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CATALYZING COLLABORATION FOR THE FUTURE OF FOOD

A service proposition to accelerate sustainable innovation in the food value chain

MASTER THESIS
STRATEGIC PRODUCT DESIGN

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CATALYZING COLLABORATION FOR THE FUTURE OF FOOD

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PREFACE

Dear reader,

The moment is finally here to finalise my time as a student. Therefore, I present to you the last part that is necessary for completing the master of Strategic Product Design at the Delft University of Technology. The fact that I always wanted to study Industrial Design since I was 14 years old makes this moment bittersweet after exact 10 years.

This thesis is made possible through the opportunity given by the Innovation Department of Accenture. First and foremost, I would like to express my gratitude towards Jolenthe Janssen, who was my company mentor during this project. You stood beside me every step of the way, from brainstorming for a possible assignment to proofreading all of my written text, ensuring me that I was not doing it alone. You made me feel welcome by showing me around the company, often checking if I was mentally okay, and guided me with your honest and critical view to really push me to the desired result. I could not have imagined a better mentor for this graduation project.

Next, I would like to thank every person of the Food of the Future capability for including me in your team. You all created time to be involved during the interviews, co-creation sessions, and individual meetings to help me throughout the project. A special thanks go to Anne Laurentie and Michiel Does, who always provided valuable industry insights to create a complete picture of the project's context.

Moreover, I want to acknowledge all people outside of Accenture who agreed to conduct an interview or helped me in the design process. From farmers to retailers to food experts, your insights have allowed me to lift my project to the next level and made sure that I never look back at food in the same way before the project.

From within the faculty, I would like to thank my supervisory team Sylvia Mooij and Bart Bluemink from the TU Delft. Sylvia, I appreciate how you made sure I did not put too much pressure on myself, reassured me I was doing okay and kept things in perspective by giving critical and valuable feedback. Bart, I really enjoyed our weekly talks. I always left the meeting fully relaxed. I am grateful for how you thought along with me throughout the process, sending me relevant and interesting articles to read. Even though the topic of food is new for you both, I appreciate the enthusiasm during the project.

At the end of this preface, I would like to express my gratitude towards the people closest to me who often checked in to see how I was doing. Aliex, thank you for calling me every day to brainstorm and work on our graduation projects together. Margot, thank you for your ongoing interest in how I was doing and for forcing me to still have fun outside of studying. Jerome, thank you for all of your advice in life in general and for being my support line if I could not figure something out in the project. Lastly, I would like to thank my family, who sacrificed a lot to put me in my position today. Thanks, everyone; you all helped me during this project, making me very grateful for the wonderful people I surrounded myself with.

Enjoy reading!

YNHI NGUYEN

21.02.2022

EXECUTIVE SUMMARY

As the world's population is constantly growing, there is increased pressure on agricultural food value chains to deliver sustainable food production, distribution, and consumption, forcing core stakeholders in the food value chain (FVC) to change to meet those needs. One of the most significant barriers is a lack of collaboration, which risks staying in a dynamic of incremental innovation, whereas increasing sustainability requires radical innovations and innovative design.

A positive chain interdependence can be the key to accelerating sustainable innovation. However, due to the complexity of chain configurations and collaboration models, a lack of interdependence among FVC stakeholders is observed. A holistic chain approach is missing in academic literature to solve that. Furthermore, there is ignorance of stakeholder motives and roles to collaborate. Hence, the first part of this thesis is to solve this literature gap by researching the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation. The research results in several outcomes, whereas the lack of trust, leadership and a conservative mindset are the most significant barriers.

This project is conducted in close collaboration with Accenture, which wants to position itself in the agri-food industry as a stronger partner, accelerator, and orchestrator for sustainable transitions and innovation ecosystems. Therefore, the overall research question is: **How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain?**

The found barriers are amended into needs where Accenture can play upon to bridge the gap from the research into a potential service the company can offer to the FVC. The final concept is designed for Accenture's Food of the Future (FotF) capability, which has overlapping ambitions and interests as this thesis aims.

The challenge lies in the explore phase, where core stakeholders find it difficult to anticipate their role, incentive, and vision before collaborating with others. Hence, the final deliverable is a service proposition for Accenture that helps the company to get insights into the core stakeholders values and needs to guide them towards a future-oriented mindset.

The designed proposition consists of several elements and is based on the existing participatory backcasting framework and the FutureEquity method of Van Berlo. A blueprint shows three phases: explore, envision, and engage, focusing on the interplay between Accenture and the targeted stakeholder. A redesigned toolkit guides the consultants in creating new content and future scenarios that catalyses the thought process of the stakeholder by exposing the possibilities and dead ends of sustainable innovation on the supported platform. The core stakeholder gets the chance to react, whereas Accenture uses that data to create engagement and traction for a potential innovation ecosystem.

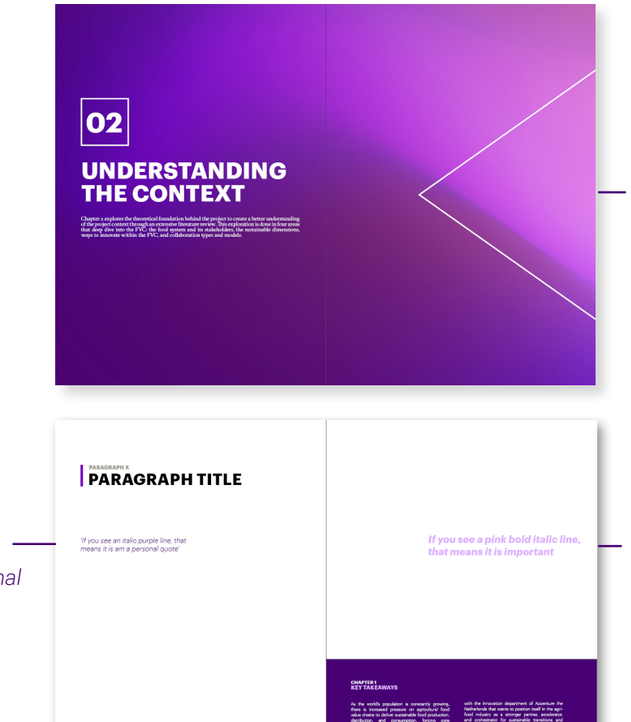
Lastly, a roadmap presents the required steps to implement the service successfully into the company. The steps consist of laying down a proper foundation, then launching it for current clients (B2B), whereafter the service becomes a separate entity that reaches core stakeholders (B2B2C).

Combining all elements creates a unique proposition for Accenture to catalyse existing and potential FVC clients in the agri-food industry to accelerate sustainable innovation.

ABBREVIATIONS

ACN = Accenture
FOTF = Food of the Future
FVC = Food Value Chain
SDG = Sustainable Development Goal
SPD = Strategic Product Design
TBL = Tripple bottom line

READING GUIDE



Every chapter starts with a gradient. The triangle represents a part of the double diamond. It shows if the chapter is converging or diverging information.

'If a sentence is purple and italic, then it is a personal quote'

'If a sentence is pink and bold, then it is important'

Every chapter ends with the key takeaways that summarises and concludes the information.

Figure 1: Reading guide example

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01

INTRODUCING THE PROJECT

Chapter 1 outlines and introduces the context of this project. First, it explains the setup of the project and the relevancy of the research topic. Subsequently, it elaborates on the approaches and methods used during specific phases to answer the initial research question.

PARAGRAPH 1.1

INTRODUCTION

PROJECT CONTEXT

As the world's population is constantly growing, there is increased pressure on agricultural value chains to deliver sustainable food production, distribution and consumption that cultivate human wellbeing while preserving scarce natural resources (Gómez et al., 2020). Even though the EU's transition to sustainable food systems has started in many areas, food systems remain one of the key drivers of climate change and environmental degradation (Europäische Kommission, 2020).

Considering the negative impact the industry is making, it forces core stakeholders to change to meet long term sustainable needs. Looking at the organisation of the food value Chain (FVC), innovation remains a complex and challenging process for the agri-food industry, mainly because of the number of actors involved in the food chain, whom each has a perspective about how it should be handled (Triguero & González-Moreno, 2019). Nonetheless, the traditional approach of the food value chain needs a fundamental transformation because of the critical conditions its businesses are currently operating in (Klimczuk-kochańska, 2018).

In addition, the COVID-19 pandemic has disrupted processes across all segments of the FVC. For example, the consumer demand for food has increased, which has enormous effects on the infrastructure and workforce of the FVC (Aday & Aday, 2020). Such dynamic developments create opportunities for growth and innovation within the industry and have accelerated the processes necessary for the industry to innovate (EIT Food, 2020). That is why stakeholders across the FVC have to prepare for structurally more considerable changes that will impact their industry and work (Aday & Aday, 2020).

COLLABORATION IS A CHALLENGE

Many barriers work against actual sustainable transformation in the FVC. One of the most significant barriers is a lack of collaboration (Gellynck & Kühne, 2008). Consequently, when the agri-food industry builds a new value chain, it is difficult for stakeholders to coordinate their activities. This lack of coordination is a frequent reason for the failure of innovation and transitions (Meynard et al., 2017).

Moving everyone in the same direction according to an agenda of concerted and coherent efforts, such as the UN SDGs, requires dialogue and collaboration (Gellynck & Kühne, 2008). Yet, in the agri-food industry, collaboration cannot be taken for granted because the FVC includes a complex network of players, which results in diverging interests and perspectives. These differences can be barriers to unifying agendas and finding collaborative solutions to some of the food system's biggest challenges (EIT Food, 2020).

The barriers result in the risk of staying in a dynamic of incremental innovation, whereas increasing the sustainability of the agri-food systems requires radical innovations and innovative design (Triguero & González-Moreno, 2019).

PARAGRAPH 1.2

PROJECT ASSIGNMENT

COMPANY RELEVANCY

Accenture wants to position itself in the agri-food industry as a stronger partner, accelerator, and orchestrator for sustainable transitions and innovation ecosystems. Chapter 5 provides an analysis of the company's current services and approaches in terms of sustainable transformations. The agri-food industry is not precisely new for Accenture since it works for large corporations in the FVC. However, it is now looking for to get more industry engagement with smaller parties in the FVC, and to let them all connect.

The nature of the challenges in the agri-food industry is that the most needed solutions are those who look at the food system as a whole (Gellynck & Kühne, 2008). EIT Food (2020) stated the importance of this focus because these solutions will reshape the complex network linking together all the players involved in food production, distribution and consumption, following a logic that goes beyond the traditional linear value chain model.

RESEARCH ASSIGNMENT

As a result of the earlier mentioned pressure on the agri-food industry and the need to innovate disruptively through collaboration, this thesis will first focus on the drivers and barriers of stakeholders collaboration in the FVC. The second part will translate the research insights into a proposition that Accenture can offer to their current and future clients to coordinate an effective collaboration.

Therefore the overall research question is formulated:

How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain within the agri-food industry?

A sub-question is formulated that will be explored in the research diamond to solve the overall research question:

What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation?

PARAGRAPH 1.3

PROJECT APPROACH

DOUBLE DIAMOND
This project will use the double diamond approach of the British Design Council (2005) to structure the design process. The two diamonds represent a process of exploring an issue more widely or deeply (divergent thinking) and then taking focused action (convergent thinking). In this thesis, the double diamond also represents the journey from the initial research assignment to the final concept of this project and, consequently, the guideline for the report structure. It is important to notify that the process is not linear in any way, creating encouragement to constantly iterate and shift between phases to deeply understand the problem and make the right solution (Elmansy, 2021). The double diamond consists of a research diamond and a design diamond divided into four stages, as seen in figure 2. The goal of the research diamond is to uncover the right problem to solve. The purpose of the design diamond is to solve the problem right.

DISCOVER
The first phase is about discovering the context of the project to answer the earlier mentioned sub-question by conducting exploratory research. First, an extensive literature review explains the FVC in general, the characteristics of a sustainable FVC, innovation in the agri-food industry, and collaborative governance. Subsequently, primary research is conducted by executing informal preliminary interviews with employees of Accenture and in-depth qualitative interviews with core FVC stakeholders, experts, and academia.

DEFINE
The second phase is about analysing and defining the insights of the primary and secondary research into drivers, barriers, and roles of stakeholders in the FVC to collaborate for sustainable transformation, using the grounded theory method, in a concluding and visual manner. These insights will form several focus and opportunity areas for the design diamond.

DEVELOP
The third phase is about the development of the concept. First, based on the insights from the research diamond, a design focus is determined. With an analysis of Accenture's needs and current services, formulates a design brief with criteria to guide the idea generation. The help of co-creation workshops and a research-through-design method led to designing several potential concepts. One concept was chosen and further iterated, prototyped, and tested through various validation meetings.

DELIVER
In the last phase, it delivers the final service proposition. The deliverables of this service presents a blueprint, a platform prototype, a toolkit and an implementation strategy. The project is concluded by evaluating the design and stating the last recommendations.

Figure 2: Project approach according to the Double diamond approach (British Council, 2005)

CHAPTER 1
KEY TAKEAWAYS

As the world's population is constantly growing, there is increased pressure on agricultural food value chains to deliver sustainable food production, distribution, and consumption, forcing core stakeholders to change to meet those needs (Gómez et al., 2020). One of the most significant barriers is a lack of collaboration (Gellynck & Kühne, 2008), which risks staying in a dynamic of incremental innovation whereas, increasing sustainability requires radical innovations and innovative design (Triguero & González-Moreno, 2019).

