclear to ventures what other ventures are doing, where they are situated and which capabilities or roles venture team members have. On top of that, the ventures constantly shift focus and course, and can even move to another business.

Using the knowledge subtracted from the interviews and integrated with the literature review, five personas were created in order to map out the different stakeholders in more detail. These also serve the report for future references to the stakeholders.

Lastly, in order to uncover underlying causes of why ventures are not optimally performing in a structured way, an RCA+ analysis was performed. The analysis revealed three high-potential search areas for which was decided to further explore them. The search areas are 'Lack of Experience', 'Documenting Knowledge', and 'Venture Interaction'. These search areas are addressed in the next chapter

5. Scope

This chapter describes the refinement of the scope of the project. From a very broad scope of improving venture performance, the scope has been narrowed down to three search areas. All three search areas are explored in this chapter and a thoughtful decision is made on which search area to focus on.

Search Areas

Using the RCA+, the literature, the observations, the interviews, and the personas, three search areas were identified to look further into; (1) lack of experience, (2) documenting knowledge, and (3) venture interaction.

The search area "lack of experience" was one of the causes of the lack of capabilities of ventures. New business creation is generally a very chaotic process. Therefore, it needs people who can stand up and guide others. Experienced entrepreneurial people were identified in the interviews as important assets for new businesses creation. However, there is a lack of these people who are practically oriented and know when to cut corners. The search area lack of experience is focused on how to create more expertise within ventures.

One of the causes that ventures were underperforming was identified through the fact that ventures do not have access to the right knowledge. It was identified that most NBX-related knowledge was only in people's minds and was not directly shareable. Therefore, the documentation of knowledge is an important aspect of improving venture performance. Currently, knowledge documentation takes a lot of effort and there are no incentives to do this. Therefore, the search area "documenting knowledge" focuses on how to easily and comfortably document knowledge that is ready to be shared.

The last search area is that of "venture interaction". One of the causes of the lack of experience, knowledge and capabilities turned out to be the lack of interaction between ventures. In general, venture team members only interact with venture team members from their own venture and go to their own venture leader for any external information. However, the interviews revealed that team members do think it is faster and easier to ask someone from another venture for help directly. The discrepancy between the current situation and the aspirations of the venture members provides the basis for the third and last search area that focuses on improving and incentivizing interaction between venture team members.

- To narrow down the scope
- By identifying and exploring three potential search areas from the RCA+ overview
- Three explored search areas that can potentially be explored further
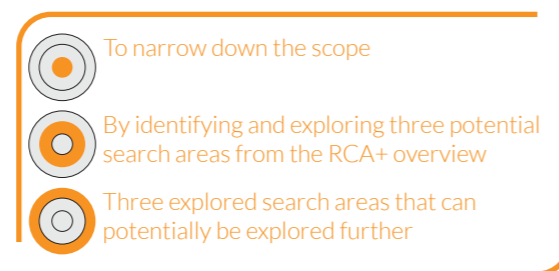
Lack of Experience

One of the challenges that ventures faced was the lack of experience within the venture teams (*figure 5.2*). Both the interviews and literature explain that new business creation teams need a huge set of different capabilities in order to succeed. However, these teams generally start very small and the people in those teams have a limited set of capabilities. A clear challenge then becomes to fit this huge set of different capabilities into a small team. Having team members with a lot of entrepreneurial experience in different domains can help to solve the challenge, but then a new challenge arises; where to find team members with entrepreneurial experience. The interviews already indicated that finding people with entrepreneurial experience within Philips is rather difficult. One of the reasons is that Philips is such a big company where people can work their whole life, resulting in a huge amount of people that are very familiar and experienced with Philips' core business, but that have little to no entrepreneurial experience.

Setting up a new business requires a different set of capabilities than creating a new product. This results in venture team members not knowing what they don't know; they are not aware that they do not know how to set up a supply chain or how to pitch their idea. The specific need of having experienced team members in the team was highly expressed by venture leads and senior members and therefore considered one of the important findings from the interviews. However, when taking the literature review into account, it becomes clear that there is an underlying desire to this need. Venture leads and senior management just want to have people in the ventures that know what has to be done (*figure 5.1*).

The real, overarching challenge then develops into how to acquire the right capabilities in each venture to make it perform optimally. This search area looks at different ways of bringing in capabilities into the venture. Examples of how this could be realized would be through training, borrowing, attracting talent or perhaps even simulating the capabilities that are already there.

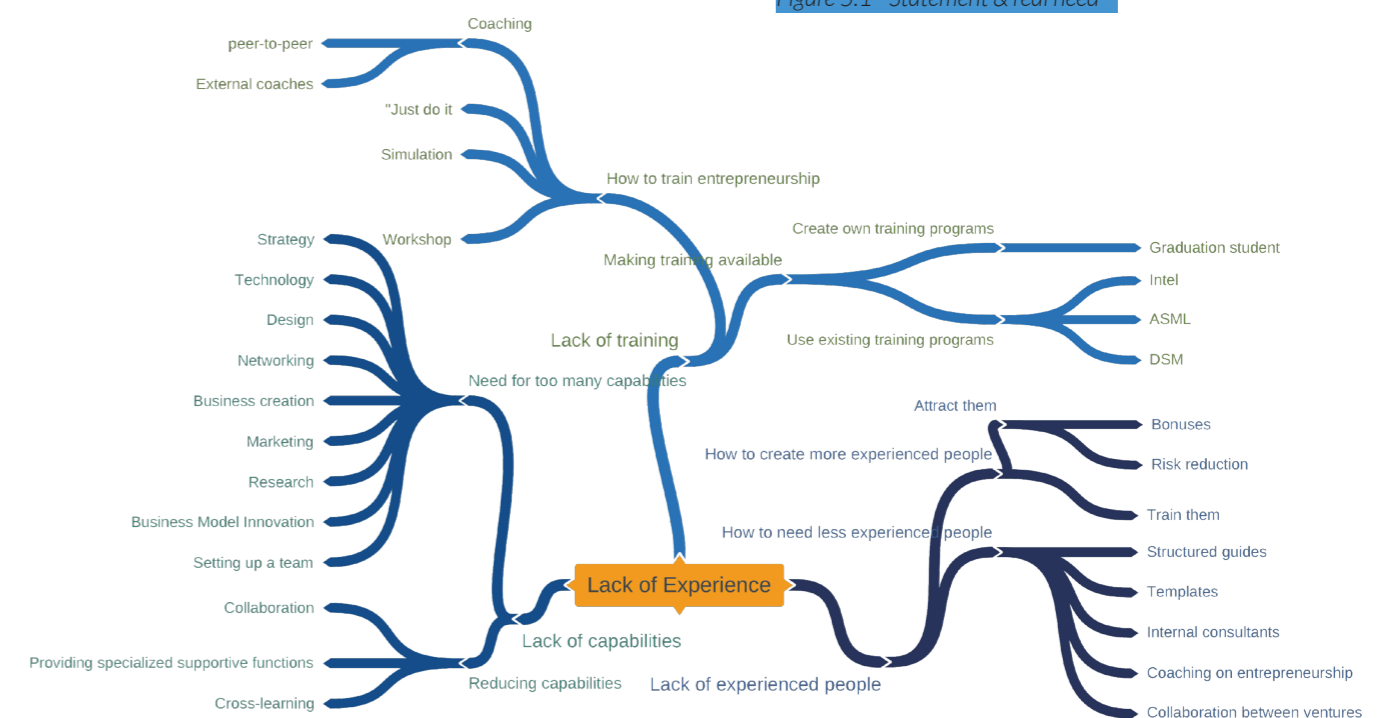Venture Lead

Figure 5.1 - Statement & real need

Figure 5.2 - Exploration 'lack of experience'

Documenting Knowledge

The search area of documenting knowledge is set up around a conflict. There is a need to have access to the knowledge that is in other people's heads, however, there is also a reluctance towards putting an effort in documenting and sharing knowledge. This problem has two direct causes that create the conflict together. First, documenting knowledge in an understandable and well-structured way takes time and effort to do. And secondly, there is no direct benefit from putting in the effort of documenting knowledge. An additional cause of why people are not documenting their knowledge is that they do not know how valuable their knowledge is to others.

Venture team members, venture leads and even senior management all expressed that "everything has already been done before". This does not imply that everything can be copied, but a lot can be learned from similar activities that were executed in a different context. Philips has an extensive history of innovation and people like to know why certain projects succeeded or why they were put to an end.

The impact of not sharing this legacy program knowledge is that many ventures are performing similar activities and feel like they are the first to do this (venturing). Senior members and venture leads recognized that many ventures were 'rediscovering the wheel'. This was expressed through the need of venture team members to have legacy program knowledge and to know best practices on how to solve challenges. However, the underlying cause is that ventures have a desire to know what approaches would work for their specific problem, to have a guiding hand in facing challenges (figure 5.3).

This search area is based on the gap between the "absence of willingness to invest in knowledge documentation" and the "need for documented knowledge". A brainstorm session focused on this search area revealed that many of the methods available for documenting knowledge are very traditional and not innovative (figure 5.4). The rise of new technologies provides an enormous amount of opportunities to design new ways of documenting knowledge.
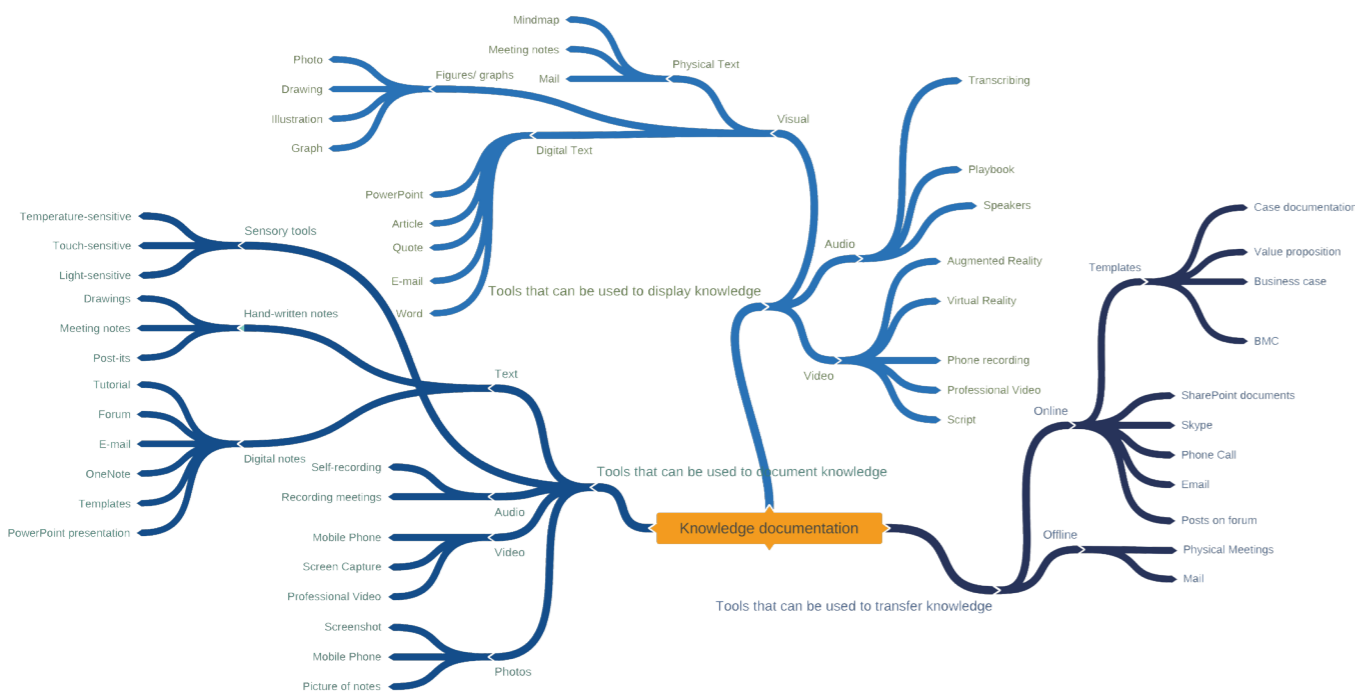

Figure 5.3 - Statement & real need

Figure 5.4 - Exploration 'documenting knowledge'

Venture Interaction

The interviews also revealed a conflict regarding the interaction between ventures (figure 5.6). NBX program leads and senior managers think that protecting venture members from all outside disturbances works best for venture success. Currently, venture leads are behaving like lightning rods, all communication directed towards the team members is redirected to the program lead. venture leads see this as a best practice. However, the interviews also revealed that venture team members do not mind team members of other ventures reaching out to them for information on best practices. Furthermore, venture team members would also like to know which team members of other ventures have faced similar challenges and could help them.

Currently, it is difficult for venture team members to reach out to members of other ventures. Ventures are mostly performing under the radar which minimizes chances for interaction between venture team members of different ventures. This creates ventures that are doing similar or even redundant activities. Furthermore, ventures cannot learn from other ventures and there is no existing network to rely on for support regarding specific venture-related development activities.

During the stakeholder interviews, venture team members highly articulated their need to know how other ventures have done, or are doing similar activities. However, a deeper understanding of the venture situation through the literature review revealed the underlying cause. Venture team members do not necessarily want to know how other ventures have done stuff, they want to know how they can face their own challenges; they have the desire to quickly learn from other ventures (figure 5.5).

This search area focuses on how to make ventures learn from each other. Venture team members should be able to interact with team members of other ventures whilst still being able to focus on their own venture. Furthermore, venture team members should be intrinsically motivated to reach out to, but also to support others.
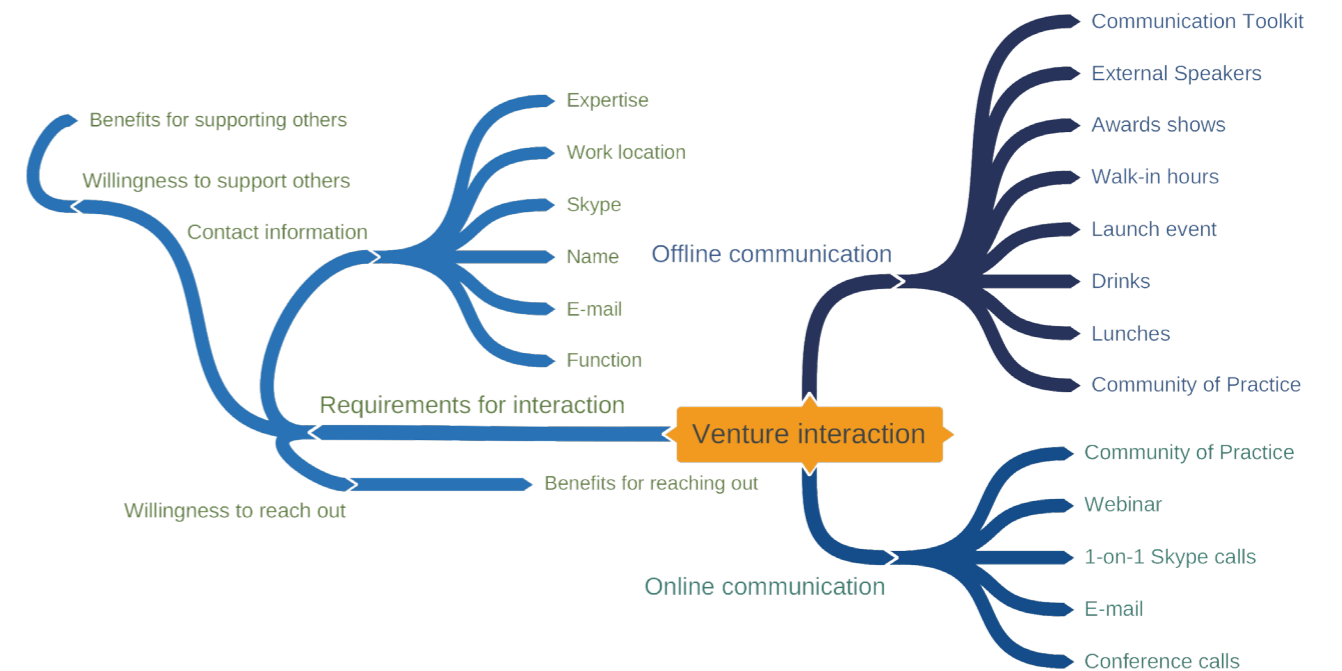

Figure 5.5 - Statement & real need

Figure 5.6 - Exploration 'venture interaction'

Conclusion

A decision on which search area to further explore was taken based on the strengths and weaknesses of each search area.

