

**ORCHESTRATING IN THE ERA OF**

# **CROSS- SECTOR ECOSYSTEMS**

**MASTER THESIS OF JOLENTHE JULIA JANSSEN**  
MSc. Strategic Product Design

 **accenture**

 **TU Delft**

#### **AUTHOR**

Jolenthe Julia Janssen  
jolenthe-janssen@live.nl

#### **MASTER THESIS**

MSc. Strategic Product Design  
Faculty of Industrial Design Engineering  
Delft University of Technology

#### **GRADUATION COMMITTEE**

Chair | **Dr. S. Mooij**  
Faculty of Industrial Design – Product Innovation Management

Mentor | **Prof. Dr. R. van der Vorst**  
Faculty of Industrial Design – Product Innovation Management

Company mentor 1 | **M. Lubbers**  
Company mentor 2 | **V. McLeese**

January, 2020

# **ORCHESTRATING IN THE ERA OF CROSS-SECTOR ECOSYSTEMS**

## **MASTER THESIS OF JOLENTHÉ JULIA JANSSEN**

MSc. Strategic Product Design

4702530

# ACKNOWLEDGEMENTS

This thesis has given me the opportunity to meet some very inspirational people. Blockchain experts, innovation leads, financial services directors, sales leads, bankers, consultants and designers, have all contributed to the success of this thesis. I would like to thank each and every one of them for their enthusiasm, passion and (sometimes different) perspectives.

Specifically, I would like to thank my supervisory team:

Sylvia, thank you for your sharp eye for missing elements, your ongoing process support and your protection when I set the bar too high.

Roland, thank you for broadening my perspective and enlightening me with refreshing criticism. I really enjoyed the philosophical conversations that added depth to the outcomes.

Maxime, thank you for the day-to-day discussions and your high energy. Thank you for walking beside me on this journey and for the fun we had along the way!

Vincent, thank you for sparking the intellectual challenge in this thesis and for your blockchain enthusiasm.

The four of you together created the balanced team I needed for this thesis. I enjoyed every step of the way!

Furthermore, I would like to thank the Financial Services department of Accenture, for giving me the freedom and the opportunity to direct my project the way I thought was right. Thank you for the interaction with knowledgeable experts, the ongoing feedback and the effort that was put into helping me and this thesis to the next level. I want to pay special thanks to Maartje Leopold, Stefan van Alen and Harald Timmer for their valuable input.

Lastly, I would like to thank my friends, boyfriend and family for their ongoing interest, for putting things in perspective and for helping me have fun in the process.

# GLOSSARY

## CONSORTIUM

A small network of companies working together on a project basis to create new value for an end-customer.

## CROSS-SECTOR

The involvement of multiple sectors. A sector is defined as a section of the overall market. An industry is part of a sector (see definition below).

## DISTRIBUTED LEDGER TECHNOLOGY

A technical infrastructure that represents a list of cryptographically signed, irrevocable transactional records shared by all participants in a network.

## ECOSYSTEM

A network of different types of companies, with different relations, that combine individual resources and offerings to create a new valuable solution for the customer, operating from a platform.

## ORCHESTRATION

The capability to purposefully build and manage inter-firm innovation networks.

## SINGLE-INDUSTRY

Single-industry refers to solutions that involve players from one industry. Industries in this document are defined as subsets of sectors (examples in financial services sector: insurance, banking).

# EXECUTIVE SUMMARY

The financial services sector is under pressure. These days, customers want holistic services tailored to their personal needs. This increased customer demand forces institutions to rethink the services they offer. In addition, new regulations press upon this sector. Know Your Customer and PSD2 are examples of regulations that make the current ways of working out-of-date. Moreover, new technologies give start-ups the opportunity to take over parts of the services offered by existing companies. These three trends together cause existing institutions to search for new ways to innovate; their current way of working will simply not be enough in 5-10 years time.

Operating in an ecosystem, which are networks of companies working together to create new customer value, is one of the new ways that financial institutions are exploring for new potential revenue streams. The potential of these ecosystems is high: 30% of the gross world product in 2025 will be created from ecosystems. However, consortia, which are small ecosystems, miss the managerial guidelines needed for success. Furthermore, academic research is lacking on the adoption process of a consortium.

Hence, the first aim of this thesis is to bridge this knowledge gap by performing a multiple case study with four financial services clients. This research is performed in the context of Distributed Ledger Technology (DLT) aka Blockchain, as this technology is seen as the 'conversation starter' for collaboration. The research results in a strategic framework that includes the managerial guidelines (drivers and barriers) and the desired steps in the adoption process of a DLT consortium within the financial services sector.

The strategic framework identifies a service gap present in consortium adoption and asks for a neutral orchestrator with industry, technical and ideation expertise. Therefore, the second part of this thesis aims to fill this gap by designing an ecosystem proposition that Accenture, a multinational consultancy, could offer her clients.

The designed proposition, Maestra, is a cross-sector orchestration service that includes three main activities: spotting opportunities, co-creating cross-sector concepts, and orchestrating the consortium. The purpose of this service is to bridge sectors by collaboration and thus creating social and environmental impact. The deliverables of Maestra consist of a service process, an implementation roadmap and a business plan.

The service is validated through expert interviews and a validation session with eight consultants of Accenture. Furthermore, the service is being considered to be implemented by Accenture Benelux and the service process has already been used during a client proposal.

# TABLE OF CONTENTS

<b>CHAPTER 1: PROJECT CONTEXT &amp; APPROACH</b>	<b>8</b>
1.1 PROJECT CONTEXT	9
1.2 KNOWLEDGE GAP	9
1.3 SERVICE GAP	10
1.4 ASSIGNMENT	10
1.5 METHODOLOGY	11
1.6 SUMMARY & CONCLUSION	13

## DISCOVER

<b>CHAPTER 2 : LITERATURE</b>	<b>16</b>
2.1 INNOVATION IN THE FINANCIAL SERVICES SECTOR	17
2.2 ECOSYSTEMS	20
2.3 SUMMARY & CONCLUSION	26

<b>CHAPTER 3: RESEARCH APPROACH</b>	<b>28</b>
3.1 RESEARCH SCOPE	29
3.2 RESEARCH SETUP	30
3.3 PRELIMINARY INTERVIEWS	30
3.4 MULTIPLE CASE STUDY RESEARCH	34
3.5 SUMMARY & CONCLUSION	37

## DEFINE

<b>CHAPTER 4: RESEARCH RESULTS</b>	<b>40</b>
4.1 DRIVERS	41
4.2 BARRIERS	44
4.3 STRATEGIC FRAMEWORK	47
4.4 DISCUSSION	50
4.5 SUMMARY & CONCLUSION	54

## DEVELOP

<b>CHAPTER 5: DESIGN BRIEF</b>	<b>58</b>
5.1 DESIGN GOAL	59
5.2 DESIGN REQUIREMENTS	60
5.3 DESIGN PROCESS	61
5.4 SUMMARY & CONCLUSION	63

<b>CHAPTER 6: ACCENTURE</b>	<b>64</b>
6.1 ANALYSIS OF EXISTING ECOSYSTEM SERVICES	65
6.2 CRITERIA FOR SUCCESSFUL IMPLEMENTATION	68
6.3 SUMMARY & CONCLUSION	69

## DELIVER

<b>CHAPTER 7: MAESTRA</b>	<b>72</b>
7.1 VALUE PROPOSITION, POSITIONING & PURPOSE	74
7.2 SERVICE PROCESS	76
7.3 ROADMAP	87
7.4 BUSINESS PLAN	93
7.5 DISCUSSION	98
7.6 SUMMARY & CONCLUSION	102

<b>CHAPTER 8: DISCUSSION &amp; REFLECTION</b>	<b>104</b>
8.1 OVERALL DISCUSSION	105
8.2 PERSONAL REFLECTION	108

<b>REFERENCES</b>	<b>110</b>
-------------------	------------

# CHAPTER 1

## Project Context & Approach

This chapter explains the necessary context to understand the content of this thesis, and it elaborates on the used approach and methodology.

## 1.1 PROJECT CONTEXT

**'Rapidly advancing technologies, evolving customer expectations and a changing regulatory landscape are opening doors to disruptive innovation in financial services.'** (McWaters, Bruno, Lee, & Blake, 2015)

Established Financial institutions are forced to look beyond their current ways of working to stay relevant in the future. That is why financial institutions are increasingly focusing on experimenting with new services, technologies and innovation methods (Das, Verburg, Verbraeck, & Bonebakker, 2018).

One of these innovation methods is

*'collaborative innovation'* by which the so-called *'Innovation ecosystems'* emerge. An innovation ecosystem is a broad term, which represents several concepts that involve multiple institutions working together to create value from which they all benefit.

Within the financial services sector, adoption of one form of innovation ecosystems in particular increases rapidly: *'Consortia'*. Consortia are relatively small networks, a maximum of 10 parties, working together on a project basis to create new value for an end-customer.

## 1.2 KNOWLEDGE GAP

Even though companies adopt consortia increasingly, the formation process remains difficult. This is because consortia ask for cross-company collaboration that involves different and even more complex problems to solve. These problems could slow down or block the consortium all together. *'... consortia formation processes deserve attention because they affect the creation and subsequent success of collaboration.'* (Ring, Doz, & Olk, 2005, p.138)

Furthermore, when looking at academic theory about consortia, important questions remain unanswered. One of these questions is: what are the

implications of a formation process for those who lead and manage a consortium? (Ring, Doz, & Olk, 2005). Thus, theory of the consortia adoption process regarding the managerial implications is seriously lacking.

The aim of this thesis is, firstly, to bridge the gap between the need for consortia adoption knowledge (from practise) and lacking academic theory. This is done by conducting preliminary interviews and a multiple case study, with the goal to extract the drivers, barriers and desired steps of consortia adoption for managerial purposes.

# 1.3 SERVICE GAP



This thesis is written in collaboration with Accenture. Accenture is a multinational consultancy that provides services in strategy, technology, digital innovation, security & operations. Accenture aims to strategically position herself within the innovation ecosystem era. For this, it is crucial to identify possible ecosystem adoption barriers or needs that can be

solved by a consultant. In other words, **Accenture is looking for the 'service gap' within ecosystem adoption.**

The second part of this thesis focuses on translating the drivers and barriers (identified during the multiple case study), into a service proposal that Accenture can offer her clients.

# 1.4 ASSIGNMENT

To summarise, the assignment of this thesis consists of two parts. The first part aims to fill the knowledge gap described above by performing preliminary interviews and a multiple case study. The results of this study determine the

kind of service gap that exists within the consortium adoption process. The second part aims to design a proposition for Accenture that provides the necessary service to make ecosystem adoption successful.

# 1.5 METHODOLOGY

This section provides an overview of the used methodology and explains the content of each phase.

## 1.5.1 THE DOUBLE DIAMOND APPROACH

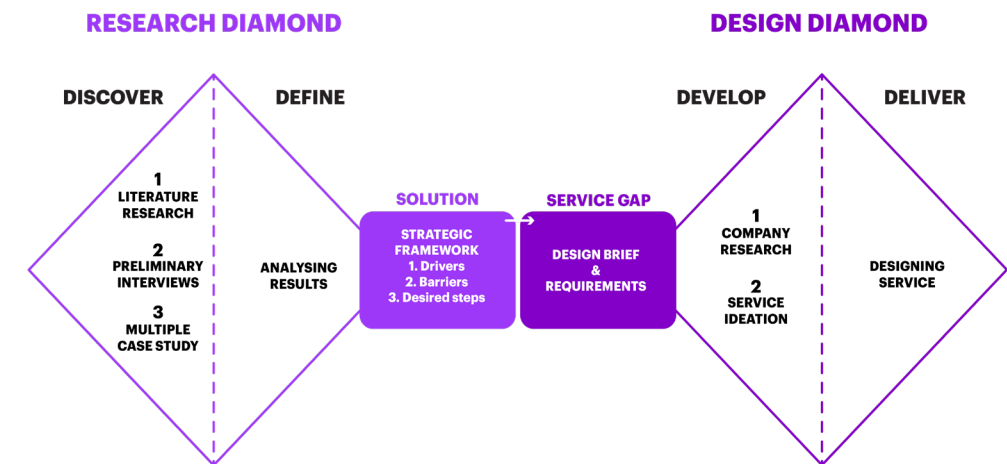


Figure 1.1: Double diamond approach adapted to this thesis

During this graduation project, the Double Diamond approach (Design Council, 2005) is used because it is iterative and flexible. The process consists of four phases with an alternating diverging or converging character.

### Discover

The aim of this phase is to understand the context of the thesis. This is done by an extensive literature research into ecosystems theory and subsequently, by preliminary interviews (see chapter 3.3) to grasp and understand practical experiences. Finally, a multiple case study

with four financial institutions (in the scope of Distributed Ledger Technology (see 3.2)) determines the drivers, barriers, and desired steps in the consortium adoption process. The main research question is as follows:

**What are the drivers, barriers, and desired steps when adopting a consortium that implements a DLT solution within the financial services sector?**

The sub questions per research element can be found in appendix A.

# 1.6 SUMMARY & CONCLUSION

## Define

After the 'discover' phase, the insights from the preliminary interviews and the multiple case study are analysed and summarised in a strategic framework. In this strategic framework, the drivers, barriers and desired steps are visualised and explained.

## Develop

The 'develop' phase starts with a clear definition of the service gap formulated in a design brief. This brief contains the design goal and the design requirements. Afterwards, Accenture's current portfolio is analysed and criteria for the service are determined.

## Deliver

In the final phase, a proposal for an Accenture ecosystem service is developed. The deliverables of this service consist of a service process with additional tools, a business plan, and a roadmap for successful implementation within Accenture.

This chapter provides an overview of the thesis context, scope and approach. The financial services sector is increasingly using consortia as a way to innovate. However, consortia collaboration is difficult and the necessary academic knowledge is lacking. This gap in knowledge and know-how, forms the starting point of this thesis.

used to identify the service gap, which forms the starting point of the design diamond. Finally, the design diamond results in a cross-sector ecosystem orchestration service.

The following chapters will elaborate on each of the elements discussed above.

The thesis follows a double diamond approach which consists of a research diamond and a design diamond. The research diamond aims to bridge the knowledge gap and results in a strategic framework. This strategic framework is

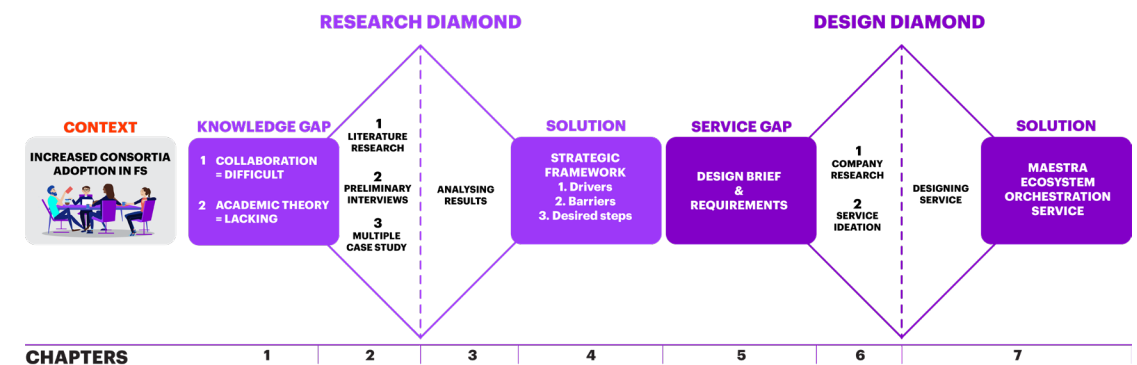


Figure 1.2: Summary thesis approach and context



# RESEARCH DIAMOND



## DISCOVER

The following chapters are part of the discover phase and elaborate on the used literature, the preliminary interviews and the multiple case study. The context of this thesis is explored and as much information as possible is gathered to get a good grip on the important topics.

# CHAPTER 2

## Literature

This chapter provides an overview of the literature. It dives into innovation ecosystems, consortia and other important topics of this thesis. The change in ways of innovating over the years will be explained in the context of the financial services sector. Subsequently, this chapter elaborates on innovation ecosystems. Finally, a detailed literature overview of the adoption process of consortia is provided.

## 2.1 INNOVATION IN THE FINANCIAL SERVICES SECTOR

For decades, the financial services sector could rely on incremental innovation. However, since the economic crisis in 2008, the financial sector is in need of radical innovation to increase stability and improve the quality of services (Das, Verburg, Verbraeck, & Bonebakker, 2018).

According to Das et al. (2018): *'More and more large financial services firms are organizing for innovation, but it turns out that disruptive and radical innovations oftentimes do not come from established players, even though they have expressed the need for this to happen'*. This is because these established companies

have very unwieldy IT infrastructures and cultures which counteract change. Renewing financial firms is therefore complex, yet crucial to survive. Financial institutions have to act fast to stay relevant in the future (Das et al., 2018).

*'There is an enormous gap between what customers desire and what financial institutions offer. Financial institutions are becoming better at innovating but the question is if they are fast enough.'* (Betlem, 2018).

### 2.1.1 DEFINITION

According to the Cambridge dictionary, innovation is described as: *'a new idea or method, or the use of new ideas and methods'* (Cambridge Dictionary, 2019). However, Joseph Schumpeter, an influential economist from the mid 20th century, introduced an important distinction to the concept of innovation. In his view, invention is the creation of something new, while innovation is about the implementation of this new thing.

Steve Jobs put it this way: *'Innovation is creativity that ships.'* (Krippendorff, 2017). So, innovation is seen as the bridge between an invention and the market.

## 2.1.2 INTERNAL VERSUS EXTERNAL INNOVATION

From a company perspective there are traditionally two types of innovation: internal innovation and external innovation. As these terms suggest, internal innovation happens inside a company while external innovation happens in collaboration with other firms. Internal innovation refers to a process where ideas are developed by the firm and finally distributed to the market (Chesbrough, 2006). External innovation can happen in different forms: licensing, public-private partnerships, acquisition, venture arm activity, academic ceo and networked innovation (Ringel, 2017).

Networked innovation represents a cluster of concepts. "It occurs through

*relationships that are negotiated in an ongoing communicative process, and which relies on neither market nor hierarchical mechanism of control"* (Swan & Scarborough, 2005). Networked innovation is very dynamic: the objectives, the actors, and the roles change throughout the development phases (Valkokari, 2009). This makes it challenging for companies to participate.

Companies are now finding ways to organize, support and contribute to large networks of innovative projects. Figure 2.1 gives an overview of the topics related to networked innovation and how they differ among each other.

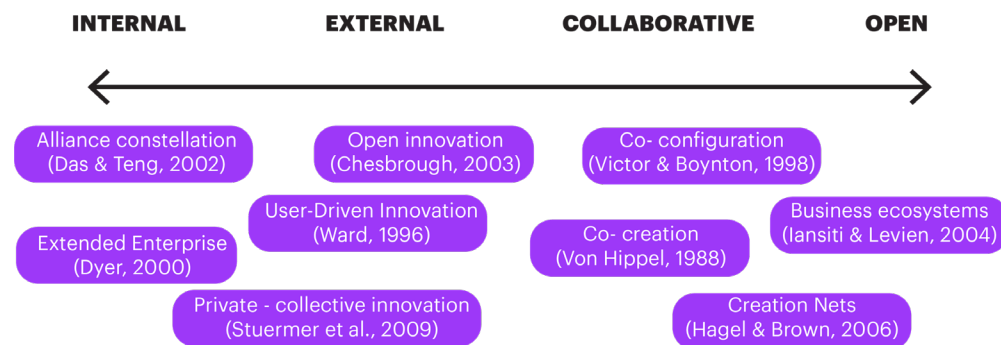


Figure 2.1: Networked innovation and its associating concepts (adapted from Valkokari, 2009)

The left side of figure 2.1 illustrates those innovation systems that are specified and relatively closed. The right side describes the innovation networks that are dynamically changing in terms of partnerships and how well participants know each other. This research aims to study the network of companies in a holistic way (the relationships, the roles, etc), which suggests that the concepts on

the right side of the spectrum are more relevant.

Business ecosystems as shown in figure 2.1, are closely related to the topic of this research, innovation ecosystems. However, there is a difference between the two concepts. This difference will be explained in 2.2, after introducing the ecosystem concept in general.

## 2.2 ECOSYSTEMS

The term 'ecosystem' originates from biology. Participants in an ecosystem are dependant on other participants and as a result of this, form a coalition of interdependencies which together create vital value for all aka mutualism.

In the early 1990's James Moore introduced this ecosystem concept to the world of business. In his book '*Death Of Competition*', Moore describes the concept of business ecosystems: '*an economic community of loosely-coupled interacting organisations and individuals who produce valuable goods and services*' (Moore, 1996). This definition is constantly

evolving and is interpreted differently by many scholars (more on this in 2.2.1).

All over the business world, people come to recognise the potential and cruciality of working together. It is believed that 30% of the gross world product in 2025, will be generated from ecosystems (McKinsey, 2018). The powerful aspect of an ecosystem is that no participant has to develop all the components of a solution themselves. It creates a new level of value that could not be achieved by any individual participant (Jankelovics, Truong, Junqueira, & Kuchinskias, 2018).

### 2.2.1 DEFINITION

Ecosystems can be clustered in three broad groups: business ecosystems, which focus on a firm and its environment; innovation ecosystems, that focus more on a particular innovation or new value propositions and the group of companies that support it; and platform ecosystems, which concentrate on how different actors organize around a certain platform (Jacobides, Cennamo, & Gawer, 2018).