This project is conducted in close collaboration with the Innovation department of Accenture, which wants to position itself in the agri-food industry as a stronger partner, accelerator, and orchestrator for sustainable transitions and innovation ecosystems. Therefore, the following research question is formulated:

How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain?

The thesis follows a double diamond approach that consists of four phases: discover, define, develop, and deliver.

02

UNDERSTANDING THE CONTEXT

Chapter 2 explores the theoretical foundation behind the project to create a better understanding of the projects' context through an extensive literature review. This exploration is done in four areas that deep dive into the FVC: the food system and its stakeholders, the sustainable dimensions, ways to innovate within the FVC, and collaboration types and models.

PARAGRAPH 2.1

THE FOOD VALUE CHAIN

DEFINITION OF THE FOOD VALUE CHAIN

The food value chain (FVC) can be described as *the network of stakeholders involved in growing, processing, and selling the food that consumers eat* (Deloitte, 2013). Figure 3 shows the involved stakeholders of the FVC. They all participate in the joint production and activities that add value to food products throughout the food system (McMillan, 2012). All the different food chains are considered part of the overall food system. Polly Ericksen (2008) stated the food system as: *'the food system comprises at least all activities regarding the food production, processing and packaging, distribution, and consumption'*. A disposal stage is added to the end of the chain to make the food system more circular, connecting it with the beginning of the chain.

STAKEHOLDERS IN THE FVC

The involved stakeholders in the FVC consist of two categories: the **core stakeholders** who are directly engaged in the chain processes (figure 3) and the extended stakeholders, which comprise stakeholders who use their influence in different parts of the chain for sustainable transformation without being directly involved. These extended stakeholders belong to companies and institutions in the Netherlands that accelerate sustainable food systems transformation by participating in a sustainable food ecosystem mapped in figure 4.

VALUE CHAIN VS SUPPLY CHAIN

Some existing literature observes confusion about the differences between a food value chain and a food supply chain (Anastasiadis & Poole, 2015). According to Investopedia (2021), a value chain is *'a process in which a company adds value to its raw materials to produce products eventually sold to consumers'* while a supply chain is defined as *'all the steps required to get the product to the customer'*.

Three dynamics work in any FVC compared to a food supply chain (Barham et al., 2014):

- The relationships between value chain actors facilitate food movement from farm to fork, where each step adds value to the following actor.
- These relationships are governed by shared operational and mission values.
- Many external factors influence the success of an FVC, the functional design, and values. E.g. market demand, policy environment, etcetera.

Appendix B elaborates on characterising the differences between the chains for more clarification. The critical differences are that a value chain focuses on business management rather than operational management. Moreover, the objective of a value chain is to gain a competitive advantage, while a supply chain focuses on customer satisfaction. Other aspects are comparable with the traditional food supply chain.

However, the emphasis on **establishing a shared mission and operational values** make a value chain special. These value chain characteristics are critical during collaboration and engagement (Anastasiadis & Poole, 2015). Therefore, this thesis will focus specifically on food value chain dynamics and not a supply chain.

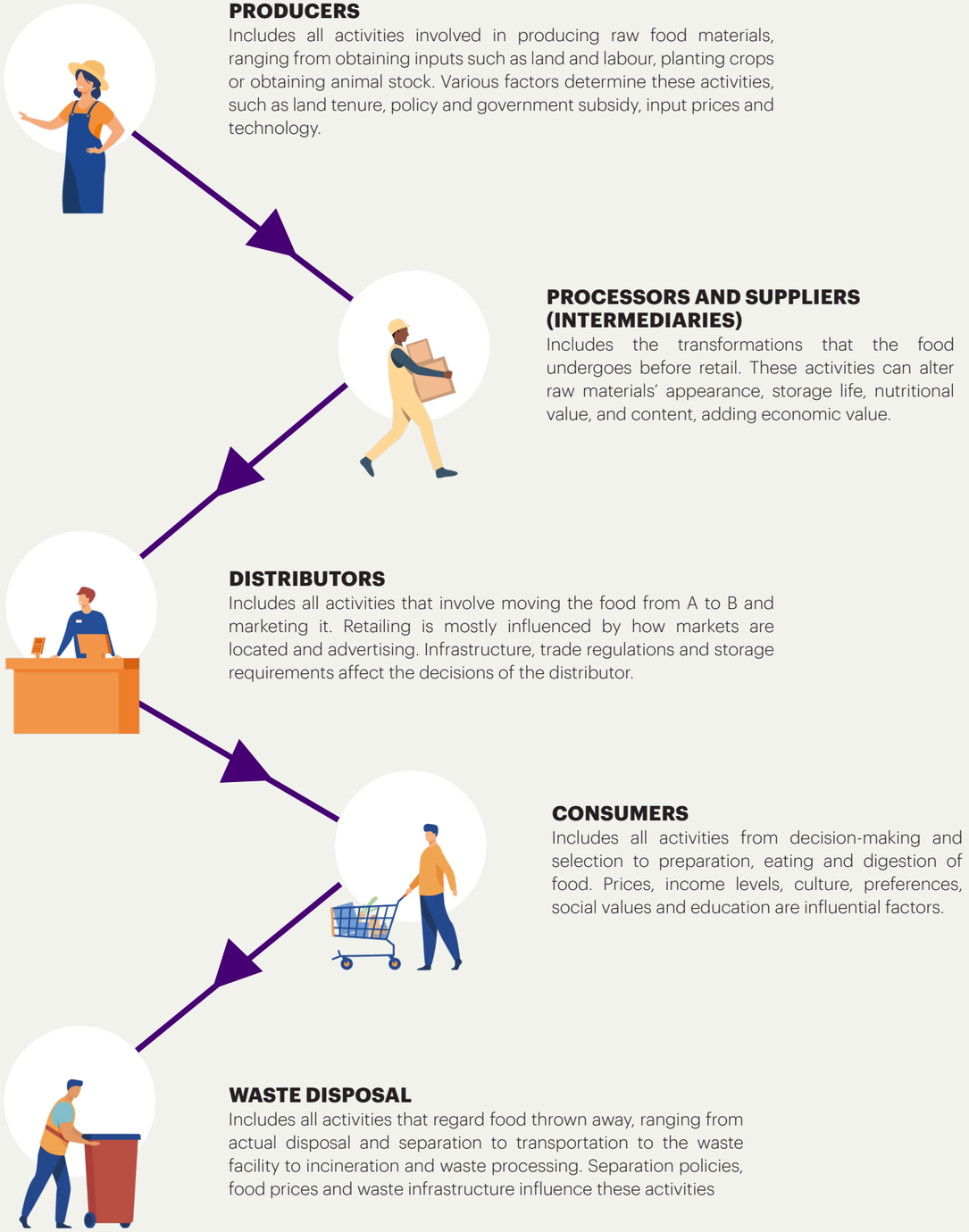


Figure 3: Core stakeholders in the food value chain and their activities

Figure 4: Dutch extended stakeholder ecosystem in the agri-food industry (Fiolhais et al., 2021)

PARAGRAPH 2.2

A SUSTAINABLE FVC

DEFINITION OF A SUSTAINABLE FVC

The FAO (2014) describes a sustainable food value chain (SFVC) as *'The full range of farms and firms and their successive coordinated value-adding activities that produce particular raw agricultural materials. Subsequently, transform them into particular food products that are sold to final consumers and disposed of after use, in a manner that is profitable throughout, has broad-based benefits for society, and does not permanently deplete natural resources'*. This thesis will use this definition throughout the rest of the report.

SUSTAINABILITY DIMENSIONS

An SFVC has to be sustainable in economic, social, and environmental dimensions. These three dimensions are called the triple bottom line (TBL). Within the triple bottom line, optimal competitive advantage can be achieved while supporting social developments and reducing environmental impact (Prima Dania et al., 2016). As with most highly complex systems, advances in one dimension can adversely affect other dimensions, making a balanced ecosystem challenging to achieve (NewForesight, 2017). Figure 5 shows examples of factors that have to be considered and measured per dimension to achieve an SFVC.

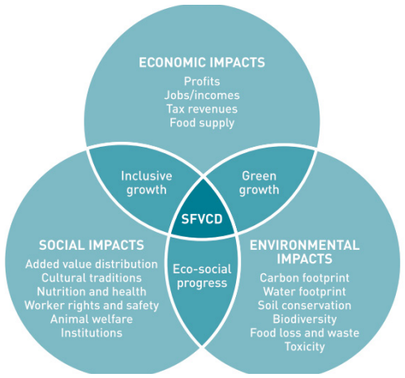


Figure 5: TBL dimensions to achieve a SFVC (adapted from FAO, 2014)

UN SDG'S

The Sustainable Development Goals (SDGs) are seventeen goals to make the world a better place by 2030 and are established based on global input from organisations and individuals. The SDGs are agreed upon by the United Nations (UN) countries, including the Netherlands (Polman, 2016). They are a global compass for challenges such as poverty, education and the climate crisis. Behind the 17 goals are 169 targets which makes them more concrete.

According to the Stockholm Resilience Centre (2016), many scientists are convinced that food connects all SDGs. Figure 6 shows nine SDGs required as a fundamental precondition to the existence of agriculture and food systems that are structurally sustainable. At the same time, the other eight are at least indirectly related. The overarching goal on the other SDGs is number 17: Partnerships for the goals (Polman, 2016). NewForesight (2017) emphasises the importance of collaboration between stakeholders in the food value chain.

Figure 6: Nine SDG's that can be achieved through sustainable food systems (NewForsight, 2017)

PARAGRAPH 2.3

INNOVATION IN THE FVC

DEFINITION OF VALUE CHAIN INNOVATION
Lundvall (1995) describes the definition of innovation in the FVC as: *'An ongoing process of learning, searching and exploring, resulting in new products, new techniques, new forms of organisation and new markets'*. Moreover, Arlbjorn et al. (2011) describe that innovation is an outcome of a collaborative process involving various stakeholders' participation within and outside the value chain. That is why Gao et al., (2017) proposed a more holistic definition of value chain innovation: *'An integrated change from incremental to radical changes in product, process, marketing, technology, resource and organisation, which are associated with all related parties, covering all related functions in supply chain and creating value for all its stakeholders'*. The rest of the thesis will adopt this definition.

TYPES OF INNOVATION
The agri-food industry identifies four types of innovation outputs (Solarte-Montufar et al., 2021):

Product innovation: The introduction of a good or service that is new or significantly improved concerning its characteristics or intended uses. The features can be, for example, improvements in the packaging or a unique taste variant. Most product innovations are incremental in the food industry due to consumers' high aversion to completely new food (Galizzi & Venturini, 2008). In addition, the supply side of the food production chain is no longer the driver for product innovation but rather the demand side of the retailers and consumers who determine which product attributes should change (Van Otterloo, 2000).

Process innovation: Implementing a new or significantly improved production or delivery method. This implementation can, for example, change in equipment or software (OECD, 2005). This type of innovation is closely correlated to the sustainable dimensions mentioned earlier and is mainly influenced by innovation networks (Ciliberti et al., 2016). Process innovation is primarily at the producers level, where the focus lies on improving production techniques (OECD, z.d.).

Organisational innovation: The introduction of new organisational methods for business management in the workplace and the relationship between a company and external agents (OECD, 2005). This type of innovation is less present in the FVC as a stand-alone operation. However, it can be a positive driver for sustainable process and product innovation (Capitanio, 2010). This driver can, for example, set up chain collaborations. Therefore, This type of innovation will be the main central concept in this thesis.

Marketing innovation: Implementing a new marketing method involving significant changes in product design or packaging, product placement, promotion, or pricing. Market orientation is needed that shows the best way for a firm to achieve its objectives to satisfy the consumer more effectively than the competitor. Marketing innovations are considered highly important throughout the value chain (OECD, z.d.).

LACK OF INTERDEPENDENCE
Chapter 1 emphasised the importance of disruptive innovation in the agri-food industry. In addition, Barret et al. (2020) stated that the urgency of innovating and transforming the FVC is irrefutable in all four innovation areas. However, the highly decentralised networks of stakeholders hold back the interdependence among them if they want to induce beneficial innovations. Improving the overall chain interdependence can be the key to enhancing sustainable innovation, according to De Paula et al. (2019).

This thesis focuses on accelerating sustainable innovation in the FVC. That is why more research is needed on the current collaborative relationships and types in the FVC to understand the lack of interdependence.

PARAGRAPH 2.4

COLLABORATION IN THE FVC

DEFINITION OF FVC COLLABORATION
To achieve a sustainable FVC, a strong commitment among the stakeholders is necessary. Stakeholders can accomplish this commitment in the form of collaboration (Prima Dania et al., 2016). Cao & Zhang (2011) described value chain collaboration as *'a joint partnership within the various stages in the value chain and its external environments to optimise their competitive advantage throughout the entire processes'*. To add to that, Vachon and Klassen (2008) referred to sustainable collaboration in the chain as: *'the interaction between organisations in the value chain to share sustainable expertise or knowledge and work together to attain sustainable goals'*. This thesis will use this definition throughout the rest of this thesis.