Based on the analysis of the search area of 'lack of experience' multiple strengths and weaknesses of this search area were identified. First of all, outcomes within this search area can have a big impact on venture performance. Both senior management and venture leads thought of experienced team members as one of the most important antecedents of venture success. Furthermore, in this search area there is quite some room for innovative solutions (e.g. simulating experience using VR or AR or setting up new training methods). However, there are also some drawbacks to this search area. One of the drawbacks or weaknesses is that experience in itself is a vague concept. It is hard to define when someone is experienced and when someone is not. Furthermore, experience within NBX does not necessarily mean that the experience is relevant for every venture. The main drawback from this search area remains the organizational challenges that are associated with getting experienced people in. This is the main reason why it was decided not to look further into getting more experienced team members in the ventures.

The search area of 'documenting knowledge' also provides important strengths and weaknesses that should be taken into account when deciding what search area to go for. One of the benefits of designing within this search area is that most knowledge documentation tools are very old fashioned. Many knowledge documentation tools have already been around for several years, yet, they have not been able to make important contributions to the knowledge management practice in recent years. This provides a big opportunity for improvements in this area. Furthermore, knowledge documentation tools could be independent solutions that are not so much susceptible to external factors. This also provides opportunities for easy implementation of an innovation that targets knowledge documentation. However, there are also some threats that should be taken into account. For example, there is a danger that the innovation becomes 'just another tool' because of the already existing huge amount of tools that is available. Furthermore, challenges that will be faced are that ventures do not want to share certain information and are also not willing to invest time in decent documentation when there is no direct benefit. This poses a big challenge in changing venture team members' mindsets in sharing knowledge.

Exploring the third search of 'venture interaction' provided insights into the strengths and weaknesses of that search area. Benefits when diving deeper into this search area are that it is based on a clearly articulated need and there are many willing potential contributors. The interviews revealed that both venture team members and venture leads wanted to learn from other ventures how they have handled certain challenges. Furthermore, the interviewees also revealed their willingness to talk to other ventures. Because there is currently almost zero to no interaction between ventures, any slight improvement in making ventures learn from each other through collaboration would benefit the ventures. Of course, there are also threats when considering this area. For example, a huge threat in this area is that many obvious solutions might also do the trick (e.g. lunch meeting or drinks). Furthermore, venture team members are also not willing to invest much time in interacting with others if it is not directly beneficial to them. However, these are threats that can be overcome by carefully orchestrating the idea generation. Also, of the three search areas, the expected impact is the highest due to the potential useful knowledge transfer that is possible between ventures. Therefore it was decided to dive deeper into the search area of 'venture interaction'.

6. Deep Dive

Now that it is clear that the scope is narrowed down to the search area of 'venture interaction', a deeper dive into that search area can be performed. Again, the state-of-the-art on this topic is investigated and summarized. Furthermore, different entrepreneurial meet-ups were visited to explore how entrepreneurial interaction is practically implemented. Lastly, interaction meetings were attended to see how knowledge is transferred within Philips. These three elements provide a good overview of how ventures are currently interacting and what possibilities for improvements there are.

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Literature Review Venture Interaction

In order to learn from each other, ventures need to communicate and interact. The three main types of communication are (1) written, (2) oral, and (3) non-verbal communication. In recent years, written communication has increased exponentially due to the rise of the smartphone (Smith, 2017).

Aristotle's (384-322 B.C.) speaker centered model is considered to be the first model of communication. Consisting of five basic elements it focuses on public speaking for an audience (figure 6.1). Over time communication models have evolved into more complex models allowing for feedback loops and learning behavior. Westley and MacLean's model of communication (1955) was one of the first to introduce a feedback loop that improves prior messages through means of the receiver's feedback (figure 6.2). This aspect of "learning" through feedback has been the foundation for learning theories.

Traditional learning theories see training, the transmission of knowledge within a focused and controlled environment (Brown & Duguid, 1991), as one of the fundamentals of learning. However, early training programs by practicing in the real environment have also shown to significantly improve participants' capabilities (Baird & White, 1984; Latham & Saari, 1979). From a CoP perspective, the concept of legitimate peripheral participation (LPP), learning to be a practitioner, was introduced (Lave & Wenger, 1991) to further understand learning in the real environment.

Traditionally, there is a belief that the highest skilled people should teach their less skilled peers (Topping, 2005). However, more recent research has discovered that peer learning between people with similar capabilities might even provide more benefits through learning by knowledge obtainment for the receiver and learning by teaching for the sender. Two of the most used forms, peer tutoring (Topping, 2005) and cooperative learning (Slavin, 1990), show to have significant advantages in knowledge improvement (Topping & Ehly, 1998) without the need of highly skilled teachers.

One of the reasons peer learning works is that both peers get to be the sender. The perceived feelings of excitement and content are strongly associated with the production of dopamine, which boosts motivation and reward circuits (Clark & Dumas, 2015). Dopamine makes the reward more attractive on a historical basis when it has been previously proven to be beneficial for the participant (Crespi, 1942). However, this also

implicates that rewards are susceptible to decreasing value over time for the reward and activity itself. Therefore, it is important to create sustainable reward schemes that will not decrease in their value over time. The full literature review can be found in Appendix F.
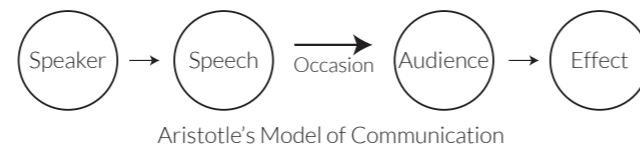

Aristotle's Model of Communication

Figure 6.1 - Aristotle's Model of Communication
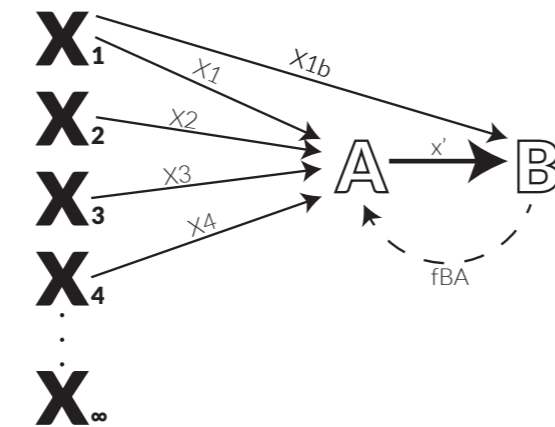

Westley & MacLean's Model of Communication

Figure 6.2 - Westley & MacLean's Model of Communication

Literature Findings

- Feedback loops to improve have become more important in interaction practices

- Learning from peers with similar capabilities has proven to incorporate significant benefits

- The production of dopamine makes people more suceptible through rewards and increases their intrinsic motivation

Meet ups

During the literature review, it was already discussed that venturing activities and challenges are very similar to start-up or entrepreneurial activities and challenges. In order to explore these activities, it was decided to attend multiple gatherings that target entrepreneurs, start-ups, self-employed or interested. The gatherings were all set-up differently and had different main purposes. The gatherings provided insights for interaction drivers and challenges.

One of the main drivers for the gatherings is to meet people that are in similar situations. That is also the main reason incubators work so well; there are like-minded people who are all struggling to set up their businesses. During lunch, the people from the different start-ups talk to each other about general topics and also slowly get to learn each other's skills and struggles. This provides a foundation for more formal follow-up meetings regarding in-depth business issues.

Especially Seats2Meet (Seats2meet.com, 2018) (figure 6.3c) focuses on this exchange of knowledge between their participants. Seats2meet provides open flex spaces for people who want to work on their own projects. Seats2Meet work on the basis of social capital, a person's knowledge and skill set, in return for a free workspace. On their online profile, the skillset and knowledge areas of the people currently present in the workspace can be viewed. Everyone can be approached and asked for support on certain topics. Seats2Meet's business model is based on bookings of private meeting rooms.

BounceSpace (BounceSpace, 2016) has a somewhat similar approach to bringing people together. They provide a free open space with a big table in the middle where anyone can work (figure 6.3a) and next to that, in the same space, they provide flex- and private desks for a monthly fee. Talking to people at BounceSpace did show that they generally interact with the people who are situated close to them. They do not necessarily interact with the goal of formally solving problems and challenges, but unconsciously people are helping each other out by discussing their issues.

Networking gatherings are also popular among entrepreneurs. Attending two networking events, a Founded By All (FBA) event (figure 6.3b) (FoundedByAll, 2018) and the Eindhoven Innovation Café (EHV) (figure 6.3d) (Eindhoven Innovation Café, 2018), showed that there should be some common interest to attract attendees to the event. Both events did this by inviting speakers to talk about their own experiences and have

drinks afterwards.

Findings from these different gatherings are that having people physically present next to each other will in many cases naturally lead to interaction between them. It was also found that people who are working next to each other may informally discuss their challenges and problems which leads to unconscious contributions to the solution of their challenges and problems. Furthermore, it works best if people voluntarily attend the gathering due to their interest or enthusiasm in the topic. Inviting an interesting speaker helps to attract excited people to the meetings.

Figure 6.3 - From top till bottom: BounceSpace, FBA, Seats2Meet, EHV

Interaction Meetings

Visiting the meet ups provided more information on how to establish first contacts and how to attract people to such gatherings. However, establishing contact is only the requirement for venture interaction, but the real goal is to learn from each other. This is done through the interaction between both actors. In order to get more insights and understanding how learning through interaction is generally done, multiple meetings with the goal of learning through interaction or discussion were attended.

One of the findings from these meetings is that people do not immediately interact with each other when they are physically in the same room, there should be a common goal or task. For example, during the NBX Portal Workshops *(figure 4)* the goal was to get aligned for what content should be on the portal. This common goal made sure that everyone contributed and that knowledge from individuals was shared with the whole group resulting in a group consensus. Individual knowledge became spread to the minds of everyone in the room.

The VPC (Value Proposition Creation) workshop embraced a similar approach with the discussion of posters followed by a presentation of the posters *(figure 6.4)*. It became clear that when a group becomes too big, some members of the group might isolate themselves more from the group and will not benefit as much from the interaction.

Another finding from the meetings is that learning thrives when people are forced to work and think together. This was mainly observed during the NBX Walkthrough meeting where a presentation session was followed up by a quick brainstorm session *(figure 6.4)*. During the brainstorm session, the participants really started to think about the contents of the presentation. The extra activity of brainstorming made sure that the participants remembered the presentation much better.

A general finding of these meetings is that the effectiveness of the interaction and learning is dependent on the group size. A group that is too small might not be able to accumulate enough knowledge so that everyone learns and a group that is too big might result in isolated members. Furthermore, creating co-owners of group members by collaborating with them results in more interaction during the meeting itself which also improves the absorption and retention of knowledge. Lastly, a common goal or task makes people collaborate, share knowledge and interact with each other. Without this common goal or task, people are less likely to engage in interaction, even when they are in the same room. Although there are exceptions for people who are very much acquainted with each other, they will almost automatically start to interact.

Figure 6.4 - From top till bottom: VPC Workshop, VPC Workshop, NBX Portal Workshop 1, NBX Portal Workshop 2, NBX Walkthrough

Conclusion

The literature on interaction illustrates how communication models have evolved into more complex models that incorporate feedback loops to improve interaction. Furthermore, it explains how recent developments in the literature have uncovered the two-sided effect of peer learning; (1) learning by knowledge obtainment and (2) learning by teaching. The underlying causes to why peer learning works so well have been explored to reveal the impact of dopamine production on the human brain to make people more susceptible to rewards and increase intrinsic motivation.

To understand how these findings apply to entrepreneurs in a practical way, different entrepreneurial meet-ups and working environments were visited. These showed that the physical closeness of entrepreneurs creates knowledge spill over and makes them interact more. Different ways to attract people to those meet-ups seem to work well while others don't.

Different interaction meetings within Philips were attended to understand how knowledge is shared within Philips itself. Multiple forms of knowledge transfer were witnessed with different goals. However, all of the interactive elements in the meetings were based on the physical presence of all people in the room.

7. Ideation

The findings from the deep dive provide the foundation for thinking of solutions on how to improve venture interaction. In order to effectively brainstorm on solutions, an ideal situation was constructed. This proved to be a 'North Star' when brainstorming on solutions to improve venture interaction. The brainstorming sessions were used to generate ideas and identify emerging themes and groups. From there on, high-potential groups are translated into three different concepts. At the end of the chapter, a decision is made on which concept to go for.

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Ideal Situation

The first creative session focused on defining the ideal situation on how NBX should be practised within Philips according to the NBX Office. The idea of the session was to come up with a "North Star" to which can be worked during further ideation.

During brainstorming on the ideal situation of NBX, multiple ideas were generated by the four participants. Ideas ranged from having a ship housing all ventures that sails around the world in a year to visit families of the venture team members one by one to creating a fully transparent NBX scheme in which all information is accessible to anyone within Philips to support the ventures whenever possible.

Furthermore, it became clear that having an NBX mindset was also an important aspect. Brainstorming on what an NBX mindset actually is, revealed some deeper insights. An NBX mindset is characterised by a preference for long term gains instead of short term rewards, always looking at the bigger picture, taking into account what others are doing, and admitting a venture is not succeeding and stopping it.

After this creative session, an ideal situation could be formulated (figure 7.2). An ideal situation for NBX would be that all NBX programs are situated in a place where they meet each other daily and are able to discuss their challenges and problems, like a venture factory (figure 7.1). Venture team members know what others are doing and can freely walk into other ventures offices to get support. All ventures are working towards the same goal of providing the best possible solutions for the problems the customer is facing. Furthermore, everyone has an NBX mindset which causes them to look for longterm gains and to be supportive towards others. Lastly, it was mentioned that the venture factory would be a state-of-the-art prime example of how internal corporate venturing should be done within Philips.
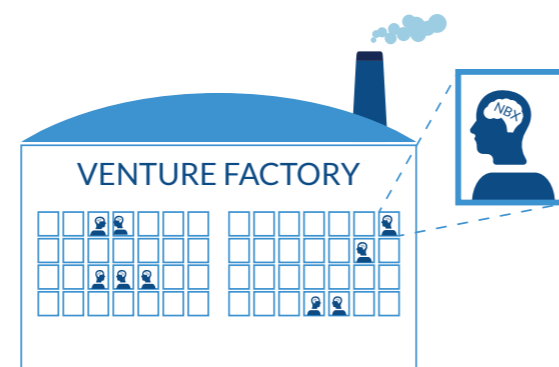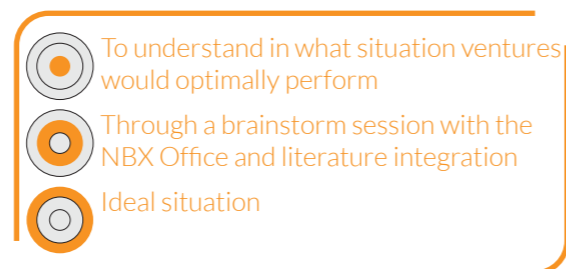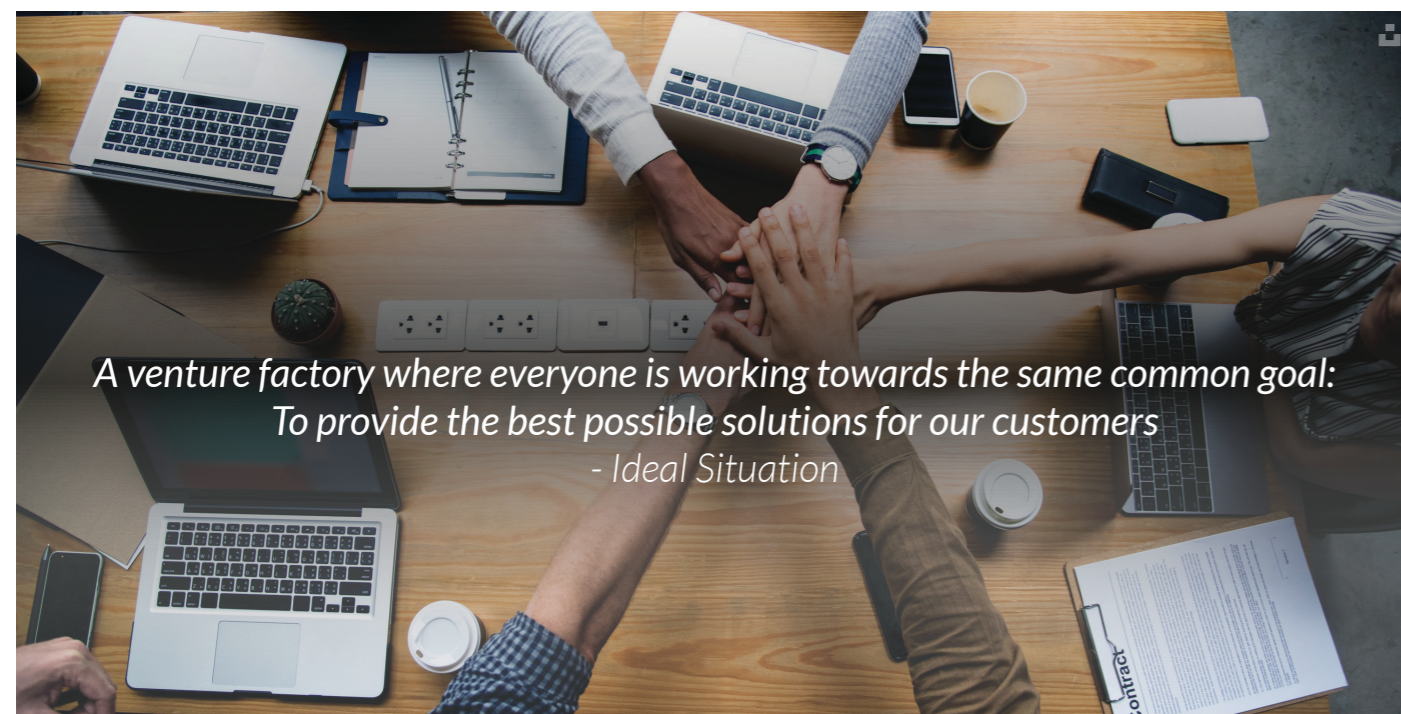

- To understand in what situation ventures would optimally perform
- Through a brainstorm session with the NBX Office and literature integration
- Ideal situation

Figure 7.1 - Venture Factory

VENTURE FACTORY

A venture factory where everyone is working towards the same common goal:
To provide the best possible solutions for our customers
- Ideal Situation

Figure 7.2 - Ideal Situation

Brainstorming

With the ideal situation in mind, three brainstorming sessions were organized (Appendix H). The sessions were prepared in advance to make the most use of an hour of dedicated time (Appendix G). An exploratory brainstorming session with the NBX Office (figure 7.3), a brainstorming session on learning with venture team members and a venture lead (figure 7.4) and a validating brainstorming session with an internal consultant and a business development engineer (figure 7.5). Next to the sessions, individual brainstorming took place to elaborate on the outcomes of the sessions. The sessions were then again used to validate the ideas of the individual brainstorming by seeing how participants reacted to my ideas.