As this research is focused on innovation ecosystems, the following section elaborates on the definition used in this research. In appendix B, a table can be found that contains the existing definitions in literature.

This research defines an innovation ecosystem (IE) as follows; **a network of different types of companies, with different relations, that combines individual resources and offerings to create a new valuable solution for the customer** (Adner, 2006; Dodgson, Gann, & Phillips, 2013; Dedehayir, Mäkinen, & Ortt, 2018).

### Innovation ecosystems versus Business ecosystems

The term '*innovation ecosystem*' draws upon the term '*business ecosystem*'. Both types of ecosystem are networks of independent actors (De Vasconcelos Gomes, Facin, Salerno, & Ikenami, 2018) in which coopetition and competition are present (Moore, 1993; Iansiti and Levien, 2004; Adner, 2006; Adner and Kapoor, 2010) as are common goals and objectives (Nambisan and Baron, 2013). Furthermore, both of the ecosystems are mostly lead by one keystone actor (Gawer and Cusumano, 2008) and are build upon a platform (Iansiti and Levien, 2004; Gawer and Cusumano, 2008; Li, 2009).

The main difference is that business ecosystems focus on value capture while innovation ecosystems focus on value creation. Value creation is described as '*the collaborative processes and activities of creating value for customers and other stakeholders*', while value capture refers to '*the individual firm-level actualized profit-taking; that is, how firms eventually pursue to reach their own competitive advantages and to reap related profit*' (Ritala et al., 2013).

### 2.2.2 TYPES

Within the domain of innovation ecosystems, different types can be distinguished. Letaifa et al. (2018) distinguish four types; platforms, communities of destiny, expanding communities and supply systems.

The types can be divided by two main factors. The first factor is '**the control of key resources**'; centralisation vs decentralisation. This factor is about the presence (or lack thereof), of a keystone actor who controls the ecosystem (e.g. Microsoft, Google, IBM, Apple), in contrast to those ecosystems which can be seen as heterogeneous environments where ownership is distributed across the members (Letaifa et al. 2018).

The other factor is about the '**type of interdependence**': whether or not companies share the same '*fate*' in the

ecosystem (Letaifa et al. 2018). In some cases the contributions of the different members are specifically connected to a certain part of the ecosystem (pooled interdependence), while other ecosystems consist of a network of intertwined services from different actors: the one's output is the other's input (reciprocal interdependence) (Letaifa et al. 2018).

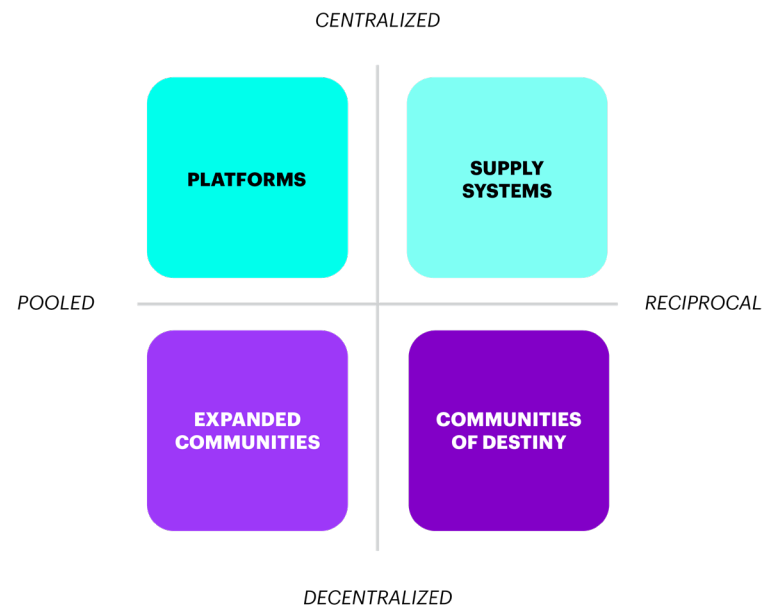


Figure 2.2: An overview of the types of innovation ecosystems (adapted from Letaifa et al. (2018, p. 75).

Communities of destiny are innovation ecosystems that stress the ‘shared fate’ with what they offer. The member’s individual performances contribute directly to the overall health of the ecosystem (Jacobides, Cennamo & Gawer, 2018). If members contribute to a modular product or service development, their capabilities evolve together. This is because the ecosystem needs to adapt constantly to the changing environment. Consortia, the topic of this thesis (as discussed in chapter 1), falls under this category as they are project based ecosystems where all parties need to be actively involved.

Platforms are ecosystems in which information technology is a key aspect. According to Gawer & Cusumano (2014), platform ecosystems create products, services or specific technologies that support an architecture of hardware and/or software upon which the members

of the ecosystem can create their own additional products, services or technologies. The platform sponsor is the member owning the technology, which enables transactions among other members in the ecosystem. Platforms are dealing with so called ‘network effects’, which arise when the number of members/users of the platform is directly related to the benefits gained from the platform. The more users, the more valuable the platform becomes (Gawer & Cusumano, 2014).

The third type is expanding communities, in which the members are seen as peers and possess the same kind of knowledge for a common goal. According to Letaifa et al. (2018) this type does not operate from one firm as the key resource is not owned by one member alone. Open source communities are good examples of this type, as the dependencies are distributed equally.

The last type Letaifa et al. (2018) distinguish is supply systems. However, this research does not characterise this type as an innovation ecosystem type as the supply system concept is believed to differ significantly from the previous types. There are four key differences between innovation ecosystems and supply chains. First of all, innovation ecosystems have different type of actors, especially the complementors are missing in a standard supply chain. Furthermore, the relationships and interactions between firms in an innovation ecosystem are less

stable than in a supply chain (Adner and Kapoor, 2010). Moreover, a supply chain is efficiency focused while innovation ecosystems are characterised as enablers for disruptive innovation (Rong et al., 2013). Most of all, supply chains differ from innovation ecosystems in the way that they organise around one single firm that brings a product/service to the customer. The focal firm in a supply chain, is not fully dependent on complementary services like in an innovation ecosystem.

## 2.2.3 SECTORAL FOCUS

Another important element in literature on IE’s is the difference in sectoral focus: whether an IE focuses on one industry, one sector or multiple sectors. Some consortia only involve parties from one industry while other consortia are sector or even cross-sector focused. The term sector is defined as ‘one of the few general segments in the economy within

which a large group of companies can be categorized’ (Langager, 2019). An industry is then a smaller group within a sector: ‘an industry refers to a specific group of companies that operate in a similar business sphere’ (Langager, 2019). The difference between sector and industry is described in figure 2.3.

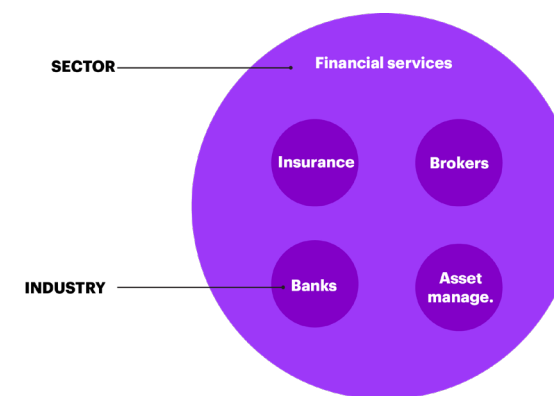


Figure 2.3: Difference between sector and industry

Cross-sector partnerships are seen as the preferred method to solve complex issues that overarch one sector (Koschmann, Kuhn & Pfarrer, 2012). This is why social issues like poverty, world hunger, and climate change are seen as the *'raison-d'être'* for cross-sector partnerships (Alvord, Brown, & Letts, 2004; Teegen, Doh, & Vachani, 2004). Beside the possibility to solve social issues, it is also a way to target emerging markets (Vatier, 2013). In fact, cross-sector partnerships are more fruitful in emerging markets than in mature, extremely competitive markets (Vatier, 2013). According to research from EY (2017), one of the elements that underlies the difference between disruptive innovation versus *'just doing innovation'* is *'Looking beyond their sector to fostering cross-industry and cross-sector partnerships'*. Thus, cross-sector consortia are more disruptive than single-industry focused consortia.

However, cross-sector consortia are also more difficult to manage and involve new kinds of challenges. First of all, cooperating

with companies from different sectors is more unstable (Babiak & Thibault, 2009). Secondly, the nature of funding is more uncertain and fragmented. Thirdly, the measurement of goals is harder as the different parties are used to different ways of working. Fourthly, regulations are not designed to overarch sectors, which also complicates the process. Fifthly, all the partners have different organisational cultures and interests (The partnership resource center, 2012). This all makes managing a cross-sector partnership very difficult (Babiak & Thibault, 2009). That is why, cross-sector partnerships are often undermanaged and lack a clear management structure and process (Frisby, Reid, & Ponic, 2007).

The hybrid form is a consortium within one sector like the financial services sector, but not specified in one industry like banks for example. An example of a hybrid form is a consortium with banks, insurances and pension funds. A summary of the three forms is described in the following figure.

## 2.2.4 BIRTH PHASE

The adoption phase of an innovation ecosystem determines the success of the ecosystem (Dedehayir, Mäkinen & Ortt, 2018). The adoption phase of an innovation ecosystem is called a *'birth phase'* in literature. The birth phase of the innovation ecosystem consists of three steps: preparation, formation, operation. Each of these steps has a different focus and activities.

The preparation step is about determining the conditions and initiation process. Here, the end-consumer is involved to determine their needs, the platform is constructed, there will be contact with several main actors of the ecosystems and roles will be determined.

The formation step is focused on giving a purpose to the emergence of the ecosystem. Roles will be redefined according to this purpose. The platform that is previously built, will be opened for innovation ecosystem participants.

After the formation step the operation step follows. This is the step in which the previous activities result in a holistic value creation system. Roles are again redefined as new collaborations arise and the ecosystem creates its own value now.

This thesis focuses on the adoption phase of consortia specifically. When looking at literature on the adoption phase of consortia, there is a remaining knowledge gap: the way managers or leaders should tackle the adoption phase of consortia specifically is unclear (Ring, Doz, & Olk, 2005). Furthermore, it is unclear whether the steps described above also hold for consortia adoption.

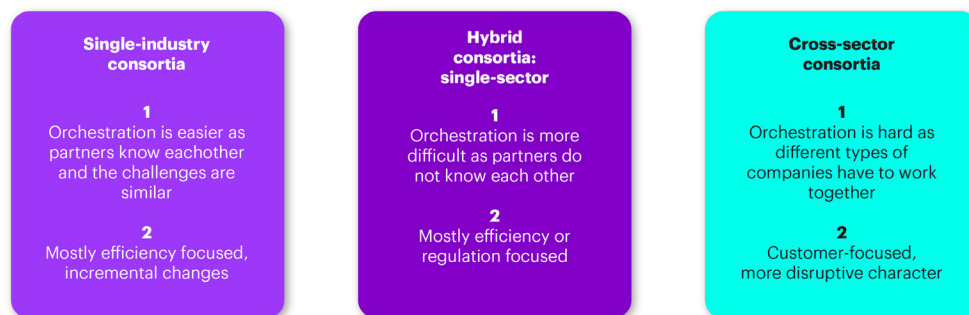


Figure 2.4: Difference between single-industry, hybrid and cross-sector

## 2.3 SUMMARY & CONCLUSION

This chapter discusses the key concepts of this thesis. Innovation ecosystems are seen as: *'a network of different types of companies, with different relations, that combine individual resources and offerings to create a new valuable solution for the customer'*. This term can be categorised into three segments: platforms, communities of destiny, and expanding communities. Consortia, which are the main focus of this thesis are denoted by the term community of destiny as they are temporary projects. Consortia can be single-industry focused, single-sector focused or cross-sector focused. Cross-sector consortia have the potential for social impact and more disruptive innovation, while single-industry consortia are mostly efficiency focused. However, cross-sector consortia are also harder to manage and orchestrate.

In literature, the adoption phase is seen as the most crucial to the success of an ecosystem. Nevertheless, essential knowledge is missing concerning the managerial implications of consortia adoption. Furthermore, it is also unclear whether the steps of the birth phase of an innovation ecosystem are the same for consortia.

The multiple case study (discussed in chapter 3) will determine whether these steps remain the same for consortium adoption and it will distill drivers, barriers and ideal steps that can help managers effectively manage a consortium.



# CHAPTER 3

## Research approach

As discussed in chapter 1, this thesis aims to answer the following research question:

**What are the drivers, barriers, and desired steps when adopting a consortium that implements a DLT solution within the financial services sector?**

In order to answer this question, a specific research approach is taken. This chapter explains this approach. It will argue why certain decisions are made and how the preliminary interviews and multiple case study research are conducted. First of all, the scope of the research is explained: distributed ledger technology. Then, the research setup is described. Finally, the preliminary interviews and multiple case study research are discussed regarding their goal, interviewee selection and data analysis.

## 3.1 RESEARCH SCOPE

As discussed in chapter one, changing customer demand, new technologies and pressing regulations are forcing financial institutions to rethink the way they innovate. One of these new ways is via consortia.

In order to properly research consortia, a more specific scope is needed. Distributed ledger technology (DLT) aims for decentralization which is not beneficial within a single firm, and therefore is seen as a *'conversation starter'* for collaboration. For this reason, DLT consortia are the scope of this research.

DLT is a technical infrastructure that represents a *'list of cryptographically signed, irrevocable transactional records shared by all participants in a network. With this information, anyone with access rights can, at any point in its history, trace back a transactional event belonging to any participant'* (Gartner, n.d.).

DLT is often referred to as a groundbreaking innovation that will disrupt many industries (Beck et al., 2018), especially the financial market. The technology enables trust, creates transparency and excludes the need for a centralized party because of its decentralised character. As financial services are centrally controlled, DLT is believed to transform the way these companies work (Tapscott & Tapscott, 2017). For example, if it becomes possible to safely transfer money from one person to another, the need to have banks in between will be eliminated.

Beside the belief that it will fully eliminate financial firms, others start to see the technology more as a business model enabler than a stand alone technology. *'It allows businesses to eliminate transaction costs and use resources on the outside as easily as resources on the inside'* - Tapscott & Tapscott (2017).

DLT has great potential to drive simplicity and efficiency by the establishment of new financial services infrastructure and processes (McWaters et al., 2016). This is why financial firms are heavily investing in this technology and trying to find practical use cases, also via consortia.



## 3.2 RESEARCH SETUP

Literature research (see chapter 2) provides the basic understanding of the topic and the context. It becomes clear that there is a knowledge gap in the way managers should guide and lead consortia. Furthermore, it is unclear whether the adoption steps identified for innovation ecosystems also hold for consortia. Therefore, the aim of the research diamond of this thesis is to create a strategic framework that includes the drivers, barriers and desired steps in the adoption process of consortia that implement a DLT solution within the financial services sector.

The research consists of two parts: preliminary interviews and a multiple case study. First of all, a set of preliminary interviews was conducted to understand

DLT and to get a practical view on consortia within the financial services sector. These interviews resulted in three hypotheses (see appendix C). Subsequently, a multiple case study was conducted with four financial institutions. The multiple case study aimed to validate the hypotheses identified during the preliminary interviews first, and secondly, to create the strategic framework as discussed above.

A multiple-case study suits the purpose of this research best as it allows for comparison between different financial organizations. Furthermore, multiple case studies enable the replication of findings across cases, improving the reliability and generalizability of a study (Baxter & Jack, 2008).

## 3.3 PRELIMINARY INTERVIEWS

A set of preliminary in-depth interviews was conducted to get a practical understanding of the concepts '*consortia*' and '*DLT*'. The interviews all took one hour approximately and were guided by an interview guide. As there were multiple perspectives to take into account, the guide was divided in multiple sections. The first section was about innovation ecosystems in general. The second

section specific topics were addressed, depending on the interviewee's expertise: (academic) ecosystem expertise, ecosystem/innovation project expertise and DLT expertise.

The interviews were semi-structured to give the interviewer the freedom to add or adapt questions if necessary (Patton, 2002). Furthermore, semi-structured

interviews give the opportunity to gain reflective knowledge and at the same time ongoing information about the research topic (Gioia, Corley & Hamilton, 2013). The focus of the questions was guided by the subjects in the interview guide.

Sub-topics in the interview guide included: consortium roles, going from an innovation

strategy to a consortium strategy, internal preparation of the companies, the drivers and barriers, and the desired adoption steps of a consortium. All sixteen interviews were voice recorded and transcribed.

### 3.3.1 GOALS

The main goal of the preliminary interviews is to gain a more profound and more practical understanding of the concepts: '*consortia*' and '*DLT*'. For this, the following sub-questions are created:

From the insights of these interviews, hypotheses are created for the adoption of DLT consortia within the financial service sector.

#### Consortia:

- How is an innovation ecosystem and a consortium defined?
- What are the main drivers and barriers of adopting a consortium?
- How does the adoption process of a consortium look like in practise?
- Why do companies adopt or participate in a consortium?
- What roles are present in a consortium?

#### DLT

- What are the DLT developments in the financial service sector?
- What is happening in the world of DLT?
- How is the perception of DLT changing over time?
- What are specific DLT considerations for a consortium?

### 3.3.2 INTERVIEWEE SELECTION

There were multiple profiles selected for the scope of the interviews as this part of the research mostly aimed to gather as much information as possible. The included perspectives were: the consultant, the academic and the company perspective. Different roles (junior versus senior, entrepreneur versus

professor, etc.) within these perspectives were used to form an allround picture of the concepts. There was no strict focus on financial institutions or financial expertise only, as this might prevent the emergence of a general understanding of the concepts.

Academic perspective	Consultant perspective	Company perspective
Professors who are aware of the current state of research around topics like partnerships, innovation or DLT	Junior consultants working on a day to day basis together with corporates that initiate ecosystems	Managers within the innovation departments of (financial) corporates
	Senior managers who supervise the ecosystem projects and have an overview of the sector	Product owners within the corporate environment, who manage ecosystem projects
		Entrepreneurs outside the corporate environments who have a good overview on the (DLT) developments in the market

Figure 31: Perspectives of the preliminary interviews



Category	Expertise	Job Title
Innovation/ ecosystem project	Internal perspective	<ul style="list-style-type: none"> <li>Product owner strategy and business development</li> <li>Innovation management and fund</li> <li>Head of innovation transformation</li> <li>Innovation partnerships manager</li> </ul>
	Consultant perspective	<ul style="list-style-type: none"> <li>Senior manager</li> <li>Innovation consultant</li> </ul>
(Academic) Innovation ecosystem expertise	Innovation strategy to ecosystem strategy	<ul style="list-style-type: none"> <li>PhD &amp; senior manager</li> </ul>
	Partnerships	<ul style="list-style-type: none"> <li>Professor innovation strategy &amp; partnerships</li> <li>Head of innovation &amp; ecosystems</li> </ul>
	Accenture Ecosystems	<ul style="list-style-type: none"> <li>Associate director ecosystems &amp; ventures</li> <li>Ecosystems &amp; ventures executive</li> </ul>
DLT expertise	DLT ecosystem expert	<ul style="list-style-type: none"> <li>Co-founder blockchain talent lab</li> </ul>
	Public DLT's	<ul style="list-style-type: none"> <li>Investor and managing director DLT investment fund</li> </ul>
	DLT in the FS	<ul style="list-style-type: none"> <li>Professor Financial ethics</li> </ul>
	Dutch Blockchain Coalition	<ul style="list-style-type: none"> <li>Boardmember</li> <li>Coalition Manager</li> </ul>

Figure 32: Overview preliminary interviewee selection

### 3.3.3 DATA ANALYSIS

A systematic approach was used to analyse the data properly. The interviews were transcribed, in order to include the nuance of what was said. From this, important quotes were deducted. These quotes were then clustered onto the themes from the interview guide. These themes did not provide the specification that was desired to really make sense of what was said, that is why other clusternames were added. These new

clusternames were subtopics of the initial themes. From this analysis, hypotheses were formed which were validated in the multiple case study research.

# 3.4 MULTIPLE CASE STUDY RESEARCH

The reason to go for a multiple case study research approach is its strong foundation for theory building (Yin, 1994). Another aspect of multiple case studies that supports theory building is its ability to reach a higher level of

abstraction (Eisenhardt and Graebner, 2007). The questions in the interview guide are discussed with a DLT consultant of Accenture and an innovation professor of the TU Delft to increase the internal validity of the study (Eisenhardt, 1989).

## 3.4.1 GOALS

The multiple case study analysis aims to answer the following research question:

**What are the drivers, barriers and desired steps when adopting a consortium that implements a DLT solution within the financial sector?**

The results of the study are summarised in a strategic framework that includes the drivers, barriers and desired steps in DLT consortium adoption.

## 3.4.2 CASE SELECTION

The data set was derived from four cases. The purpose of this dataset was to validate the hypotheses derived from the preliminary interviews and to create the strategic framework. In order to get more detailed insights, it was decided to focus mainly on one type of financial institution (banks), and then compare this with another type of financial institution (pension fund).

The participants were selected based on their involvement in DLT use cases within the financial sector. Furthermore, this research included participants with different points of view as this strengthens

qualitative research (Eisenhardt and Graebner, 2007). The following points of view were included: different hierarchical levels, different function areas, outside perspectives, and different organisations. This way of sampling is called purposeful sampling and involves selecting people that have a relevant point of view to answer the research question (Saunders, Lewis, & Thornhill, 2012). Figure 3.3 shows the final case and participant selection.