RELEVANCY / CAPABILITIES
Bouncken (2011) stated that these days, innovation is seen as an outcome of collaborative efforts rather than the outcome of a single entity, therefore, demands a joint effort of stakeholders to work together. So, establishing a collaborative value chain is a necessary condition in support of innovation, which benefits all the stakeholders in the entire value chain (Krishnan et al., 2021). Value chain collaboration is essential to support long term partnerships while spreading the benefits throughout the whole chain system (Prima Dania et al., 2016). Within the partnership, stakeholders can share their assets (e.g. materials, facilities), information and knowledge, and capabilities (e.g. technology, business processes) to reduce uncertainty and share risk and cost. Most importantly, to serve consumers at the right time, in quantity and quality, without overlooking the benefits of other stakeholders (Vachon & Klassen, 2008). In the interest of the project's scope, these aspects of value chain collaboration can also be used to achieve a sustainable goal for one or multiple stakeholders in the FVC.

TYPES OF RELATIONSHIPS
The collaborative relationship in a value chain can be related to a transaction, an event, or a process. Figure 7 shows the characteristics of these types of relationships. The current collaborative relationship in the FVC is generally transactional oriented; nonetheless, to achieve sustainable collaboration, a transition to process collaboration is desired where the focus of the collaboration lies on improving the performance on future events (Cao & Zhang, 2011). Identifying the type of collaborative relationship is the first step to choosing the right sustainable collaboration approach in different FVC stages (Whipple & Russell, 2007).

CHARACTERISTIC	TRANSACTION	EVENT	PROCESS
Organizational level	Operational	Tactical	Strategic
Time horizon	Short term	Medium term	Long term
Level of people interaction	Limited person-to-person interaction	Person-to-person interaction focused on joint decision for the collaboration focus	Person-to-person interaction focused on developing cross-functional processes
Process characteristics	Data exchange and task alignment	Joint planning and decision making for specific events or issues	Fully integrated process
Knowledge level	Explicit	Explicit and some level of tacit	Explicit and high levels of tacit
Return expected from the relationship	Reduced problems and-or errors on tasks	Performance improvements are more impact oriented	Performance improvements to focus on future events

Figure 7: Types of collaborative relationships in the value chain (adapted from Whipple & Russell, 2007)

CONFIGURATIONS IN THE CHAIN

Stakeholder collaboration in the FVC is structured in various configurations. Vachon and Klassen (2008) stated that value chain collaboration could be vertical and internal or horizontal and external. These two types of arrangements should be viewed as a single entity, as shown in figure 8, to achieve a better sustainable system for all stakeholders in the value chain without negatively affecting other stakeholders (Prima Dania et al., 2016). It is essential to understand the relationships, in general, to find out the incentives and possibilities for stakeholder collaboration.

Vertical

Regarding vertical configuration, it is characterised as going upstream or downstream in the chain. This means collaboration and relationships between firms and partners of different stages of the value chain that are part of the same chain network (Omta, 2004). There are various models of vertical collaboration, varied from first-tier collaboration, i.e. only one supplier or customer, to end-to-end collaboration; i.e. all stages are involved, from raw material to consumer (Grimm et al., 2014). Advantages of vertical collaboration can be increased trust and commitment between the stakeholders, which will lead to improved satisfaction and performance (Nyaga et al., 2010).

Horizontal

Regarding horizontal configuration, Prima Dania, et al. (2016) described it as; 'a relationship among stakeholders that play at the same level, including competitors and complimentary, as well as external parties such as government, NGOs, associations, and universities'. Advantages of horizontal collaboration can be efficiency, flexibility and sustainable competitive advantage (Cao & Zhang, 2011). Still, they all have one crucial thing in common: combining resources can overcome the disadvantages of being small. This form of collaboration is mainly found at the beginning of the FVC, where various SMEs are the primary stakeholders compared to single large corporations at the end of the FVC (Meijers, 2018).

Netchain

Next to vertical and horizontal configuration, Lazzarini et al. (2001) combined the configuration of them both into a concept called netchain, where 'a set of networks comprising horizontal ties between firms within a particular industry or group, which are sequentially arranged based on vertical ties between firms in different layers'. Figure 9 shows a visual presentation of this concept.

All configurations show the complexity of collaboration in the FVC, which can be built in various forms and for different reasons. There is no straightforward setup of a suitable configuration that stakeholders can make beforehand. Looking at the configurations, it is logical to consider that stakeholders need to be dependent on each other through these configurations. However, as Barret et al. (2020) already stated, in reality, there is a lack of interdependence of the stakeholders, which holds back the benefits of these configurations and innovation in general.

COLLABORATION MODELS

To emphasise the complexity, several collaboration models in the FVC explain the roles and relationships in the configurations, which can also be a factor in the lack of interdependence (EFMI Business School, 2013). Vertical configurations can mainly find the influence of the different roles and relationships, where core stakeholders base their cooperation on trust and commitment. In contrast, the horizontal configuration is more focused on extended stakeholders, who are indirectly involved, making it less personal (Omta, 2004).

Figure 10 shows three vertical integration models (from limited to extensive) with core stakeholders of the FVC. However, in practice, there are multiple variations on these models because initiatives for collaboration can come from different stakeholders in the chain. The following models serve as examples (EFMI Business School, 2013):

- The 'individual links' model has the most limited integration, whereas the transaction purely drives the collaborative relationship causing stakeholders in the FVC to innovate interdependently.
- The 'integrated collaboration' model includes the chain from the producer to the distributor. Direction can come from either the food retailer or the intermediary. Integration can go as far as the distributor takes control of the intermediary.
- The 'direct collaboration' model removes the intermediary as an essential player, whereas distributors directly contact producers.

The models indicate that besides the configuration of the stakeholders, the roles and relationships in that configuration also affect the collaboration. Considering every stakeholder group has separate responsibilities and needs depending on the model, these complications can drive to no coherency, inhibiting innovative solutions.

OVERALL LITERURE GAP

Although the existing literature discusses the relationship between FVC collaboration, innovation, and sustainability, there are still several gaps to fill in. Krishnan et al. (2021) identified that, especially for the FVC, a holistic chain approach is missing to solve the lack of interdependence between the stakeholders. In addition, prior research has explored the impact of innovation only on a particular dimension of the triple bottom line or on a single stakeholder in the food industry. Chen et al., (2017) conclude that there is lacking evidence around how collaboration in the FVC results in more innovative and sustainable outcomes, primarily because of the ignorance of stakeholder motives and roles.

Essential knowledge is missing concerning those stakeholders' motives and incentives to collaborate. For that reason, chapter 3 sets up a qualitative research approach, which will explore those motives from a holistic point of view by considering all stakeholder groups. The research will distil roles, drivers, and barriers for stakeholder collaboration in the FVC to give more insight into which factors influence the lack of interdependence and how to enhance it.

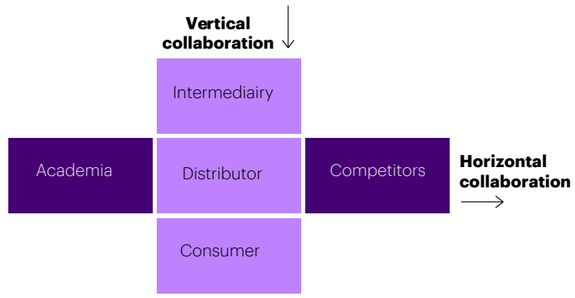


Figure 8: Chain configurations vertical and horizontal

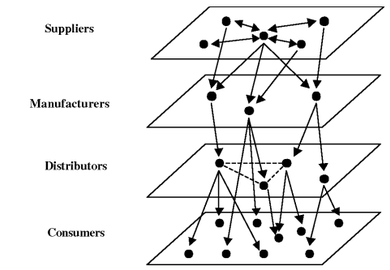


Figure 9: Netchain configuration

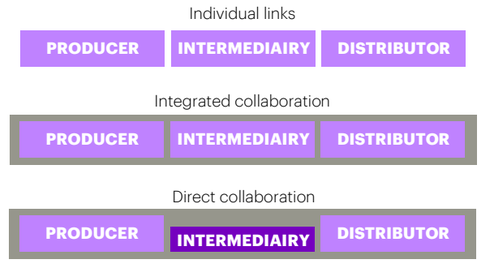


Figure 10: Three types of vertical collaboration models (adopted from EFMI Business School, 2013)

CHAPTER 2
KEY TAKEAWAYS

An extensive literature review discusses several elements that are related to this thesis. First, the food value chain (FVC) can be described as 'the network of stakeholders involved in growing, processing, and selling the food that consumers eat' (Deloitte, 2013), which is different from a supply chain, and divide two stakeholders categories: core and extended. A sustainable FVC is defined as 'the interaction between organisations in the value chain to share sustainable expertise or knowledge and work together to attain sustainable goals'. These goals need to cover economic, social, and environmental dimensions and contribute to the UN goals. Four types of innovation organise the concept of FVC innovation into product, process, organisational, and marketing. A positive chain interdependence can be the key to accelerating sustainable innovation. However, due to the complexity of chain configurations and collaboration models, a lack of interdependence among FVC stakeholders is observed. A holistic chain approach is missing in literature to solve the lack of interdependence between the stakeholders. Furthermore, there is missing evidence around how collaboration in the FVC results in more innovative and sustainable outcomes, primarily because of the ignorance of stakeholder motives and roles. For these reasons, qualitative research is set up in chapter 3 to explore this gap.

03

RESEARCH APPROACH

Chapter 3 explains the set-up of the explorative research approach conducted to clarify the exact nature of the problem stated in chapter 1 and the literature gap in chapter 2. Therefore, the sub-research question mentions: **What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation?** Afterwards, it describes the data analysis and synthesis process to define useful insights for chapter 4.

PARAGRAPH 3.1

RESEARCH SET-UP

INFORMAL PRELIMINARY INTERVIEWS

After conducting secondary research by doing an extensive literature review to understand the project context better, informal preliminary interviews are held with 15 employees of Accenture and VanBerlo (part of Accenture since 2019). The employees varied in function and department, but all have an affinity or experience in innovation, sustainability, FVC, FMCG, and multi-stakeholders. These preliminary interviews give more insights into how the company operates (chapter 5) and what they noticed in practice concerning this research topic. In addition, these insights form the base for the interview guides (appendix C), which covers themes from the literature review that are not communicated during these informal conversations or need more exploration.

QUALITATIVE RESEARCH SET UP

After the preliminary interviews, qualitative research retrieves the primary data through 17 in-depth, semi-structured interviews with various interviewees to discover the drivers, barriers and roles.

Sample strategy and criteria

The interviewees are selected using a sampling strategy by dividing them into two categories: core stakeholders of the identified groups in the FVC and people with specific expert knowledge related to this research (figure 3). For the stakeholders' category, the criteria for their sampling strategy are that interviewees should be part of an FVC and have experience in stakeholder collaboration and/or should be willing to incorporate sustainable initiatives into their company. Three groups divide the stakeholders into producers (farmers), intermediaries (suppliers and manufacturers), and distributors (retailers). The consumers' group is chosen not to participate in this research because all consumer types influence the FVC but are not actively concerned with FVC collaboration (Fiolhais et al., 2021).

For the expert category, the criteria for their sampling strategy are that interviewees should be experts who gathered data themselves or have experience with sustainable innovation and transitions or multi-stakeholder collaboration in the FVC. The research also considers consultants at Accenture who have experience in projects regarding the FVC to conduct an in-depth interview. Figure 11 shows an overview of all participated interviewees.

Pilot interview

Appendix C shows an interview guide that leads during the semi-structured interviews. A pilot interview with a consultant at Accenture who works in various multi-stakeholder projects for clients in the food industry indicates the improvement areas of the interview guide. Consequently, the guide includes more follow-up questions and better adjust the questions to the wide variety of participants. Hence, two separate guides are created, each serving a different type of interviewee to get more relevant information.

Data collection

Before all the interviews, all participants are asked for the consent of audio recording and the data usage for this graduation thesis. All interviews are scheduled and performed using Zoom or MS Teams, as the COVID-19 stimulated working remotely, and are recorded locally on the author's computer. Throughout the research process, the findings are communicated and discussed weekly with interviewees and employees of Accenture to keep the information relevant.

STAKEHOLDERS

PRODUCERS
- Farmer of a sustainable farmers cooperation
- Policy Director of an entrepreneurs' organisation for Dutch farmers
- Representative of the Future Farmers Association

INTERMEDIARIES
- CEO of a Dutch food supplier
- Sustainability Manager of an International Food Trader
- Innovatioon Manager of an International FMCG company

DISTRIBUTORS
- Sustainability Manager of an meal box delivery company
- Sustainability Lead of Dutch supermarket chain

EXPERTS

ACADEMIA
- PhD'er in sustainable food transformations at TU Delft
- PhD'er in disruptive innovation in food at TU Delft
- Senior advisor Multi-stakeholder Partnerships in food at WUR
- PhD'er in sustainable value chain ecosystems at RUG

COMPANIES
- Business Developer at data-driven farm to fork startup
- Innovation Lead Agri-Food at food innovation accelerator

CONSULTANTS
- Accenture Technology Consultant at Industry X
- Accenture Senior Technology Consulting Executive at Supply Chain
- Accenture Client Account Director at Consumer Goods Services

Figure 11: Overview of selected interviewees

PARAGRAPH 3.2

DATA ANALYSIS AND SYNTHESIS

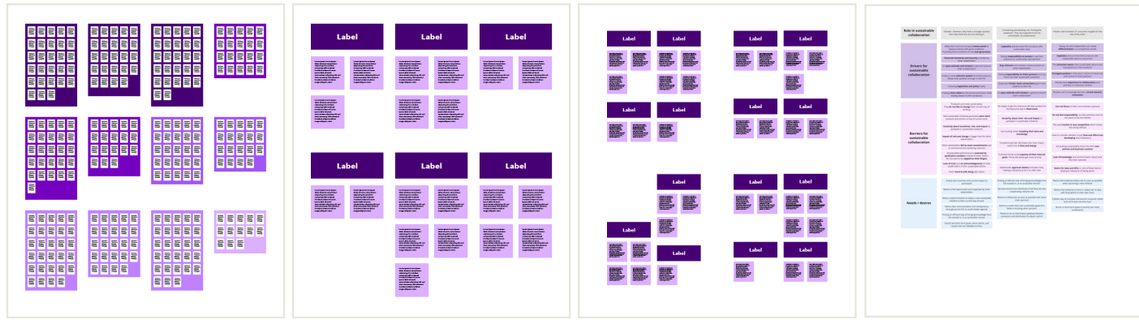
The interviews are transcribed on multiple post-its in Miro and synthesised through Corbin and Strauss's (1990) grounded theory method (GTM). The used Miro board functions as a database with all the materials of the interviews, creating central storage and overview of all the data to analyse.