Naturally, the brainstorming provided a huge amount of diverging ideas and potential solutions to incentivize venture interaction. In that respect, the goal of the brainstorming sessions was achieved.

However, there was an additional finding during the brainstorm sessions that can be seen as even more valuable to this project than the ideas derived from the brainstorming sessions themselves. Emerging mainly during the second brainstorming session, it was found that there is quite a rigid mindset within ventures; They are looking for quick fixes and are not interested in the longer term benefits of sharing knowledge with- and learning from other ventures.

The consequences of this new finding are significant. Providing an innovation that makes it more accessible for ventures to learn from each other is not enough, the mindset should be changed in order to have a positive impact on venture performance. The lack of intrinsic motivation due to their focus on quick fixes means that ventures should either be incentivized in some way to collaborate with- and learn from other ventures or change their mindset about collaboration, learning from other ventures and people development towards a long term orientation. Furthermore, the quick fix mindset shows that ventures are, understandably, focusing on developing their own venture as fast as possible. However, this does not mean that this mindset also provides the best results for the total sum of all ventures. When ventures are investing more time in understanding their lessons learned, sharing best practices and collaborating, the total performance of all ventures benefits the most. This change of mindset is required to make ventures reach their maximum potential.

Figure 7.3- Brainstorm Session 1
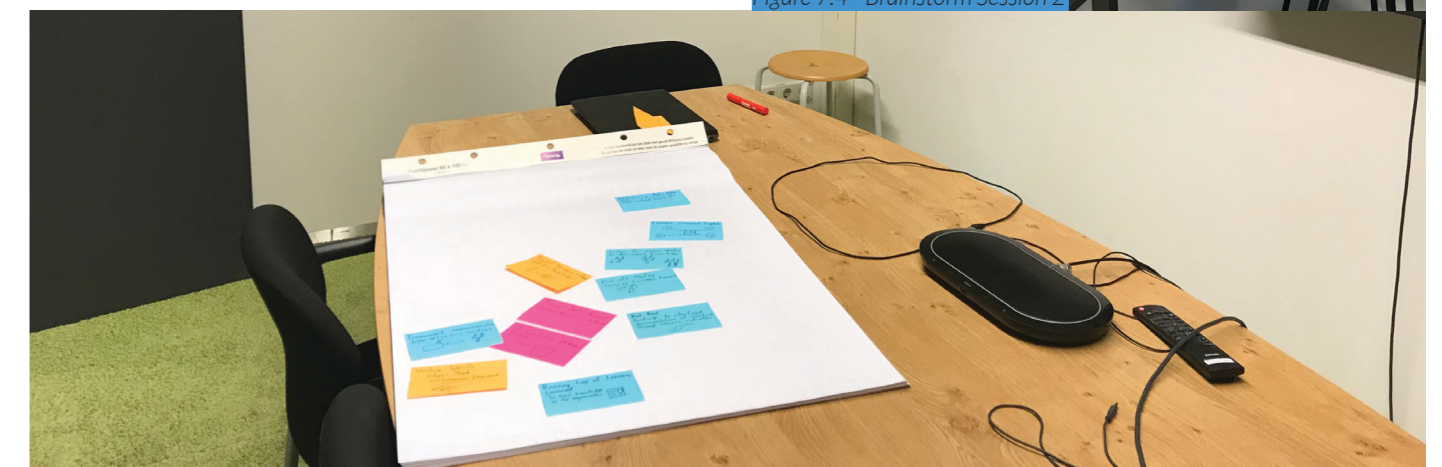

Figure 7.4 - Brainstorm Session 2

Figure 7.5 - Brainstorm Session 3 - Validation of Ideas

Idea Clustering & Combining Ideas

Once the brainstorming sessions were finished, emerging themes among the ideas could be identified. 12 themes were found that could address the identified problem. The size of the bubble represents the relative amount of ideas (small-medium-big-very big) that were generated with that theme.

The themes were then clustered on their main functions, resulting in a Venn-diagram (figure 7.6). For example, a venture buddy is about bringing people together, but this doesn't have to be daily or temporary. However, an award or event is a temporary happening but is also about bringing people together either physically or showing recognition for someone.

The different ideas and themes were then recombined to come up with high-potential impactful solution direction that could be translated into a concept. *Figures 7.7, 7.8 & 7.9* show the different solution directions for each concept.

Figure 7.7 - Concept 1
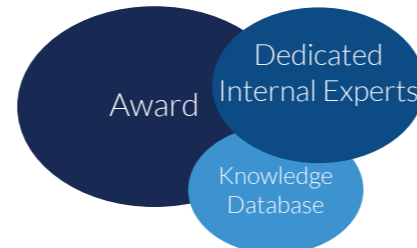
Figure 7.8 - Concept 2
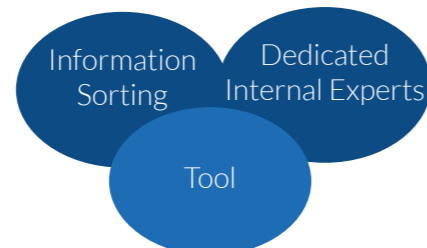
Figure 7.9 - Concept 3

- To understand and combine recurring patterns in the idea generation process
- Through clustering and grouping ideas under shared topics
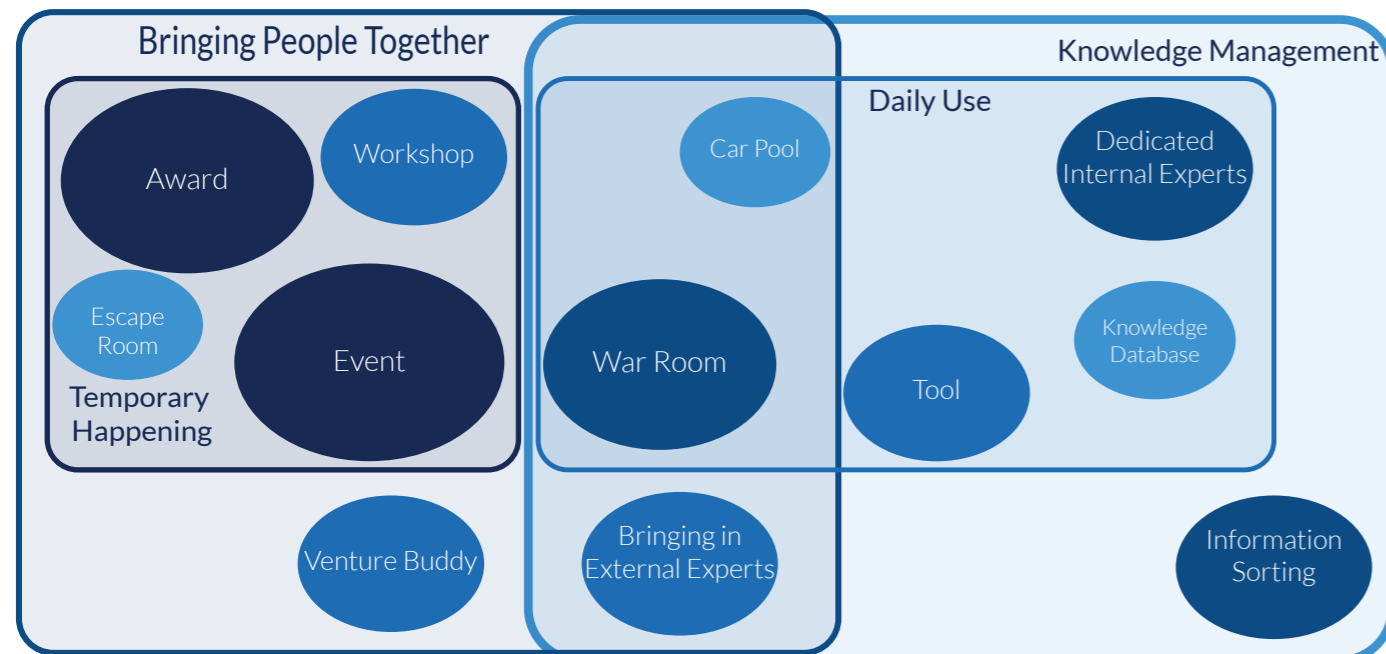- High potential impactful combinations of themes for new concepts

Figure 7.6 - Clustering the themes

Concept 1 - Introduction Week

One of the ways of instilling the right behavior within venture teams is to guide them from the start. By providing an introduction week to ventures (figure 7.10), venture team members can immediately experience what the best practices are when working in a venture. During this introduction week, one of the focus points is making venture team members understand the value of sharing knowledge within and outside the venture team. The introduction week serves to provide the right foundation for ventures to become successful businesses.

An introduction week for ventures is all about driving best practices through daily habits and interactive workshops, understanding pitfalls and lessons learned from people who already are very experienced in venturing, and to extend the so important networks of venture team members. The week is essentially guiding the transformation from a project into a venture.

The kick-off of the introduction week immediately focuses on instilling the right habits by starting with a daily stand-up and setting goals for that day. This is followed by talks by internal speakers who tell about their experiences with venturing. These speakers can be venture leads, venture team members, senior managers, supporting functions and people from the NBX Office. There is an interactive break in the afternoon during which venture team members have the opportunity to network. The afternoon again consists of multiple people talking about their experiences and finalizing the day with daily wows.

The whole week is about instilling the right behavior through daily habits. Furthermore, during the week, the focus shifts from making people understand the right ways of working a venture to bringing those ways into practice through workshops. Next to that, every day of the week invites different people with a lot of venturing expertise to talk to the new venture team members during the break.
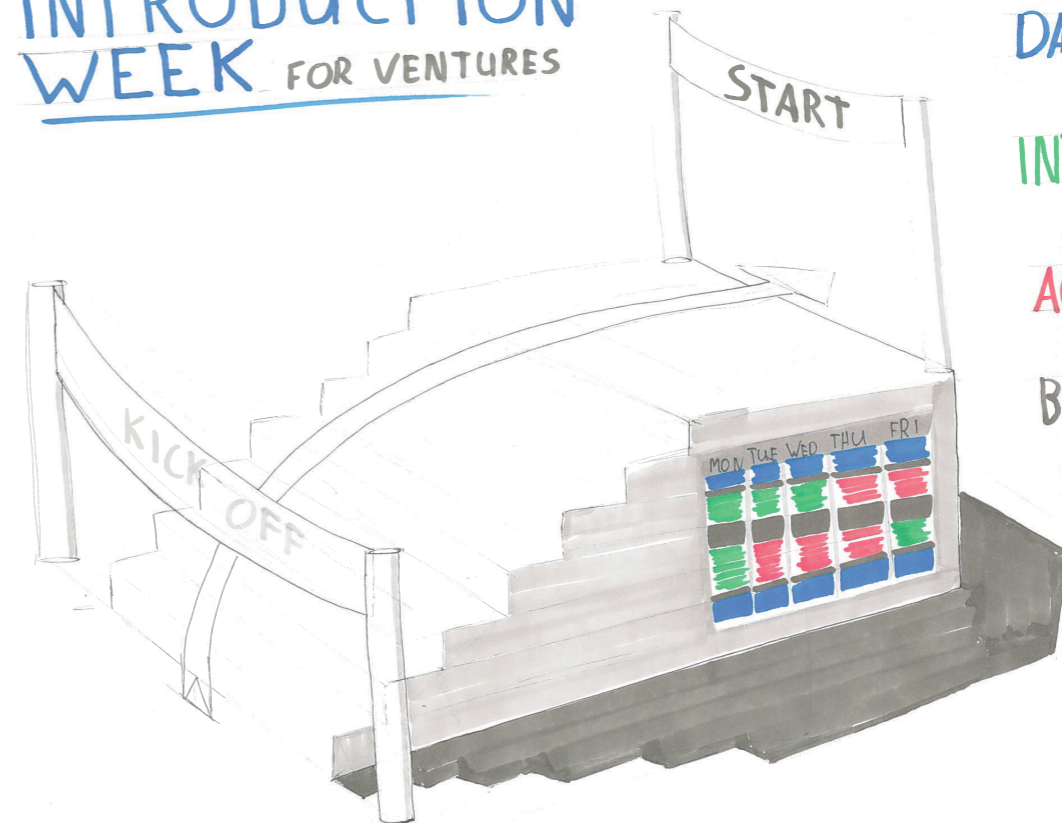

Figure 7.10 - Concept 1

Concept 2 - Venture Playbook

The previous concept focused on instilling the right mindset for new ventures. However, that concept did not take into account the huge amount of existing ventures that have already started months to years ago. Although it is very hard to change the behaviors of those existing ventures, it might be possible to instill some good habits or best practices of working in a venture. A playbook, handbook, or manual (*figure 7.11*), can be a way to start implementing habits that improve the performance of all ventures.

The playbook focuses on addressing the specific need of ventures on how to do certain things. It does not focus on 'what' the deliverables are, these are already available in different places. Rather, the playbook focuses on the 'how' of doing things like how to run a venture daily or how to deliver the deliverables. In the playbook, emphasis is put on practical information on how to operationalize NBX within Philips.

This idea takes shape in the playbook through a list of different topics that are important to NBX that answer questions like: "How to do NBX on a daily basis?", "How to find experts?", and "How can I learn from other ventures?". Topics in the playbook include, amongst others, "How to use the playbook", "Rationale of NBX", "Daily operationalization of NBX", and "Quarterly reporting".