Case number	Type of financial institution	Interviewees
1	Pension fund	<ul style="list-style-type: none"> <li>Ecosystem partner 1 (Manager)</li> <li>Ecosystem partner 2 (Manager new technologies)</li> <li>Ecosystem orchestrator (Blockchain lead)</li> <li>Accenture Senior manager</li> <li>Accenture Consultant</li> </ul>
2	Bank	<ul style="list-style-type: none"> <li>Customer journey lead on DLT</li> <li>Trade implementation Product owner of DLT applications</li> <li>Chief Technology Officer of new DLT company</li> </ul>
3	Bank	<ul style="list-style-type: none"> <li>Blockchain specialist</li> <li>Product owner of DLT application</li> <li>Lead HR innovation hub, product owner HR DLT projects</li> </ul>
4	Bank	<ul style="list-style-type: none"> <li>Business developer global markets</li> <li>Head of DLT lab</li> <li>Head of innovation trade and commodity finance</li> </ul>

Figure 3.3: Overview of case selection

### 3.4.3 DATA ANALYSIS

As the insights from this research were planned to be summarised in a strategic framework, the grounded theory building methodology is used (Strauss & Corbin, 1994). Furthermore, a database with all materials of the interviews (including the transcripts of the interviews) is saved in one place (Yin, 1994).

The first step in the analysis was coding the transcripts. Coding can be seen as labeling the transcripts with important

topics which helps to structure the data (Gioia, Corley & Hamilton, 2013). This was done in several iterations: the first labelling created a clustering on the research topics, the second labelling made the first labels more specific into connecting themes, and the third round of labelling summarised the first two rounds into clear insights.



Figure 3.4 : Process of results analysis

Subsequently, the cases were cross-compared to limit the results and to provide interrelationship insights (Miles, Huberman, Huberman & Huberman, 1994). This also made it possible to eliminate certain insights that were less relevant to the scope of this research.

The results were compared with the preliminary hypotheses created in the initial round of interviewing (preliminary interviews).

Finally, a strategic framework was created that included the drivers, barriers and desired steps within a DLT consortium within the financial services sector.

## 3.5 SUMMARY & CONCLUSION

This chapter elaborates on the used research methodology. The following research question is used:

**What are the drivers, barriers, and desired steps when adopting a consortium that implements a DLT solution within the financial services sector?**

First of all, this chapter explains the scope of this research: Distributed Ledger Technology (DLT). DLT is about decentralization. For that reason, use cases of this technology are only effective when collaborating with other companies. As this research aims to look at collaboration networks, this scope is appropriate.

The chapter then discusses the preliminary interviews and the multiple case study. For both of these topics, the goals, setup, case selection and the data analysis are explained.



# RESEARCH DIAMOND

## DEFINE

The define phase transforms all the data gathered in the preliminary interviews and the multiple case study into useful insights. The following section elaborates on these results and makes the link towards the next diamond in which a service will be designed. The data analysis methodologies are explained in 3.3.3 and 3.4.3.

# CHAPTER 4

## Research results

This chapter elaborates on the research results. The research question stated: **'What are the drivers, barriers and desired steps when adopting a consortium that implements a DLT solution within the financial sector?'**. The subchapters aim to answer this question. First of all, the drivers of a DLT consortium are discussed. Followed by a description of the barriers within a DLT consortium. Subsequently, the strategic framework is presented that includes the desired steps and the discussed drivers and barriers. The strategic framework can be seen as a visualisation of final research results. Then, the final results are discussed and the service gap is defined which is used during the remainder of this thesis.

The initial results that include the preliminary hypotheses and the validation of these hypotheses, can be found in appendix C.

## 4.1 DRIVERS

The following section elaborates on the managerial drivers of a DLT consortium.

In total, five drivers are identified.

### 4.1.1 ORGANISATIONAL READINESS

The first identified driver is the **'organisational readiness'**. An organisation needs to be ready in order to adopt a DLT application in a consortium setting. An organisation also needs to prepare and commit internally to effectively join or orchestrate a consortium.

*innovation by including it in the strategy, by priming the employees. He thus creates this cultural change.'*

This is clearly illustrated in case 2. The CEO of the bank clearly recognises the importance of DLT for the company. By having management commitment, the needed change in mindset will be created internally. *'At Bank X, our top man committed to the importance of*

*However, not all companies have management so focused on innovation. In case 1 management is more hesitant and sensitive to outside influence: 'when negative news about DLT arrives, it can stop the process completely. Even though the product is ready and the added value is clear it will not even start, because management is ignorant'. Without organisational willingness, it will be very difficult to make a consortium succeed.*

### 4.1.2 CLEAR PLAN & STRATEGY

The second identified driver of a consortium is a **'clear plan, strategy and timeline'**. The ecosystem strategy and vision are crucial to the success of a consortium. The ecosystem or consortium vision needs to be specific enough so everyone feels engaged and included but also broad enough to harbour all participants' specific goals as well.

the orchestrating company. The latter has the advantage of keeping the momentum in the consortium.

The strategy, plan and timeline can either be determined in one of the first consortium meetings, or be created by

An important timeline is from *'no idea to idea to concept to business plan'*. This period needs to be less than four months as to diminish the number of problems that arise with corporate strategies that change. Moreover, time and money are not wasted on a project that will not generate value.

*'If it turns out that it will not work after three months, we can still be good friends, but money and effort are not wasted.'*

Also, it is important to make the concept as concrete and realistic as possible, early

### 4.1.3 TESTING THE CONCEPT

Another driver is **'testing and building Proof of Concepts'**. DLT is still a very new technology and it has not fully proven itself yet. Thus, in order to make the technology save enough and to have the right functionalities, it is necessary to use a 'lean' approach. These PoC's are also executed before the consortium is

on in the process. *'We want to make it concrete as fast as possible, so we start with filling in the lean canvas. This way you prevent drinking a lot of coffee and not achieving anything.'*

initiated. This way you prove the added value of the concept and you do not waste much time on organising the collaboration. *'If you do everything by yourself you go way faster. When you work with 10 banks – a year easily goes by and you have not even defined your MVP.'*

### 4.1.4 INDEPENDENT ENTITY

The fourth driver is the **'independence of the separate entity'**. When a consortium is successful, generally a new separate entity is created. In this way, the intellectual property is not owned by only one of the partners. Moreover, every partner keeps the same amount of control. *'You are not going to say hey Shell, go build it. That is not the idea of decentralisation. So you constantly need to have this neutral ground, a Switzerland'*

Another benefit of creating a separate entity, is the opportunity for the partners to wait with internal adoption until the product has proven itself. *'For sure it helps that the innovation is outside, this means that you do not have to adopt it straight away. You can watch how the product develops over 2 years for example.'*

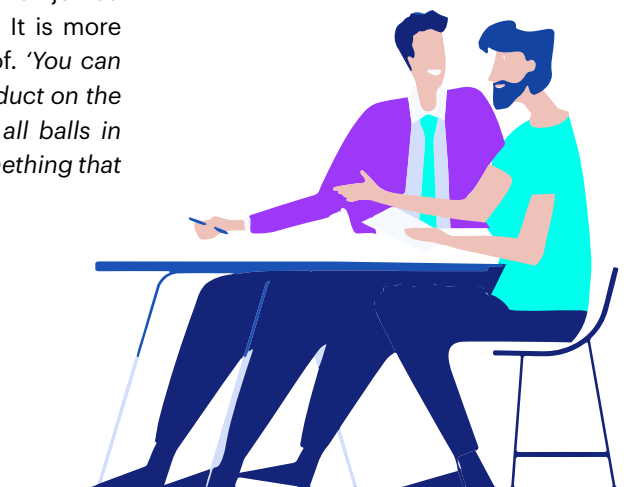
Furthermore, a separate entity brings speed. A product owner associated to case 3 describes this as follows: *'I do not believe you should put it under the services of the bank, that takes too much time. I think it is good to put dedicated focus on it from the beginning.'*

When moving the product towards a separate entity, it is wise to make the board work independently from the shareholders. Otherwise, the decision making process is not improved: different opinions will slow it down incredibly. Furthermore, a separate entity makes it possible to base decisions on expertise rather than on the sake of the individual parties involved. This is far from easy but if not done right, it could result in a board that exists just to make sure their company's interests are met, which might not benefit the separate entity.

### 4.1.5 START SMALL

The last driver is the **'type of project'** that the consortium starts with. It is preferable to start small, especially when it is an improvement of an existing process. When current systems are impacted so hugely, the complexity of trying to make everything work, might result in everything not working at all. Starting out big also increases both the risk and the investment needed beforehand. Another way to solve this, besides starting small, would be to work out a concept that does not intervene with current business: something totally new. In that case, it might be harder to get commitment but it provides the opportunity to continue working in the usual way.

When starting a DLT consortium it is important to start with a small use case. Do not try to do too much at once, this will slow down the process enormously and prevents concretisation. In case 1 the orchestrating company had a very big vision on what they wanted to do with DLT. After some pilots they decided to start smaller. Partners in the consortium admitted they would have never joined if it was for the bigger vision. It is more safe, faster and you have proof. *'You can better put one functioning product on the market that works, than keep all balls in the air. Make sure you have something that functions first.'*



## 4.2 BARRIERS

The following section elaborates on the managerial barriers of a DLT consortium.

In total, five barriers are identified.

### 4.2.1 COLLABORATION IS DIFFICULT

The first identified barrier is the **'complexity of collaboration'** in a consortium, compared to an internal innovation project. This has to do with the difference in culture and strategic focus, but also with the competitive risks. Among consortium partners, the culture can differ significantly. Because of this, partners may be used to different hierarchical structures or communicational methods. Another aspect that complicates collaboration further is the strategic focus of each of the partners. Every participating company has its own agenda and this may well conflict

with the agenda of other partners. This could then result in different priorities and therefore a difference in commitment of the partners.

Another aspect that influences collaboration is the fact that, especially within single-industry consortia, the participating partners used to be competitors. They are not used to sharing information and do not trust each other. This also affects the speed of the process and causes the need for a neutral party (see 4.2.2 and 4.2.3).

### 4.2.2 LACK OF NEUTRAL PARTY

The second barrier is the **'lack of a neutral party'**. Because collaboration within a consortium is difficult, there is a need for a neutral party to make sure everyone is aligned and committed. Often, a consortium merely consists of industry players which all have a stake in the outcome. The orchestrator and the facilitator, which could well be the same party, often are not neutral. This creates a lack of trust among the parties.

Especially cross-sector consortia need a neutral party that bridges the cultural gap between the companies. Companies in a cross-sector consortium, operate in different sectors and therefore differ greatly from one another. They have a different way of working, different focus, and different processes within their own company.

### 4.2.3 SLOW PROCESS

The third barrier of a consortium is a **'slow process'**. This is caused by several aspects. One aspect is the amount of partners in the consortium. This creates a key dilemma: *'the less parties you need to make it work, the easier'*. When there are many partners, there is a large market share but often also a very slow process. *'We also had the Marco Polo project, with 24 banks, this wasn't moving at all. We reduced the number to 10 banks which made the project run.'* If there are only a few partners, the process will go fast but industry adoption will be more difficult. This is why an industry with a few big players, is ideal for consortia.

In some cases, the orchestrator first works out the idea and starts building, after which other partners become involved. This is the **'fastest'** way to adopt a consortium. In other cases, partners are involved earlier on in the process and they co-create the solution together. It may take longer because all opinions need to be taken into account. However, this approach does create more commitment.

The later you involve partners, closer you get to the old customer-supplier relationship (see figure 4.1).

Another aspect that influences the speed in a consortium process is the moment to involve partners. This differs per project.

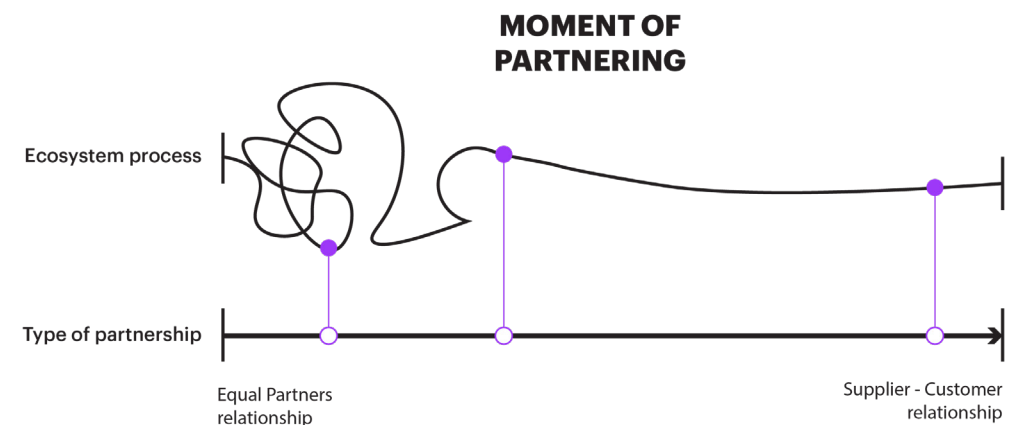


Figure 4.1: Consequence of moment of partnering



## 4.2.4 MISSING EXPERTISE

The fourth barrier of consortium adoption is the **'lacking expertise'**. Three types of expertise are missing. First of all, technical expertise of (in this scope) DLT is rarely at the required level to successfully bring the solution to market. Most of the time, consortium parties hire technical manpower to build the final product. This introduces extra costs and a risk of intellectual property fraud.

The second type of expertise that is missing is the *'knowledge from all involved industries'*. Usually, none of the partners knows what is going on in other

industries. If there are multiple industries or sectors involved, this complicates the process greatly.

The third type of expertise that is mostly not at the required level is the *'ideation and start-up skills'*. Starting a consortium can be compared to setting up a start-up. This asks for a lean and agile approach. Most big corporates are not used to this way of working.

## 4.2.5 CROSS-SECTOR IDEATION IS DIFFICULT

As mentioned before, the ideation skills are often lacking. Especially, the **cross-sector ideation**, that is required for cross-sector consortia, is underdeveloped. This forms the fifth barrier to the adoption of a consortium. For cross-sector ideation,

cross-sector knowledge is needed. Patterns that overarch sectors need to be uncovered so that all potential partners from different sectors can benefit equally from the concept.

## 4.3 STRATEGIC FRAMEWORK

The strategic framework as illustrated on the next page, is the result of the multiple case study.

The drivers and barriers (discussed in 4.1 and 4.2) are included in the strategic framework on the next page. The framework shows the consortium adoption process and connects the drivers and barriers to specific spots in the process, giving managers an indication of when a driver or barrier is most vital in the process. Furthermore, the framework includes the three most common routes of DLT consortium adoption.

**Route one:** In general a DLT solution starts with an idea that is created inside one organisation. In route one this organisation is an industry player. An industry partner is a party which is in business in that specific industry and benefits from the solution itself. Before the idea is created, it is important that the industry player possesses the following three aspects: an ecosystem mindset, DLT knowledge & expertise and the commitment from its management.

This industry player has an idea or problem. The idea or problem can either come from a business line or from the DLT group inside the company. The idea is further developed through an internal proof of concept (PoC). Here, the business line and the DLT team are

working together.

When the first PoC is successful, the organisation partners up with other partner(s) to do another PoC, on a larger scale. These partners are mostly selected on network basis, someone from industry company A knows someone from industry company B, who might be interested in developing this idea further. This small partnership consists of a maximum of three partners. Here, it is not ideal to involve more than three parties as that slows down the process. The small partnership phase aims to proof the concept to have any business potential. Before the second PoC is developed, it is key that the partners are aligned, and have a shared vision. If not, it will make the consortium process much more difficult.

Before creating the consortium, the parties involved in the small partnership have already worked out the concept and the requirements of the solution. Also, the product launch has been thought of, either with the aim to create a private company or by forming a project for it.

If the PoC is successful the partnership broadens to a consortium of 8 to 12 players. This number depends on the specific industry and market.

solution will have on the specific partners and the industry as a whole. Ideally, the regulator is involved here too.

After creating the four sub-groups, the solution is then built and placed in the new entity. All consortium parties will be shareholder in the new entity. When the product is live, other parties outside the consortium can become client of the new company. The advantage of joining the consortium instead of becoming a client when it is live, is being a shareholder in the company and steering the solution towards your own best interest.

**Route two** is different from route one as it does not have the immediate aim to create a separate entity. It will be created as a project which fully develops and tests the solution. If successful, the consortium will think about creating a separate company or not and how to do this.

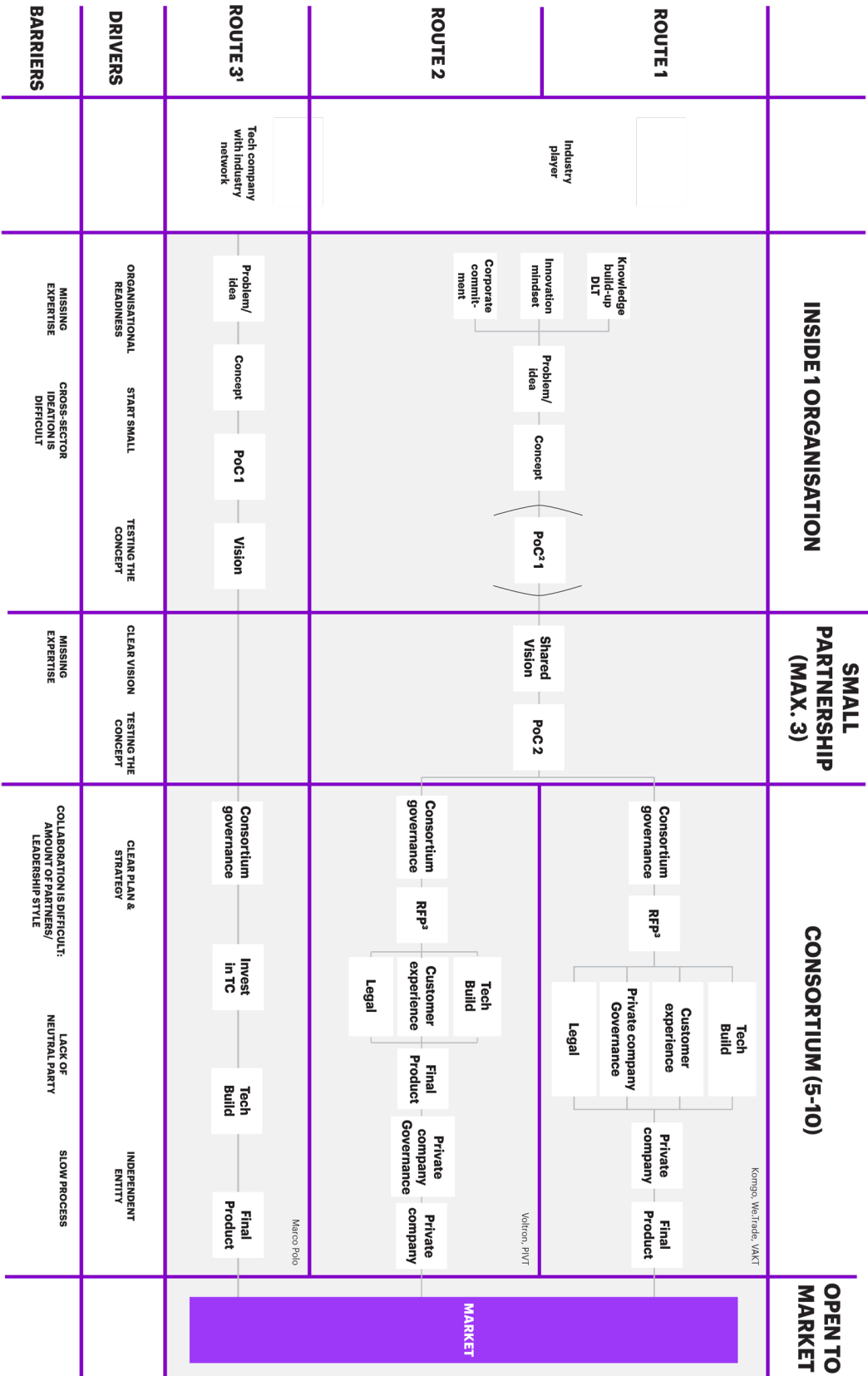
**Route three** has a different starting point than route one and two. It starts inside a technology company which has a lot of industry knowledge. Furthermore, this company possesses a sophisticated network inside that industry. They see a problem or have an idea for a specific market, which they easily transform into a testable concept. As they have the knowledge and expertise to build the solution, they will also do a first PoC internally. The consortium then, invests in the tech company instead of the separate entity. The tech company builds the platform and maintains the intellectual property. This route is less taken, as it is not very 'decentralised'.

Bringing together the consortium parties is mostly done via a session in which a prototype is shown. It is key to starting the consortium to have a party connecting all the stakeholders and managing their expectations, but more importantly, a proven business case is essential.

It is in these first meetings, which are about consortium governance, parties involved in small partnership often take the lead. This is sometimes perceived as not very democratic but it does create momentum which is necessary especially at the start of the consortium. When all the basic agreements are made, a request for proposal (RFP) is written. As it can well be that parties involved in the consortium have invested in different DLT platforms (Quorum, Corda, Hyperledger fabric), all of these platforms are often invited to participate in the RFP. That makes sure that everyone is on board when a technology partner is chosen. The RFP can sometimes take a couple of weeks with several rounds. The winner of the RFP will build the DLT solution.