Figure 12 shows an overview of the used method. After collecting and transcribing the data [1], open coding identifies and labels key phrases from the data into concepts [2]. Afterwards, the concepts are clustered into categories [3]. These categories created the data's first conceptual components and created an opportunity to theorise and reflect on the retrieved information for the first sense-making (Noble & Mitchell, 2016). Data from each participant is compared for similarities.

Subsequently, axial coding identifies relationships between the categories to create connections. Lastly, selective coding is used in the last round of clustering to identify the core categories and relationships, making the final insights for the drivers, barriers and roles [4].

Throughout the GTM, an iterative approach is used with analytical notes to refine various clusters to keep the data relevant and authenticated (Noble & Mitchell, 2016). Appendix D shows an impression of the clustering process.

Chapter 4 presents these findings in a structured overview that shows the drivers, barriers, and roles of stakeholders in the FVC to collaborate for sustainable innovation.



1. Collect and transcribe data **2. Form concepts from data** **3. Group concepts into categories** **4. Identify relationships between categories = drivers, barriers, and roles**

Figure 12: Grounded Theory Method (GTM) process

CHAPTER 3
KEY TAKEAWAYS

This chapter explains the used research methodology to answer the sub-question: What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation? First, 15 informal interviews are held with the employees of Accenture to get a better idea of the project context.

Subsequently, 17 in-depth, semi-structured interviews with core FVC stakeholders and experts complete the qualitative research. Afterwards, the grounded theory method is explained on how to analyse and synthesise the retrieved data into valuable insights, which chapter 4 presents.

04

RESEARCH RESULTS

Chapter 4 presents the research results of the sub-question: **What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation?** First, figure 13 shows an overview of the core stakeholder perspective that indicates their roles and specific considerations for sustainable collaboration in the FVC. This is followed by a description of the general drivers, barriers, and external factors to collaborate for sustainable innovation. A discussion and reflection of the research results finalise the qualitative research. Because the research results address multiple segments that vary, the design diamond can not take everything into account due to the given timeframe of this thesis. Therefore, the last activity for the research diamond consists of a validation session with Accenture to prioritise the essential segments for the design diamond.

PARAGRAPH 4.1

CORE STAKEHOLDER PERSPECTIVE

After conducting interviews with core stakeholders from the FVC (see figure 11), an overview is created in figure 13 that portrays their perspective on the role in the chain and personal drivers and barriers for sustainable collaboration. In addition, the overview also explores the needs of the different groups, identifying the specific conditions that drive the stakeholder to collaborate more.

ROLES

Several observations conclude the role of the stakeholder groups in the FVC during sustainable collaboration. First, the producers' group act as followers during collaboration but do not want to be undervalued by other chain partners. For example, different groups do not consider their daily tasks when implementing innovations, creating mistrust. *'You can't expect the beginning of the value chain to want to change just like that, big companies like Unilever or Ahold have to provide incentives for this'.*

Compared to the other groups, the intermediaries have the most vital position in the chain due to their responsible role as an information funnel between the producers and the distributors. The distributor group initiates the collaboration in the chain the most. However, the producers and the intermediaries group lack clarity about their function and impact in those initiatives, which causes failure.

The interviews conclude that the distributor does not feel responsible for figuring out the incentives for the rest of the chain. *'Sustainability will never be the number one priority for the end of the chain. There needs to be a different incentive for them to cooperate'.* Thus, giving the intermediary the consolidator role, who acts as a connecting information gateway between various partners in the chain to make everyone feel engaged while showing commitment and convincing the distributor for an integrated collaboration.

However, not all intermediaries want to act upon this role or only want control, creating the need for an **independent consolidator** by other groups to facilitate collaboration.

	PRODUCERS	INTERMEDIARIES	DISTRIBUTORS
			
Role in sustainable collaboration	Follower. However, they have a stronger position than they think but are not utilising it.	Connecting and advising role. Finding the sweetspot. They are expected to be the consolidator of collaboration.	Initiator and translator of consumer insights for the rest of the chain
Drivers for sustainable collaboration	Make their land and company **future proof** to always produce with good conditions. Providing those conditions to the **next generation**. **Financial incentives and security** provided by other stakeholders An **open attitude and mindset** in general towards chain collaboration Create a more **coherent system** of small producers. Makes their position stronger in the FVC Following **legislation and policy** neatly Creating **more value** for the produced product while staying ahead of other producers	**Capitalize** and promote their products with sustainable value Feeling **responsibility to society** to use their influence for sustainable improvement **Stay relevant** and maintain market position to other stakeholders Feeling **responsibility to chain partners** to bring them into their sustainable ambitions Using their **known chain connections** gives them capacity to take risk An **open attitude and mindset** in general towards chain collaboration	Taking risk and collaboration can create **differentiation** in a competitive market **Capitalize** and promote their products with sustainable value to consumers The **consumer wants** more sustainable options and transparency in their products **Strongest position** in the chain in terms of resources and control of chain partners Already have **experience in collaboration** with partners in a business context Retailers will increasingly become a **brand towards consumers**
Barriers for sustainable collaboration	Producers are most conservative. They **do not like to change** their current way of working. New sustainable initiatives generates **extra work** pressure and actions on top of current work **Unclarity about incentives, role, and impact** to partipate in sustainable initiatives **Impact of risk and change** is bigger than for other stakeholders Other stakeholders **fail to meet commitments** due to commercial and marketing interests (Sustainable) performance is **assessed by qualitative numbers** instead of other factors. Do not want to be **tapped on their fingers** **Lack of trust** and **no acknowledgement** of other stakeholders in their sustainable efforts Find it **hard to talk along** with others	No longer to get the chance to sell their product for the best price due to **fixed chain** **Unclarity about their role and impact** to partipate in sustainable initiatives Not trusting others **handling their data and knowledge** Transforming their old chains into 'lean' chains costs a lot of **time and energy** It should not be at the **expense of their internal goals**. Those will always get more priority Stakeholder **approval clashes** and takes time, making it attractive to do it on their own	**Can not focus** on their core business anymore **Do not feel responsibility** to chain partners and are not aware to be the initiator The retail **market is very competitive** which makes risk-taking difficult Have to consider whether to put **time and effort into developing** new initiatives it Are putting sustainability more into their **own policies and business routines** **Lack of knowledge** and communication about how the chain operates **Desire for data and KPIs** vs. lack of these factors leading to hesitance of taking action
Needs / desires	Clearly see incentives and current impact to participate Wants to feel appreciated and respected by other stakeholders Wants creative freedom to adopt a new sustainable initiative in their current way of work Wants clear communication and transparency throughout the FVC to avoid hidden agenda Finding an efficient way of bringing knowledge from the outside in, in an accessible manner Clearly see short term goals, action points, and results that are relatable to them	Finding an efficient way of bringing knowledge from the outside in, in an accessible manner Get assurances from distributors that they are also cooperating, reduces risk Wants to collaborate as soon as possible with other chain partners Wants to create their own sustainable goals first before including other partners Wants to act as information gateway between producers and distributors to obtain control	Wants intermediaries follow suit as soon as possible when launching a new initiative Wants intermediaries to form a 'safety net' to deal with fluctuations in their own chain A better way to translate and extract consumer needs and roll it back into the chain Works in short term goals to quickly earn back investments

Figure 13: Core stakeholder perspective on sustainable collaboration overview

PARAGRAPH 4.2

DRIVERS, BARRIERS & EXTERNAL FACTORS

The qualitative interviews identify five drivers in total. Three drivers can be labelled as motivations to utilise collaboration for their advantage in the FVC, whereas the other two drivers are desired conditions during the partnership. If those conditions are met, it can be seen as drivers to participate.

In addition, three categories divide the barriers into lack of trust, lack of leadership, and a conservative mindset. Each category contains multiple barriers that support, illustrate, or explain the main category's cause and effect. Lastly, six external factors are identified that are more external influences to collaborate for sustainable innovation in the FVC. Actual quotes from the interviews substantiate all drivers, barriers and factors.

DRIVERS

MOTIVATIONS
1. Exchange knowledge
2. Handle the complexity
3. Flexibility in the market

CONDITIONS
4. Clear roles, incentives, and visions
5. Equal partnership, commitment and communication

EXTERNAL FACTORS

1. Emergence of startups
2. High competition
3. Social responsibility
4. Tracking and digitalisation
5. Government and policy
6. Dutch mentality

BARRIERS

LACK OF TRUST
1.1 Lack of trust
1.2 Freeride

LACK OF LEADERSHIP
2.1 Lack of leadership
2.2 Combining different values
2.3 Misscommunication
2.4 Not sustainable after all
2.5 Creating new partnerships

CONSERVATIVE MINDSET
3.1 Conservative mindset
3.2 Not looking holistically
3.3 Slow transition
3.4 Wait and see attitude

PARAGRAPH 4.2.1

DRIVER: MOTIVATIONS

1. EXCHANGE KNOWLEDGE
The first driver is to exchange knowledge to stay relevant in the market and for other chain partners. All stakeholders in the FVC have indicated that they found it hard to stay up to date with the current issues, developments and ambitions in the food industry. This leads to collaboration to acquire knowledge from other chain parties. One interviewee stated: *'It is more strategic and dynamic to involve knowledge. If you have everything in-house, everything is fixed and it is not flexible enough to move quickly in this dynamic market'*. Another motive to exchange knowledge is to show fellow chain partners your capabilities and performances that they can keep in mind for possible future projects and collaborations.

2. HANDLE THE COMPLEXITY
The FVC is a chain system that can be perceived as too big and complex. *'The processes in the food industry are often too overwhelming. Companies themselves do not know where to look, and find the long chains very difficult, which holds back their innovation capabilities'*. This problem triggers the second driver: collaborate to structure, understand, and solve the complexity of the FVC together. A party cannot solve challenges in the FVC on its own, which makes collaborating crucial from an ideologically and practical point of view. *'There is certain independence in the linear collaboration which at some point becomes uncomfortable. Working with the chain partners rather than solving it from within yourself gives a different power and acceleration that you initially didn't notice while solving challenges'*.

3. FLEXIBILITY IN THE MARKET
Chain collaboration also creates flexibility in switching partners. Currently, most relationships within the FVC are based on the long-term. This is often useful because companies that have already worked together once tend to work together again more quickly. After all, trust has been created and they are already used to the way things work. These long relationships cause the company to lock itself in and not be flexible to innovate further. By collaborating on innovation projects in the FVC, you create more opportunities to change partners over time and expand your network. *'That is crucial in a market that is moving so fast'*. It allows you to hook up to activities more quickly and be able to switch gears. This is desired because the food industry is very opportunity-driven, i.e. fast to penetrate new markets. To respond to this, the stakeholder must be flexible and chain cooperation makes this possible.

PARAGRAPH 4.2.2

DRIVER: CONDITIONS

4. CLEAR ROLES, INCENTIVES, AND VISIONS

The first condition is creating a clear role, incentive, and vision for all stakeholders that are collaborating. A common vision and goal is difficult to achieve but is the success of a viable collaboration and to convince others to participate. *'The biggest motivation to join is a great common goal or shared interests'*. It is important to first create agreement and commitment on a common goal and vision, and then secondly create manageable steps that are interesting and recognizable for the specific stakeholder and plays upon their desired incentives. *'The why is clear, but who will do it and how we do it is the problem'*.

5. EQUAL PARTNERSHIP, COMMITMENT, AND COMMUNICATION

The second condition is the allocation of equal partnership, commitment, and communication between the chain partners. Multiple interviewees concluded that there is too much inequality between the stakeholders in the current FVC. *'It's ironic that there are power differences because they all need something from each other'*. This makes it difficult to make agreements and concrete action plans.

For a successful collaboration, there is a need for a balance where everyone is seen as an equivalent partner. On an organisational level, *'you have to be very responsive to each other; look at where others can play in domains where you are not so good at'*. Communicate and translate plans in an accessible way that is understandable for all chain partners and where they can speak freely.

An intrinsic commitment and motivation also create more acceleration. A consultant described this situation: *'When the client comes with a request for a sustainable transition, then there is already a lot of motivation for it because you work with the in-house leads who are fully committed to finding the right sustainable solutions for their company goals. But if you work with people who do not have that mindset or you have to impose that mindset, the process gets a lot slower'*. Everyone must actively commit to the team otherwise the motivation goes down quickly.