The different topics can be used on a stand-alone basis and serve as references during the fulfillment of the different subjects of NBX. Each topic in the playbook comes along with tips, best practices, case examples and expert contacts regarding that specific topic. These are composed to make the reader understand the value of the knowledge that was put in the playbook by other ventures. The playbook is a physical tool that should be laying around somewhere in every venture and that is accessible any time it is needed.
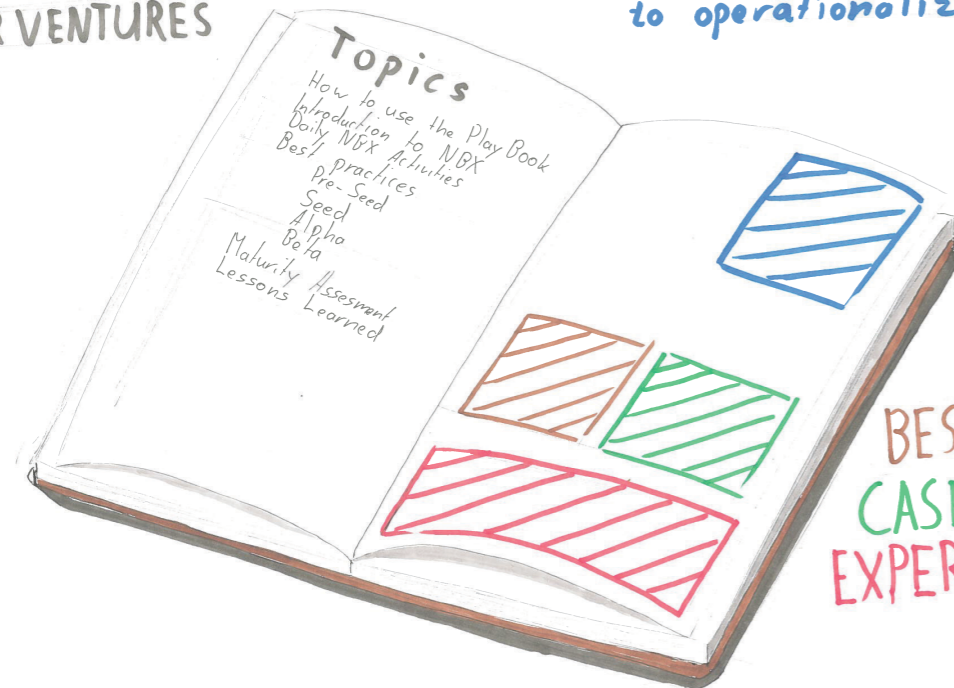
Figure 7.11 - Concept 2

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Concept 3 - Gamification of Knowledge

Both previous concepts focused on making people understand the importance of knowledge sharing. However, that might not be enough in itself to make people start sharing knowledge, they might require some more incentives. Therefore the third concept introduces a Knowledge Management System (KMS) that is based on gamification (*figure 7.12*). Through sharing knowledge, users of the KMS can acquire points that represent their knowledge about certain topics and, once acquired enough, they can lead to useful benefits for the venture or the individual.
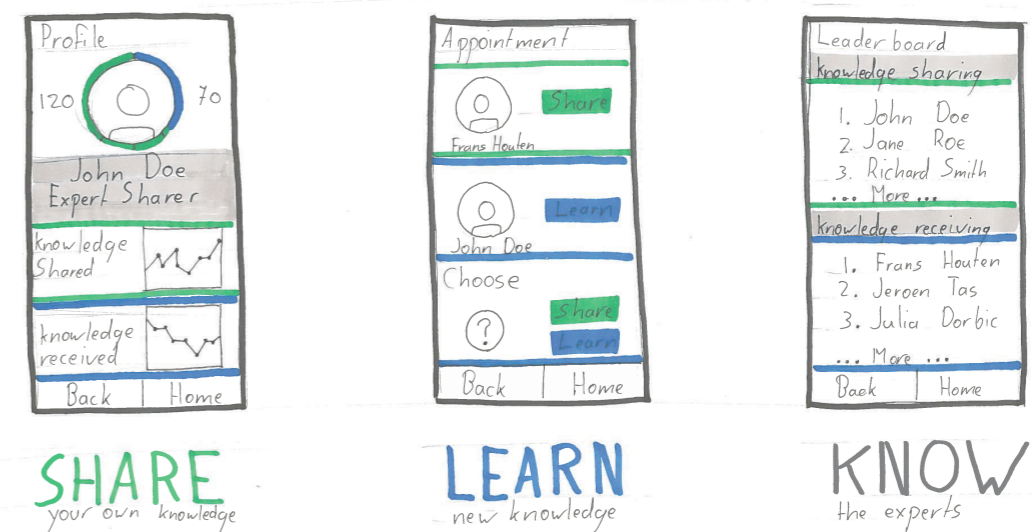
The KMS provides a place for a venture to share their knowledge, to learn from others and to get to know the experts. It provides a platform and recognition for people who are already trying to share knowledge within NBX. Next to that, it also provides easy access and incentives to start sharing knowledge for the ones who were not doing it before.

The basis of the KMS is to get the knowledge that is in people's mindsets on paper and accessible to others. Only having a KMS will not be sufficient to enable people to share knowledge as can be seen from previous initiatives to make people share more knowledge. Gamifying knowledge sharing is needed to provide those first incentives for people to start sharing knowledge. Once that is done, people will easier understand the value and importance of knowledge sharing and it will become inherent to the Philips culture.

Gamification of a KMS consists of having a point system in which people are awarded points based on their interaction with the system. Points can be acquired by both sharing knowledge and learning from knowledge of others. The impact and quality of the shared knowledge will also be taken into account in considering the number of points people receive from their sharing of knowledge. Leaderboards will provide insights in which people are the topic experts or the quick learners within Philips.

Figure 7.12 - Concept 3

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Conclusion

Diving deeper into the search area provided the required input to start thinking of solutions on how to improve venture interaction. Firstly, an ideal situation for ventures was envisioned through a brainstorm session in combination with a discussion with members of the NBX Office. The ideal situation turned out to be one central venture factory where all ventures are situated in the same building and where everyone has the right 'NBX mindset'. This was used as a 'north star' for later brainstorming sessions and ideas.

In order to generate ideas, individual brainstorming was performed along with multiple group brainstorming sessions. Both brainstorming sessions were done parallel to be able to test individual ideas during group brainstorming and to further individually elaborate on group session output. During the brainstorm sessions, it became clear that it would not be sufficient to only allow ventures to interact because they are not intrinsically motivated to share knowledge and collaborate. Therefore, focus on the concepts would lie on changing the mindsets of the venture team members in order to make them understand the value of collaboration and interaction.

The individual and group brainstorming provided a huge amount of ideas that were clustered into emerging themes amongst the ideas. The themes were clustered on main functions and then later combined into high potential combinations to be developed into three concepts.

Concept one is a venture introduction week that should make sure that the right 'NBX mindset' is immediately instilled inside the venture team members. The week would consist of workshops and presentations from different experienced intrapreneurs and daily stand-ups and wows to instil good habits

Concept two is a venture playbook consisting of how-to's on different topics. How-tos would consist of combinations of tips, best practices from experienced intrapreneurs, more specific case studies and expert contacts who can be contacted when stuck at certain topics. It is designed to share practical information on how to operationalize NBX.

The last concept, concept three, is based on the gamification of knowledge sharing. This concept focuses on instilling habits of knowledge sharing through extrinsic rewards, kudos and recognition of other venture members. Through the sharing of knowledge, the sharer receives points while others can learn from the experience. Lastly, through such a platform, it can become clear who the experts are on certain topics.

In order to decide which concept provides the most potential impact, all three concepts have been mapped into Harris Profiles (Boeijen, Daalhuizen, Schoor & Zijlstra, 2014) (figure 7.13). Harris profiles can be used as a discussion tool and to visualize what concept provides the most and best benefits for a certain use. Generally, the best concept is the one with its center of gravity in the most top-right corner.

For each concept, values for the ambitions were estimated and converted into a Harris profile. When comparing the Harris profiles of the concepts, a clear underdog can be identified as the introduction week. The remaining two concepts scored somewhat similar, but concept 3 seemed to top concept 2 slightly. As concepts two and three were scoring so similar, further discussions with the NBX Office were required. Those discussions proved that refining concept three would be the best choice.
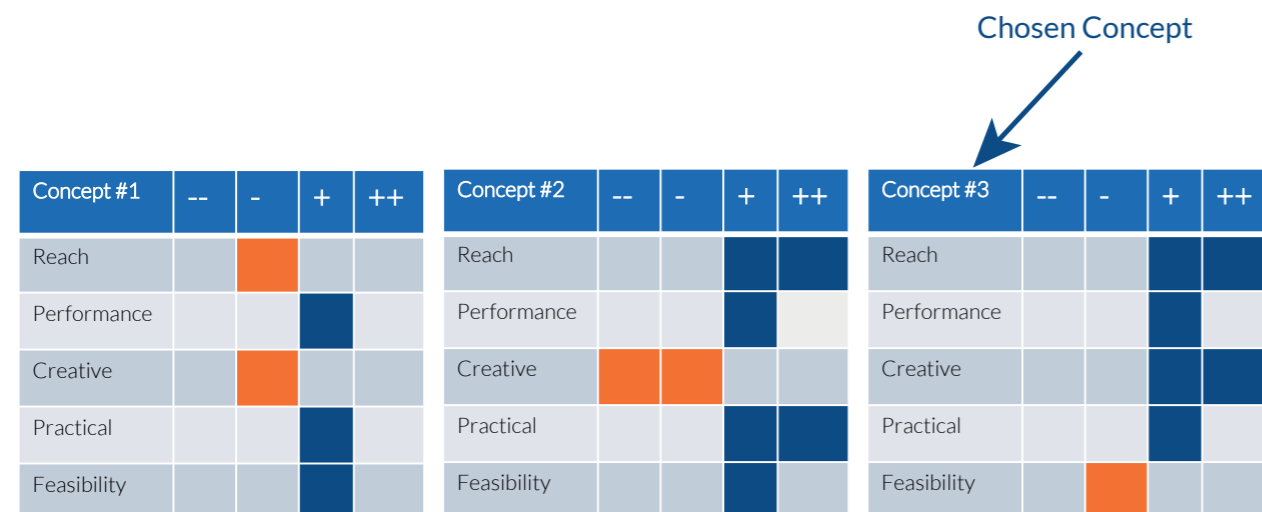
Chosen Concept

Concept #1	--	-	+	++
Reach		■		
Performance			■	
Creative		■		
Practical			■	
Feasibility			■	

Concept #2	--	-	+	++
Reach			■	■
Performance		■		
Creative	■	■		
Practical			■	■
Feasibility			■	

Concept #3	--	-	+	++
Reach			■	■
Performance			■	
Creative			■	■
Practical			■	
Feasibility		■		

Figure 7.13 - Harris profiles

8. Refinement

The concept of gamification still incorporates tremendous possibilities that can be developed. Through many iterations, the concept has been refined into the Synergy platform. Based on the Fogg Behavior Model (FBM), the envisioned motivational and ability values of the platform are determined. Through a user journey, the real challenge of knowledge sharing was revealed and addressed using a reward scheme. The final concept then consists of the Synergy platform, an engagement roadmap and a gamification roadmap.

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The concept of gamification of knowledge sharing can be interpreted in multiple ways. In discussion with the NBX Office, it was decided to design a knowledge sharing platform specifically for NBX.

The goal of the Synergy platform is to make knowledge sharing more accessible and inviting to potential users. One of the benefits over traditional methods like lunch meetings or drinks is that, through the platform, anyone can be reached throughout the organization despite location or organizational disparity between the sender and the receiver. However, this on its own does not necessarily make the platform the best method to share knowledge company-wide. Philips already uses different platforms to share knowledge like SocialCast, SharePoint, Outlook, Skype, OneDrive, Microsoft Teams, Philips University, and their own video sharing service, BlueTube. The problem with these current platforms is that the majority of its users remain in the grey area of the Fogg Behavior Model (Fogg, 2009) when looking at transferring knowledge to a big target audience. This means that the currently used platforms either lack the accessible ability or motivation for all users to use them actively (figure 8.2).

The Synergy platform solves this issue in two ways. Firstly, by enabling easy knowledge sharing and searching for users. This is done through the creation of a convenient and quick UX by integrating user input with the best features of other platforms to create new UI that provides a quick overview of important knowledge and that enables the user to easily share their own knowledge. These aspects ensure the Synergy Platform will be situated at the right side of the ability axis.

Secondly, the issue is targeted by introducing gamification elements. The CoP interviews already revealed that most people are not intrinsically motivated to contribute to causes like knowledge sharing. Introducing elements of recognition, kudos, and extrinsic rewards, lead to people being much more motivated to share knowledge and thereby positioning the Synergy platform on the medium-high part of the motivation axis. Gamification elements furthermore provide incentives for users to come back and improve their profile by progressing in levels, earning badges and eventually earning rewards while in the meantime contributing to the universal NBX knowledge database.

- To understand how the Synergy platform shoudl be designed to improve adoption
- Through looking at impact and adoption of existing services
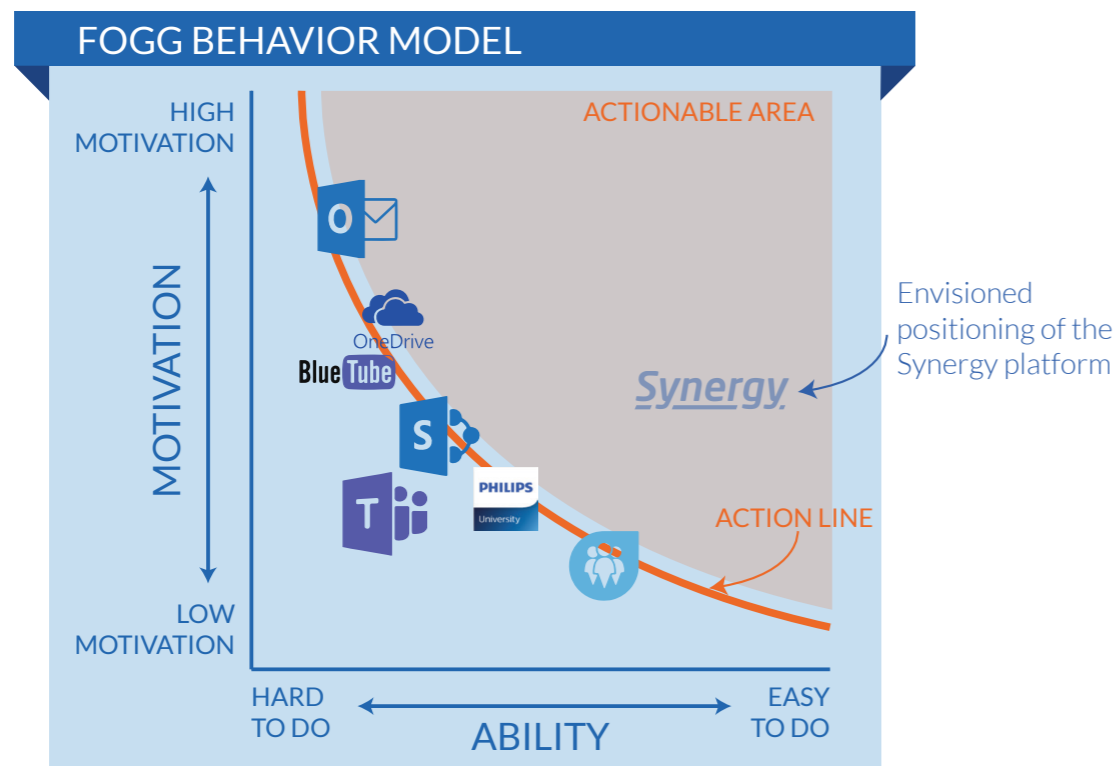- Proposed positioning of the platform on the FBM model

Figure 8.2 - Fogg Behavior Model

Before creating the real platform, a user journey was set up to understand how the user would experience using the platform (figure 8.3). Constructing the user journey revealed three main components; (1) the means, which is the Synergy platform, (2) the goal, which is acquiring useful knowledge, and (3) the challenge, to make people contribute to the platform.

The user journey illustrates how a user can obtain useful information using the platform when facing an obstacle during his or her work. The user will start with searching the platform and either find relevant information or not. When the user finds relevant knowledge, he or she will read about it and reach their goal (solving the obstacle). When the user does not find relevant knowledge on the platform, he or she will start looking for SMEs who might have the relevant knowledge. Using the platform, they can find that SME and then contact them. After meeting up with the SME, the user is able to solve its obstacle and achieve its goal.

However, the real challenge lies in motivating the user to contribute to the platform after he or she has achieved its goal. This is taken care of by providing extrinsic motivation through recognition and rewards with the use of gamification. Once the user has achieved its goal, another goal is unlocked. The second goal is receiving recognition for their contribution to the platform and to gain certain rewards. Instilling the second goal through gamification makes sure that a part of the users will contribute to the platform by providing feedback or documenting their findings.