From here, four different sub-groups are created. First of all the 'tech building' group, which focuses on building the platform. Here, the technology partner takes the lead. Secondly, a customer experience group is formed to focus on the added value for the customer. This group is not always needed in a consortium because of varying priorities or because the solution is B2B. Thirdly, a separate entity governance sub-group is formed to think about how the separate entity will function. This includes the business model and the ownership structure. Lastly, a legal sub-group is created to focus on the impact that the

### DISTRIBUTED LEDGER TECHNOLOGY CONSORTIUM ADOPTION PROCESS



<sup>1</sup> This route is taken seldomly only when the company has exceptional industry knowledge & network.

<sup>2</sup> Proof of Concept

<sup>3</sup> Request for proposal

## 4.4 DISCUSSION

This section of the chapter discusses the strategic framework and insights gathered in the research.

First, the possibility for generalisation of the results is discussed. Subsequently, the validation of the framework is explained.

Then, the academic implications and implications for Accenture are discussed.

Finally, the limitations of the study are explored.

### 4.4.1 GENERALISATION OF RESULTS

The insights gathered in this research provide a framework that is specifically for a DLT context. However, the results are not exclusively applicable in that scope. When looking at the framework there are only a few aspects that are DLT specific. First of all, the internal preparation of knowledge and expertise build-up of the technology, is especially crucial in the case of DLT. This is because the technology is very new and not a lot of practical use cases are present in the private financial domain.

Secondly, DLT is a very expensive technology to build. That is partly due to its novelty but also because it asks for a lot of internal IT system changes. For that reason, in the adoption process of DLT applications, a lot of PoC's are conducted. A PoC enables companies to test the concept in smaller parts without spending a lot of money on it directly.

Thirdly, legal considerations present in the consortium adoption are much larger if it concerns a DLT application. DLT changes the way organisations are doing business completely; they will have to collaborate with competitors now. In most organisations, no legal protocols for DLT exist. This delays the process and makes it a bigger issue. Furthermore, as these industry concerning applications might affect the competition within the market, antitrust lawyers need to be actively present.

Lastly, DLT has a unique capability to work decentralised. That is why it is logical for a DLT application to work together in a consortium. Other industry level applications could be developed inside one party (which is not always ideal) and then scale to other parties in the industry. DLT only works when multiple parties join. This is why the adoption process of DLT solutions always includes a consortium phase.

For the remaining aspects highlighted in the framework, it is assumed they are also present in consortium adoption of other applications. In order to prove this, however, it requires further research.

This research focuses on the financial sector and mainly on the banking industry. To make the results generalisable, the pension fund case was added to see whether the results were also applicable there. In general, some companies are more ready than others to orchestrate a consortium. This has either to do with their culture or the nature of their business. Management commitment, understanding of the technology and

the right mindset are all necessary to succeed. As banks in the Netherlands have been focusing on innovation for the last ten years by setting up innovation centers and really building it into their DNA, it is easier for them to shift to practical use cases. Pension funds have a more old fashioned culture which makes it also harder for them to develop the right mindset and commitment of the management. However, to draw any conclusions on the generalisation of the results, further research needs to be done with a larger sample.

### 4.4.2 RESEARCH LIMITATIONS

When reflecting on the process, it became clear that the link between the preliminary interviews and the case studies could have been more clear. The preliminary interview did not have a narrow focus, which would have helped to understand the topic, but meant it was hard to transform these insights into usable hypotheses for the DLT context at the same time. If the preliminary interviews had been more focused on DLT it would have been more useful to formulate hypotheses.

Another limitation of the research was that the cases selected for the multiple case study were focused on financial institutions. It would have been more appropriate to select specific DLT projects as cases. Then, it would have been possible to fully examine the projects in depth and every parties' perspective more closely. The reason why

the research initially focused on financial institutions instead of on projects, was the assumption that projects would not be mature enough to examine the whole adoption process. However, in this research it became clear that there were several examples of projects that showed to be in a mature stage (separate entity).

Another limitation of this research, due to lack of time, is the fact that not all project owners of the specific DLT projects were interviewed. It would have been very insightful to put several perspectives from people who had been involved at the beginning of a specific DLT project, alongside each other. In this research, this was not always possible, which resulted in a more shallow view on the specific projects. In future research, it would be very interesting to take this project approach.

### 4.4.3 VALIDATION OF THE STRATEGIC FRAMEWORK

An earlier version of the strategic framework presented in 4.3, is validated through a questionnaire that is presented to DLT experts that are also interviewed for the multiple case study. The reason to do the validation with the same people is the certainty that they possess the right knowledge to give valuable feedback. The following questions are provided next to the framework itself:

- What is your first impression of the framework?
- How understandable is the framework without further explanation?
- How accurate is the framework compared to reality?
- How useful is the framework to your daily work?
- What are other possible improvements of the framework?

Results show that the framework is seen as accurate compared to reality (4/5). It also shows the framework is somewhat

useful for their daily work (3/5), but as this is not the aim of the framework, it is not a problem that results of the questionnaire are not decisive in its conclusion. Furthermore, the framework is seen as self-explanatory to experts (4/5).

There are also some improvements mentioned to the framework itself. First of all, the barriers illustrated in the framework could be explained better: *'Under barriers swimming lane; I do not understand the points. Especially 'no proven business case'. They all pursue their vision where there is no accurate business case since it will enable new business models.'* Furthermore, listing the pro's and con's per route would have been a nice addition.

Whenever possible, these improvement points are taken into account when creating the final version of the strategic framework presented in subchapter 4.3.

### 4.4.4 ACADEMIC IMPLICATIONS

The main contribution of this research is the strategic framework that has been developed. It fills the knowledge gap of managerial drivers, barriers and desired steps in consortium adoption in the scope of DLT.

Figure 4.2, illustrates how the two processes (literature and the framework of this research), overlap. What can be seen is that they largely overlap.

The only big difference is that the small partnership does not include the partnering process. Partnering happens in the beginning of the consortium phase, as included in the formation phase described in literature. An explanation for this difference could be the DLT scope of this research.

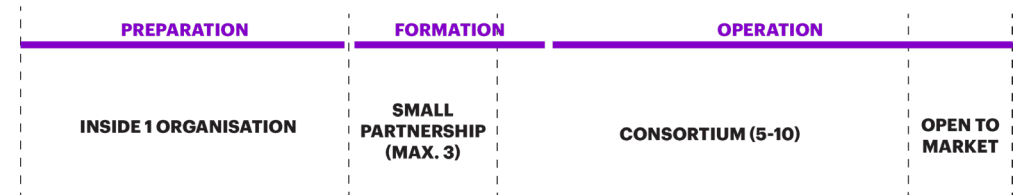


Figure 4.2: Comparison literature ecosystem adoption process and framework consortium adoption process

Future research should focus on validating the framework with a more project specific approach. Another angle that is very interesting for future research is the generalisation of the

results. When conducting the same research with different institutions or in a different industry, the framework could be upgraded into a general framework for (DLT) consortium adoption.

### 4.4.5 IMPLICATIONS FOR ACCENTURE

As mentioned in chapter 1, the research does not only aim to fill the knowledge gap but also aims to identify the service gap that could exist in consortium adoption. When analysing the results three needs are discovered.

First of all, there is a need for a neutral orchestrator that does not only facilitate but also orchestrates the consortium in a neutral way. A consultant can be a good fit for this role as they do not have a stake in the outcome.

Secondly, there is a need for an orchestrator that possesses the required ecosystem capabilities. These include ideation skills, industry-wide knowledge and technical expertise. As Accenture specialises in ideation (digital department), technical development (technology department) and works in several sectors, this role would suit Accenture well.

Thirdly, there is a need for cross-sector ideation. Creating the concepts that can be executed within cross-sector consortia, is very difficult as the participatory companies might not understand the business of the other companies well enough. That is why, a party that is able to look inside all of these industries is the right fit for such a role.

**As Accenture is a 'neutral' consultancy that works within several sectors, and possesses the right cross-sector ideation and technical expertise, orchestrating cross-sector consortia would be a suitable position to take in for Accenture.**

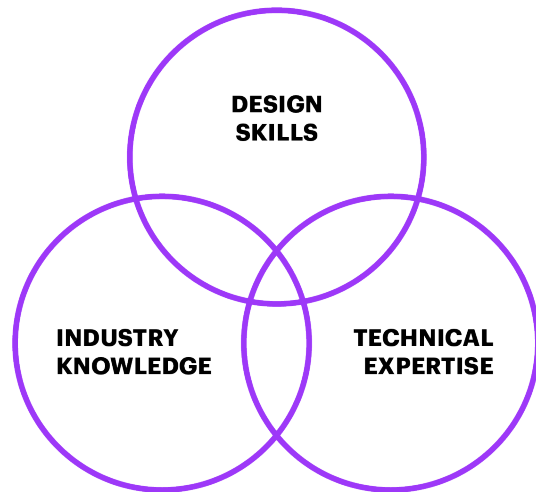


Figure 4.3: Service gap

Secondly, a neutral party that manages all the opinions and makes sure everyone is involved and committed is lacking.

The following chapters present the design brief based on the service gap, additional research and the final design.

Thirdly, the processes can go very slow which makes it harder for a consortium to survive.

Fourthly, expertise concerning ideation, technology and industries, is often lacking.

Fifthly, when focusing on a cross-sector consortium, it is hard for companies to come up with cross-sector concepts that are beneficial to all parties.

After the drivers and barriers, the strategic framework is presented. In this framework, the desired steps are shown and the discussed drivers and barriers are placed in the adoption steps of a consortium. This framework is the final deliverable of the research diamond.

From the insights provided in the strategic framework, the service gap is identified. This gap represents the needs that are currently unfulfilled within consortium adoption. This gap consists of three elements:

1. The need for a neutral orchestrator;
2. The need for cross-sector concept development;
3. The need for the right ecosystem skills.

As Accenture is a 'neutral' consultancy that works within several sectors, and possesses the right cross-sector ideation and technical expertise, orchestrating cross-sector consortia would be a suitable position to take in for Accenture.

## 4.5 SUMMARY & CONCLUSION

This chapter provides the insights gathered in the research diamond. The aim of the research is to answer the following research question: What are the drivers, barriers and desired steps when adopting a consortium that implements a DLT solution within the financial sector?

This chapter starts with an explanation of the drivers of consortium adoption. The first driver that is identified is the organisational readiness. Management and the culture need to be ready in order to stimulate the right mindset. Secondly, a clear plan, strategy and timeline are crucial when adopting a consortium. Either the orchestrator or the consortium should decide on these aspects. Thirdly,

testing the concept via PoC's is very important. When working with a new technology it is crucial to test quickly and cheaply. Fourthly, when moving to a separate entity, it is very important to make sure that the board can operate independently. Fifthly, the concept that is being pursued in the consortium, should not be scoped too big as it might slow down the process and increase complexity.

After the drivers, the barriers are explained. The first barrier, probably the biggest, is the complexity of collaboration. When working together with other companies, conflicting agenda's and other cultures might complicate the collaboration.

# DESIGN DIAMOND



## DEVELOP

The develop phase of this thesis aims to gather more specific information about Accenture, to determine the internal considerations and to create multiple concepts. First, this phase elaborates on the design goal, requirements and process. Then the company analysis is presented.



# CHAPTER 5

## Design Brief

This chapter describes the design goal and requirements that are used to bridge the service gap as described in 4.4.5. Furthermore, the design process is explained.

## 5.1 DESIGN GOAL

The design goal of this thesis is to **create a unique business proposition that enables Accenture to take an orchestrating role within cross-sector ecosystem adoption.**

- **'Unique'** refers to the ambition to create a competitive advantage for Accenture. The design should be positioned in a way that it stands out from what competitors are doing.
  - The design is called a **'Business proposition'** as it aims to provide not only an approach for the orchestrating role but also the strategic foundation and positioning in the market. Deliverables that refer to this aspect include a financial forecast, a market analysis and a positioning statement.
  - **'Orchestrating'** refers to not only facilitation in the consortium but also the concept development and the technical implementation.
- This design focuses on the **'cross-sector'** ecosystems as these have a greater need for external facilitation and more potential for disruptive innovation.
  - The design goal also includes a fixed period for which needs to be designed: **'adoption'**. When the product is launched to market, orchestration is not necessary anymore as the new board of the company will take over the orchestrator responsibilities.

## 5.2 DESIGN REQUIREMENTS

The insights from the research diamond and the strategic framework (see chapter 4.3), serve as requirements for the final

design. This section explains the key criteria that the design should fit to.

### 5.2.1 NEED FOR ORCHESTRATION

As stressed multiple times during the case study research interviews, a consortium needs proper facilitation and orchestration. Most of the time this is done by one party, either an industry play or a consultant. The advantage of a

consultancy taking this role is that they are seen as a neutral party. This neutral party can manage the expectations and tensions that arise in a consortium. The design needs to take this neutral position into account.

### 5.2.2 CROSS-SECTOR

In cross-sector ecosystems there is a larger need for orchestration as the type of partners differs. This creates a lack of understanding in terms of needs, desires and problems that each is facing. The

design needs to provide enough room for understanding and aligning the consortium parties.

### 5.2.3 CRUCIAL CAPABILITIES

A reason why a lot of consortia fail is because collaboration is complex. The orchestrator of a consortium does not only need the right facilitation skills but also needs to have ideation capabilities, technical expertise and industry-wide

knowledge to validate the concept and potential market. The design, therefore, needs to include the use of these elements to effectively orchestrate an ecosystem.

## 5.3 DESIGN PROCESS

The creation of the design follows an iterative approach. Before the ideation of the concept could start, it was necessary to analyse the current ecosystem services of Accenture and to understand the cultural needs that might exist (see chapter 6).

followed the brainstorm, a total of seven expert sessions were held (one on one) with three main characters within the Financial services department of Accenture: a senior manager focused on insurance consortia, a client account lead of a large bank in the Netherlands, and the managing director of Financial Services Netherlands. Within these sessions, a concept version was presented on which the person could react and give feedback. Figure 5.1 gives an overview of these sessions and the insights that were provided during each of them.

The first concept is created through individual ideation. Subsequently, a brainstorm session was held which provided two valuable insights (see chapter 6.2)

After this, an iterative ideation method was used. Throughout the weeks that

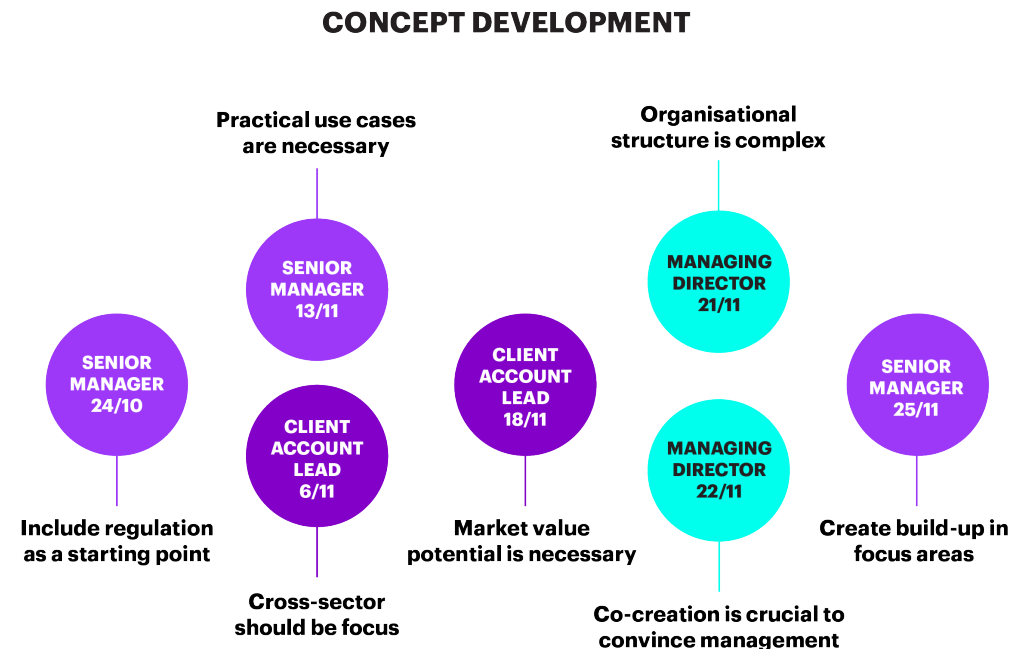


Figure 5.1: Concept development sessions



## 5.4 SUMMARY & CONCLUSION

This chapter elaborates on the used design brief. It presents the design goal which stated: create a unique business proposition that enables Accenture to take an orchestrating role within cross-sector ecosystem adoption. This goal aims to fill the service gap that is provided in 4.4.5.

Design requirements are provided to make sure the service would fit Accenture and the needs of the market. Finally, the design process is explained.

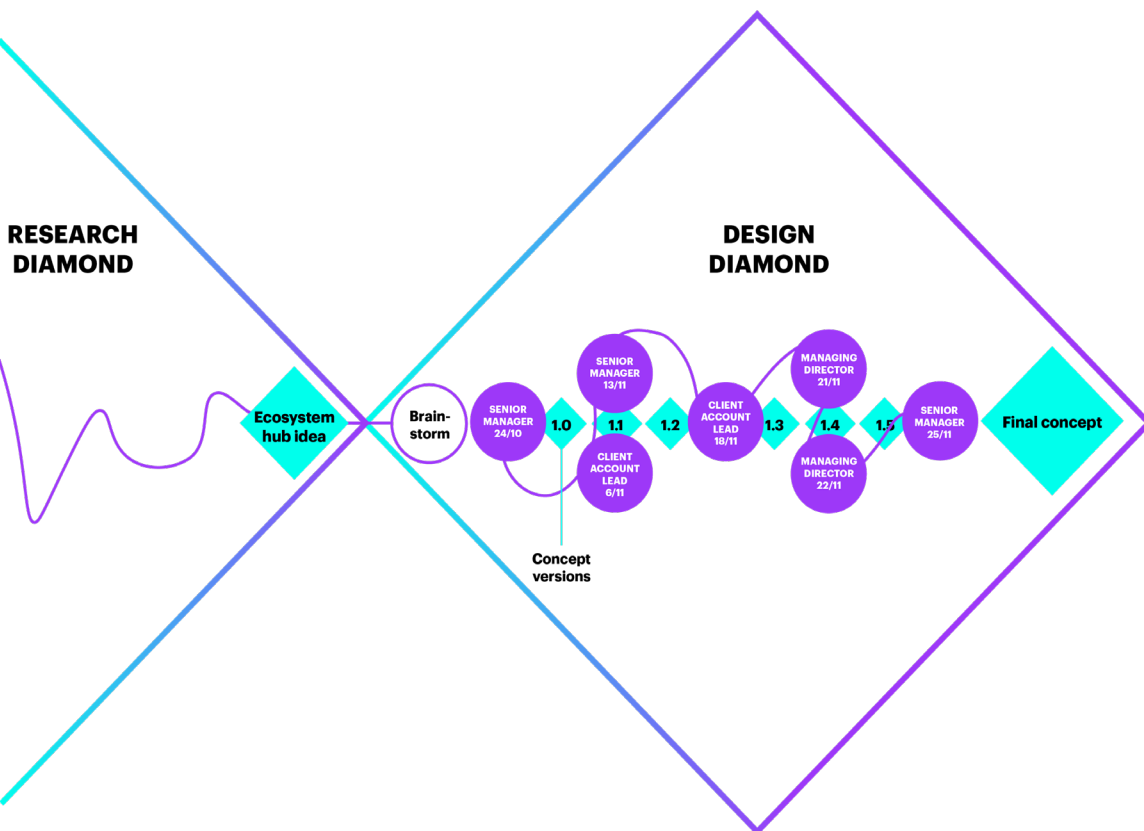


Figure 5.2: Ideation process

# CHAPTER 6

## Accenture

After identifying the existing service gap within consortium adoption and formulating the design brief, it becomes clear that additional research is needed into the current ecosystem services of Accenture and their cultural considerations for new service development. This chapter elaborates on these two topics.

## 6.1 ANALYSIS OF EXISTING ECOSYSTEM SERVICES

Accenture is a consultancy firm with offices in 56 countries. Accenture is a matrix organisation which offers a wide range of services in 40 industries across

13 industry groups. The following figure gives an overview of the departments within Accenture.

accenturestrategy	accentureconsulting	accenturedigital	accenturetechnology	accentureoperations
SHAPES	TRANSFORMS	DIGITIZES	POWERS	OPERATES
Business Strategy	Management Consulting	Interactive Industry X.0	Technology Services	Business Process Services
Technology Strategy	Technology Consulting	Applied Intelligence	Cloud Labs	Function- and Industry-Specific
			Ecosystem Alliances	

Figure 6.1: Accenture's organisation

The five departments all focus on providing a different service. The strategy department gives advice on a strategic level, which then hands over the implementation of the strategy to the consulting department. Accenture Digital focuses on delivering experiences and digital transformation. Accenture technology is often working together with consulting to implement technologies for a client. The last department of Accenture is Operations which focuses on security and operations.

Besides these five departments there are several horizontal groups which represents a type of industry they are focusing on. However, none of these 'operating groups', is focusing on cross-sector ecosystem work. Furthermore, Accenture is only focusing on three ecosystem services: ecosystem strategy, ecosystem facilitation and the technical implementation (see figure 6.2), of which none works cross-sectoral or takes the role of an orchestrator.



Figure 6.2: Overview current ecosystem practises within Accenture

The reason why Accenture is not yet orchestrating cross-sector ecosystems is because the organisational structure does not allow for cross-sector work. Furthermore, concept development and the associated risk, is not incorporated in the DNA of the consultancy. Accenture mostly gets hired for just a part of the consortium adoption process.