PARAGRAPH 4.2.3

BARRIER : LACK OF TRUST

1.1 LACK OF TRUST

The first barrier is the lack of trust between chain partners. It starts with having no transparency throughout the FVC. This creates multiple consequences for an ineffective collaboration. For example, there is a dynamic where trust is very fragile which often causes stakeholders to be sceptical of the individual drivers of other partners. The reputation of large companies is also often perceived as *'the big bad multinational that only wants money'*. This makes it difficult for the partners at the beginning of the chain to assess whether others have a double agenda, which is killing during collaboration. As a result, sharing data is a serious issue and partners are not fond of the idea. *'There is a lot of fear when breaking down the silos, especially sharing data and knowledge. Where does it go? Can I still show my expertise?'*. In addition, it is not clear what the benefits are for each player in the chain to start sharing the data and it feels like a lot of effort. It can also possibly be used to hold them back.

1.2 FREERIDE

In addition, there is tension in terms of giving and taking information during collaboration. According an interviewee: *'you have to share information that will benefit others because otherwise, you won't get the information from them that will benefit you. This is something not all chain partners understand'*. It is observed that in the scope of sustainability, you see companies' motive to collaborate is to 'free ride' on the knowledge of others to then stop little input themself while boasting about being sustainable. This has negative consequences and damages the reputation of the so-called company towards the rest of the chain partners. A good balance of giving and taking knowledge is necessary for a successful integrated collaboration

PARAGRAPH 4.2.4

BARRIER: LACK OF LEADERSHIP

2.1 LACK OF LEADERSHIP

Multiple interviewees stated that in the food industry there is no single point of contact or interest group that remains neutral and guides companies through the steps to take. Stakeholders in the value chain also need someone to give them recognition (because of their short term mindset) and make the connections for them. The development often starts linear, where someone has to take direction from that and be the trigger. However, how to set that up without being biassed is tricky. Despite food innovators challenging traditional food processes to show them that they can do it differently, stakeholders are hesitant because of the lack of trust as mentioned earlier. The following barriers emphasise situations where the lack of leadership is noticeable.

2.2 COMBINING DIFFERENT VALUES
Each layer in the value chain has a different value premise in terms of sustainability. Combining those values is the trickiest part because the organisations can also work against each other due to their competitive nature. It is important to already compromise at the beginning of a project, otherwise, it could lead to a conflict in a later stage. *'The sweet spot is sometimes hard to find and collaborations fail because agreements cannot be made properly, this slows down or even cancels projects'*.

2.3 MISCOMMUNICATION
The food industry is interesting because you have so many different perspectives on sustainability. This caused the next barrier: miscommunication about the terminology. Talking with the interviewees, emphasised the fact that innovation and other words that are related to sustainability are confusing, creating various visions about what 'being' sustainable means for them. *'The word 'value' is still too vague in several situations. Determining what the 'value' is, is unclear and causes discussion. Is it even possible to all reach the same values? You tell me'*. As a result, a lot of initiatives and adjustments that are perceived sustainable at first glance, are not that sustainable after all. Short value chains for example create a whole new dynamic while utilising a shorter chain does not automatically mean it is more sustainable, which leads to the next barrier.

2.4 NOT SUSTAINABLE AFTER ALL
Sustainable goals can get into contradiction with each other. *'Sustainable/organic products can have an even bigger impact on the environment than normal products. So finding the balance to tap all the boxes is tough'*. Many sustainable initiatives seem nice on paper but are ultimately not zero positive. Companies may say they are doing well but meanwhile, they are leaving the so-called back door open. This also applies to consumers. A sustainable critic stated: *'We practice it with our mouths but we do it differently in practice. Is a fully sustainable product even feasible or is that just an idyllic idea? When is something sustainable?'*. The term sustainability is a big container concept, you have to start looking with fellow chain partners what the relevant themes are that also fits their needs to create mutual understanding and to achieve feasible goals.

2.5 CREATING NEW PARTNERSHIPS
All interviewed core stakeholders mentioned they had difficulty with creating new partnerships. One of the main reasons is that they are not exposed to all the potential partners in the existing food ecosystem. Which causes the exploring phase a lot of time. A food trader mentioned: *'It becomes difficult to filter where you can participate. So many people get in touch with us and it takes a lot of time and effort to take an overview of what is possible and where the opportunities lie. Usually, we are not and it causes unnecessary introductory meetings'*. Another difficulty is that the company itself has no clear vision of what they want to achieve. Therefore, not knowing which capabilities and partnerships are suitable and relevant. This causes a reluctant attitude.

PARAGRAPH 4.4.5

BARRIER: CONSERVATIVE MINDSET

3.1 CONSERVATIVE MINDSET
It has been observed that convincing others to change and participate is difficult due to their conservative mindset. Chain stakeholders are often not open to transition but also find it difficult to articulate why. They have to go through a mindset switch while learning new habits which remains difficult for an industry that is known for its conservative mentality. Stakeholders do not want to change their way of working and are poorly open to learning a new method or technique. *'It is important to convince the people who do not have a sustainable mindset, show what it could mean for them because those are the people who use the tools and platforms during their ways of working and not you'*. This could also act as a barrier for making new chain connections: *'A partner company who you still have to convince, that process takes the longest. Then you would rather work with acquainted people who believe in your ambitions to get started right away'*. The following barriers emphasise situations where the influence of a conservative mindset is noticeable.

3.2 NOT LOOKING HOLISTICALLY
What is more, it is important to look at sustainable collaboration from a holistic point of view for a better understanding of the system. 'You need to approach sustainability in the FVC holistically, how do ecological and social issues come together and how can we solve them together and what steps do we take as a sector in its entirety?', yet, a one size fits all solution does not exist in the food industry due to different FVCs and markets which makes it difficult. *'Those partnerships now are 1 on 1 to hit targets but are not looking at the overall value chain which keeps the system complex. You have to break down those silos to get a clearer overview'*.

While there are silos between the stakeholder groups, there are also internal silo's within companies that hold back collaboration because of individual priorities. A consultant observed: *'I don't see a coalition between the different partners of the overall value food chain yet to make a sustainable impact because they focus too much on their individuality. Collaboration is now caused by a natural way, a traditional way. What we see mostly in the food industry is that companies work in silos across departments. So if companies are working in silos internally, they are not going to do it at the enterprise level'*. There is an overall enterprise goal but all the departments look at it from a different perspective. 'Once they break the silos and work on sustainability internally, then we can look at the bigger impact, meaning working with the other stakeholders across the value chain'.

3.3 SLOW TRANSITION
Another identified barrier is the slow process of sustainable transition due to financial reasoning. This transition may take years to see the first results. One interviewee quoted nicely: *'Sustainability is not a sprint, but a marathon'*. Often, sustainability requires a large investment, the ROI can be as high as 30-40 years. If a large company transitions, it creates ten times more impact than a start-up would. However, large companies are discouraged to collaborate and transforming because they are too fixated on seeing quick results in the short term. It always has to be a combo of cost efficiency and sustainability and that balance is hard to find for corporations. *'You're entering a new trajectory and you don't know what the outcome will be, and that's scary.*

In addition, multiple interviewees mentioned that time is running out but how fast it actually goes nobody knows. Companies are open to cooperation in the chain, but it is not a priority right now. A large retailer mentioned: *'If there really is a problem, then people will sit down together eventually. But for now, we are good'*. Corporates do come up with many sustainable initiatives, but the implementation is often postponed by other priorities. As a result, the transition is very slow. *'If you are proposing a sustainable service to a client and it does not match with their current financial company goals that they have, it is really hard to start a project'*.

3.4 WAIT AND SEE ATTITUDE

A consequence is that some companies do not want to experiment at all and have a wait-and-see attitude until fellow companies demonstrate results. '*They will look at each other and think: How fast are you going and how fast am I going?'*. They don't see the urgency to address the problem (which causes procrastination). However, those tensions mount up and at some point, it becomes a conflict.

PARAGRAPH 4.2.6

EXTERNAL FACTORS

1. EMERGENCE OF STARTUPS

The first factor is the emergence of sustainable start-ups that spark interest in innovations and collaborative projects in the current FVC. Compared to other industries, many sustainable innovations in the food industry come from the start-up scene, creating insights for large companies to capitalise on. Those start-ups are too small to improve the world by itself but they can highlight to corporations what is wrong, what are the trends and set an example in the field of sustainability. An expert in sustainable innovation stated: *'The big companies may have the strongest position in the FVC with their financial capabilities but the creativity and innovativeness are in the smaller start-up parties. The power lies in the right combination of them both to stimulate sustainability throughout the FVC'*.

Start-ups have a positive bias about sustainability right from the start, otherwise, they would never begin a start-up. With large companies, it is a mindset switch as mentioned earlier because sustainability was never their starting driver. Large companies can reduce risk by letting start-ups explore the viability of their innovative ideas to later adopt them. Those inspired corporations are usually at the end of the FVC and have the responsibility to translate it back into the chain for the other partners.

2. HIGH COMPETITION

The food industry is considered to have one of the most competitive markets compared to other industries. The industry is consumer-driven, making distributors try to fill consumer needs as close as possible to stay ahead of the competition. An incentive for large companies to become more sustainable is for the marketing, to be attractive to shareholders and to keep the system sustainable for future opportunities. We are at a point where it becomes more difficult to add value to your product compared to the competition. *'Companies are afraid of reputational damage if they don't pay attention to sustainability but if they do it wrong, they get damaged too'*.

3. SOCIAL RESPONSIBILITY

The feeling of social responsibility plays an important role as motivation to transform. Corporates are translating their sustainability goals according to the UN SDGs as explained in paragraph 2.2. Especially SDG 17: Creating Sustainable Partnerships. This is a cross-cutting goal, which ensures that the other SDGs move forward. Targets of corporations are more set based on the timelines of the goals. Some companies consciously use their reputation and power to address social issues. A pitfall can be that the companies aim for too ambitious goals that do not fit the company. *'Unilever's strategy looks like they want to change to an NGO but the whole problem is that such an organisation cannot make that transition to an NGO because they are profit -driven. This creates conflicts and confusion'*.

4. TRACKING AND DIGITALISATION

Due to the backlog of digitisation in the industry, it is difficult to track the companies sustainable impact to make concrete plans for change. *'You only know if you are zero positive when you know what you are emitting, but many companies don't know that so they just do whatever. You can't take action until you know what the problem is and how big the problem is'*. Tracking and mapping insights in terms of environmental impact for example is already seen as a huge innovation for some companies. Then *'using data well and getting data to optimise is a goal in itself before we even get to think about collaboration'*.

It is difficult because many aspects of sustainability cannot be quantified. This makes creating sustainable action items that need to fit their company targets difficult. In addition, not only mapping out which value everyone has to put in but also knowing which value has to be put out is challenging. However, through the progress of digital applications, companies can now anticipate situations in advance and respond to them better. Unfortunately, currently the technology is still not advanced.

5. GOVERNMENT AND POLICY

Another factor in sustainable transformation is the influence of government and policies. The food industry is one of the few industries where you actually put the product into your body, which adds an extra dimension to regulation. Some innovations are simply not allowed by legislation while they can already be innovative. This hinders the sustainability transition. The legislator is always behind the current industry developments. To give innovation room you need to be more regulatory to experiment. Initiatives can also come from the government, for example, in which case the chain is forced to change. On the one hand, this is good because it accelerates the transition, but people also feel forced and therefore work against it.

6. DUTCH MENTALITY

The last factor is the Dutch mentality, which several interviewees have mentioned. The Netherlands is characterised as a trading country, so a formal transaction is in our culture. The mindset is still focused on trade, and not on integrated collaboration. The Netherlands is super efficient and invests a lot of money in new techniques for the value chain to maintain its position in the world. In the Netherlands, we have very fertile soil and a clean way of producing products. However, If that is no longer possible then it is immediately moved to Africa, for example, where it is not produced immaculately. So we do have a sustainable mentality but when it comes down to it, it's all about trade.

PARAGRAPH 4.3

RESEARCH DISCUSSION

RESEARCH SET-UP LIMITATION

The research can highlight several points when looking back at the research set-up described in chapter 3. First, the scope of the sub-question (What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation?) was retrospectively too broad to gather specific answers. For example, there was confusion on both sides about what kind of collaboration and sustainable transformation the research was implying. Suggesting that the research focus was not narrow enough what would have helped to understand the topic better and make the interviewees give a more concrete answer, i.e. richer data. Because of the explorative nature of the research, the sub-question is intended to be open for interpretation to discover multiple opportunity areas. Later it became clear that the food industry was too complex and substantial for such an open question.

In the future, the sub-question should contain a more specific scope, for example, a type of configuration or a type of collaboration model. Consequently, this also meant that a couple of the interviews went in a slightly different direction than the initial goal of the research, making some insights irrelevant. This was the aftermath of too obscure examples and many open questions in the interview guides based on the sub-question, which led to confusing and irrelevant answers. As a result, it made the data analysis and synthesis of significant results more challenging. It forced the synthesis to make proper choices about which insights to include or exclude.

INTERNAL VALIDITY

Looking at the internal validity, the research did not consider several aspects before conducting the interviews due to the lack of narrowness and consideration of external aspects. These aspects came to light during and after the conducted interviews.

First, the type of sector and, therefore, the food chain determines the extent to which stakeholders will cooperate. For example, milk production often works as a cooperative where the producers at the beginning of the chain are more involved in the rest of the chain. Compared to the production of fresh vegetables, the producer can no longer exert any influence after the farmer has sold the goods.