Another motivation for users might be that people possess information that they want or have to share with others. For those people, it is important that documenting knowledge is done quickly and easily. They will start by documenting their knowledge and then dis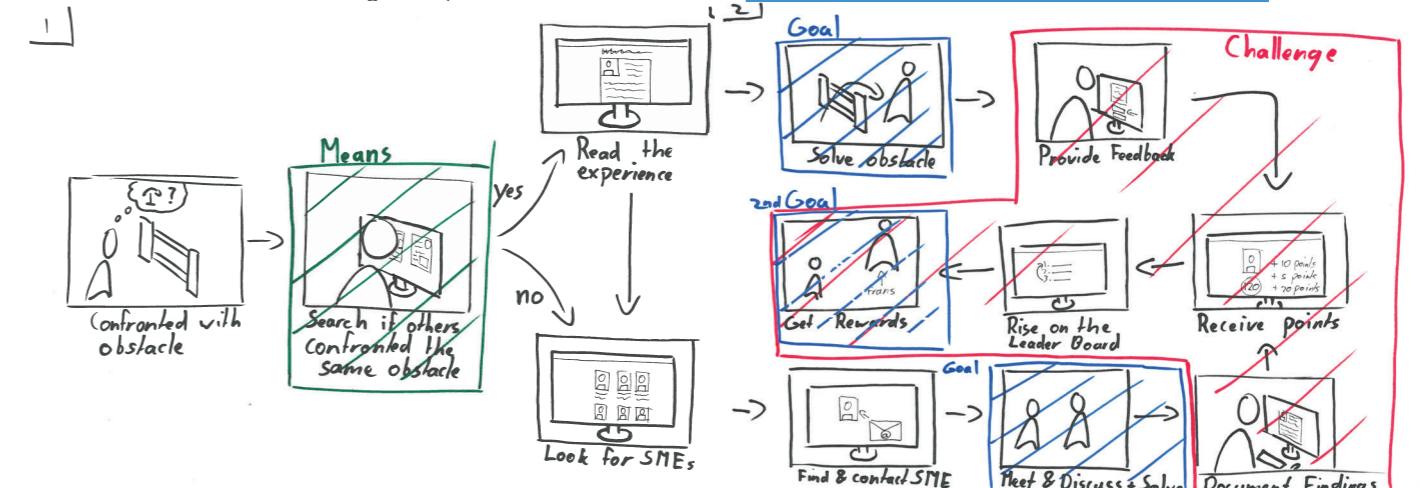tribute it using the platform. There are different reasons to be motivated to share knowledge. It can come from the intrinsic belief that they think it is important to share their knowledge on certain topics with others, another motivation is that it is part of someone's job to share knowledge, the final motivation can be that the rewards of sharing knowledge are very attractive to them, either in the form of recognition from others or the reward scheme. No matter the motivation, these people will benefit most from easy and smooth knowledge sharing through an intuitive platform. Different iterations (figure 8.4) were done to develop an intuitive User Interface (UI).

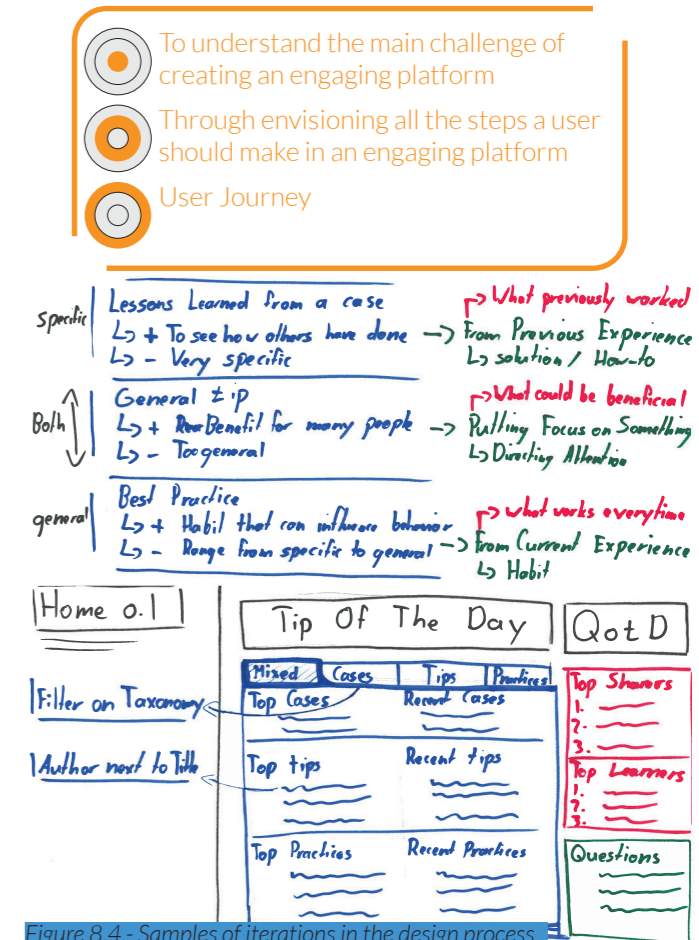- To understand the main challenge of creating an engaging platform
- Through envisioning all the steps a user should make in an engaging platform
- User Journey

Figure 8.4 - Samples of iterations in the design process

Figure 8.3 - User Journey for the Synergy Platform

Slight Pivot

Although not entirely taken into account from the beginning, an important and differential aspect of ICV within Philips is that venture team members or venture leads do not hold any shares of the venture. Illustrating that venture team members and venture leads have different motivations than monetary rewards.

Motivation

Mostly older venture team members and leads believe that they should do something with their knowledge and think that the best way to do this is to set up a new business, these are the "sharers". However, the mostly younger and more career-oriented venture team members and leads are more looking for ways (or shortcuts) to kickstart their careers through setting up new businesses, the "achievers".

Although they might not have huge personal gains when a venture becomes a success, venture team members and venture leads also have less to lose when a venture fails. They can lose their job, but most of them can easily be absorbed again by the organization.
The revelation does have some implications for the rewards that people receive and the sort of people that will contribute to the Synergy platform. A big part of the "sharers" will be motivated to share some

knowledge through the platform because of their belief in knowledge sharing (*figure 8.6*). A small part of the "sharers", however, will be unmotivated to share knowledge using the platform. The "achievers" will be unlikely to be motivated to share their knowledge, however, a small part of them will function as "drivers" and will therefore still be motivated to contribute to the platform.

This creates that the platform and its rewards are targeted at the people that are already slightly motivated to share knowledge. The rewards are then set up in such a way that they allow the recipient to develop the venture or share their knowledge in usually inaccessible ways (*figure 8.5*).
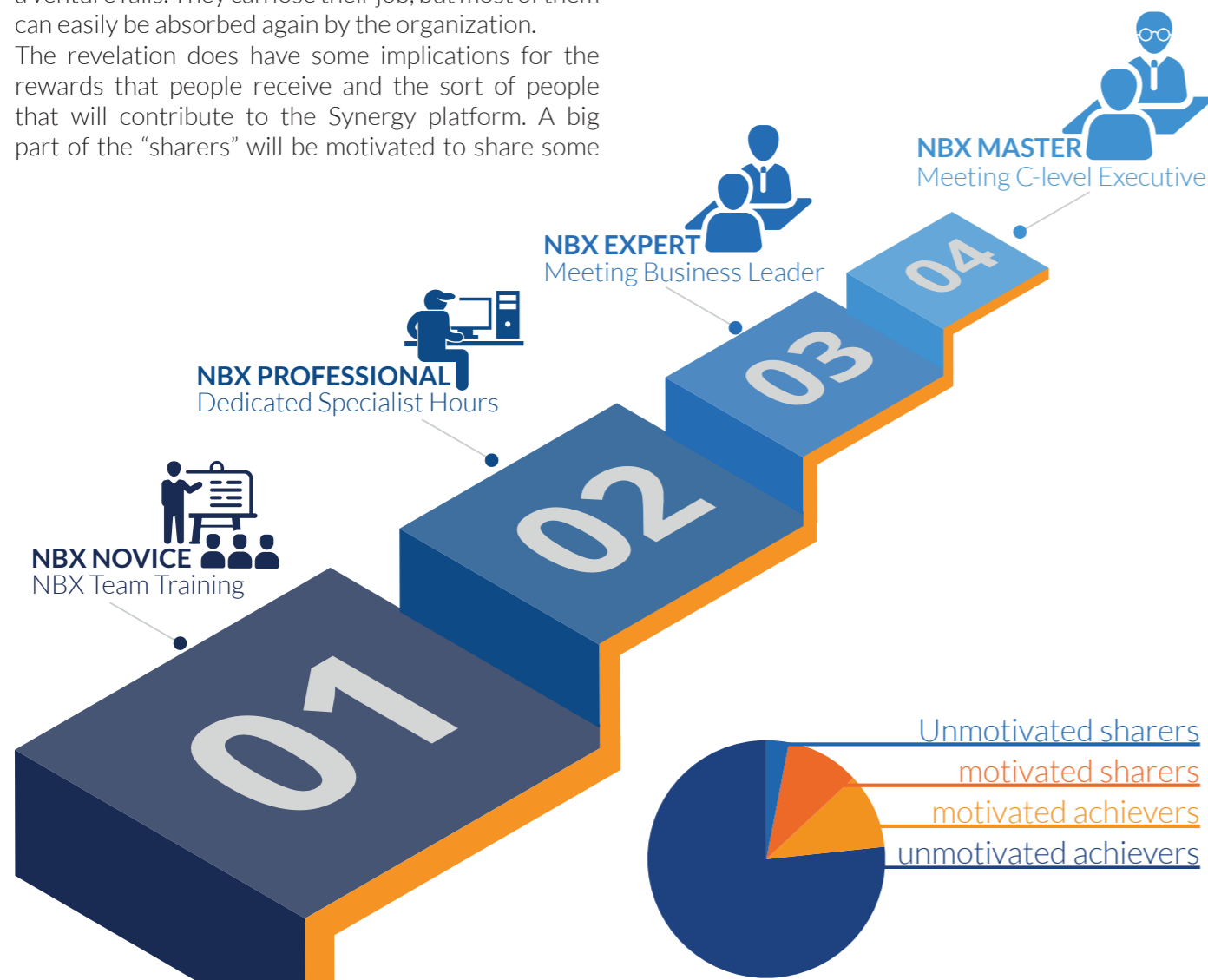

NBX MASTER
Meeting C-level Executive

NBX EXPERT
Meeting Business Leader

NBX PROFESSIONAL
Dedicated Specialist Hours

NBX NOVICE
NBX Team Training

Unmotivated sharers
motivated sharers
motivated achievers
unmotivated achievers

Figure 8.5 - Reward Scheme

Figure 8.6 - Distribution of venture members & leads

The Synergy Platform

The Synergy platform solves three main challenges of venture members: (1) finding information on certain challenges, (2) finding Subject Matter Experts (SMEs) and (3) sharing knowledge with other ventures. These challenges are tackled by providing an intuitive, accessible and quick, gamified User Experience (UX) that allows to find and share knowledge across ventures. The different screens of the Synergy Platform are found in Appendix I.

Sharing knowledge

Knowledge can be shared through the share knowledge button. This redirects the user to a choice for different templates that are available to share knowledge. These templates are designed to decrease the effort required for sharing knowledge with others. Furthermore, in order to incentivize users to share knowledge, contributors to the platform are rewarded with points. The more points a user acquires, the higher his contribution level will be (*figure 8.5*). Contribution

levels are NBX Novice, NBX, NBX Professional, NBX Expert and NBX Master. Achieving a contribution level unlocks rewards that can be used to develop the venture quicker. More information on the scoring system can be found in Appendix L.

It was decided to provide templates for multiple clusters of knowledge sharing in order to improve accessibility. Users can use the questions cluster in order to get quick and specific solutions to their problem. These questions can then be answered by other venture members who have faced similar challenges or who happen to know how the challenge can be confronted. Furthermore, short pieces of information can be shared in the form of tips. They provide quick fixes or small pushes in the right direction.

The two more elaborate forms of knowledge sharing are guides and lessons learned. Guides are more elaborate walkthroughs for specific situations that can be faced by ventures. They provide step-by-step approaches on how to deal with certain challenges or how to perform certain activities. Lessons learned are best practices from experience. This is knowledge that is gathered through experiencing certain situations or having performed certain activities. People benefit from those lessons learned in that they will (hopefully) not make the same mistakes their peers did.
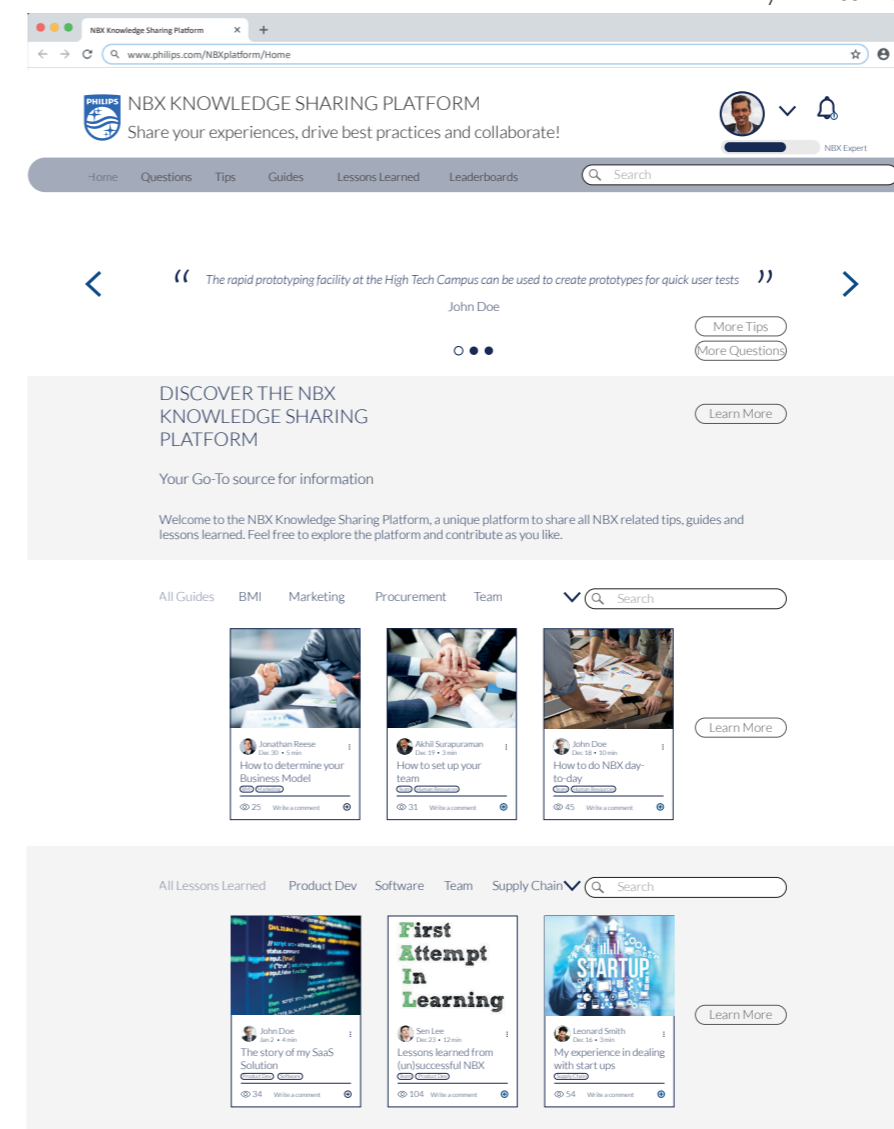
Finding knowledge

All of these different sorts of information can easily be accessed through the navigation bar. On the landing page (*figure 8.7*), the most popular and useful posts are shown along with the contributors. Furthermore, those posts can be filtered on the most popular topics to easily find useful and relevant knowledge. For more specific or less popular knowledge, the search function can be used to locate questions, tips, guides, lessons learned or experts (SMEs) related to the topic.

Finding SMEs

SMEs are identified by there contributions on certain topics. People can contact the SME for support with their own challenges.

Figure 8.7 - The Synergy Platform Landing page

Engagement Roadmap

The engagement roadmap *(figure 8.12)* focuses on the different steps that should be taken in order to make people start using the platform. It is focused on performing the different activities that are needed to break through the alleged catch-22; if there is no content, nobody will be motivated to create content, but if there is nobody motivated to create content, the platform will remain empty. The roadmap serves as a guide to overcome the catch-22. A detailed explanation of the roadmap can be found in Appendix J.

Horizon 1

During the first phase of engaging users, horizon 1, steps will be taken towards identifying, selecting and inviting enthusiastic future 'drivers' of the community *(figure 8.10)*. These drivers of the Synergy platform are intrinsically motivated to contribute to the sharing of knowledge because they believe in the cause. Hence, they are willing to go the extra mile and champion the platform to other users. Generally, these drivers are experts in networking and use their extensive network to connect people looking for knowledge to the topic experts. They are themselves not necessarily experts on all topics but can be very knowledgeable due to their network. During the first horizon, these drivers will be identified and invited to join the platform as innovators and early adopters *(figure 8.11)*.

Horizon 2

Horizon two focuses on transforming the select group of drivers into a small community that actively uses the Synergy platform to share knowledge. Innovators and early adopters are characterized by their tolerance of flaws in unfinished products and accept the inconvenience associated with using them. Therefore, they are very suitable to be co-developers and content creators of the platform. During horizon two, these drivers will be invited to start creating content, templates and compile the monthly newsletter.