Another aspect in which this is clearly illustrated is the innovation architecture. The innovation architecture is a collection of groups working on specific parts of innovation.

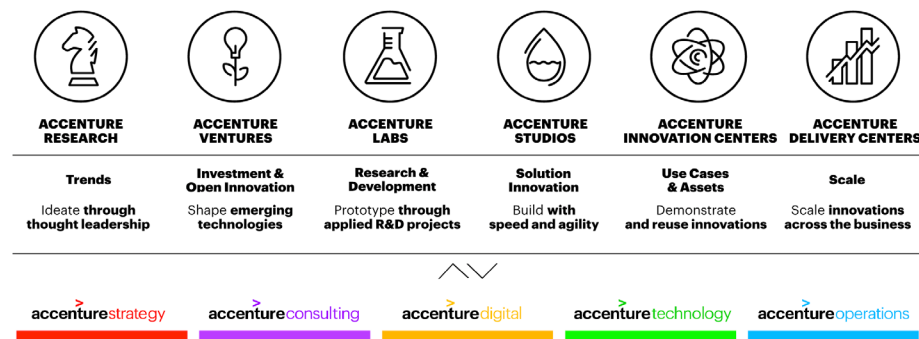


Figure 6.3: Innovation Architecture

Within each of the six labs' there is no focus on product/service innovation on an ecosystem level, let alone a cross-ecosystem level. Figure 6.4 gives an overview of how each of the innovation architecture elements are positioned in

terms of research versus practise and (cross-sector/) industry versus single client. In the figure, it becomes clear that the cross-sector innovation focus is missing.

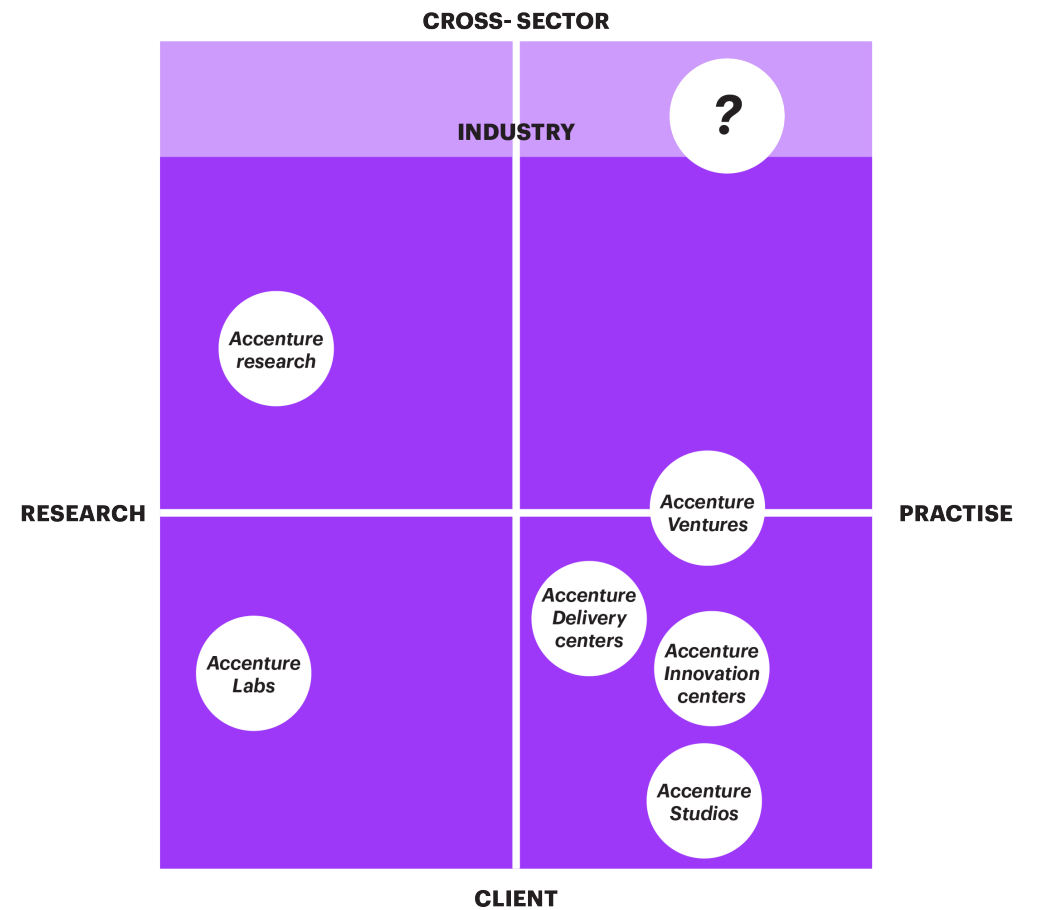


Figure 6.4: Innovation Architecture axis

In conclusion, Accenture is not ready for cross-sector ecosystem orchestration. There are two elements missing. First of all, when looking at Accenture's consulting practises, there is no cross-sector ecosystem consulting. There are some projects that are about consortium facilitation, but not cross-sector. The other element needed is to bridge the service

gap in cross-sector concept development within the innovation architecture.

So, in order to take the role of cross-sector consortium orchestrator, Accenture needs to rethink its organisational structure and change its mindset towards cross-sector ideation and innovation.

## 6.2 CRITERIA FOR SUCCESSFUL IMPLEMENTATION

In order to make sure the service will be implemented successfully, it is necessary to understand the organisational considerations. This is done via an internal brainstorm. The details of the session can be found in appendix D.

The first big conclusion that can be drawn from the session is that in order to make a cross-sector proposition work, there needs to be a way to exchange information and expertise among employees. This is currently lacking.

The second insight is the fact that cross-sector ecosystems are seen as very valuable by senior management within Accenture. This could help with the implementation of the service when finalised and it gives confidence in the concept.

Thirdly, the brainstorm highlights the fact that Accenture people are not used to product development. Therefore, methods to go from an opportunity to an actual concept are crucial.

## 6.3 SUMMARY & CONCLUSION

This chapter provides the Accenture specific information that is necessary for the implementation and positioning of the designed service. Four main insights are gathered. First of all, Accenture's organisational structure is not ready for cross-sector orchestration (facilitation and ideation). Secondly, the innovation architecture is missing a focus on cross-sector innovation.

Thirdly, in order to gather cross-sector information, employees need to be able to find the right expertise. Fourthly, concept development within Accenture is not common, and asks for a smooth transition and detailed preparation. These four elements are added to the design requirements presented in 5.2.



# DESIGN DIAMOND

**DELIVER**

The deliver phase is about making choices and deciding on the best concept. The following section elaborates on the final design and its implementation. Furthermore, it discusses the results and links them to the initial assignment.

# CHAPTER 7

## Maestra

The following chapter provides the designed service: Maestra. The name Maestra stands for MArket, Ecosystems and orcheSTRAtion. As discussed in the previous chapters, there is a need for ecosystem orchestration by a neutral party. This is even more crucial for cross-sector ecosystems. The potential of this market is enormous which provides a unique opportunity for Accenture to position herself in this new era; which is why Maestra is designed.

Maestra consists of several elements. The first element of the service is a detailed process with tools that fit each phase. Phase one of this process, focuses on spotting opportunities which will be supported by an internal platform. The second phase, focuses on translating opportunities into concepts. This phase consists of research and an ecosystem design sprint for which a setup is designed. The third phase within the process, focuses on developing a Proof of Concept which will be executed within Accenture. The fourth phase focuses on orchestrating the ecosystem, for which an orchestration playbook is designed.

The second deliverable of Maestra is a roadmap to smoothen the mindset change within Accenture from single-sector to cross-sector. This roadmap includes four focus areas: regulatory-driven single industry, trend-driven single industry, trend-driven cross-sector and impact-driven cross-sector. Also, the roadmap shows the different technologies that will be highlighted throughout time.

The third element of Maestra is a business plan that includes a thorough market analysis, a service description, a financial forecast, and the organisational plan.

Each of the Maestra elements is explained in the following chapter.



# 7.1 VALUE PROPOSITION, POSITIONING & PURPOSE

This section describes the value that Maestra will bring to her clients. It

highlights the unique positioning of the service in comparison to the competition.

## 7.1.1 VALUE PROPOSITION

### What is it?

Maestra is a service that includes several activities. The first activity is spotting opportunities for cross-sector ecosystems. Accenture does this by combining its sector knowledge and spotting patterns that might benefit multiple sectors. The second key activity is co-creating the concept with potential ecosystem partners. Accenture acts as a facilitator and makes sure the partners want to commit to the development of the concept. The third key activity is orchestrating the ecosystem itself. This is done after a first Proof of Concept. The partners are recruited, the initial consortium governance is discussed, the product is built and a separate company is created. The combination of these activities creates a unique offering for ecosystem clients.

#### VALUE PROPOSITION SUMMARY:

##### Spotting - Co-creating - Orchestrating

*For our clients who are looking for radical ways to reinvent themselves, Maestra offers **cross-sector concepts** by combining sector knowledge, technical expertise and design skills.*

*These concepts are further developed together with multiple clients in an ecosystem where Maestra **orchestrates & facilitates** the ecosystem process towards market launch*

*Maestra creates **cross-sector ecosystems** that stimulate **societal and environment impact***

## 7.1.2 POSITIONING

### How is it different?

Maestra is different from the other consulting services by her focus on an ecosystem level (instead of a single client), her ability to bridge sectors (instead of industry organisation) and her orchestration and concept development capability (instead of only consulting). Especially this last capability is unique for a consultant. By specialising in cross-sector ecosystem ideation, Accenture positions itself in a niche that is rapidly growing over the years.

#### POSITIONING SUMMARY:

*Maestra differentiates by her ecosystem mindset, her **concept development** and her cross-sector focus to **impactfully compete together**.*

## 7.1.3 PURPOSE

### What is its purpose?



Figure 71: UN sustainable development goals

As cross-sector ecosystems have the potential to create social and environmental impact, Maestra is an ideal niche for Accenture that aims to bring innovations that improve the way the world works and lives. This service has the potential to create social and environmental impact. Therefore, the connection is made to the UN sustainable development goals. As named in an article of Accenture, 'Against a backdrop

*of change as dramatic and uncertain as any in the last 250 years, the adoption of the SDGs gives the world a universal roadmap for development' (Accenture, 2016). That is why these goals are used as guidelines in the Maestra service.*

#### PURPOSE SUMMARY:

*Maestra believes 'you disrupt through impactful collaboration'*

# 7.2 SERVICE PROCESS

The following section introduces the process of Maestra. The process is adapted from the double diamond methodology (see chapter 1) which consists of two diamond. Each of the two diamonds has of a diverging part and a

converging part. The process of Maestra consists of four diamonds instead of two, with the following focus: spotting opportunities, designing the concept, testing the concept and orchestrating the ecosystem.

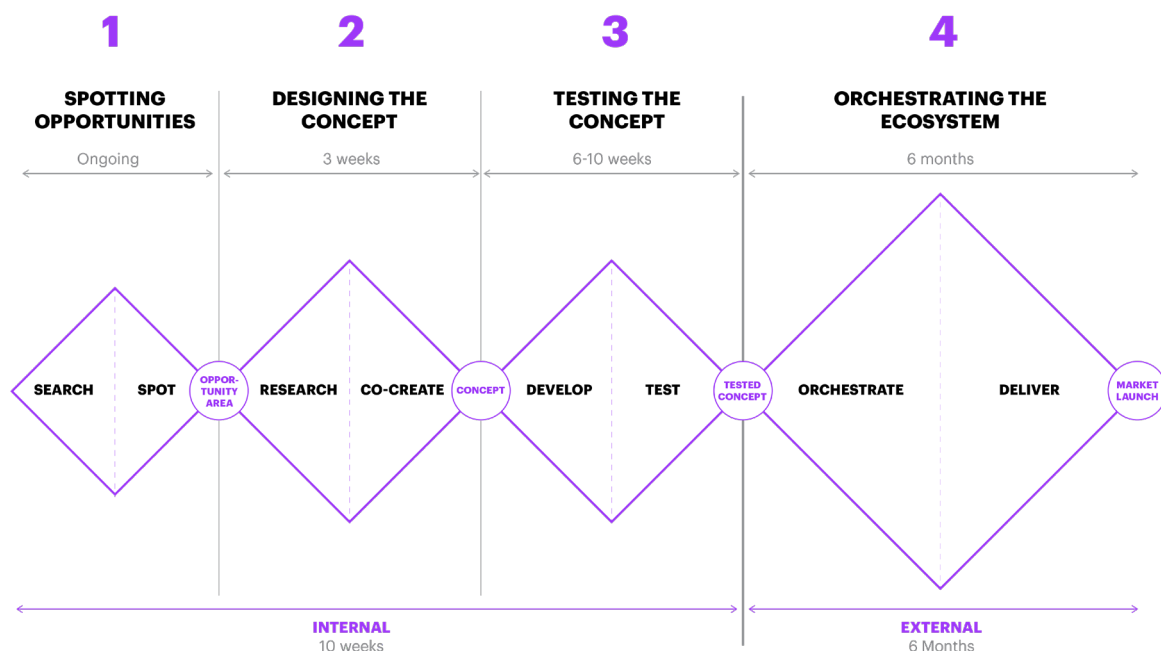


Figure 7.2: Process overview of the cross-sector ecosystem orchestration service

## 7.2.1 PHASE 1

The goal of the first phase is to distill opportunities that can be used during phase two. This is done by creating an internal platform focusing on providing project overview and expertise. This platform will be only available for Accenture employees. By having this overview of all the projects that are being

pursued within Accenture NL, it is also possible to find the right expertise that an employee might need for their project. That is because this overview will give a detailed explanation of the project, the team and the individual roles. The platform will have a search engine for employees to find the expertise.

Besides giving employees the opportunity to find expertise, this internal platform also enables Maestra to find industry trends (as all projects are known), and compare these cross-sectorally which will then create opportunities for cross-sector ecosystems. As this platform will be live constantly, phase one will be an ongoing phase.

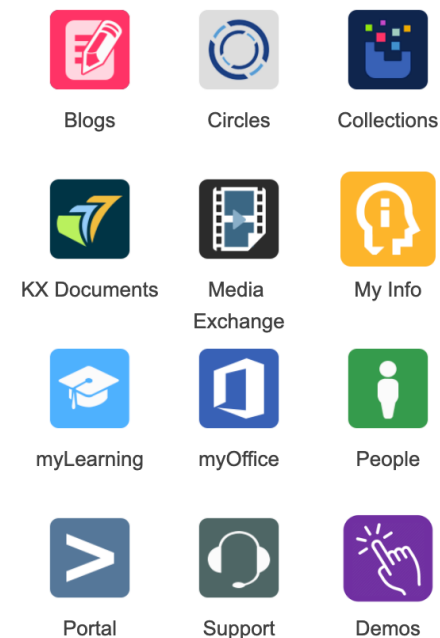


Figure 7.3: Overview of current Accenture online tools

## Analysis Accenture tools

When looking at the platforms and tools that Accenture employees already use, it can be concluded that an overview of all the projects that are being done currently is not available. Figure 7.3, provides and overview of the current tools for Accenture employees.

Each of these tools serves a different purpose but none of them provides an overview of all the projects, people and expertise. The tools that come closest are the portal, which does give an overview of

new developments or news updates, and the people page, which is a search engine for names of employees (not expertise).

## Positioning of the internal platform

As creating a new platform will create even more chaos and because this could be a good addition to the people page, this platform should be implemented within the people page platform by adding a new header besides groups that says: expertise. When an employee needs more information on a certain topic or project, they can contact the people working on the project or they can download the associated documents via the KX document platform. This new internal expertise platform can be seen as a link between the people page and the KX document platform.

## Functionalities of the platform

As discussed above, the platform aims to support employees in finding the right expertise. That is why the first functionality of the platform is a search engine to search for keywords in the platform.

The second functionality that the platform should have is an opportunity spotting algorithm. An algorithm that scans the platform and all its projects and combines trends if they overlap or aim to get the same results. The specific functionalities of this algorithm will be determined within the first horizon.



The third aspect that is critical for the success of the platform is a good user Interface (UI). Most of the other platforms within Accenture are not easy to use which results in a decreased usage.

To further stimulate employees to use this platform, a personalized view should be added. Meaning, showing the projects that relate to either your interests or your current project.

The last desired functionality of the platform is the possibility to directly email or send a message via microsoft teams to other employees.

## Development process of this platform

To get the overview of the projects within Accenture, a thorough approach is necessary. As the company is very big, it is difficult to know what every department, group and individual person is working on. That is why the following approach is created (see 7.4).

First of all, the interface and the required database needs to be set up. The link should be made between the people page and the KX document platform. After that, a search functionality should be added and a way for employees to add information.

In the second part of this process, the industry leads or operating group managing directors are asked to give an overview of their client account leads and to list their current clients. Then, the client account leads will give an overview of all the projects at this client. From where the project leads will give specific information on the projects and the involved team. The employees will then fill in their specific role and responsibilities. All the people that are asked to provide certain information, need to fill it in in the platform. That way the information is verified by users and a suggestion function can be added which helps them fill in the information. When the information is ready, the platform can be launched internally via a marketing plan.

## Tools & templates

Before the spotting algorithm is working, the team of Maestra, should be able to distill trends manually. Therefore, a template is designed. This template will be filled in on the platform digitally. However, there is the possibility to print the template. The template can be found in Appendix E.



Figure 7.4: Development process of the internal platform

## Selection of opportunities

As not all opportunities are equally valuable, it is necessary to have selection criteria. These criteria are based on the desirability, viability and feasibility model developed in the 00's by design consultancy IDEO. This model aims to distill the sweet spot of innovation. Desirability refers to the desire of people to use the product or service. Viability refers to the economical health of the concept: can it make enough money so that the company survives? Feasibility refers to the technological possibility to produce the product or service.

Even though, the opportunities have not been worked out completely in phase 1, it is necessary to measure its potential. That is why the following criteria were created based on the previously described model.

Each of the questions should be answered on a scale from one to ten. If the total amount of points per person measuring exceeds the number 70, the opportunity will be taken to phase 2. It is preferable that at least three people measure the opportunity, to make sure that pursuing the opportunity is not based on a single opinion that could be biased. If three people measure the concept, the total amount of points should be 210 or higher.

	Question	Scale 1-10
<b>Desirability</b>	<p><b>1. How large is the potential target group?</b> (1= very niche, 10= everyone on earth)</p> <p><b>2. How big is the need for this proposition?</b> (1=not needed at all, 10=crucial for a pleasant living)</p> <p><b>3. How unique is this the proposition in comparison to other products or services?</b> (1=not unique at all, 10= one of its kind)</p>	
<b>Feasibility</b>	<p><b>4. How certain is it that the proposition will be finalized within one year?</b> (1=not possible, 10=very certain, probably earlier)</p> <p><b>5. How certain is the technical feasibility of the proposition?</b> (1= very risky, 10=very certain)</p> <p><b>6. How certain is it that all the necessary skills are available?</b> (1=not available, 10=all skills available in abundance)</p>	
<b>Viability</b>	<p><b>7. How certain is the financial profitability of the opportunity after one year?</b> (1=not possible, 10=very certain)</p> <p><b>8. How profitable will the proposition be long term?</b> (1=not profitable at all, 10= super profitable)</p> <p><b>9. How stable is the opportunity's market?</b> (1=not stable at all, 10= very stable)</p>	
<b>Overall</b>	<p><b>10. What is the overall potential of this opportunity?</b> (1=slim to none, 10=very high potential)</p>	

Figure 7.5: Opportunity selection

## 7.2.2 PHASE 2

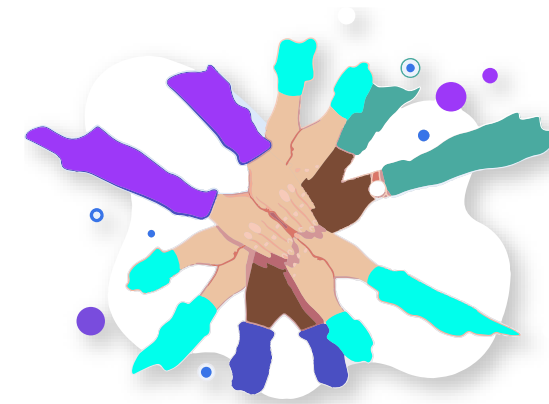
The goal of this phase is to create a concrete concept that can be tested in a first proof of concept. Furthermore, this phase aims to find partners that are willing to commit to the concept.

First, research has to be done into the market potential of the idea, the customer persona and the technology that will be used. During this period, potential partners have to be contacted for the design sprint. This design sprint is without obligation or costs for clients. The opportunity template will serve as a basis for the design sprint in which the

concept, the business plan will be created and tested.

Figure 7.6 shows the content of the Ecosystem Design Sprint. This setup is an adapted version from the famous 'Google Design Sprint' (Knapp, Zeratsky, & Kowitz, 2016). The Ecosystem design sprint pays extra attention to collaboration and a shared vision which is essential in an ecosystem. Furthermore, the business case is also of high importance and that is why the sprint spends a complete day on this.

The reason to take the 'Google Design Sprint' framework is that a lot has to be done before the concept is ready. This cannot be done in a workshop of two hours. Furthermore, you need the full attention and commitment of the partners. By having everyone together in one room for a week, you make sure that everyone feels like they are owner of the idea.



### Requirements for the ecosystem design sprint

In order to get the most out of the ecosystem design sprint, there are some requirements that need to be met. The first and most important requirement is that all the sectors need to be represented during the sprint. Furthermore, the ecosystem design sprint should never be split up or shortened, that way the concept development process will lose momentum and the quality of the concept cannot be guaranteed. Another requirement for the ecosystem design sprint is the location, it should be a large and light room without direct distractions. Also, the room should not be at the partners' location to prevent a conflict of interest. Moreover, it is ideal to have a single room for the whole week.