Moreover, even though all interviewees work in a Dutch environment, most FVCs typically go international. There are not a lot of FVCs that operate entirely in the Netherlands. For instance, the producers of a large FMCG are often located in third world countries. In contrast, the distributors of the final product are continually operating in more western countries such as the Netherlands. This also means that the research has to consider cultural differences, which gives an extra dimension and implications. Because the sub-question did not take all these systematic differences into account, the obtained results are not generalisable to all types of food chains.

Secondly, this study also did not give specific consideration to whether the situations outlined by the interviewees focused on vertical or horizontal configuration. As there was no clear division here, it may have affected the interviewee's reasoning on the asked question and, therefore, difficult to determine whether the type of configuration impacted the results.

EXTERNAL VALIDITY

Two aspects can be reflected when looking at external validity. First, the select sample strategy had a positive outcome in generalising the results. Interviewing and dividing 2-3 participants per core and category stakeholder group made it possible to generalise the insights in the stakeholder overview (figure 13). At the same time, experts could reflect upon that from a more objective point of view. Furthermore, participants with different characteristics caused the population validity to go up, interviewing stakeholders from the beginning to the end of the chain and experts with distinct occupations. However, some experts had less practical experience in actual chain collaboration. They gave answers based on the theoretical background, giving a more shallow perspective on collaborating for innovative projects.

In addition, looking at the ecological validity, it was difficult to mimic situations through a simple conversation with imaginary problems. In contrast, the participant could act differently in real life because innovation and sustainability are ambiguous. This could have been solved by interviewing the stakeholders in their work environment and applying the examples in their daily work method. Unfortunately, this was impossible to prepare due to lack of time and Covid-19 but should be considered for future research.

ACADEMIC IMPLICATION

Looking at the academic implications, the main contribution of these results is that the research is conducted from a holistic point of view which gives more explicit stakeholder motives to participate in chain collaboration, as mentioned by Krishnan et al. (2021) and Chen et al., (2017). A structured overview in figure 13 illustrates those motives. The core stakeholder perspective gives in-depth insights about the lack of interdependence between stakeholders, which was missing in the literature as chapter 2 concluded. Furthermore, it combines the three implications: collaboration, innovation, and sustainability in the form of drivers, barriers, and factors. These insights solve the ignorance of how stakeholder collaboration in the FVC can drive or block innovative and sustainable outcomes.

However, the most interesting insights are the assigned roles that every stakeholder group gives each other and how to utilise that role for (sustainable) innovation. Furthermore, the cause and effect of lack of trust, lack of leadership, and having a conservative mindset in this industry in terms of collaboration for sustainable innovation. The existing literature cannot find these motives, as discussed in chapter 2.

Further research is recommended to focus on validating the overview with more core stakeholders and taking more external aspects into account like configuration, food chain, or collaboration model. Therefore future research should update the core stakeholder overview. Also, researching with a more narrow scope should give more affluent and more specific data compared with this project's results to see which aspects can be generalised. Another interesting research could be exploring the same sub-question but in different industries. Afterwards, discuss and validate which results are specifically applicable for the food industry and why.

PARAGRAPH 4.4

RESEARCH VALIDATION

ACCENTURE VALIDATION

The retrieved research results are presented and validated during a feedback session with six consultants of Accenture who are part of the Food of the Future initiative (paragraph 5.2). All questioned participants are aware of the research subject and can give critical and valuable feedback, which is used to fine-tune the results and eliminate insights that are retrospectively irrelevant for this project's scope. During the validation session, everyone found the drivers and barriers quite recognisable with what they experienced in practice. Nonetheless, the managing partner sparked the discussion, which caused interesting observations and statements between the consultants. For example:

The consultants felt that the most critical drivers would be *purpose and urgency*, whereas *exchanging knowledge* and *handling the complexity* is more seen as sub-drivers. When explaining that the stakeholders are not per se driving from the sense of purpose and urgency but rather lack it in practice, they recalled a project with a large coffee manufacturer where this resonated with what they saw. Realising that stakeholders in the FVC are driven to change, however, not first thing by purpose (which is more the case of Accenture). This realisation demystifies their bias.

Various drivers and barriers contradict each other, which the 360 value decision model (appendix E) Accenture often uses can relate to and validate as a realistic outcome. Especially in terms of sustainability, this 360 value contradiction is often found.

Some consultants mentioned that they already were busy analysing and mapping out comparable factors (e.g. *dutch mentality*) for future projects, which validates these research results as relevant and confirms that these are essential topics to dive into.

The presented roles and needs of the stakeholders (figure 13) give an extra dimension to the industry and are perceived as 'a fresh perspective on the FVC'. *'So you see that the purpose and sense of urgency are only for a certain group, and we need to translate that into the incentive side. We need a trigger for some of the groups, which you see appear in drivers'*. Especially the importance of the role and power of the intermediaries were seen as valuable insight.

PRIORITISING WITH ACCENTURE

In addition, an internal brainstorm workshop with FOTF is held to prioritise the research results by mapping them on a bulls-eye diagram to understand which ones are currently considered as highly important to focus on. Figure 14 shows the final allocation, whereas green post-its are drivers, red are barriers, and purple is factors.

Looking at the primary ring of the diagram, three segments are considered highly important and are prefered to be adapted into the future concept by Accenture.

- **Not looking holistically**
- **Clear roles, incentives, and vision**
- **Handle the complexity**

It is interesting to note that other segments in the secondary and tertiary ring are not per se less relevant to focus on. Yet, most of them are seen as a consequence of the segments in the primary ring or as something to tackle in the future, making them less compatible for this project.

Figure 14: Bulls-eye diagram with prioritised segments

CHAPTER 4
KEY TAKEAWAYS

Chapter 4 presents the research results of the sub-question: What are the drivers, barriers, and roles of stakeholders in the FVC collaborating for sustainable transformation? There are several sections in this chapter. First, an overview of the core stakeholder perspective gives insights into the perceived roles, drivers, and barriers for sustainable collaboration per group. Next, a section explains and divides the drivers into motivations and conditions. These drivers are: exchange knowledge, handle the complexity, flexibility in the market, clear roles, incentives and visions, and lastly, equal partnership, commitment, and communication.

After the drivers, three categories divide the barriers: lack of trust, lack of leadership, and a conservative mindset. Each type is substantiated with several sub-barriers, as seen in the overview on page 34.

In addition, external factors can also influence the FVC collaboration. These factors are the emergence of startups, high competition, social responsibility, tracking and digitalisation, government and policy, and a dutch mentality. A discussion and validation of the research results finalise the qualitative research by referring to the literature gap and closing the research diamond.

Due to the given time of this thesis, the design diamond can not take all research results into account. That is why three segments are prioritised together with Accenture: not looking holistically, clear roles, incentives, and vision, and lastly, handle the complexity. Together with the main barriers, chapter 5 will use these enclosed results to find out what would be a suitable position to take in for Accenture.

05

ACCENTURE & FOOD OF THE FUTURE

Chapter 5 explores Accentures' implications with the enclosed research results of chapter 4 to link the sub-question outcomes with the project's overall research question: **How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain within the agri-food industry?**. Therefore, additional research is needed to successfully transition from the research diamond to the design diamond. First, a company analysis is required about its vision and current services in sustainable transformations to identify suitable capabilities for the food value chain. Subsequently, a deep dive into the strategic pillars of the Food of the Future explores what the capability encompasses. Lastly, these analyses will identify the companies' implications and opportunity areas, leading to the design brief in chapter 6.

PARAGRAPH 5.1

ACCENTURE SERVICES

This paragraph examines the companies' current structure and services in sustainable transformations to discover whether Accenture is experienced and suitable for responding to the FVC stakeholders' identified needs in chapter 4.

COMPANY STRUCTURE

Accenture is a professional service company with leading digital, cloud, and security capabilities that operate around the globe. Four practises structure the company that each provide a different service, as seen in figure 15. Moreover, Industry X is a service that focuses on digital transformations and will become a separate practice in March.

THE SUSTAINABILITY VALUE PROMISE

Accenture has made the topic of sustainability one of its core values and purpose (Accenture, 2021). Together with its clients, they are committed to tackling the UN SDGs. The company advocates for their promise: *'The Accenture Sustainability Value Promise is to embed sustainability into everything we do, with everyone we work with, creating both business value and sustainable impact, enabled by technology and human ingenuity'*.

CURRENT SERVICES

To achieve this promise, each practise tries to embed sustainable impact in every industry and case it works for. The work is categorised into six services (Accenture, 2022):

- Netzero transitions: Help industries reinvent and transform their end-to-end value chains for a sustainable future. E.g. reduce carbon emissions.
- Sustainable value chains: Help organisations embed sustainability into every value chain stage to deliver trusted, net-zero and circular value chains.
- Sustainable technology: Enable organisations to use technology more sustainably while using technology as a vehicle to drive sustainability across the organisation, operations, supply chains and ecosystem.
- Sustainability measurements, analytics, and performance: Provide tools, technology, and methodology to help businesses embed sustainability data, decision making and performance into everything they do to measure business value and sustainable impact for all stakeholders effectively.
- Sustainable leadership and organisation: Help business leaders build sustainability into everything they do.
- Sustainable customer experience and brand: Help clients convert their customers' intentions into new behaviours through sustainable experiences and journeys.

As these aspects are becoming more important for the agri-food industry, as stated in paragraph 2.3, there is an opportunity to utilise them and show the companies expertise. Currently, the company provides services and solutions across more than 40 industries. However, Accenture has not added the agri-food industry as a particular industry but has the ambition to become a more significant player in this market, concluded from the informal interviews in chapter 3. That does not mean Accenture is not executing food-related projects. Those projects are mainly performed for the Consumer Goods industry and are focused on the large corporations that primarily act as intermediaries or distributors.

CONCLUSION ACCENTURE SERVICES

In conclusion, Accenture has much experience to deploy itself in sustainable transformations by providing multiple different sustainable services. Yet, there is no particular focus on the agri-food industry while these services are crucial, as chapter 1 stated. Having no focus makes it challenging to utilise the right capability for the design diamond. Luckily, the Industry X department set up a new capability called The Food of the Future (FotF), which focuses specifically on transforming the food industry, which is beneficial for this thesis. However, additional research about the Food of the Future capability is needed to understand its strategic pillars regarding the disclosed research results of chapter 4 and whether it is a suitable capability to design for during the developing phase.

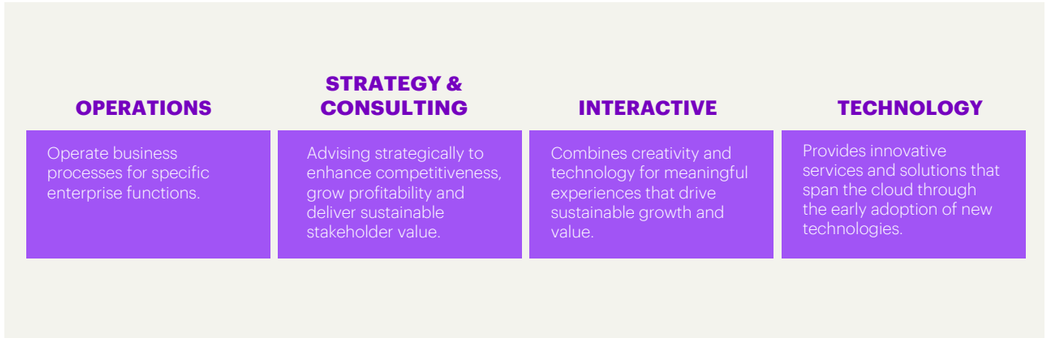


Figure 15: Practises of Accenture in company structure

PARAGRAPH 5.2

FOOD OF THE FUTURE

The previous paragraph explored the relevant services of Accenture, focusing on sustainable transformations. As this thesis aims at the agri-food industry, additional research is necessary into the Food of the Future capability*, which focuses on transforming the food industry. By analysing its overall strategy and linking them with the research results of chapter 4, the project can identify opportunity areas and success criteria that creates value for the final design.

INTRODUCING THE FOOD OF THE FUTURE

The Food of the Future is a pivotal capability within the Industry X service of the Strategy & Consulting practice that has started in the summer of 2020. The capability focuses on digital transformation through intelligent products and platforms that shape the future of food for and with their clients in the agri-food industry. The first phase of the capability focused on producing podcasts and webcasts to create more awareness for food industry-related topics with subject matter experts from the field. Now, the FotF capability expands to multiple pillar governance where all aspects of innovating within the food value chain are covered.

VISION AND THEMES

The FotF capability uses a north star (vision) to guide future work towards: *'Food of the future aims to disrupt the food value chain by focusing on urgent challenges, to grow towards a responsible society by collaborating with the food ecosystem and beyond to create innovative & inclusive solutions and thereby become the synonym of the future of food'*.

Three themes divide the focus of the capability. Within those, many innovation topics are emerging. FotF narrowed five topics to focus on, as illustrated in figure 16.

**FOTF consists of a group of around 10 consultants that together form a capability.*

STRATEGIC PILLARS

The needed capabilities are divided into five strategic pillars with sub-visions to reach the north star. These sub-visions link back to the themes, and topics of the FotF capability:

- *Awareness:* create awareness in the food ecosystem and beyond to address the urgencies within the food value chain and clarify their advising role.
- *Assets:* Develop assets that strengthen inclusive and sustainable solutions to the food ecosystem.
- *Opportunities:* Focus on opportunities that sustainably serve the food ecosystem by tapping into urgent challenges for the food value chain.
- *Engagement and community:* Create a diverse and inclusive environment that stimulates collaboration inside and outside the company.
- *Learning and development:* Stay relevant and beyond by getting trained and knowledgable about various topics to advise their clients concretely.