Horizon 3

The third and final horizon is all about scaling the small driver community to a much bigger community that is accessible to all ventures. This is done through the active contribution of the drivers to the community and to start the launch workshops during which venture teams will be introduced and invited to the platform one by one. The end result should be a huge thriving knowledge sharing community that collaborates through the platform.

DIFFUSSION OF INNOVATION

Innovators & Early adopters

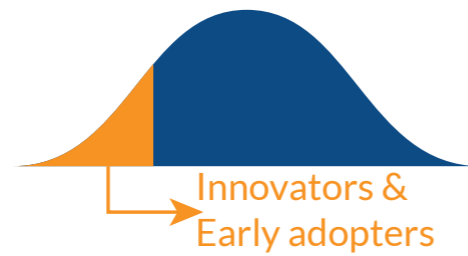*Figure 8.11 - Diffusion of Innovation*

Intrinsically motivated

Willing to go the extra mile

An expert in networking and reaching out

Not an expert on all topics

Champions the platform

Knowledge Sharing Driver
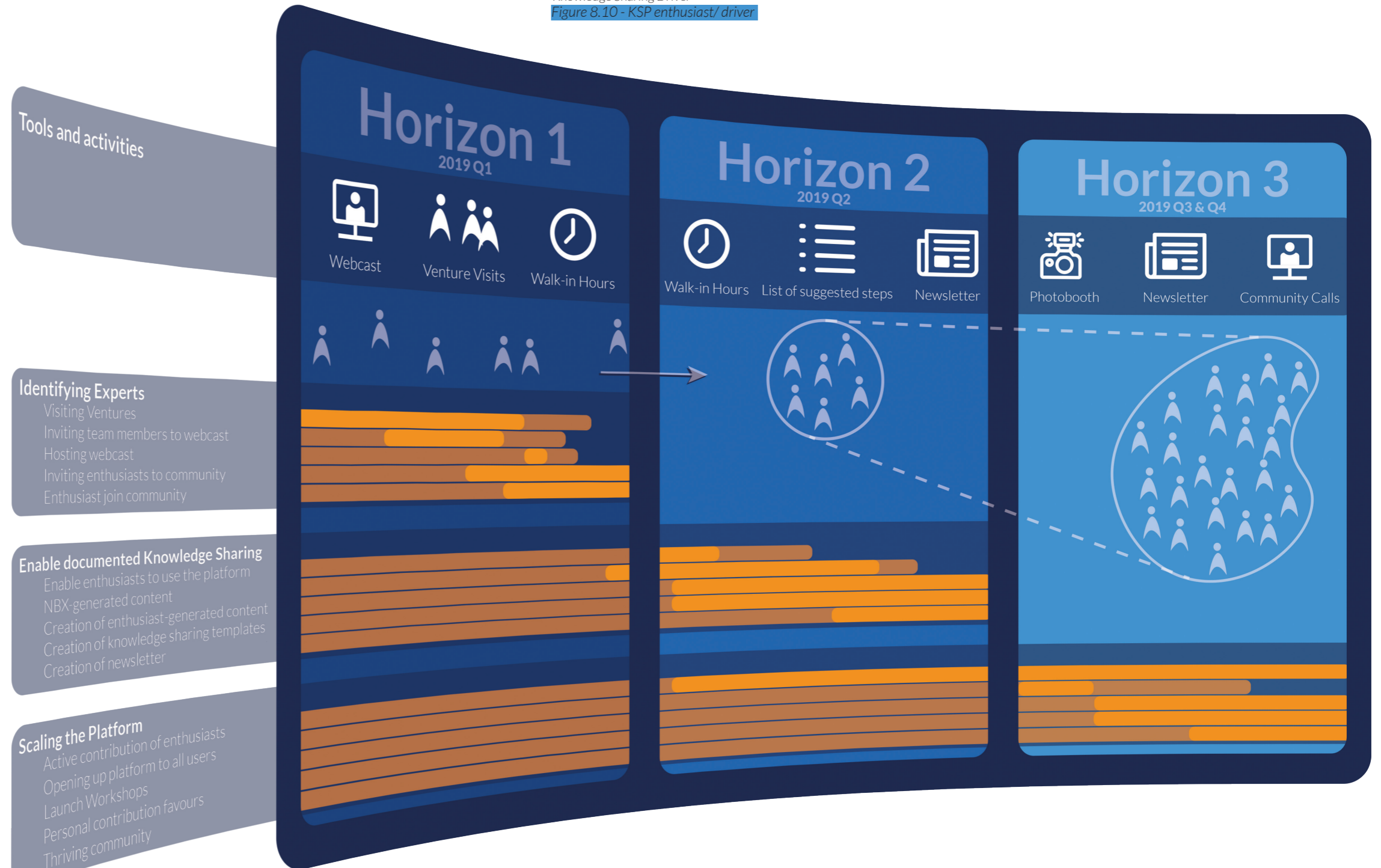*Figure 8.10 - KSP enthusiast/ driver*

Figure 8.12 - Engagement Roadmap

Gamification Roadmap

The gamification roadmap *(figure 8.13)* focuses on how to create the anticipated Synergy platform. It is set-up in a way that it can be used as early as possible in order to start filling the platform.

Horizon 1

The first horizon is all about the creation of a basic knowledge sharing platform with basic functionalities in order to provide access to knowledge sharing. Basic functionalities include posting stuff like best practices and tips, being able to respond to those posts and to be able to search the platform based on tags or categories. With these basic functionalities, a smooth but simple user interface should be possible to guide users to share their knowledge.

Horizon 2

During the second horizon, gamification techniques will be introduced to make the platform more attractive to everyone (Appendix N). This horizon focuses on creating a platform that invites everyone to contribute through gamification instead of a platform where only the enthusiasts contribute. At the end of horizon two, simple gamification functionalities will be added to the platform like up voting, profile creation, point accumulation systems, leaderboards, rewards and personal progress tracking (Appendix M).

Horizon 3

The third horizon is about making the platform more accessible to anyone who is using it by providing advanced gamification and indexing techniques along with a smartphone app for easy access. Offline communication between users will be encouraged by tracking these meetings through integration with existing systems. The smartphone app will the simplify sharing of knowledge and quick searching for knowledge.
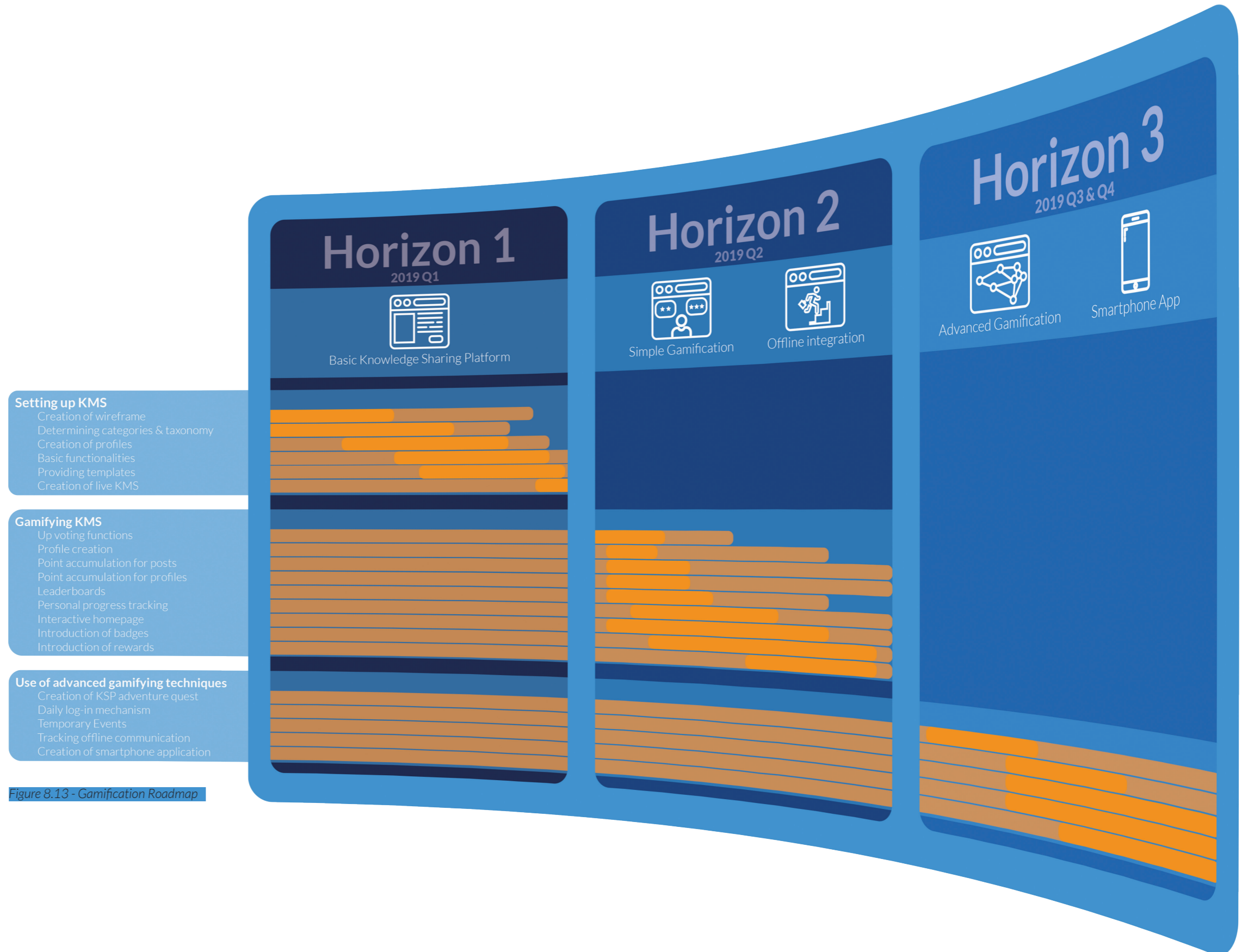

Setting up KMS
- Creation of wireframe
- Determining categories & taxonomy
- Creation of profiles
- Basic functionalities
- Providing templates
- Creation of live KMS

Gamifying KMS
- Up voting functions
- Profile creation
- Point accumulation for posts
- Point accumulation for profiles
- Leaderboards
- Personal progress tracking
- Interactive homepage
- Introduction of badges
- Introduction of rewards

Use of advanced gamifying techniques
- Creation of KSP adventure quest
- Daily log-in mechanism
- Temporary Events
- Tracking offline communication
- Creation of smartphone application

Figure 8.13 - Gamification Roadmap

Horizon 1
2019 Q1

Basic Knowledge Sharing Platform

Horizon 2
2019 Q2

Simple Gamification   Offline integration

Horizon 3
2019 Q3 & Q4

Advanced Gamification   Smartphone App

Conclusion

This chapter shows the process of developing a concept into a more tangible and usable platform.

When mapping already existing information sharing services within Philips to the FBM, it became clear why many of them are currently not used extensively. People are either not motivated intrinsically and extrinsically or using the platform to reach a big audience takes a lot of effort. Therefore, the Synergy platform is designed to require a minimum amount of effort and, next to the intrinsic motivation of recognition, to extrinsically motivate people through rewards.

A user journey was created to understand how the user would experience the platform and what obstacles he or she could face. The user journey uncovered the biggest challenge; to provide feedback or write lessons learned after someone has solved their own obstacle and doesn't need the platform anymore. It was realized that the user needs some kind of extrinsic motivation in the form of kudos or rewards.

Next to that, a pivot occurred in the approach of the project. After several meetings, it was recognized that the venture team members and venture leaders are not venturing because of monetary reasons, they receive a normal salary. They are venturing because they truly believe in the cause and want either want to use their knowledge for something important or are looking for ways to boost their career. This finding does affect the knowledge platform in that recognition and rewards should not be about monetary bonuses, but rather bonuses that would aid the development of the venture.

Using the knowledge gained from the previous chapters, the FBM, the user journey, the pivot, and multiple iterations, the Synergy platform was designed. The platform focuses on three main needs that the different stakeholders of the venturing environment have; (1) sharing knowledge, (2) finding knowledge and (3) finding SMEs. These needs are addressed through different functionalities like dividing information into different information clusters, sorting on topic, search functionality based on tags and identifying experts based on contribution to the platform. Lastly, the motivational aspect is addressed by gamifying the platform through the acquisition of points by posting, commenting and up voting, and being able to trade those points in for rewards.

In order to ensure that the platform would breach its own alleged catch-22, "if there is no content, nobody will be motivated to create content, but if there is nobody motivated to create content, the platform will remain empty", an engagement roadmap was set up. The roadmap is divided into three horizons and illustrates what steps should be taken to create an active and engaging platform. Horizon one is about identifying and selecting a group of 'drivers', people that will drive the platform. Horizon two is about preparing the platform for expansion through content creation. Lastly, horizon three is about slowly expanding the user base of the platform through different introduction workshops.

To make sure all of this would be technically feasible, another roadmap, a gamification roadmap, was created. In this roadmap, horizon one is all about the creation of a basic knowledge sharing platform with some basic functionalities. Horizon two focuses on introducing elements of gamification to keeps users engaged. Horizon three focuses on more advanced elements of gamification and how to create an even more accessible platform through the introduction of a smartphone app.

In this chapter, all aspects are taken into account in order to develop a fully functioning and working knowledge sharing platform. Both engagement and technical feasibility were thought of to enable a smooth introduction of the platform.

9. Validation

After designing the platform and thinking of an approach on how to smoothly create and introduce such a platform, it is important to validate with potential users if they would really use the platform. This chapter focuses on validation on both motivation to share and find knowledge and on if the platform itself would really be used. Lastly, a feasibility check is performed in order to see how feasible creating the platform would really be.

Validated Positioning

In order to validate the concept of a platform for sharing knowledge, two kinds of validation tests were conducted focusing on (1) experience of such platforms and (2) motivation of potential users. It was decided to do two tests to create a more robust analysis of whether the Synergy platform would really be used. Testing the experience of someone who has worked with such platforms helps to understand why those platforms succeeded or did not succeed. It serves as a test to see if I have thought of all the important elements that come with such a platform. Testing motivation of potential users serves to see if people are looking for such solutions like a knowledge sharing platform and if their previous efforts show that they are willing to contribute to it.

Validation through experience

Part of the validation of the proposed Synergy platform is done by interviewing someone who has experience with the design and introduction of knowledge sharing platforms and activities. He can provide his view on the effectiveness of such services. From his experience, a conclusion can be subtracted about what elements are required to make a knowledge sharing platform succeed or whether there are better alternatives to share knowledge.

Experience with knowledge sharing platforms showed that some platforms might succeed while others don't. For example, one of the knowledge management initiatives that was introduced by the interviewee, worked so well because "it was very easily accessible by everyone, it was simple, there was a team that thoroughly monitored quality of the delivered content and we would refer to the system when people came to us with questions about certain projects" (I42). However, other systems were not implemented because of high costs "it takes a whole team to assure the quality of the content" (I42). Furthermore, an important motivation for people to use such systems and contribute to them are the extrinsic rewards, the value that the user gets for using the system. This should immediately be clear in order to make the system work. Lastly, "the process around the platform is much more important than the system itself" (I42). Illustrating that the knowledge sharing platform will not automatically flourish on its own, there should be a process around it that helps users get used to the system and arrive at the "critical mass".

Conclusion

There are a lot of side activities that are important in order to make a knowledge sharing platform attractive to be used. For the introduction of the Synergy platform, those important side activities are already targeted through both roadmaps, the gamification of the system and the rewards that are associated with high contribution to the system. Therefore, based on past experiences, the Synergy platform is prepared to become a system that will be actively used and will be able to reach its critical mass.

Obstacles that have been confronted during past experiences with knowledge sharing activities are taken into account for in the engagement roadmap

Stakeholder validation

In order to validate desirability, commitment and feasibility of the Synergy platform for potential users within Philips, multiple venture team members, NBX Office members, supporting functions, a venture lead and an IT expert were interviewed (n=13). Multiple test formats were set-up and discussed with the NBX Office to determine which format would provide the most credible and reliable results. More detailed information on the different test formats can be found in Appendix O. The final test format consisted of two parts. The first part was a semi-structured interview to see whether the platform would be desirable and how motivated potential users already are to share knowledge without showing the platform. The second part consisted of a short demo of the platform using an MVP (Appendix P) on its functionalities and then determining whether the functionalities would suit the interviewee's needs and if he or she would use it without asking it directly to the user.