### Input for phase 2

The opportunity template as discussed in 7.2.1 gives input for the first day of the sprint. Which gets its input from the internal platform. This process is visualized in figure 7.7.

	<b>DAY 1: COLLABORATE</b>	<b>DAY 2: CONCEPTUALIZE</b>	<b>DAY 3: STRATEGIZE</b>	<b>DAY 4: PROTOTYPE</b>	<b>DAY 5: TEST</b>
	<b>Goal:</b> Knowing and understanding the partners & creating a shared vision	<b>Goal:</b> Iterating on the concept and determining the product requirements	<b>Goal:</b> Determining the right business model that suits all ecosystem partners	<b>Goal:</b> Building a first minimal viable product to test the value of the idea	<b>Goal:</b> Testing the prototype with potential customers to gain user feedback
10:00	Getting to know the partners	Recap day 1	Recap day 2	Recap day 3	Recap day 4
11:00	Golden rules for ecosystem collaboration	Customer journey mapping	Business model brainstorm	Determine goal of test & prototype requirements	Discuss setup of user test
12:00	Value area presentation	Ideation & sketching	Research into new market	Storyboard of use test	Test with end-users
13:00	Scenario sketching	Present & discuss	Discuss	Build	
14:00	Stakeholder mapping & division of roles	Determining technical requirements	Business model canvas for ecosystems	Discuss	
15:00	Vision creation	Present & decide	Discuss	Build	
16:00	Finising day 1	Iteration on final concept	Planning ecosystem process	Build	Discuss
17:00		Finising day 2	Key performance indicators & milestones	Finising day 4	Conclude & next steps
			Finising day 3		Celebrate with drinks

Figure 7.6: Ecosystem Design Sprint

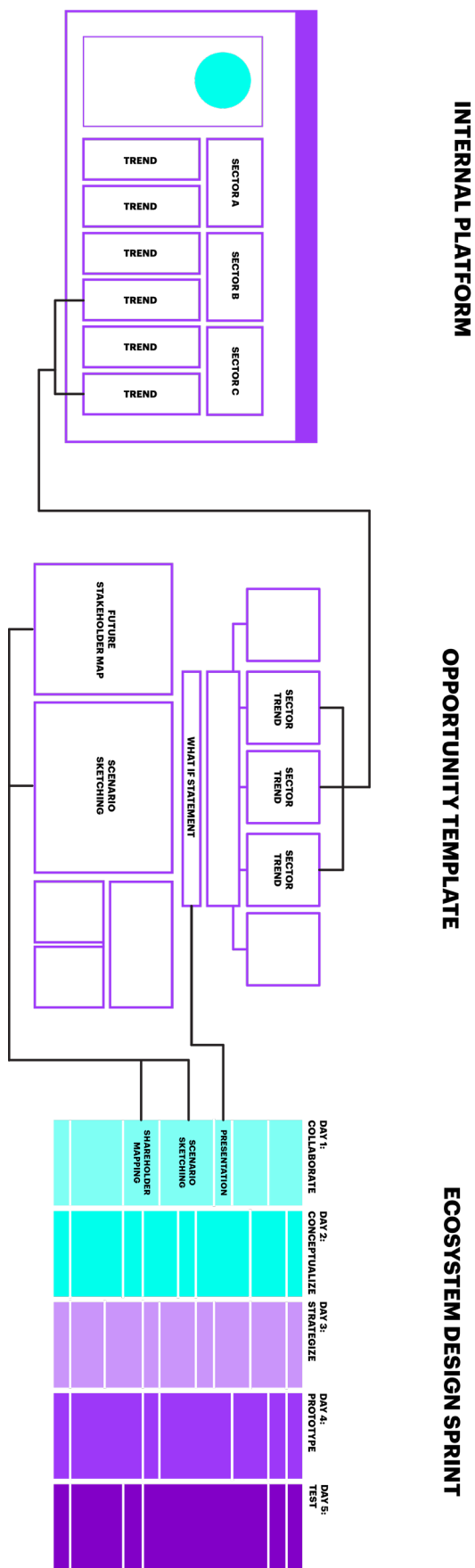


Figure 7.7: Connection between the tools

### 7.2.3 PHASE 3

The goal of the third phase is to test the concept in a Proof of Concept. This phase is done within Accenture without the direct involvement of the other partners unless this is necessary for the PoC. The reason for this is that it will speed of the process. The requirements for the PoC will be determined during the ecosystem design sprint. The specific content of the

PoC is dependant on the concept. For this phase no direct tools are provided as Accenture has already a lot of experience with PoC's and has a complete department dedicated to this. This phase will take approximately 6 to 10 weeks (based on previous PoC's within Accenture). If the PoC is successful, the tested concept will be brought to phase 4.

### 7.2.4 PHASE 4

The goal of this phase is to orchestrate the ecosystem towards a successful market launch. Accenture will take in the role of orchestrator. This section will first explain the crucial orchestration theory, needed to understand the remainder of this subchapter.

orchestration model and the consensus-based orchestration model.

#### Orchestration theory

According to Dhanaraj and Parkhe (2006), network orchestration refers to 'the capability to purposefully build and manage inter-firm innovation networks'. This is not only knowledge management or innovation management, it also includes the management of interdependency among network members (Rizova, 2006). It is becoming more common that networks are orchestrated by a firm. This firm selects the right members, shapes their interaction and actively manages the network as a whole (Ritala et al., 2013). The orchestrators' activities can be found in appendix F.

The dominating model is about one key actor who controls the network. This party, recruits the partners of the network and sets the agenda. Dominating orchestration is often present when the network is organised around one central firm. These organisations are generally the initiator of the network and take the lead in activities such as partner recruitment (Kazadi et al., 2016), vision setting and goal setting (Aarikka-Stenroos et al., 2017).

Two orchestration models are distinguished in literature (Davis and Eisenhardt, 2011); the dominating

The consensus-based model is one where the partners together decide on the agenda, the membership. Here, trust is the main aspect that keeps the network together (Gray, 1989; Roloff, 2008). This model is nonhierarchical and involves a lot of negotiation (Crosby & Bryson, 2010). Partners can participate voluntarily, and the orchestrator merely empowers them to deliver value to the network (Huxham & Vangen, 2000).

In order to overcome this dilemma of choosing for a consensus-based or a dominating orchestration style, a hybrid orchestration model is suggested by Blazevic, Reypens, & Lievens (2019). This model entails going back and forth between the dominating and consensus-based model, depending on what suits the phase of the ecosystem. The orchestration playbook takes into account a hybrid form of orchestration. The criteria that determine to go for one of the two models, are described in the playbook itself (see appendix G).

### Orchestration process

Before the ecosystem process starts, the partners have to get involved. Partly, this is done in phase 2 when involved partners for the ecosystem design sprint. However, when the partners do not want to continue in a consortium, new partners have to be found that represent the role that is missing. This is not ideal as the new partners will not feel as committed as the partners that joined during phase

2. The sales process at the beginning of this phase will therefore be more difficult. Another aspect that affects this sales process is the fact that multiple sectors are involved. Accenture is not organized cross-sectorly, which complicates the sales process as well. Here, multiple client account leads have to be involved and work together. They have to split the incentive if the sale succeeds, which is also a new way of working for Accenture.

When the partners are involved and the ecosystem can kick-off, Accenture needs to determine her orchestrating style. As this depends on several factors and is crucial for the success of the ecosystem, the ecosystem orchestration playbook has been created (see appendix G). This ecosystem orchestration playbook aims to guide the orchestrator through the phases as visualized in figure 7.8. It will provide specific orchestration information per phase and explain the associated bottlenecks.

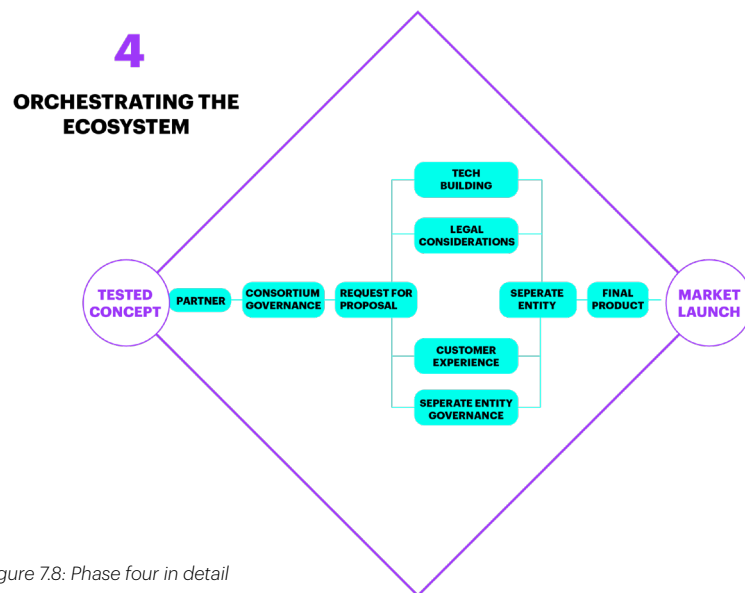


Figure 7.8: Phase four in detail



Figure 7.9: Glimps of the orchestration playbook

## 7.2.5 SUMMARY MAESTRA PROCESS

Figure 7.10 gives an overview of the tools in the process. As can be seen in the figure, phase three does not have a tool

associated to it. This is because it focuses on the technical testing of the concept, which is out of scope of this thesis.

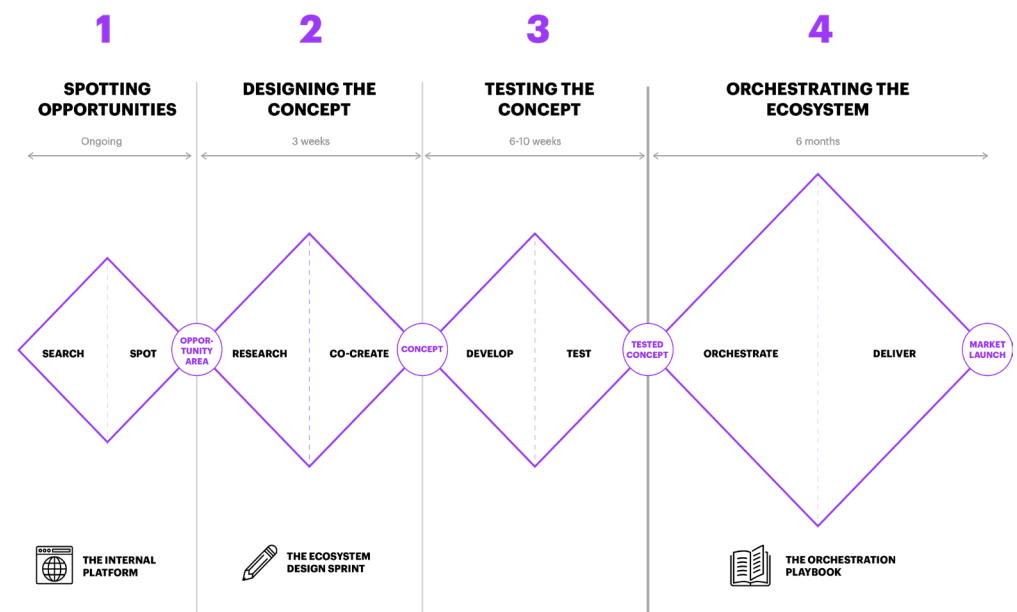


Figure 7.10 Summary of tools per phase

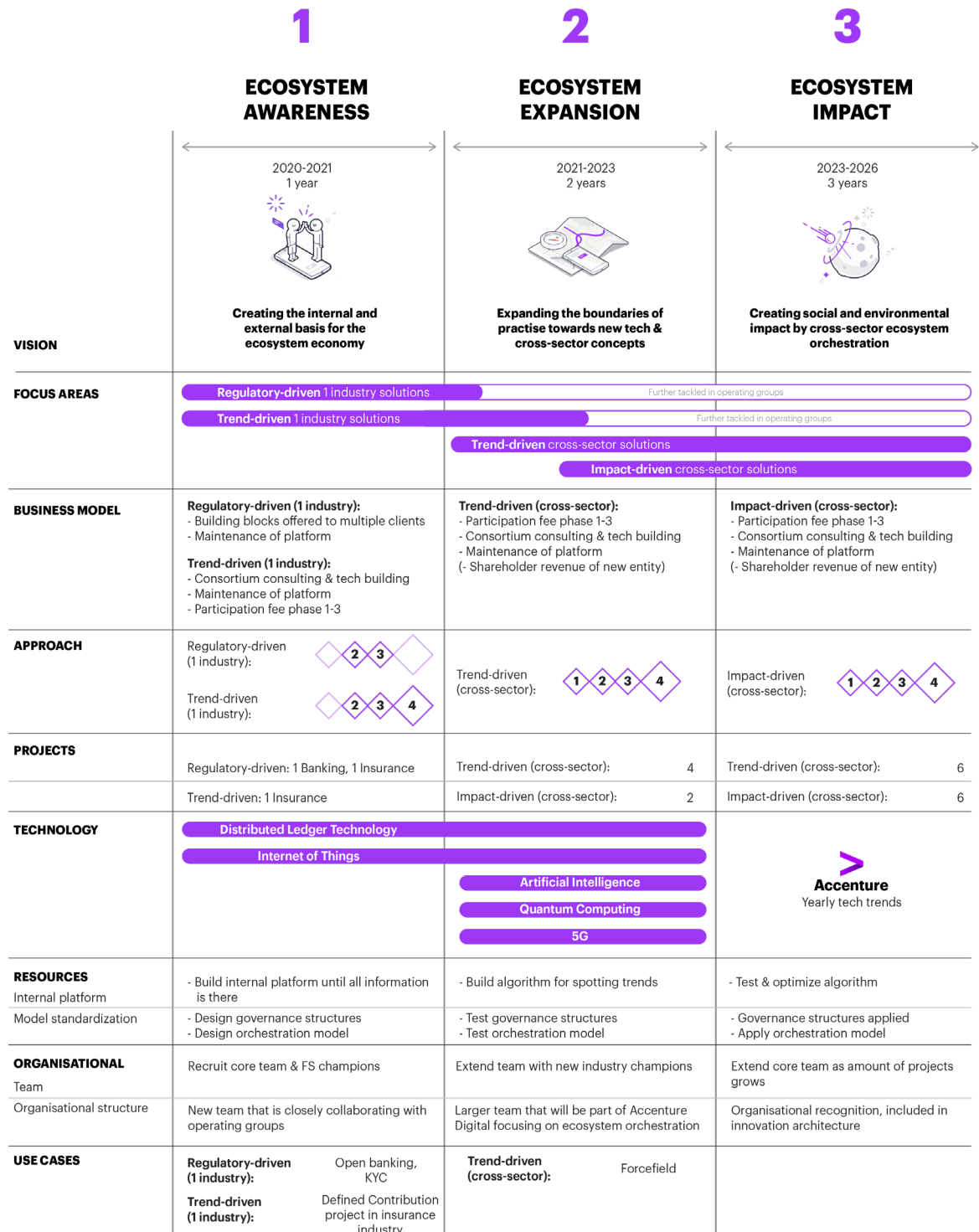


Figure 7.11: Roadmap

# 7.3 ROADMAP

The cross-sector ecosystem orchestration service is not a service that can be offered as of tomorrow. It is a big change compared to what Accenture is doing currently. Especially the product development part is new. Furthermore,

Accenture is not used to work cross-sectorally, on a ecosystem level. For these reasons and for a smooth implementation within Accenture, a design roadmap is created.

## 7.3.1 HORIZONS

The roadmap uses three horizons, which can be seen as phases in time. These horizons build up to the ultimate vision explained in 7.1.

Mostly, these problems concern a certain regulation (more on this in 7.3.2). Another focus area in horizon one is trend-driven solutions for one industry. These type of projects are more focused on incremental innovation and process optimisation.

### Horizon 1: ecosystem awareness

Horizon 1 will take approximately one year and is focused on preparing Accenture internally. This is done by creating a internal platform as explained in 7.2.1. Another key element of this horizon is the focus on creating awareness. Accenture needs to be seen as the go-to consultant for everything that has to do with ecosystems. Within this horizon, there will be a focus on technologies that ask for an ecosystem approach: Distributed ledger technology and Internet of Things (more on this is 7.3.6). As discussed before, this service is quite a big change compared to what Accenture has been doing so far, that is why the focus areas are added. These represent the type of projects that will be done within a certain period of the roadmap. In horizon one, the service starts from a regulatory-driven ecosystem solutions, which are solutions to urgent problems in a specific industry.

### Horizon 2: ecosystem expansion

Within the second horizon, the focus technologies will be expanded. Furthermore, the focus areas are expanded to trend-driven solutions cross-sector. Here, the solutions become more disruptive as they are often completely new to the market.

The second horizon is about preparing the clients and Accenture to shift towards Impact-driven solutions in horizon 3. In horizon 2 more projects are conducted to gain a more prominent market position and the team will grow as well.

### Horizon 3: Ecosystem impact

This horizon is about creating social and environmental impact with the cross-sector ecosystem projects that are being done. The focus in this horizon is fully on

cross-sector solutions, as cross-sector collaboration is seen as a fruitful basis for social and environmental impact. The technology focus will be determined based on the annual tech trend reports of Accenture.

## 7.3.2 FOCUS AREAS

As discussed in the introduction of 7.3, for a smooth transition towards impact-driven ecosystem solutions, some focus areas are implemented in the roadmap. The first step that is taken is responding to the upcoming urgent regulations that are seen within especially the financial services industry. Several of Accenture's clients need to change rapidly due to for example Know Your Customer regulations. What if Accenture would develop a service that she can offer to multiple clients in response to these regulatory-driven problems? Here, consortia facilitation is excluded as the partner do not necessarily have to work on building a solution together: Accenture will do that. This focus area will make Accenture internally shift in mindset from only client focused to industry focused, which is the first step to the cross-sector innovation mindset. After the idea and solution has been built, it will be handed over to the operating group.

The second focus area that will also be applied in horizon one is 'trend-driven ecosystem solutions for one industry'. Here, the problem is less urgent but more driven from an opportunity area or changing customer demand. This focus is still on one industry, for example an

insurance process that can become more user friendly when combining several customer journeys.

Trend-driven solutions will work together in a consortium, so instead of selling 'building blocks', consortium consulting or technology building capacity will be sold.

In the second horizon, trend-driven innovation will shift towards multiple industries or even cross-sector. When working on a cross-sector ecosystem level, the internal platform becomes useful (see 7.2.1).

In the third horizon, the focus will be on 'impact-driven ecosystem solutions'. The aim is to connect these to the UN sustainable development goals as the business contribution is not on track with its intended aim (Accenture, 2019b), see 7.1.2. For the impact-driven solutions the focus will be on cross-sector solutions because cross-sector ecosystems will account for 83% of the total ecosystem market in 2025 (McKinsey, 2018), and because it has a lot of potential to create social and environmental impact (see 7.1.2).

## 7.3.3 BUSINESS MODELS

There are two main routes Accenture could take when it comes to generating revenue. Either, it focuses on providing a service for which she gets paid, or it becomes stakeholder in the newly created company, which involves more risk but also a higher return.

The financials that will be presented in 7.4.3, are focused on the revenue models that are connected to the first model: consulting project. The reason for this is that it is more predictable and more close to the current way of working. When the service is up and running, Accenture could determine per project which route to take. One of the obstacles identified (in the research of this thesis) is the lack of commitment of a consultant when they only provide advice or facilitate. It is therefore desired that ultimately, Accenture would become more comfortable with the latter route of revenue generation.

For each of the focus areas are multiple revenue streams. Regulatory-driven ecosystem solutions develop building blocks consisting of a specific solution for a regulatory problem that can be sold to multiple clients. The main revenue stream of this focus area is therefore selling this platform, service or product to multiple clients with a small level of customization. Furthermore, within this focus area, Accenture is the logical partner to do the maintenance of the platform, or service as well.

Trend-driven ecosystem solutions work with a consortium and therefore have the opportunity to charge consortium

consulting fees. Furthermore, as in most consortia, a platform is build, technical building hours can be sold as well. Just like the regulatory-driven ecosystem solutions, Accenture can be the party to maintain the product, platform or service. When moving towards more impact-focused cross-sector ecosystems, the time spend on phase two and three becomes longer. Here, Accenture can charge a participatory fee, that covers the costs for the initial Proof of Concept.

It is important to mention that the type of business model that is used, depends on the specific project an always needs to be carefully customized to the solution that is being offered. Furthermore, especially for the single-industry focus areas, it is important to collaborate with the sales leads from the operating groups.

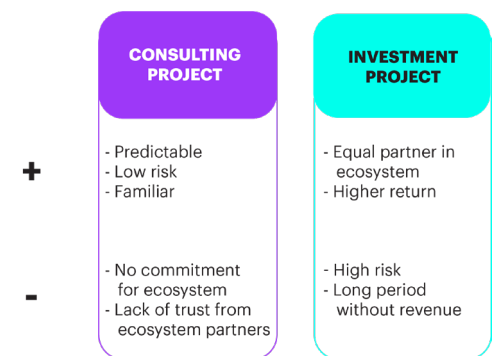


Figure 7.12: Overview of two routes of ecosystem revenue

### 7.3.4 PROCESS

The service process depends on the focus area. For the regulatory-driven ecosystem solutions, only phase two and three are applicable as the internal platform is not useful for a single industry focus. Moreover, as regulatory-driven ecosystem solutions focus on creating building blocks that can be sold to

multiple clients, a consortium (phase four) is not applicable either. Trend-driven ecosystem solutions do have a consortium phase just like impact-driven ecosystem solutions. When transitioning from single-industry to cross-sector solutions, the internal platform becomes more important (see 7.2.1).