CREDIBILITY IN THE AGRI-FOOD INDUSTRY

When comparing Accenture with other big consultancies in the informal preliminary interviews , it becomes clear that the services and impact of FotF (and therefore Accenture) are still relatively unknown in the agri-food industry. When asked how to enhance the company's credibility in this industry, a member of the FotF capability quoted: *'In a nutshell, we do have a powerful network. On the one hand, I think the idealism of the FotF group is that we want to become a big player in this, but if the sector achieves the same with a PwC or a Deloitte, the world will only be a better place. So as far as that's concerned, that's fine too. On the other hand, how can we get a natural role in this sector as Accenture? It must feel like a logical choice to work together. Currently, there is no such thing, except for the existing expertise and that we can separate from the big consultancies because we have better products. But that is for you the biggest challenge: How can we [Accenture] reach, convince, and especially engage with the stakeholders in the FVC to work with Accenture in an early phase?'*.

CONCLUSION FOOD OF THE FUTURE

Looking at the objectives of the Food of the Future capability and the overall research question, it will be a strategic choice to design with and for the capability due to overlapping ambitions and interests, whereas chain collaboration is an important objective. Consequently, making the final concept easier to implement in the company by using the existing capabilities of FotF. Furthermore, because the capability is still in its exploring and development phase, it provides creative freedom for the final design. The following paragraph links the capabilities of FotF with the enclosed results of chapter 4 to find a suitable position to take in for Accenture.

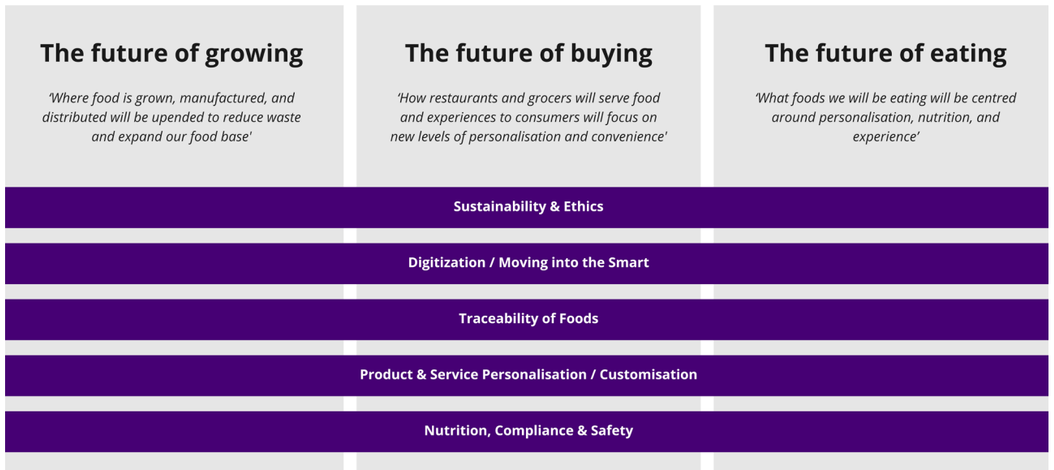


Figure 16: Themes and topics of Food of the Future

PARAGRAPH 5.3

IMPLICATIONS OF ACCENTURE

Chapter 4 discovered three main barriers that hold back stakeholder collaboration and interdependence. These barriers are amended to stakeholder needs, creating opportunity areas for Accenture to play into. Therefore, this paragraph identifies the implications for Accenture to connect the research diamond with the design diamond, i.e. the ability to solve the problem right.

IMPLICATIONS

First, the conservative mindset of the stakeholders causes resistance against transitioning. This mindset creates a wait-and-see attitude until fellow companies demonstrate results. That is why there is a need for an example and expertise to convince the stakeholders. Accenture can convince the stakeholders by showing successful transformations from other sectors. Furthermore, Accenture has strong capabilities to analyse markets and industries to address potential uncertainties and possibilities that can make them more aware.

Next, there is a need for a centralised leader who remains neutral and guides all stakeholders through the process, especially in combining different values, avoiding miscommunication, and creating new partnerships. Since Accenture has an objective role in the FVC, it can offer neutral ground for stakeholders to collaborate and align. Together with their portfolio of sustainable services in other industries focused on value chain transformation and experience in stakeholder management, the company can act as a guide with its expertise.

Lastly, due to a lack of trust, there is a need for transparency throughout the FVC. This barrier causes a lack of interdependence. A consultant stated that trust is not something Accenture can force but can stimulate in the chain by becoming a trusted consolidator for the stakeholders. The company can achieve this by fulfilling both above needs successfully.

However, that does not reassure that Accenture is the right partner to solve this need, considering the complexity of stimulating trust and the company's corporate reputation. These considerations are discussed in paragraph 9.1.

CRITERIA FOR SUCCESSFUL DESIGN

Since Accenture is suitable for tackling the identified needs in the FVC, the final solution also has to fit the companies' needs. The members of FotF reviewed several organisational considerations through an internal co-creation brainstorm (appendix G). The co-creation started with three 'how can Accenture...' questions, followed by voting rounds for the most favourable consideration. Four considerations are translated to criteria for a successful design:

- First, considering the credibility of Accenture is relatively low in the agri-food industry, they want to have **more engagement** with the stakeholder as early as possible; this is currently lacking.
- Consequently, stakeholders are unfamiliar with the services Accenture can provide for them. Therefore, there is a need for a **competitive differentiator.**
- Secondly, according to the managing partner of the Innovation department: *'Thinking about the future consequences can fuel future services from Accenture'*. Accenture wants to expand its sustainable services in this industry, having a **future-oriented approach** is desirable. This approach also fits with the north-star of FotF.
- Lastly, Accenture wants to enable **neutrality and connect** different parties by using a clear and compelling story to show the client's expertise.

CONCLUSION FOR THE IMPLICATIONS

Accenture can solve the barriers for accelerating stakeholder collaboration in the FVC by having strong analytical capabilities and the experience to guide in the complex value chain, which can convince the conservative mindset. However, the lack of trust is a challenging aspect to play upon since Accenture can not force this. One solution to stimulate this is becoming a trusted consolidator for the stakeholders. Therefore, engagement with the stakeholder as early as possible in the process is needed to enhance the company's credibility to pursue that role.

CHAPTER 5
KEY TAKEAWAYS

Chapter 5 explains the link of the research diamond with the design diamond by looking at Accentures' implications with the enclosed research results of chapter 4. Therefore an analysis of the company uncovers several insights. First, Accenture has much experience to deploy itself in sustainable transformations by providing multiple different sustainable services. Yet, there is no particular focus on the agri-food industry while these services are crucial. The Industry X service created the Food of the Future capability, which has overlapping ambitions and interests as this thesis. Therefore, it will be a strategic choice to design with and for the capability. Next, Accenture can play upon the identified main barriers, although the lack of trust stays challenging. Lastly, four criteria for successful design are determined to fit with Accentures' needs. Chapter 6 will combine all these insights into a design brief.

06

DESIGN BRIEF

Due to the scope and timeframe of this thesis, the implications and criteria of chapter 5 could not address all identified research insights. Therefore, chapter 6 shows a specific opportunity area for this project that is determined collaboratively with Accenture, that fits both the company's and stakeholders' interests. Moreover, paragraph 6.2 sets up a design brief that concludes the defined problem statement and the design goals, statement, and requirements to solve the problem accordingly.

PARAGRAPH 6.1

OPPORTUNITY AREA

Looking at the company's considerations and the stakeholders' needs in paragraph 5.3, this project needs more boundaries on the target group and collaboration phase. Defining more conditions for the project's scope is relevant to look for the right opportunity area, To deliver a more in-depth final concept. This paragraph describes the decided outcomes, which will lead to the following design brief.

TARGET GROUP

Depending on how a project evolves, the needed configuration (i.e. the involved stakeholders) adapts. Accenture currently focusing on large corporates limits the holistic lens that Accenture earlier prioritised and desired in paragraph 1.2 and 4.4. Therefore, this project decides to be accessible to **all core stakeholders in the FVC** (vertical configuration). In contrast, recommendations can target extended stakeholders later.

COLLABORATION PHASE

Research among the consultants uncovered three main phases within a collaboration, each with different responsibilities: exploring, forming, and maintaining. Even though Accenture has the network and leadership capabilities to form and maintain collaborations, engagement in the exploring phase with stakeholders from the FVC is missing to trigger the awareness of the stakeholder to participate. Furthermore, the conservative mindset holds the stakeholders back from initial exploration because this phase is often perceived as fuzzy and chaotic as earlier identified, which creates a wait-and-see attitude. It is, therefore, concluded that a **strong fundament is first needed in the exploring phase to guide and comfort stakeholders towards the forming and maintaining phase.** Certain events can trigger this to find common ground to tackle societal challenges.

PARAGRAPH 6.2

DESIGN BRIEF

This paragraph describes the design brief to bridge the gap from research to design and sets a clear starting point. The brief is assembled based on the following input: insights of the research diamond, the prioritised segments (paragraph 4.4), the defined opportunity area, and Accentures' implications and success criteria in paragraph 5.3. These are analysed and synthesised as clear goals, a design statement, and requirements that guide the design process in chapter 7.

PROBLEM STATEMENT

The initial research question of this thesis is: *How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain within the agri-food industry?* Chapter 4 showcased underlying needs and problems that hold back the collaboration due to lack of leadership, trust, and having a conservative mindset. **The challenge lies in the exploring phase, where core stakeholders find it difficult to anticipate their role, incentive, and vision before collaborating with others.** This uncertainty creates a reluctant attitude to initiate change, letting them stay conservative. Thus, limiting the urge to collaborate for sustainable innovation in the FVC.

DESIGN GOALS

The following design goals are formulated based on the findings of chapter 5 to make the project a success:

- Create early engagement in the exploration phase with the stakeholders and Accenture to get insight into the stakeholders' values and needs.
- Build a strong fundament by reducing uncertainties to guide stakeholders further with Accentures' expertise.
- Stimulate the conservative mindset into progressive thinking by clarifying the stakeholders' possibilities in sustainable challenges.

DESIGN STATEMENT

A design statement is defined based on the problem statement and design goals. The formulation of the design statement is assembled according to the proposed construction of Van der Vorst (2018) and captures what the design is and what it should do in one sentence. The statement includes the description of a product/ service category (1), the target group (2), and the benefits of the aimed design on different levels: emotional (3), functional (4), and self-expressive (5).

1. Design a service proposition
2. For Accenture*
3. That helps to get insights into the core stakeholders values and needs
4. And use those insights to guide towards a future-oriented mindset to feel more certain
5. To empower core stakeholders to initiate chain collaboration to accelerate sustainable innovation in the FVC.

*The target group intends that the final design will add value within Accenture; this will be facilitated via FotF but is not limited to work outside of the capability.

DESIGN REQUIREMENTS

The requirements are the basis for developing the service in chapter 7. According to Van Boeijen et al. (2014), design requirements define the essential characteristics of the design. They are based on Accentures' implications on the stakeholders' needs, the success criteria, and the prioritised segments. Additionally, the final design will use the requirements for validating and assessing.

Discover
The design needs to **discover** the stakeholders' values and needs **holistically.** E.g. looking at the system as a whole to see the cause and effects clearly to create a better understanding of each other. This understanding will help tailor the trajectory of the various services Accenture can provide.

Catalyse
The design needs to stimulate the conservative mindset into progressive thinking by **provoking** them to explore. This exploration helps with anticipation, which creates a sense of purpose and urgency to undertake action.

Clarify
The design needs to handle the complexity by clarifying the stakeholders' roles, incentives and vision. To ensure this, the **positioning of the stakeholder** in the chain should be a central topic.

Guide
The design needs to allow Accenture to act as a **neutral party that guides** companies with their expertise. Hence, the guidance needs to be objectively handled by the company, increasing the overall trust.

Enhance
The design needs to enhance collaboration by turning stakeholders towards the same goal and allowing everyone to be **initiators**.

CHAPTER 6
KEY TAKEAWAYS

This chapter presents the opportunity area and the design brief that bridge the research diamond with the design diamond. The challenge will lie in the explore phase, where core stakeholders find it difficult to anticipate their role, incentive, and vision before collaborating with others. This uncertainty creates a reluctant attitude to initiate change, letting them stay conservative. Hence, the final deliverable will be a service proposition for Accenture that helps the company to get insights into the core stakeholders values and needs to guide them towards a future-oriented mindset. Therefore, empowering stakeholders to initiate chain collaboration. Design goals and requirements ensure that the proposition fits both the FVC and Accenture needs.

07

DESIGNING THE SERVICE

Chapter 7 describes the design process of the service proposition. Furthermore, it introduces the service by explaining its context, purpose, characteristics, and content. The content is through validation sessions constantly iterated, which generated input for the final design in the next chapter. Additionally, the following sections present the theoretical background of the content to justify certain design choices.

PARAGRAPH 7.1

DESIGN PROCESS

First, chapter 6 narrowes down the project scope in a design brief suitable for the timeframe of this thesis. Subsequently, a co-creation workshop with fellow SPD students is held to brainstorm concept ideas and gain fresh insights on the design brief (appendix H). Afterwards, individual ideation creates the first concept through individual ideation, based on the backcasting casting method (paragraph 7.3).