Desirability

To assess the desirability of the platform, it was determined how much information potential users have that can be shared with others and how much information they think others have that can be shared with them. Venture team members generally have some knowledge that they could share with others. However, they do express their needs to receive more information about what other ventures are doing, what they have learned and best practices on functional levels (guides & lessons learned). The venture lead (I34) possesses knowledge that would mostly be beneficial for other venture leads. His or her knowledge needs are similar to those of the venture members, with additional information needs regarding venture team set up. Supporting functions generally have information that many ventures can benefit from. Their information needs are about the challenges that ventures are facing

and more venture specific information needs. The NBX Office also has a lot of information that would be beneficial for others to have, this information is both general and more venture specific. They have the same information needs as the supporting functions.

Conclusion

There is a desire to know about the experiences and activities of other ventures by all stakeholders. Many of the stakeholders also possess information that would be beneficial for others. The platform can satisfy this desire if it were to be used.

Commitment

Commitment of the potential users was assessed through their current efforts to share knowledge and to find knowledge and how they described the value of the platform. It was expected that only a part of the people would be committing to the platform, as already discussed in the previous chapter and *figure 8.6*. It could be subtracted from the interviews that venture team members and venture leads are more actively looking for different sorts of information when they are facing a challenge. However, they mostly use their own networks in order to get the information they need. Outside of their own networks, they have trouble locating the knowledge and expertise they need. Some team members are actively looking for ways to share knowledge e.g. through an internal site with different pages with instructions (I33), summarizing into

powerpoints (I30) or using an internal collaboration service like Microsoft Teams (I31). Other team members are not putting in an effort to share knowledge and will therefore also not contribute to the platform. The venture lead is so busy that he does not have a lot of time to put effort into sharing knowledge. However, he did mention that there would be an immediate reward tied to it (e.g. only a few points needed to progress a level) he would take time out of his schedule to share knowledge. Furthermore, he does put much effort in finding knowledge using his own network or those of his peers. Supporting functions are actively trying to share knowledge with functions by different means. One example is a whole training platform on Value Proposition Creation (VPC) that is used to make people really understand the value of VPC (I29). The supporting functions are not putting in too much effort to find knowledge on what challenges venture are facing because they expect them to come to them. The NBX Office is also actively sharing knowledge with the ventures on the different topics they are supporting them in. They do this by personal visits to the venture, a week-long maturity assessment and a site with top-down information on the NBX process. Like the supporting functions, they are not so much looking for information because they expect the venture to come to them.

Conclusion

Venture leads will primarily use the platform to find
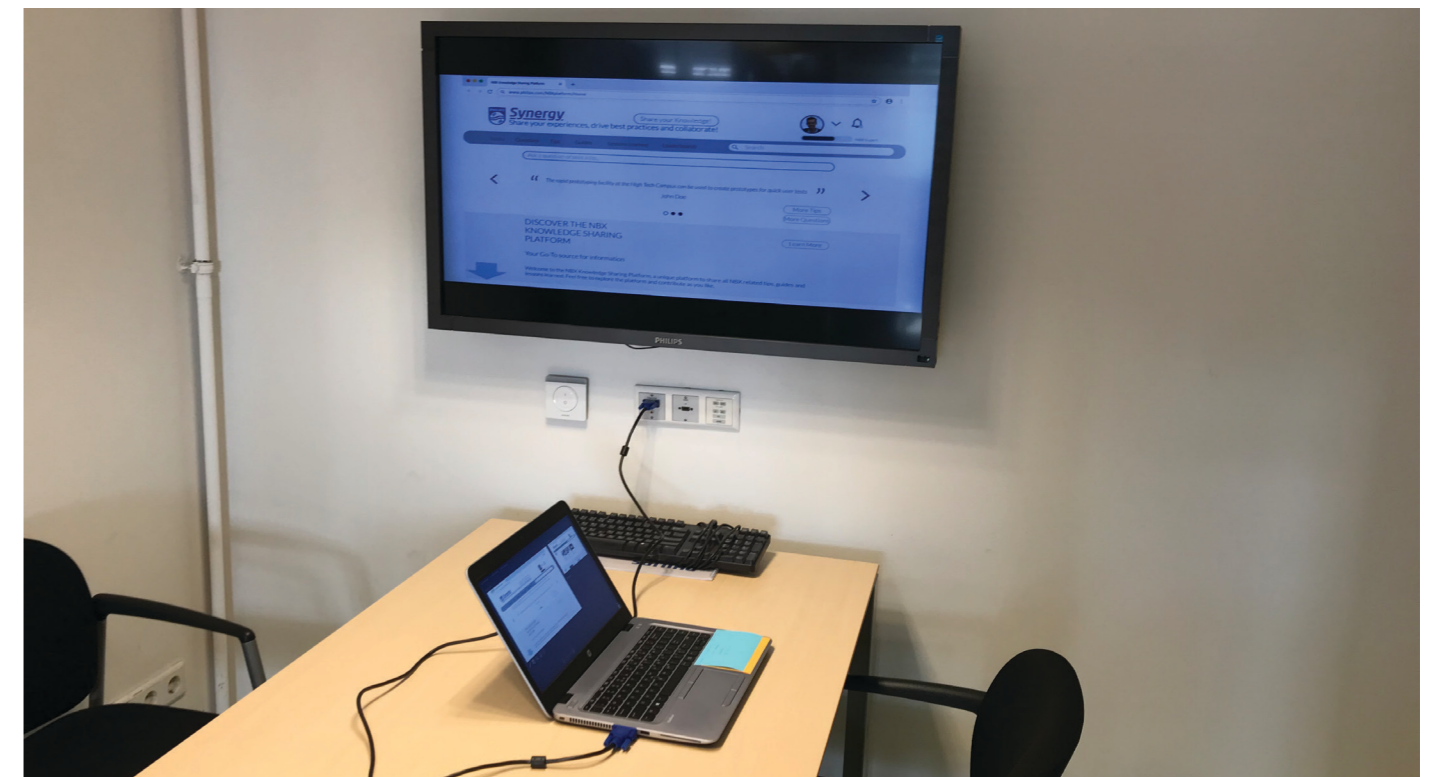
information, however, they are slightly incentivized by the reward scheme to share knowledge. Venture team members are divided on the matter, some will find and share knowledge while others will only use it to find knowledge. Supporting functions and the NBX Office are both motivated to share knowledge in order to reach a bigger audience than traditional knowledge sharing methods. They wouldn't need the platform that much for finding knowledge.

Feasibility
Feasibility was assessed by interviewing an IT expert (I38) within Philips. After showing him the proposed functionalities of the platform he could estimate the required effort to realize such a platform. It became clear that there are multiple ways to develop the platform.

Would it be developed to be used within the domain of NBX on one of the existing platforms, the functionalities of acquiring points through posting, upvoting and commenting, unlocking rewards and proposing topic experts should be developed. The development of those functionalities will take about 6 months and require an investment of about 50.000 to 200.000 euros to code everything when the idea itself is fully developed.

Scaling the platform to be able to be used company-wide would multiply the costs enormously. Luckily, Philips already has a company-wide enterprise software platform that would be suitable to house the Synergy platform with its basic functionalities (horizon 1). However, expanding the platform with gamified functionalities like point tracking, rewards and identifying experts (horizon 2) would take about 1.000.000 million to implement this company-wide.

Conclusion
Although building the platform is feasible technical and time-wise, it will take a lot of money. Therefore, it is proposed that a basic knowledge sharing platform will serve as an MVP running on an existing software package. Using that MVP, a better estimate can be made regarding the performance improvement of the Synergy platform. A discussion with the NBX Office revealed that when the investment would be spread over the ventures, it would be a not too significant investment for the initial basic platform.

(Un)expected by-catch
Next to the aspects that were explicitly tested during validation on the Synergy platform. Some by-catch in the form of direct feedback on the usability of the platform was also captured. On the one hand, it was expected that there would be some by-catch when demonstrating the platform. On the other hand, some of the feedback that was received was not necessarily expected, which adds huge value to the by-catch. Most feedback was focused on improving the overview and user flow. The improvements can be found in Chapter 10. Final Design.

One of the most important improvements of the platform coming from the validation interviews is the shift towards a topic-centered approach instead of an information-sort based approach. This means that topics become the determining factor in displaying pieces of information, irrelevant to the sort of information. The information clusters are still kept, but more focus is placed on categorizing knowledge by topic instead of by cluster.

One of the other things that became clear during the validation interviews is that the need for the 'tips' section was overestimated. Within the ventures, a too generic tip is already known by most people and a specific tip generally needs more explanation, turning the tip into a guide. Therefore, it was decided to remove the 'tips' section.

Furthermore, it was found that the length of the pages negatively influenced the user workflow. Therefore it was decided to shorten the pages to prevent too much scrolling on the page.

Next to that, feedback about the reward scheme has caused the creation of two reward schemes, one individual and one venture focused. Furthermore, the reward scheme is also altered. The main feedback about the reward scheme was that the venture would get the first two rewards anyway if they needed them, therefore, they did not incentivize that much. Because of that, two new reward schemes are introduced.

Lastly, one adoption that was already made during the process of the validation interviews was that of changing the leaderboards from information cluster based leaderboards towards topic based leaderboards.

The validation of the Synergy platform showed how others have experience with similar platforms, how potential users perceive the platform, how it can be built and what improvements would be useful to execute.

Validation through experience was done with someone who has experience with the design of such platforms as well as the execution of some similar stuff. It was found that the obstacles that have been confronted during past experiences with knowledge sharing activities have already been taken into account for in the engagement roadmap.

The stakeholder validation tested the platform on the desirability and future commitment to the platform. Desirability was tested without showing the platform itself through the understanding of current knowledge-sharing and finding needs. It was found that there is a desire to know about the experiences and activities of other ventures by all stakeholders. Many of the stakeholders also possess information that would be beneficial for others. The platform can satisfy this desire if it were to be used.

Future commitment to the platform was assessed through potential user's current efforts to share- and find knowledge and how they described the value of the platform. It was found that venture leads will primarily use the platform to find information, however, they are slightly incentivized by the reward scheme to share knowledge. Venture team members are divided on the matter, some will find and share knowledge while others will only use it to find knowledge. Supporting functions and the NBX Office are both motivated to share knowledge in order to reach a bigger audience than traditional knowledge sharing methods. They wouldn't need the platform that much for finding knowledge.

Lastly, the feasibility of the platform was tested by a discussion with an IT expert. He explained that the costs of developing a knowledge sharing platform like the Synergy platform can be divided into two activities. Creating the basic platform (horizon one) and then later gamifying the platform (horizon two). Performing both activities would cost approximately one million euro's each in order to also make the platform accessible company-wide. However, once the basic Synergy platform is created, a better estimation of the costs can be made.

Next to that, some unexpected by-catch occurred when demonstrating the platform for potential users. Some users immediately provided feedback on certain aspects of the platform. This feedback was also noted and is used to improve the design and usability of the platform.

The validation showed that there is a desire to know about the experiences and activities of others and that many stakeholders have information that could be beneficial for other users. Furthermore, potential users were very much divided on commitment, as expected. However, enough potential users were committed so that it can be reasonably assumed that the platform will work. Finally, the feasibility check showed that the platform can be built, but it will be expensive.

10. Final Design

During the validation, multiple improvement points of the Synergy platform were identified. This chapter focuses on how the improvement points are translated into a tangible redesign of the platform. Finally, how the platform can be implemented within Philips is also discussed.

Improvements

Not only did the validation interviews provide insights in usability, desirability and feasibility of the Synergy platform, valuable improvements for the platform could also be subtracted from the tests. The input of the validation interviews has been translated into tangible adaptions to the Synergy platform (*figure 10.1*).

The platform has shifted focus from an information-type based approach to a topic based approach. This implies that information is grouped under topics rather than information forms. This is translated into tangible results when looking at, for example, the leaderboards. Leaderboards where first mainly focused on which user contributed the most in which information cluster. However, the redesign makes sure that the leaderboards now display which user is an expert in which topic (*figure 10.2*).

Furthermore, the platform's user experience is much more about having quick and easy access to the right information. Therefore, only three information clusters remain, the 'tips' section has been removed due to insufficient encouragement for that functionality. Furthermore, the header's presence has been decreased so there is more room to display relevant knowledge. Next to that, the about section is placed at the bottom of the page as it is not useful to look at that section every time.

The displayed knowledge can now be structured by topic and the most popular topics at that time are automatically displayed when the platform is accessed. Furthermore, it has become much easier to filter on topics using the drop-down menu.

Lastly, the rewards section has received an update after the validation. Rewards are now much more based on luxury rewards than the necessary things like dedicated specialist hours or a team training. That is because the 'necessary things' are things that the venture would anyway receive if it is required for the venture to further develop. Therefore, those things do not really motivate to contribute to the platform. Luxury rewards are much more motivating because ventures generally do not receive those rewards. Furthermore, it would not be possible to have every individual who reaches the master level, meet with the CEO. Therefore it was decided that only the venture which has contributed the most in one year will be able to meet with the CEO.

Figure 10.2 - Leaderboard redesign

- Decreased header presence
- Removed 'tips' section
- Structurization based on topics
- Immediate overview of most popular topics
- Minimized scroll distance

Figure 10.1 - Final design of the Synergy platform

The Final Synergy Platform

The Synergy platform revolves around its three main functionalities, (1) sharing knowledge, (2) finding knowledge and (3) finding experts. These functionalities have remained the main reason for the platform to exist. Therefore, how each functionality works, will be explained in more detail. The user journeys of the final platform can be found in Appendix S.

Sharing Knowledge

It is very important to provide a quick and easy experience for users that are aiming to share knowledge on the platform. The experience may not discourage the user to share knowledge. A share knowledge button is placed in the header of the platform to make sure a user is always able to share knowledge from every page. Furthermore, when clicking on the button, the user will then be able to choose from templates that will help him or her to document their knowledge even faster. An example of a template for documenting a guide is provided (*figure 10.3*). Users can simply fill in the template and the knowledge will then be available to other users in a structured way. Furthermore, the contributor can also adjust the template to his or her own needs by adding additional text boxes, pictures or tables.

Gamification

In order to incentivize sharing knowledge, a reward system based on contribution has been set-up. Users receive contribution points for knowledge that is shared on the platform through either creating a new post, posting comments, up voting, receiving comments or receiving upvotes. More information on the point scoring system can be found in Appendix L. These contribution points are then used to progress levels within the platform itself. Based on feedback from the validation interviews, it was decided to progress levels on a venture level instead of on an individual level. Ventures can then unlock rewards as a team when the team has accumulated enough points to progress to the next level. On an individual level, people can become experts on certain topics. Once users have contributed significantly to a certain topic, which is measured by contribution based on tags, those users are nominated and introduced as experts to the moderators of the Synergy platform. The moderators of the platform (the NBX Office) can then decide to accept this nomination, investigate or decline the nomination. When accepting it, the nominated user will receive expert status on the specific topic. When investigating, the NBX Office will meet with the user to see if that user is indeed an expert on the topic and when rejecting, the user will not receive the expert status. The topics in which a user is

an expert will be displayed on their profile.

Finding knowledge

Essentially, the Synergy platform is created to be able to get access to the knowledge that is present in all of the ventures. The platform helps in identifying who the owner is of the knowledge and who are experts on certain topics. Knowledge can be found using multiple ways. The quickest way to get specific knowledge is through the search functionality. Using this function, the user can type in the search bar on what topic he needs knowledge. Results are then shown on that certain topic. These can then be filtered on the kind of information or on experts. The user can then decide themselves what knowledge would help them the best.

If a user is looking for more general knowledge on a specific topic, he or she can filter the knowledge per topic and look for all knowledge on that topic. This functionality is easily accessible from the home page. Furthermore, the knowledge can again be filtered on what the kind of knowledge or on experts.

Lastly, if a user is looking for knowledge but that he cannot directly find or that not yet is documented on the platform, the user can post a question on the platform. The user tags the questions with the topic so that experts are automatically notified of the question
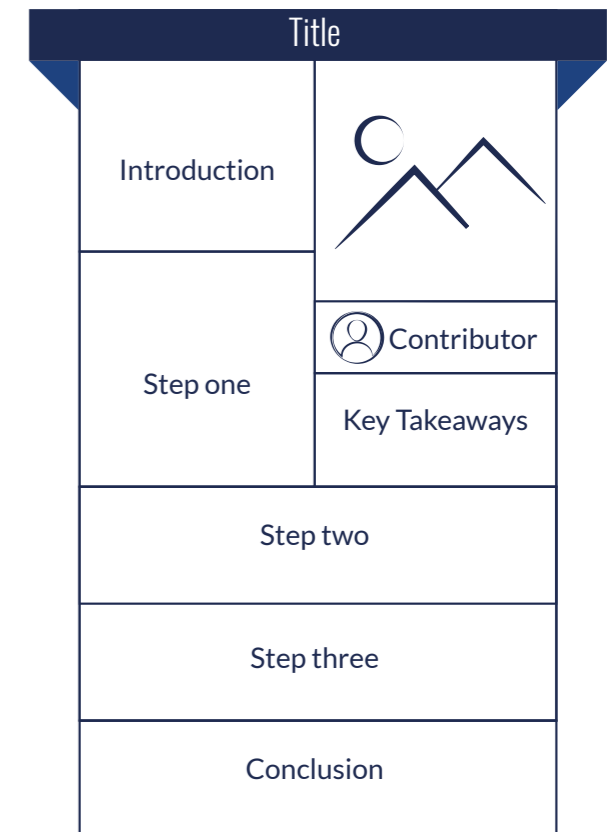
Figure 10.3 - Guide template

in their account. Furthermore, other users can also view the questions under 'recent additions'.