### 7.3.5 PROJECTS

The amount of projects will (hopefully) grow in each horizon. The initial amount is based on an estimation that the size of the team will also grow with the success of the service. As the team is relatively small in the beginning, only a few projects will be conducted in the first horizon (also because this horizon has a timespan of only a year). The amount of projects

estimated for the other horizons grows with the timespan of the horizon.

The regulatory-driven and trend-driven projects in horizon one will be focused on the financial sector as this sector is now facing a lot of regulatory pressure and because some use cases are already put into motion here.

### 7.3.6 TECHNOLOGIES

In order to know which technologies to focus on first in horizon 1, it is necessary to understand how technology is developing and what the focus technologies are of 2020-2021. As could be seen in figure 7.13 blockchain is over its hype but is still not fully ready to be adopted widely. However, as discussed in chapter four, companies are starting to search for use cases in consortia. DLT is seen as the 'conversation starter' of ecosystems. So even though the technology is not fully mature yet, it is a logical starting point for this service.

Besides blockchain, the focus of the first horizon will also be on IoT (including edge analytics). This technology has a lot of potential for ecosystems as it is about connected devices. This trend is present in the Accenture tech trend 2018 report. As these trends are most of the time two years ahead of the market, this technology will be good to be looking at in 2020.

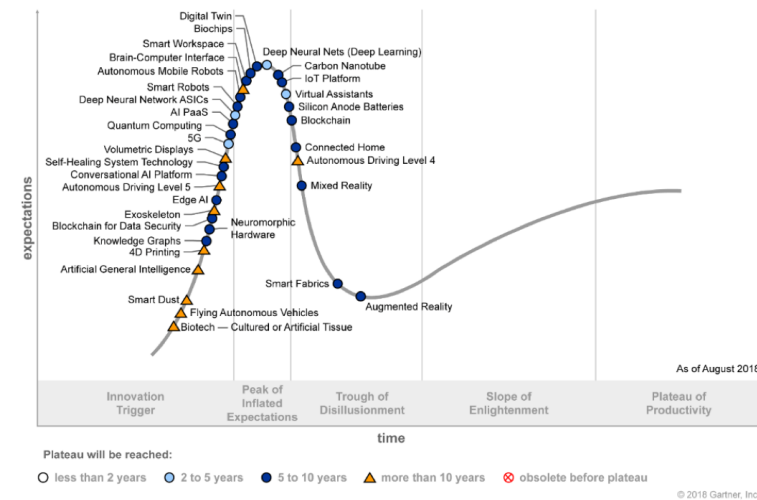


Figure 7.13: Gartner hype cycle 2018 (Gartner, 2018)

In the second horizon more emerging technologies will be included; AI, quantum computing and 5G. The first two are part of the tech trends identified by Accenture (2019a): DARQ power. 5G is part of the Gartner's hype cycle prediction of that technologies that will reach the plateau of productivity in 2 to 5 years (see figure 7.14). The reason to focus on this

technology is that it is a basis for other new services to emerge.

In horizon 3 the focus will be on the technologies that will be identified in the Accenture tech trends of year 2023. From that moment on, each year the Accenture tech trends will form the basis for the service.

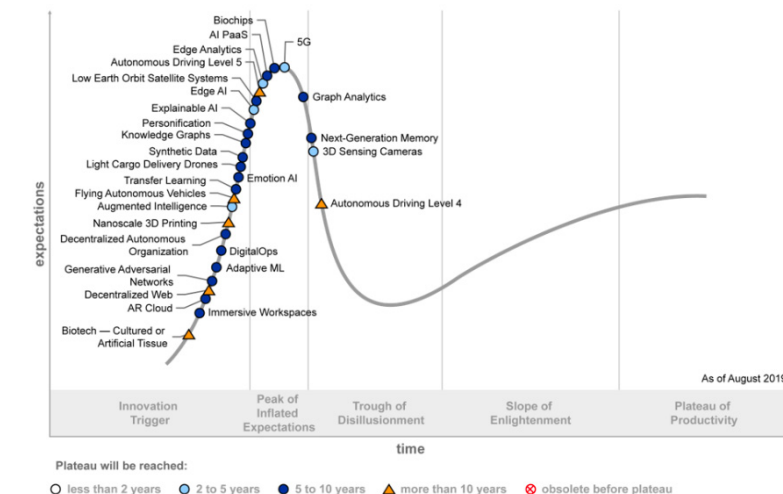


Figure 7.14: Gartner hype cycle 2019 (Gartner, 2019)

## 7.3.7 RESOURCES

### Model standardization

In order for Accenture to become the go-to consultant, a lot of consortia have to be orchestrated. That is why it is more effective and necessary for client commitment to develop certain governance models that can be applied when orchestrating a consortium. Besides the governance model, there also needs to be standards in how Accenture tackles orchestration. As explained in 7.2.4, orchestration can have different forms, which needs to be taken into account. In order to provide the same level of service regardless of the specific people working on the project, a model needs to be designed. The design of these models will be done in horizon one, after which it will be tested in practise in horizon two, to fully implement it in horizon three.

### Internal platform

As mentioned before, it is very important to have the right communication platforms in place, that is why in the first horizon the internal platform is fully designed and build. In order to do so, information from different organisational levels needs to be collected (see 7.2.1). The goal of the internal platform within this horizon is to enable the search for expertise among Accenture employees.

## 7.3.8 ORGANISATIONAL STRUCTURE

The team will consist of team leads, strategists, a senior manager, researchers, designers, legal consultants, workshop facilitators and interns (more on this in 7.4). The amount of people will grow with the horizons. Besides these fixed employees, there are also some flexible employees working on the projects. These include, technology builders and industry champions. This last role is one which does not take much time, yet is very important for the content of the internal platform. Besides the team, the organisational structure will also be build up over time. First, a small team

within Financial Services consulting will start with these projects. Slowly the team will become more seperate and not operating group focused. Finally, the aim is to include this service in the innovation architecture of Accenture.

## 7.4 BUSINESS PLAN

As this service first needs the commitment, agreement and sponsorship of the management of Accenture NL, one of the deliverables of this service is a business plan. This contains the following elements: Executive summary, Introduction, Company analysis, Market analysis, Service description, Organisational plan, Financials, Roadmap, Conclusions and Appendices. The format of this deliverable is a slidedeck as this is the way Accenture usually

communicates. The full slide deck can be found in appendix H. The following subchapter dives into the key elements of the business plan. Elements that are excluded from the business plan are the executive summary (formality of the document), the introduction (formality of the document), the introspective (see 6.1), the service description (see 7.1), the roadmap (see 7.3) and the conclusion (formality of the document).

### 7.4.1 MARKET ANALYSIS

To get a good overview, a broad perspective on the market trends has been taken. The list shown in figure 7.15, represents the mega trends that are

impacting the world currently (Deloitte Consulting GmbH, 2017). The highlighted trends in the figure are connected to the designed service.



Figure 7.15: Mega trends overview (Deloitte Consulting GmbH, 2017)

- Technology
- Society
- Environment
- Economy
- Politics



One of the highlighted trends in this figure is partnerships models. This connects to the ecosystem topic addressed in this thesis. As discussed throughout this report, ecosystems are gaining attention and have a great market potential. According to McKinsey & Company, ecosystems will represent 30% of the total global revenue in 2025 (McKinsey, 2018). Of that 30%, 83% will be cross-sector ecosystems. Thus, a total of 24% of global revenue in 2025 is coming from cross-sector ecosystems.

After the market analysis and the explanation of the service (see 7.1), a small competitor analysis has been conducted. There were five aspects that became clear.

First of all, competitors **acknowledge the ecosystem trend**, especially in trend reports published by these firms is a growing attention for ecosystems.

## 7.4.2 ORGANISATIONAL PLAN

As discussed above, Accenture is not ready internally to offer this service. That is why a small organisational change needs to happen. The service fits best underneath the digital department, as this group is competent in design, ideation, and workshop facilitation. Another reason to position the team in the digital department is their non-sectoral focus, which opens up possibilities for cross-sector projects. The aim is to create a team of people working full time on this service. However, in the first horizon (as explained in 7.3.1), the service will be part of the financial services consulting team

Secondly, **competitors are structured by sectors**, the services offered are mostly divided by sectors. There are services offered that are cross-sector, but these are still offered to one client at the time.

Thirdly, competitors **participate in smaller consortia**, most of the competition is active in consortia, either consulting or participating.

Fourthly, competitors have **no clear positioning or service offering**, especially when it comes to cross-sector ecosystem orchestration, none of the parties offer a clear service on their website.

Fifthly, competitors **do not offer an orchestration or ideation service**. As consultants are not product companies, none of these companies are focusing on concept development for ecosystems.

as it will be focused on regulatory-driven solutions within the financial sector. When the team gains more attention and achieves small successes, it can slowly move towards the digital department for cross-sector impact solutions.

When the team has gained success, the global Accenture innovation architecture is aimed to be restructured. As discussed above, ecosystem innovation is missing and needs to be acknowledged. This new element of the innovation architecture will mostly contain the creation part: phase 1-3 (see 7.2).

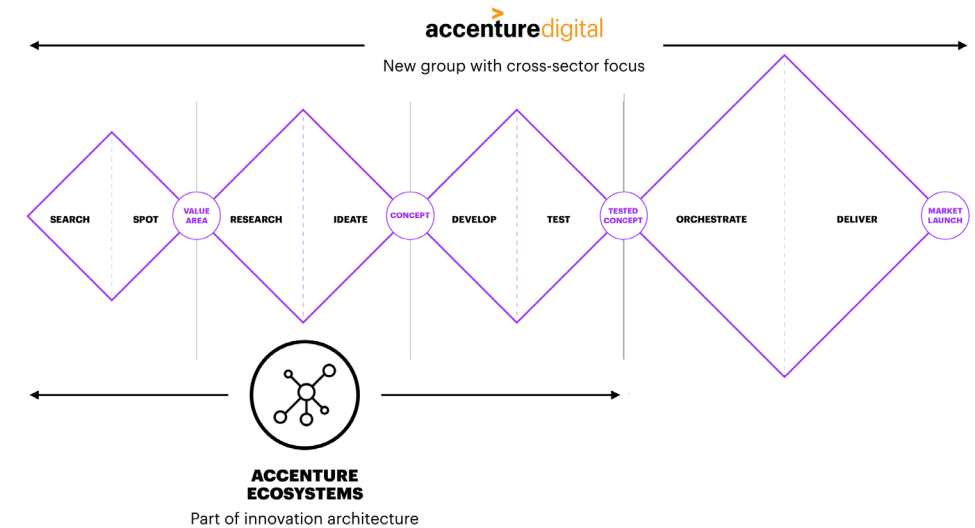


Figure 7.16: Organisational plan

### Team composition

As Maestra is a new service, it all comes down to the right people evangelising the service and the ultimate vision. That is why, besides the specific role requirements, the team members should possess the following aspects:

- Highly motivated for ecosystem innovation
- Empathic listener
- Strong storytelling capability
- Mediator in conflicts

Figure 7.17 gives an overview of the roles that are needed for this service and their responsibilities. As explained in 7.3.5, the amount of people is based upon the projects that are estimated for each horizon.

The project lead is responsible for the management of the project. Furthermore, he/she will be the orchestrator of the ecosystem and is therefore constantly

involved in the project. This person should have experience with project management as these kinds of projects involve more complexity. Furthermore, this person should be able to motivate the partners and commit to the outcome of the project. That is why this person should not have other responsibilities besides leading the project.

The strategist is the person who is involved in the project from a more strategic point of view. Especially in the beginning of the project (phase two) and the beginning of the ecosystem (phase 4), he/she is important to give strategic guidance during decision making moments. This person must be up-to-date on current market trends that influence the concept or ecosystem partners.

ROLE	Responsibilities	FTE	LEVEL
Project lead	<ul style="list-style-type: none"> <li>- PROJECT MANAGEMENT</li> <li>- ECOSYSTEM MANAGEMENT</li> </ul>	6	CONSULTANT
Strategist	<ul style="list-style-type: none"> <li>- FORMULATING GROWTH STRATEGY FOR THE ECOSYSTEM</li> <li>- VALUE CASE SPOTTING VIA INTERNAL PLATFORM</li> </ul>	2	CONSULTANT/ MANAGER
Legal consultant	<ul style="list-style-type: none"> <li>- HANDLING LEGAL CONSIDERATIONS OF CONCEPT</li> <li>- HANDLING LEGAL ASPECTS AMONG CLIENTS</li> </ul>	1	CONSULTANT
Designer	<ul style="list-style-type: none"> <li>- CONCEPTUAL STORYTELLING</li> <li>- VISUALISING DATA VIA PRESENTATIONS, MOVIES OR OTHER</li> </ul>	2	JUNIOR/MEDIOR
Workshop facilitator	<ul style="list-style-type: none"> <li>- PREPARE PHASE 2: DESIGN SPRINT</li> <li>- FACILITATE DESIGN SPRINT</li> </ul>	1	MEDIOR
Research lead	<ul style="list-style-type: none"> <li>- CONDUCT THOROUGH RESEARCH INTO VALUE AREAS</li> <li>- PROVIDE ADDITIONAL ANALYSIS FOR CONCEPT CREATION</li> </ul>	2	ANALYST
Senior manager	<ul style="list-style-type: none"> <li>- SUPERVISE THE TEAM</li> <li>- MAINTAIN CLIENT RELATIONSHIPS</li> </ul>	1	SENIOR MANAGER

## 7.4.2 ORGANISATIONAL PLAN

Figure 7.17: Organisational plan

The legal consultant is there to assist with the legal aspects of setting up an ecosystem. Especially within the financial services sector, antitrust lawyers are necessary to guide towards a proper legal structure. A lawyer from Accenture can help here to be the neutral ground between the partners and to guide Accenture in making the concept fit the legal requirements.

The designer is involved in phase 2, to help visualize the ideas that come up within the ecosystem design sprint and to create a compelling storyline for the concept. Furthermore, the designer is responsible for the visualisation of the presentation and other media used during the ecosystem design sprint.

The workshop facilitator will design the specific content of the ecosystem design sprint based on the template (see 7.2.2). Furthermore, he/she will facilitate the design sprint and involve experts when needed. He/she is responsible for motivating the partners during the sprint

and to make everyone committed to the project.

The research lead will be active during the first two weeks of phase 2. This person will research the market that the opportunity aims to enter to see whether there is a need for this solution and to analyse the competition.

The senior manager will supervise the projects on a part-time basis. This is necessary because the ecosystem partners need to see the commitment of Accenture. This person will work closely together with the project leads and is active during phase 2, 3 and 4.

For information contact: [jolenthe-janssen@live.nl](mailto:jolenthe-janssen@live.nl)

Figure 7.18: Financial forecast of profit

In order to come to this forecast several assumptions have been made: the salaries per team member, the time spend on a phase of the project, the revenue of a project, the amount of people needing to work on a certain task, and many more. All the assumptions can be viewed in appendix I.

The conclusion that can be drawn from the figure presented above, is that this service will not make any losses throughout all the six year as the amount of investment is relatively low. Furthermore, the service is extremely profitable for Accenture.

## 7.5 DISCUSSION

The following section discusses the design and the recommendations for future implementation within Accenture. First, the limitations of the design are

discussed. Followed by a justification of design choices and finally the recommendations are explained.

### 7.5.1 LIMITATIONS DESIGN

The design has some limitations that need to be discussed in order to value the final proposition.

grow towards a more investment revenue model so that Accenture will be seen as an equal partner.

The first limitation is that the design brief was formulated before further research on cross-sector consortia outside the DLT scope. Ideally, further research was done into other types of consortia to make sure the barriers overlap.

The third limitation of the design is the inaccuracy of the financial forecast due to the lack of accurate information. The financial forecast is based on a lot of assumptions which decreases the reliability of the forecast.

Secondly, the business model that the current business plan incorporates does not include the committing element that was determined as crucial during the case study interviews. In the current business plan, Accenture still follows a normal consulting revenue model as it is easier to forecast. However, it is desirable to

The fourth limitation of the design is that concept development might conflict with the neutrality of the orchestrator as it might feel like the 'kill your darlings' phenomena when the participating companies collectively adapt the concept. So the question arises: Can you stay neutral if you develop the concept?

### 7.5.2 JUSTIFICATION OF DESIGN CHOICES

Throughout the design diamond several choices have been made. Some of these are previously explained but not all. That is why this section elaborates on these choices.

#### Orchestration

The multiple case study research showed that it is complex for industry players to orchestrate an ecosystem as they have a stake in the outcome. This creates trust issues and slows down the process.

A consultant can be the neutral party in the consortium. That is why the service is designed in a way that Accenture takes in this orchestrating role.

#### Cross-sector

83% of the ecosystems will involve 3+ sectors by 2025 (McKinsey, 2018). Besides this enormous market potential does a cross-sector focus also offer opportunities for social and environmental impact. Complex problems like hunger and global warming are seen as the 'raison-d'être' for Cross-sector partnerships as these cannot be solved by one industry alone (Alvord, Brown, & Letts, 2004; Teegen, Doh, & Vachani, 2004).

#### Concept development

The service includes the development of the concept that is further pursued in the ecosystem. This is because Accenture possesses the ideation skills that are needed. Furthermore, because Accenture knows what goes on inside many companies, she can spot overarching trends for industries. This information can then be used for the concept development.

#### Impact-driven

Just like every citizen, companies need to adapt and change to limit their negative impact on the environment. It is not only a problem for the government anymore. For this reason, clients from Accenture are also looking for ways to do this and that is why a consultant should take this into account in her services. At this moment Accenture is not offering a specific service that focuses on sustainability. Maestra could therefore help Accenture reposition itself to become the 'green' consultant.

#### Phase 1: digital platform

For phase 1, a digital platform is created. The reason to go for a digital format is so that it can reach employees who are working at the clients' location. As consultants generally work four out of five days per week at the clients' location, this is a crucial feature of the platform. Furthermore, by connecting it to the 'expertise search', employees get constantly reinforced to use the platform.

#### Phase 2: design sprint

In the design of phase 2, a design sprint is added. The reason to go for a design sprint instead of just a 'normal' co-creation session (of for example two hours) is that ecosystem concepts are in general more complex: several stakeholders are involved that all need to benefit from the concept. Furthermore, the concept needs to bridge industries which also increases the complexity. A design sprint spends more time on the ideation phase: 5 days. This leaves room to thoroughly ideate towards a concrete concept. Another reason for a design sprint is the need for a business plan. Without a complete business plan, it is difficult to make ecosystem partners commit.

#### Phase 4: ecosystem playbook

For the last phase of the Maestra process, an ecosystem playbook is provided. This is because orchestration is the key activity in an ecosystem. This playbook provides advice and guidance in what to do at a certain moment in the ecosystem adoption process.

## 7.5.3 VALIDATION AND RECOMMENDATIONS

This section elaborates on the validation interviews that were held and the recommendations that followed.

### Validation

After the Maestra service was designed, it was validated with the experts that were also involved in the creation of the concept (see 5.3). Furthermore, an additional validation session was held with eight consultants from Accenture.

The validation session acknowledged the complexity of implementation due to the need for organisational change. However, the overall reaction on the service was very positive.

*'It promises a high market share' -  
Consultant Financial Services*

*'The service is very valuable because there is a strong demand from the market and Accenture has the capabilities to make this part of its portfolio' -  
Analyst Financial Services*

*'Being at the center of an ecosystem gives Accenture a unique position to be the main partner of the involved parties' -  
Consultant Financial Services*

*'Very curious to see how maestra is going to work in practise' -  
Manager Financial Services*

### Recommendations

#### *Implementation within Accenture*

In order to create a smooth implementation within Accenture a mindset change is needed. Besides the fact that the organisational structure does not allow for cross-sector consulting or concept development, is the mindset of the people also not ready for this change.

People have to understand the value and see beyond their current industry. Furthermore, consultants in general are not used to the commitment that is needed from the orchestrator, which stresses again the need for a mindset change.

The success of the service greatly depends on the commitment of Accenture to these ecosystems. It is therefore very important to rethink the current business model and grow towards an investment type of revenue model.

Another very important aspect for the implementation within Accenture is the commitment from management. There needs to be a sponsor (which means, a person high in the organisation) who supports this service and helps to gain the necessary level of trust.

Furthermore, additional research needs to be done into cross-sector ecosystems and its implications for orchestration. Accenture should also invest more resources in making the financial forecast

and the market potential presented in the business plan more accurate.

#### *Phase 1 Recommendations*

For phase one it is recommended that the platform is build in collaboration with people from the Accenture people page. This way, the implementation will go smoothly and a lot of small mistakes can be prevented. Furthermore, the sponsor of the team needs to make sure the right information reaches the platform.

#### *Phase 2 Recommendations*

Phase two aims to create a concept with business plan. This phase consists of two weeks of research and one ecosystem design sprint week. In this phase it is recommended that the research team calculates the market potential and tests the idea with potential customers. It is very important to have concrete proof of why this opportunity is interesting for the partners. During the ecosystem design sprint, the team should involve external experts. These people can provide skills and insights needed for specific elements of the sprint. The type of experts depends on the type of opportunity and the industries that are involved. That way the design sprint will not only be a co-creation with partners but also an 'expert co-creation'.

#### *Phase 3 Recommendations*

Phase three is about building a Proof of Concept. The team lead should involve technical people already during the second day of the ecosystem design sprint. During that day the requirements for the technical design are formulated. It is also recommended that the PoC period

will be as short as possible. For that, the team lead should be the person between the technical team and the ecosystem partners so that they will not interfere with their work. To keep the partners involved and satisfied, the team lead should keep them up-to-date.

#### *Phase 4 Recommendations*

In phase four it is recommended that the team lead consults with a previous team lead that has experience. That way not only the orchestration playbook but also real experience can help the team lead successfully orchestrate. Another recommendation is to use a collaboration platform to track progress and deadlines and to share information. This platform can be an existing platform or a new platform especially designed for ecosystem collaboration.

## 7.6 SUMMARY & CONCLUSION

This chapter presents the service Maestra.

Maestra is a service that includes several activities.

The first activity is spotting opportunities for cross-sector ecosystems. Accenture does this by combining its sector knowledge and spotting patterns that might benefit multiple sectors.

The second key activity is co-creating the concept with potential ecosystem partners. Accenture acts as a facilitator and makes sure the partners want to commit to the development of the concept.

The third key activity is orchestrating the ecosystem itself. This is done after a first Proof of Concept. The partners are recruited, the initial consortium governance is discussed, the product is build and a seperate company is created.

The combination of these activities creates a unique offering for ecosystem clients.

### Value proposition summary

#### Spotting - Co-creating - Orchestrating

For our clients who are looking for radical ways to reinvent themselves, Maestra offers *cross-sector concepts* by combining sector knowledge, technical expertise and design skills.

These concepts are further developed together with multiple clients in an *ecosystem* where Maestra *orchestrates & facilitates* the ecosystem process towards market launch

Maestra creates cross-sector ecosystems that stimulate *societal and environment impact*

### Positioning summary

Maestra differentiates by her ecosystem mindset, her concept development and her cross-sector focus to impactfully compete together.

### Purpose summary

Maestra believes '*you disrupt through impactful collaboration*'

Besides a detailed description and positioning, this chapter describes the services process, a roadmap and a business plan. At the end of this chapter, the design is discussed and justified.



# CHAPTER 8

## Discussion and reflection

This chapter discusses and reflects on the process and the final outcome. First, the connection between the two diamonds is discussed. Secondly, the connection between the final design and the initial assignment is argued. The final part of this chapter is a personal reflection on the thesis.

## 8.1 OVERALL DISCUSSION

In 7.5 and 4.4, the discussion about the separate diamonds is provided. This section connects these two and goes

back to the initial assignment of this thesis.

### 8.1.1 CONNECTION BETWEEN RESEARCH AND DESIGN DIAMOND

The research diamond provided five drivers, five barriers and the desired steps within the consortium adoption process. The Maestra service provides resolution for all the barriers, includes most drivers and covers the desired steps in the consortium orchestration process (phase 4, see 7.2.4).

#### Drivers

The following drivers are identified: the organisational preparation, a clear plan, strategy and timeline, testing the concept via PoC's, independency of the separate entity, and a small scope. Maestra, the designed service, includes most of the drivers in her approach. The following alinea will describe whether and/or how each driver is included in the Maestra service.

First of all, the organisational preparation is not in the scope of the service, as this needs to happen before the start of this service and is more a condition rather than something that smoothens the process. Furthermore, as Maestra

takes over the orchestrating role, it is believed that internal preparation of the participating companies is less needed.

The second driver, '*a clear plan, strategy and timeline*', is included in the Ecosystem Design Sprint (7.2.2), where an explicit focus is on these elements. Furthermore, the first steps in phase four will focus on finalising the plan for the consortium.

The third driver, '*testing the concept via PoC's*', is clearly covered in the service, as it dedicates a whole phase (3) to this activity.

The fourth driver that is not explicitly included in the service. This driver is out of scope, as it concerns the phase after the consortium adoption (phase 4).

The fifth driver is included in the way opportunity areas are evaluated (see 7.2.1). Three of the ten evaluation points concern the feasibility of the concept.

## Barriers

The barriers that are identified included: complexity of collaboration, the lack of a neutral party, a slow process, missing expertise, lack of cross-sector ideation.

The complexity of collaboration is reduced as Accenture is a neutral party operating in the middle of all the participating companies. Accenture makes sure that the companies are aligned and that the tasks are executed in the right way. This element of the service resolves the first two barriers. Furthermore, as Accenture makes sure the collaboration is effortless, the process can keep its speed, which resolves the third barrier. The fourth barrier that concerned the missing

technical, industry and ideation expertise, is resolved by Accenture's consulting DNA. Accenture has a technical department which can offer the technical expertise, a creative department that offers the ideation expertise and Accenture is active in all industries which provides the necessary industry knowledge. The fifth barrier, is resolved by focusing on cross-sector concepts and by bridging the knowledge from all industries via the internal platform.

To conclude, Maestra fills the service gap that is described in chapter 5 and takes into account the drivers that will smoothen the consortium adoption process.

*'Yes, this is exactly what we need for the ecosystem focus area of our insurance 2020 strategy. It is a concrete sales block'.*

- Senior manager financial services

Secondly, the process of Maestra has already been used during a client project. It is included in the project proposal that is sent to a client. This argues the clarity of the process and the need of clients for such a service.

## 8.1.2 CONNECTION DESIGN TO INITIAL ASSIGNMENT

The first part of the assignment was to fill the knowledge gap that is present in literature and practise. This is done via a multiple case study with four financial services clients. The knowledge gap is filled by the strategic framework (see 4.3) consisting of the managerial guidelines (drivers and barriers) and the desired steps in the consortium adoption process.

The second part of the assignment was to bridge the service gap (e.g. overcome the identified barriers). This is done by designing Maestra: a cross-sector ecosystem orchestration service. Furthermore, an implementation plan is formulated to smoothen the adoption within Accenture.

## 8.1.3 IMPACT OF THE SERVICE

Maestra has already proved its value in two ways. First of all, higher management of Accenture Financial Services, enthusiastically reacted to the concept and they are motivated to further develop it within Accenture. This is done

first of all, through the insurance Benelux 2020 Strategy. Within this strategy one of the focus areas is 'ecosystems & platformification', an adapted version of Maestra will be used as a proposal for a proposition in this focus area.

## 8.2 PERSONAL REFLECTION

### Process

When reflecting on the process, a few aspects need to be discussed. When I started this project, I was very enthusiastic just like my supervisory team. However, after a few weeks, I noticed that there was a misunderstanding in what I was going to research. I thought I was going to research how blockchain could improve the adoption process of a consortium. However, my company mentors thought I would research the adoption process of a consortium that implements a blockchain solution. Here, I learned that it is key that the owner of the research thoroughly understands the topic and makes sure that it is communicated well and understood right.

The second element that I struggled with was that the idea of a ‘ecosystem hub’, came into existence early on in the process. As a designer I learned it is necessary to keep an open mind and to create as many ideas as possible before deciding on one. During this thesis, I needed to change this mindset and accept the fact that the idea that came up early on in the process, greatly influenced the way I thought and ideated on the final concept. However, I do not think, the final concept is less valuable because of the used approach. It allowed me to iterate on the idea multiple times.

Another situation that I encountered during the final part of this thesis, was the balance between involving people to improve the concept and finalising your design. I wanted to involve and talk to as many experts as I could. However, every time I got a lot of new insights that changed the design. Because of that reason, I could not finish the design as I was constantly adapting it to what the experts were saying. At one moment, I decided to work out the whole design before talking to more experts. That helped me to finish the design.

### Learning objectives

At the beginning of this project, I formulated four learning objectives:

1. Proactively steer and lead the project,
2. Good stakeholder management to manage the expectations right,
3. Improve my research skills
4. Improve my visualization skills.

During the process I learned to make decisions quickly based on valid reasons. This helped me to proactively steer the project. Furthermore, there were no stakeholder conflicts and the expectations were met. Moreover, I conducted a multiple case study the way it should be done, this learned me to be strict and push myself for the right level of accuracy that is needed for academic

research. Lastly, the visualizations in my thesis presentation helped me to explain the abstraction that is present in the concept, so even though I am still no good graphic designer, I believe I possess the visualization skills needed to convey ideas in the right way.

To conclude, this project gave me the opportunity to really show what I am capable of. I really enjoyed the process and the work I can do as a strategic designer.





# REFERENCES

**A** Aarikka-Stenroos, L., & Ritala, P. (2017). Network management in the era of ecosystems: Systematic review and management framework. *Industrial Marketing Management*, 67, 23-36.

Aarikka-Stenroos, L., Jaakkola, E., Harrison, D., & Mäkitalo-Keinonen, T. (2017). How to manage innovation processes in extensive networks: A longitudinal study. *Industrial Marketing Management*, 67, 88-105.

Accenture. (2016). UN Global Compact | 2016 CEO Study | Accenture. Retrieved 5 December 2019, from <https://www.accenture.com/mu-en/insight-un-global-compact-ceo-study>

Accenture. (2019a). The Post-Digital Era is Upon Us ARE YOU READY FOR WHAT'S NEXT? | Accenture technology vision. Retrieved from [https://www.accenture.com/\\_acnmedia/PDF-108/Accenture-Communications-Technology-Vision-2019-Full-Report.pdf#zoom=50](https://www.accenture.com/_acnmedia/PDF-108/Accenture-Communications-Technology-Vision-2019-Full-Report.pdf#zoom=50)

Accenture. (2019b, September 26). Business Contribution to the 2030 Agenda for Sustainable Development Not on Track, United Nations Global Compa. Retrieved 26 November 2019, from <https://newsroom.accenture.com/news/business-contribution-to-the-2030-agenda-for-sustainable-development-not-on-track-united-nations-global-compact-and-accenture-study-finds.html>

Adner, R. (2006). Match your innovation strategy to your innovation ecosystem. *Harvard business review*, 84(4), 98.

Adner, R., & Kapoor, R. (2010). Value creation in innovation ecosystems: How the structure of technological interdependence affects firm performance in new technology generations. *Strategic management journal*, 31(3), 306-333.

Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and societal transformation: An exploratory study. *The journal of applied behavioral science*, 40(3), 260-282.

**B** Babiak, K., & Thibault, L. (2009). Challenges in multiple cross-sector partnerships. *Nonprofit and voluntary sector quarterly*, 38(1), 117-143.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.

Betlem, R. (2019, June 28). 'Bestaande banken zullen verdwijnen, daar moet je niet te krampachtig over doen'. *Financieel Dagblad*. Retrieved from <https://fd.nl/futures/1304794/bestaande-banken-zullen-verdwijnen-daar-moet-je-niet-te-krampachtig-over-doen>

Blazevic, V., Reypens, C., & Lievens, A. (2019). Hybrid Orchestration in Multi-stakeholder Innovation Networks: Practices of mobilizing multiple, diverse stakeholders across organizational boundaries. *Organization studies/European Group for Organizational Studies*.-Berlin.

Carayannis, E. G., & Campbell, D. F. (2009). 'Mode 3'and'Quadruple Helix': toward a 21st century fractal innovation ecosystem. *International journal of technology management*, 46(3-4), 201-234.

Chesbrough, H. (2006). Open innovation: a new paradigm for understanding industrial innovation. *Open innovation: Researching a new paradigm*, 400, 0-19.

Council, D. (2005). The 'double diamond' design process model. *Design Council*.

Crosby, B. C., & Bryson, J. M. (2010). Integrative leadership and the creation and maintenance of cross-sector collaborations. *The Leadership Quarterly*, 21(2), 211-230.

Das, P., Verburg, R., Verbraeck, A., & Bonebakker, L. (2018). Barriers to innovation within large financial services firms: An in-depth study into disruptive and radical innovation projects at a bank. *European Journal of Innovation Management*, 21(1), 96-112

Davis, J. P., & Eisenhardt, K. M. (2011). Rotating leadership and collaborative innovation: Recombination processes in symbiotic relationships. *Administrative Science Quarterly*, 56(2), 159-201.

de Vasconcelos Gomes, L. A., Facin, A. L. F., Salerno, M. S., & Ikenami, R. K. (2018). Unpacking the innovation ecosystem construct: Evolution, gaps and trends. *Technological Forecasting and Social Change*, 136, 30-48.

Deloitte Consulting GmbH. (2017). Beyond the Noise | The Megatrends of Tomorrow's World. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/public-sector/deloitte-nl-ps-megatrends-2ndedition.pdf>

Dhanaraj, C., & Parkhe, A. (2006). Orchestrating innovation networks. *Academy of management review*, 31(3), 659-669.

Dodgson, M., Gann, D. M., & Phillips, N. (Eds.). (2013). *The Oxford handbook of innovation management*. OUP Oxford.

Driessen, P. H., & Hillebrand, B. (2013). Integrating multiple stakeholder issues in new product development: an exploration. *Journal of Product Innovation Management*, 30(2), 364-379.

Dusza, I., Gawlik, K., Magrel, E., Piotrowska, J., Smoliński, J., & Turniak, R. (2018). *Blockchain Essentials | Accenture Capability Network*. Retrieved from <https://kxdocuments.accenture.com/contribution/9362a5fd-3ed3-4545-a84f-6e30a0751c15>

Ecosystem. (2019) Cambridge dictionary. retrieved 27 August 2019, from <https://dictionary.cambridge.org/dictionary/english/ecosystem>

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of management review*, 14(1), 57-74.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32.

EY. (2017). How can you be both the disrupter and the disrupted? Retrieved from <http://cdn.instantmagazine.com/upload/12417/ey-how-can-you-be-both-the-disruptor-and-the-disrupted.e8141c8c4346.pdf>

Frisby, W., Reid, C., & Ponc, P. (2007). Leveling the playing field: Promoting the health of poor women through a community development approach to recreation. *Sport and gender in Canada*, 121-136.

Gartner. (2018, August 16). 5 Trends Emerge in the Gartner Hype Cycle for Emerging Technologies, 2018 - Smarter With Gartner. Retrieved 22 November 2019, from <https://www.gartner.com/smarterwithgartner/5-trends-emerge-in-gartner-hype-cycle-for-emerging-technologies-2018/>

Gartner. (2019, August). Gartner Identifies Five Emerging Technology Trends With Transformation. Retrieved 22 November 2019, from <https://www.gartner.com/en/newsroom/press-releases/2019-29-08-gartner-identifies-five-emerging-technology-trends-with-transformational-impact>

Gartner. (n.d.). Blockchain definition. Retrieved 1 December 2019, from <https://www.gartner.com/en/information-technology/glossary/blockchain>

Gawer, A., & Cusumano, M. A. (2008). Platform Leaders. *MIT Sloan management review*, 68-75.

Gawer, A., & Cusumano, M. A. (2014). Industry platforms and ecosystem innovation. *Journal of product innovation management*, 31(3), 417-433.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15-31.

Golnam, A., Ritala, P., & Wegmann, A. (2014). Coopetition within and between value networks—a typology and a modelling framework. *International Journal of Business Environment*, 6(ARTICLE), 47-68.

Gray, B. (1989). Collaborating: Finding common ground for multiparty problems.

Huxham, C., & Vangen, S. (2000). Leadership in the shaping and implementation of collaboration agendas: How things happen in a (not quite) joined-up world. *Academy of Management journal*, 43(6), 1159-1175.

Iansiti, M., & Levien, R. (2004). *The keystone advantage: what the new dynamics of business ecosystems mean for strategy, innovation, and sustainability*. Harvard Business Press.

Imagimob. (2018). What is Edge AI? - Imagimob. Retrieved 22 November 2019, from <https://www.imagimob.com/blog/what-is-edge-ai>

Innovation. (2019). Cambridge Dictionary. Retrieved 26 August 2019, from <https://dictionary.cambridge.org/dictionary/english/innovation>

Jackson, B.D.J., 2011. What is an innovation ecosystem?, Washington DC. Retrieved from: [http://erc-assoc.org/sites/default/files/topics/policy\\_studies/DJackson\\_Innovation\\_Ecosystem\\_03-15-11.pdf](http://erc-assoc.org/sites/default/files/topics/policy_studies/DJackson_Innovation_Ecosystem_03-15-11.pdf).

Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic Management Journal*, 39(8), 2255-2276.

Jankelovics, O., Truong, C., Junqueira, A., & Kuchinskas, D. (2018, October 8). 3 Things Ecosystem Masters Get Right | Accenture Strategy. Retrieved 12 July 2019, from <https://www.accenture.com/us-en/insights/strategy/three-things-ecosystem-masters-get-right>

Kazadi, K., Lievens, A., & Mahr, D. (2016). Stakeholder co-creation during the innovation process: Identifying capabilities for knowledge creation among multiple stakeholders. *Journal of Business Research*, 69(2), 525-540.

Kelly, E. (2015). Introduction: Business ecosystems come of age. *Business Ecosystems Come of Age*. IFIP, 243, 399-406.

Knapp, J., Zeratsky, J., & Kowitz, B. (2016). *Sprint: How to solve big problems and test new ideas in just five days*. Simon and Schuster.

Langager, C. (2019, April 12). Industry vs. Sector: What's the Difference? Retrieved 7 November 2019, from <https://www.investopedia.com/ask/answers/05/industrysector.asp>

Lappi, T. (2017). Formation and Governance of healthy business ecosystems. *UNIVERSITATIS OULUENSIS*. <https://doi.org/http://jultika.oulu.fi/files/isbn9789526216904.pdf>

Letaifa, S. Ben, Gratacap, A., & Isckia, T. (2018). *Understanding Business Ecosystems* (1st Editio). De Boeck.

Luoma-aho, V., & Halonen, S. (2010). Intangibles and innovation: the role of communication in the innovation ecosystem. *Innovation journalism*, 7(2), 1-20.

McKinsey. (2018, January). Insurance beyond digital: The rise of ecosystems and platforms. Retrieved 25 November 2019, from <https://www.mckinsey.com/industries/financial-services/our-insights/insurance-beyond-digital-the-rise-of-ecosystems-and-platforms>

McWaters, R. J., Bruno, G., Lee, A., & Blake, M. (2015). The Future of Financial Services-How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed. In *World Economic Forum* (pp. 1-178).

Miles, M. B., Huberman, A. M., Huberman, M. A., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.

Moore, J. F. (1993). *Predators and Prey: A New Ecology of Competition*. Retrieved 30 August 2019, from <https://hbr.org/1993/05/predators-and-prey-a-new-ecology-of-competition>

Moore, J. F. (1996). The death of competition: leadership and strategy in the age of business ecosystems (p. 297). New York: HarperBusiness.

Nambisan, S., & Baron, R. A. (2013). Entrepreneurship in innovation ecosystems: Entrepreneurs' self-regulatory processes and their implications for new venture success. *Entrepreneurship theory and practice*, 37(5), 1071-1097.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, 1(3), 261-283.

R  
Reypens, C., Lievens, A., & Blazevic, V. (2019). Hybrid Orchestration in Multi-stakeholder Innovation Networks: Practices of mobilizing multiple, diverse stakeholders across organizational boundaries. *Organization Studies*, 0170840619868268.

Ring, P. S., Doz, Y. L., & Olk, P. M. (2005). Managing formation processes in R&D consortia. *California Management Review*, 47(4), 137-156.

Ringel, M. (2017, December 4). External innovation basics from an R&D expert [TED Talk]. Retrieved 28 August 2019, from [https://www.ted.com/talks/michael\\_ringel\\_external\\_innovation\\_basics\\_from\\_an\\_r\\_d\\_expert](https://www.ted.com/talks/michael_ringel_external_innovation_basics_from_an_r_d_expert)

Ritala, P., & Hurmelinna Laukkanen, P. (2013a). Incremental and radical innovation in coopetition—The role of absorptive capacity and appropriability. *Journal of Product Innovation Management*, 30(1), 154-169.

Ritala, P., Agouridas, V., Assimakopoulos, D., & Gies, O. (2013b). Value creation and capture mechanisms in innovation ecosystems: a comparative case study. *International Journal of Technology Management*, 63(3-4), 244-267.

Rizova, P. S. (2006). Are you networked for successful innovation?. *MIT Sloan Management Review*, 47(3), 49-55.

Roloff, J. (2008). Learning from multi-stakeholder networks: Issue-focussed stakeholder management. *Journal of business ethics*, 82(1), 233-250.

Rong, K., Hu, G., Lin, Y., Shi, Y., & Guo, L. (2015). Understanding business ecosystem using a 6C framework in Internet-of-Things-based sectors. *International Journal of Production Economics*, 159, 41-55.

S  
Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students* (6 ed.). Pearson.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of qualitative research*, 17, 273-285.

Swan, J. & Scarborough, H. (2005). The politics of networked innovation, *Human Relations*, Vol. 58(7), pp. 913–943.

T  
Tapscott, D., & Tapscott, A. (2017). How blockchain will change organizations. *MIT Sloan Management Review*, 58(2), 10.

Teegen, H., Doh, J. P., & Vachani, S. (2004). The importance of nongovernmental organizations (NGOs) in global governance and value creation: An international business research agenda. *Journal of international business studies*, 35(6), 463-483.

V  
Vatier, C. (2013, February). Cross-industry ecosystems: Growth outside the box | Accenture Outlook. Retrieved 7 November 2019, from <https://www.accenture.com/us-en/insight-outlook-cross-industry-ecosystems-growth-outside-the-box>

Y  
Yin, R. K. (1994). Discovering the future of the case study. *Method in evaluation research. Evaluation practice*, 15(3), 283-290.