Finding Experts

As mentioned earlier, topic expert statuses are assigned by the NBX Office. When a user is an expert on a certain topic, he or she will automatically pop up when searching for the topic. The NBX Office can assign multiple topic expert statuses to one user if they agree that the user's topic expertise is adequate to become an expert in the various topics.

Next to that, users can also be experts in the different stages. For example, there might be users who are very familiar and possess a lot of expertise with scaling a venture in Beta but might not be comfortable in the fuzzy front end environment of Pre-seed. This might not make the user an expert of NBX overall, but he or she can definitely be an expert of the Beta stage. Expert status for a stage is based both on a user's track record and his or her contribution to the platform. Again, expert statuses are awarded by the NBX Office. However, people can always see another user's amount of gate passings that he has completed on his or her profile page (figure 10.4).

Lastly, users can edit their own profile (figure 10.5) and choose what expert statuses should be shown to other users. Furthermore, the track record of each user is accessible through their profile along with their competencies and expertise. This translates into a practical application in the way that when an interesting and helpful comment of a user is noticed, one can visit its profile and see if they might have more useful knowledge. If this is the case, the user can be contacted through contact details that are linked with existing Philips communication tools like email and Skype.
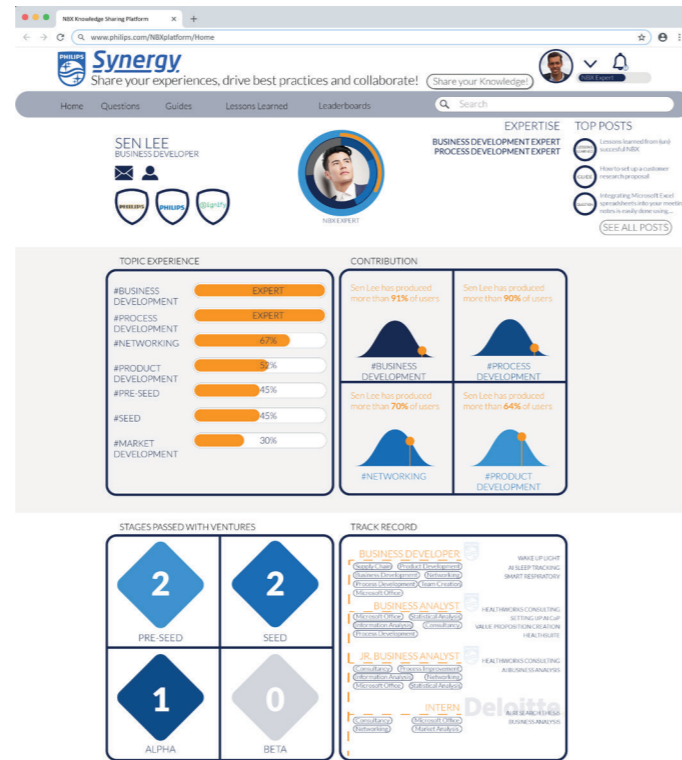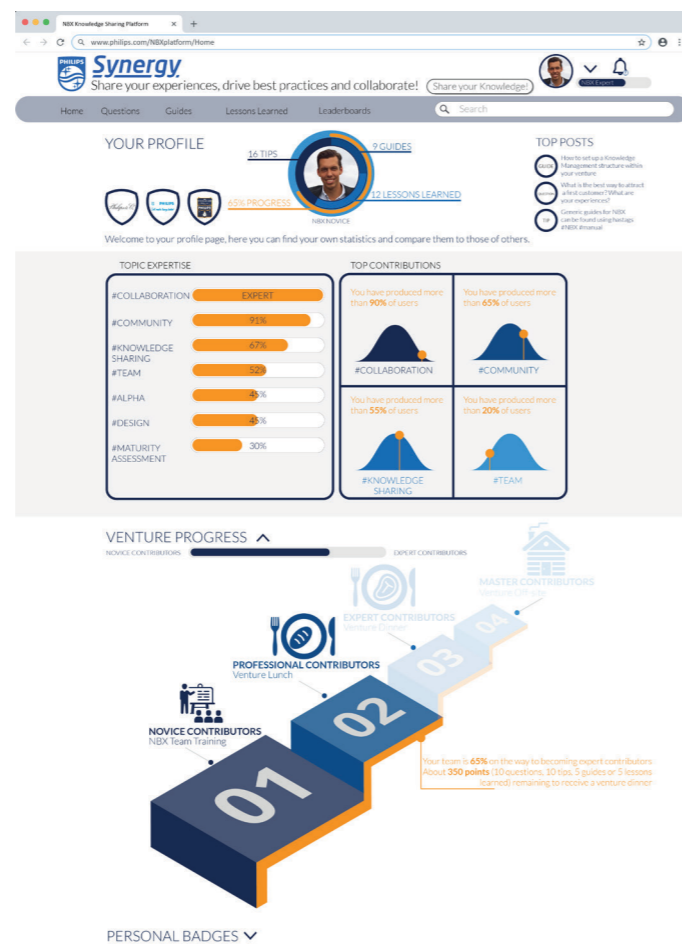

Figure 10.4 - User profile

Figure 10.5 - Personal Profile

Implementation in Philips

Implementation of the Synergy platform does require that venture team members and venture leads start sharing their knowledge with others. Currently, as already discussed, most venture team members and venture leads do not have a mindset that allows to share knowledge. Therefore, during the first phase of implementation, most knowledge will come from the identified team of 'drivers' and the venture 'sharers', Slowly, knowledge sharing should become inherent to the Philips mindset through following the engagement roadmap.

As already discussed, it will cost quite some money for the platform to be implemented within Philips. One of the causes of this is that the platform should be built in a way that it is scalable to house existing, but also all future ventures. Furthermore, integration with existing services (e.g. the employee database) makes it even harder to immediately implement. However, the IT expert also revealed that there is currently a knowledge management initiative being developed which would be very much in line with the Synergy platform.

The knowledge management initiative is currently still being developed and only has some limited functionalities. For now, information is shared top-down only and there are almost no contribution functionalities. When discussing the Synergy platform with the IT expert, he mentioned that the platform looks like a future vision of the knowledge management initiative. The platform could be reasonably easy implemented into the existing systems.

Catch-22

Breaching the catch-22 is done by both relying on intrinsic and extrinsic motivation of the users. For example, supporting functions were found to be actively looking for ways to easily share knowledge, they are the ones who will help kickstart the knowledge sharing platform. Next to that, some venture team members are also looking for better ways to share knowledge and will help kick-start the platform. Furthermore, in order to ensure examples of high quality, the NBX Office will be advised to start documenting lessons learned of venture leads. This will make sure the knowledge of the venture lead will be shared although he or she does not have to invest too much time into that. When others view those lessons learned, they will get inspired and also start contributing to the platform. Once that happens, the catch-22 is breached and the platform will become an active and engaging knowledge sharing tool.

Conclusion

Handling the improvement points that were found during the validation did require some alterations to the existing design. One of the adaptions is the reduced header presence to make more room for the real content of the Synergy platform, the knowledge. Furthermore, the platform's focus has shifted from an information-type based approach to a topic based approach. This improves accessibility to relevant knowledge and also implies that users on the leaderboards will appear based on their topic expertise instead of information-type contributions.

The three main functions of the platform have all received an update on how users experience the functions. Sharing knowledge has become much easier with the introduction of knowledge templates and gamification based on group performance. Finding knowledge has become more accessible through a better-structured homepage and upgraded search functionalities. Lastly, finding experts has become easier by using the search functionality or viewing user's expertise on their personal profiles.

Furthermore, implementing the platform in Philips will take some mindset change for some NBX stakeholders. However, this change will mostly happen organically by closely following the engagement roadmap. Technically, the platform could be implemented on an existing platform and use existing services to get access to already available personal information of users.

11. Reflection

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This graduation project focused on improving venture performance within a big multinational company. With the creation of the Synergy platform and the two roadmaps, I aimed at improving collaboration and knowledge sharing between ventures. Although the platform and the roadmaps are specifically designed for Philips, I believe that many more companies are facing similar problems within their New Business Creation programs.

Next to that, I understand that the lack of collaborative behaviour is only one of the challenges many multinational companies are facing when setting up NBX programs. For example, during the interviews, many conversations hinted at the creation of KPIs that are suitable for ventures instead of using the core business KPIs. Illustrating, that although the Synergy platform and the roadmaps have the potential to improve the performance of ventures, it is not the only solution and much more needs to be changed.

Both literature reviews showed which best practices are currently associated with ICV and learning through interaction. However, really putting those best practices in practice, takes a lot of effort and it was found that not all of them would also work at Philips. Literature generalizes the findings and companies should then decide themselves what findings are important and significant to them.

During the validation of the platform, the focus was on determining if people would really use the platform. This was done using the principles of the mom test by not talking about the platform itself. Later the platform was introduced to determine the effect of the platform. Although the validation tests provide a relatively unbiased view on the commitment to and desirability of the platform, these aspects can only really be determined once the platform is up and running.

Further Research

I have designed the Synergy platform to make sharing knowledge as accessible as possible. However, many more additional applications for such a platform have crossed my mind. For example, the platform could be used for training purposes or for assigning venture buddies. A total communication solution for multinational companies could be part of future research on this topic.

Furthermore, as already discussed, many interviews hinted towards the creation of KPIs for venturing. It could be an extremely useful and interesting topic to

further discover. Creating KPIs for venturing requires an in-depth understanding of the motivation and goals of the people inside the ventures. Furthermore, this should also be aligned with Senior Management.

Lastly, I suggest further research on the implementation of company-wide knowledge platforms. Although I did an extensive literature research on this topic, this was only part of my focus. I believe that it requires an even more in-depth understanding of the literature and multiple case studies to create a framework for introducing knowledge platforms within multinational companies.

Graduating at one of the biggest companies in the Netherlands turned out to be an amazing opportunity for me. I got to know the company, got to talk to a lot of employees and experienced the vibe of working in Philips. And I must say, I really liked it.

When I started setting up my graduation assignment, I was still graduating at the Rotterdam School of Management. As I was working from home and was also interested in many of my side activities, graduating at the RSM took me about a month longer than I wanted and imagined beforehand. Therefore, I decided that I wanted to at least have a working spot at a company when graduating at the Delft University of Technology to make sure I would work on my thesis for at least 40 hours a week. Luckily, I had recently talked to Kerfegar about graduation opportunities at Philips and we quickly decided that I could graduate at Philips. So that is why, three weeks after being graduated from the RSM, I started graduating again, at Philips this time.

Being a full-time graduating student at Philips was the best decision I made during this graduation trajectory. It granted me a work spot, which made sure I would spend at least 40 hours a week on my thesis. Combined with the experience from graduating from the RSM, it ensured that I experienced graduating at Philips very positively.

During the first few weeks of my graduation, I started with reading multiple graduation reports from other students. I wrote down the things that I also wanted to do and I translated this into a loose report structure. This structure was essentially a to-do list of activities that I found useful from other reports. This helped me a lot during my graduation and I would recommend this

to everyone, or at least refer you to Stephen Covey's second habit, "Begin with the end in mind" (Covey, 2014).

Next to that, this was also the moment when I decided to start tracking weekly metrics about my graduation process. From the first week on, I have tracked my stress level, my relative progress that I thought I made and my satisfaction with the progress that I made during that week. Arriving at the end of my graduation, I could map out those relative scores on a timeline and add the five important happenings during my graduation; four supervisor meetings and my graduation presentation.

Looking at the timeline, some interesting insights can be identified. For example, right before most of my supervisor meetings, my progress spiked. Illustrating how those deadlines motivated me to keep up the pace and to deliver progress. In my graduation proposal, I had aggravated the weight of my deadlines by deciding to deliver a report next to my presentation with every supervisor meeting. This did put extra pressure on me, but also helped to reduce stress at the end of the project and spread out the workload over the whole project better.

Talking about stress, my own measured stress level has remained relatively low throughout the whole graduation project. The highest spike of stress level, in week 16, can even be partly explained because of my ten-day vacation in week 15 during which I tried to do as little as possible, and my green-light meeting in week 17.

Although I did not stress that much, which is something my supervisors also pointed out when they told me they
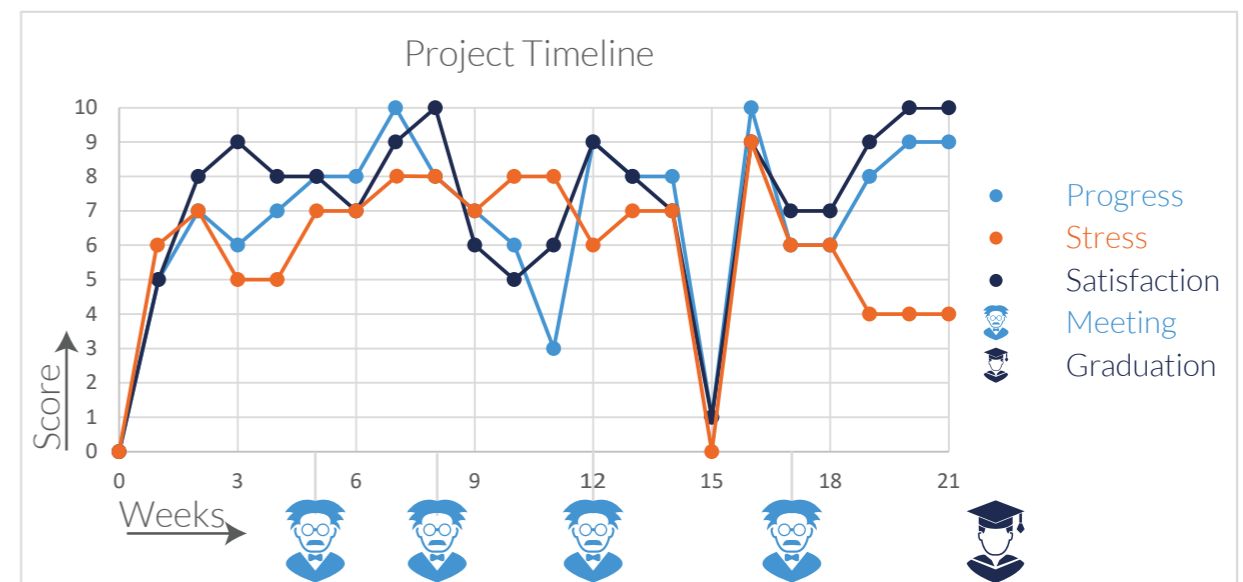

Figure 11.1 - Graduation Timeline

did not see me struggling or panicking, I did struggle under the surface. This was not translated into stress as I also knew that when investing enough hours into my project, I would still progress and ultimately face and solve my struggles.

Besides that, I did feel like I was walking on my toes all the time during the project. I felt like deadlines kept coming at me and that I had to pick up the pace every time to meet the next deadline. Eventually, this did pay off in the end when I had to finish my report. Although, I feel that 22 weeks is not enough time to fully execute such a demanding assignment.

One of the regrets that I do have is that I didn't write down my notes from informal conversations. My guess would be that about 30-40% of the interviews I had, I haven't digitalized and therefore can't put in the Appendix.

Next to that, from the beginning on I was very much focused on showing the whole process and all the things that I did in the report. However, this meant that by the time of the green-light meeting, I had about 110 pages until the refinement chapter. Therefore, the feedback I received on my report during the green-light meeting was mostly about summarizing and reducing my report size. The last few weeks of my graduation I was very busy with doing that and managed to summarize my report to 78 pages. When looking back at the time I have spent on summarizing my report, I recommend everyone to determine beforehand what your chapters will be about and how much pages they will be. After that, you will only need to fill in the pages and you have your report.

Concluding, I am very grateful for this graduation opportunity at Philips and I have learned more than I could have imagined at the beginning of this trajectory. Now, I feel ready to take the next step in my career and start working.

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