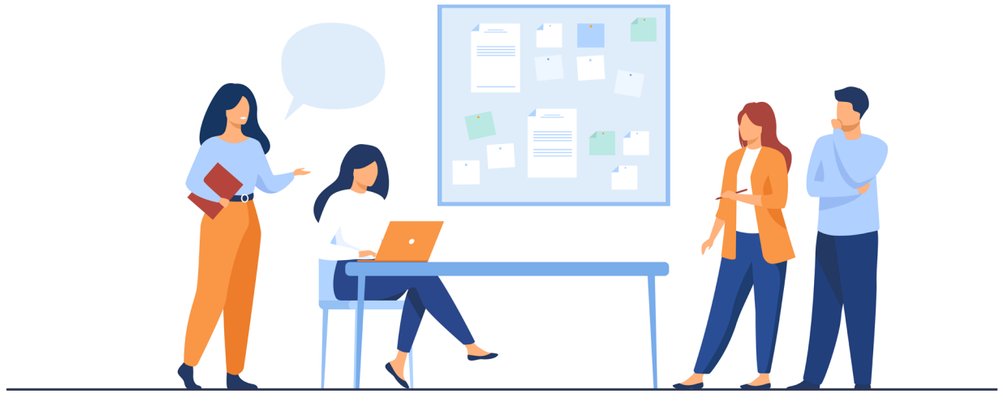
Eleven individual iterative meetings with Accenture, Van Berlo, and stakeholders are held to constantly develop the concept to an established final design, focussing on developing the right content, conditions, and implementation. Upon that, five consultants of the Food of the Future capability in a collaborative meeting and four individual validation meetings with the core stakeholders' from chapter 3 validates the final service proposition to finalise the overall project.

DESIGN FOCUS
24/11 FOTF design focus workshop

BRAINSTORM
30/11 Co-creation workshop SPD students

CONCEPT DEVELOPMENT
30/11 Digital Bus Integration Analyst
09/12 Technology Consulting Manager
10/12 Digital Bus Integration Analyst
20/12 Managing Director
22/12 Business Designer at VanBerlo
23/12 Management Consulting Analyst
04/01 International FMCG
04/01 International Food Trader
06/01 Managing Director
07/01 Advisor Multi-Stakeholder Partnerships
08/01 Management Consulting Analyst

VALIDATION
31/01 International FMCG company
31/01 International Food Trader
01/02 Future Farmers Association
03/02 FOTF validation meeting
03/02 Dutch Supermarket Chain



PARAGRAPH 7.2

INTRODUCING THE SERVICE

This paragraph introduces the designed service by explaining its context, characteristics, purpose and added value for Accenture and the FVC stakeholders. After the introduction, the following sections will further disclose the content of the service by providing the theoretical foundation to justify certain design choices.

CONTEXT OF THE SERVICE
The overall service proposition is designed for the Food of the Future capability and supports its strategic pillars and vision. The service consists of three phases that focus on the interplay between Accenture and the targeted stakeholder, which request several action points from both sides. Therefore, the service consists of two main elements: a different set of **tools** that guide the consultants in creating content, ranging from tools that helps with exploring trends to tools that help create concrete actions. Subsequently, a **supported platform** conveys the created content targeted to first create awareness and then provoke better anticipation. The stakeholder uses the platform independently but requires specific actions to receive more valuable content.

PURPOSE OF THE SERVICE
The service's primary purpose is to create a **new engagement touchpoint between Accenture and the stakeholders from the FVC**. For Accenture, the service catalyses change with accessible conversation starters to get insights into the core stakeholders values and needs to create a future-proof fundament to collaborate. As a result, the service lets the stakeholders embrace ambiguity and empowers them to collaborate more confidently. After the initiation, Accenture can guide the stakeholder further in future projects with their current capabilities.

CHARACTERISTICS
The service is based on the existing **participatory backcasting framework.** According to Okada et al., (2022), the focus first lies on creating future visions through scenarios (exploration) and then reasoning back from those visions to concrete actions (backcasting). The service concentrates on the **exploration phase**, whereas it stops at the point of backcasting (figure 17, pink area), where Accenture can use its current capabilities. Additionally, a used method of Van Berlo inspires the method of creating future scenarios that describes a step by step plan that functions as the overall structure of the final design. The combination, in this context, is new and therefore suitable to use as a competitive differentiator for Accenture. As a result, three phases outline the overall service structure: **explore, envision, and engage**. These phases also represent the consultants' user journey with the outcoming content for the FVC stakeholders.

VALUES
For Accenture
The service adds a new touchpoint that starts the engagement between Accenture and the stakeholder in the first phases. It creates a creative manner to show its expertise that FotF can use to gain the attention of both current clients (i.e. retaining contact) and new FVC stakeholders. The provided toolkit will help the consultants form and communicate the desired content for the stakeholders. By building and delivering a solid fundament, stakeholders can freely explore their possibilities with Accenture, which creates traction for future services.

For FVC stakeholders
Using the built fundament of Accenture diminishes the lack of leadership. Whereas they can let the company do most of the thinking work and have the freedom to respond when they want to. Because the service is approachable, all stakeholders of the FVC can be voiced and heard, which helps with the lack of a holistic view. By reading the future scenarios, it makes envisioning future possibilities easier. Subsequently, the platform gives the chance to engage with other like-minded stakeholders.

PARAGRAPH 7.3

PARTICIPATORY BACKCASTING

The final service proposition is based on the principle of participatory backcasting, a strategic problem-solving framework that is often used in uncertain circumstances (Koning et al., 2022). It contains multiple characteristics to deal with the elements from the design brief. This paragraph explains the theoretical background of the framework in relation to the design brief, and therefore substantiates design choices for the final service.

PURPOSE OF BACKCASTING

Quist and Vergragt (2006) divide the method into three stages, as seen in figure 17. The framework first creates desirable future visions based on a current trend or problem. Then it examines how looking back can achieve this desirable future in robust elements before defining and planning follow-up activities and strategies (Miola, 2008). According to Dreborg (1996), backcasting is useful when:

- The studied problem is complex
- There is a need for significant change
- Leading trends are part of the problem
- The issue is a matter of external factors
- The scope is broad enough, and the time horizon is long enough to leave considerable room for deliberate choice.

Since all these conditions correspond to the research in chapter 2 and the found drivers and barriers in chapter 4, it is crucial to see what the method can mean in the context of sustainability and Accenture.

Sustainable applications

As earlier identified in the barriers, sustainability is very complex due to the inherent uncertainty of the future and the ambiguity at FVC stakeholders by having different value sets. Miola (2008) stated that backcasting frequently involves stakeholders in ambiguous subjects like sustainability, where utilising inputs from a broad range of stakeholders is essential. The proposed method is well suited to use as a tool for thought experiments focused on developing sustainable futures (Okada et al., 2022).

The SDGs, for example, as explained in paragraph 2.2, contain long-term and diverse goals. Consequently, developing plans and strategies that will bring about innovation and promote sustainability is challenging (Okada et al., 2022). The framework can function as a starting point for analysing potential, feasibility, and possible ways of achieving them. Including the focus on SDGs in the service proposition could, however, possibly limit the validation and ideation of other functionalities. Therefore, they are not contemplated in this project but can be considered in the future.

DESIGN IMPLICATIONS

Several aspects of the framework substantiate how participatory backcasting is suitable for the final design. First, Robinson (1990) mentioned that backcasting is not necessarily about how the method can attain desirable futures. However, it is also about **analysing the trends** to which undesirable futures can be avoided or responded to (explore phase). Accenture can use it to emphasise how current developments can lead to **possible dead ends or possibilities**, catalysing a better understanding of the need to innovate disruptively (envision phase).

Furthermore, using a shared framework makes it easier to make teams or groups of people who share the first-order principles of a vision than to make them share detailed pictures of the vision (Holmberg & Robert, 2000). Therefore, Accenture needs to facilitate the possibility to connect with **like-minded people** based on a shared vision to backcast together (engage phase).

Lastly, the method lets the stakeholders think upstream, which is often perceived as being correctly understood and addressed more quickly than the complexity of downstream (Holmberg & Robert, 2000). Thus, thinking upstream is beneficial for the **overall accessibility** and engagement in the design. Afterwards, analyses of complex downstream problems can then flow more logically which is something Accenture is already quite familiar with.

As earlier mentioned in paragraph 6.1, this project focuses solely on enhancing the exploration phase of collaboration. For that reason, the proposition will stop at the point when backcasting begins. Since Accenture wants to offer the service to the FVC stakeholders, the company requires to understand the needs of the different stakeholder groups, what they need to be part of a transition, and what they think the change would look like (Koning et al., 2021). For that reason, the final concept calls for a digital platform as part of the service where Accenture can present specific content, whereafter stakeholders can react upon for an effective backcasting process.

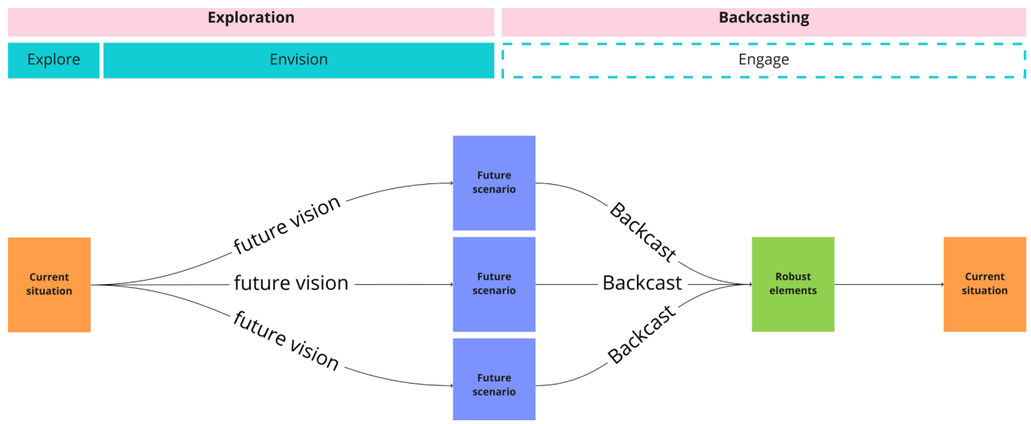


Figure 17: Participatory backcasting framework (Quist & Vergragt, 2006) + proposed stages of the final design (turquoise color)

FUTURE SCENARIOS

A way of approaching the definition of the future is to create an imaginary world, which describes how the chain developes to a sustainable condition. That fictional world does not necessarily give quantifiable information about the future sustainable situation (Miola, 2008). Richter et al. (2021) recommended customising formats of future scenarios as close to the target group without using complex graphs or tables that can lead to confusion.

The brainstorm with the FotF capability (appendix G) showed that telling a compelling story is the most desired competency to achieve their north star. Therefore, future scenarios will convey the visions where the emphasis lies on storytelling. Facing the fact that creating future scenarios is an unfamiliar task for the consultants, the final design should contain a specific toolkit that guides the consultants throughout the process.

Several methods can be used to assess sustainability to create future scenarios (Fauré et al., 2017). The choice is fallen to adopt the 'Future Equity' method of Van Berlo (figure 18) for two reasons:

- Van Berlo is a design agency that Accenture acquired in 2019. This acquisition means that the agency has direct contact with Accenture and, therefore, can quickly help with adopting the toolkit and service when needed since it has prior knowledge about the activities.
- Since Van Berlo has a toolkit for creating future scenarios they already offer as a service that generates noticeable results, this project chose to use their toolkit as a basis. In addition, it is impractical to develop an entire toolkit from scratch; looking at the multiple elements of the proposition, which substantiates this consideration. Nevertheless, the content and objectives of the redesigned toolkit are specifically tailored to the context of this project, thus contemplated as new.

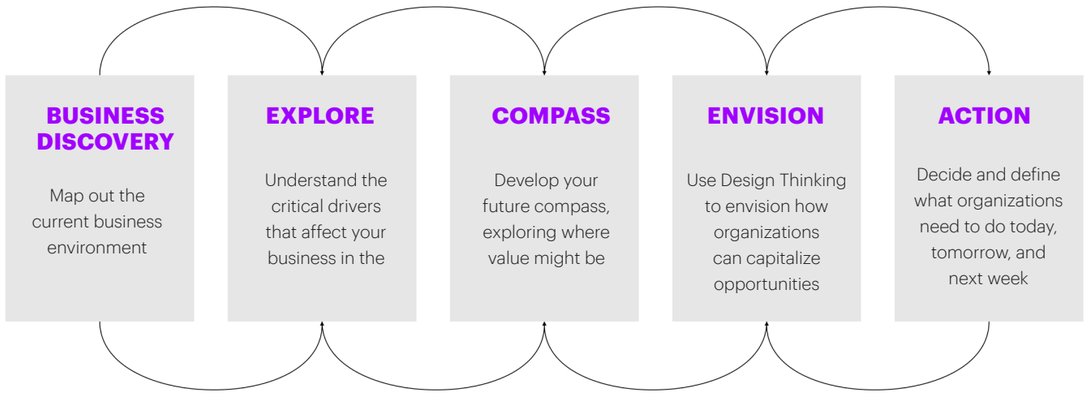


Figure 18: Iterative design process of future scenarios (Future Equity) by VanBerlo

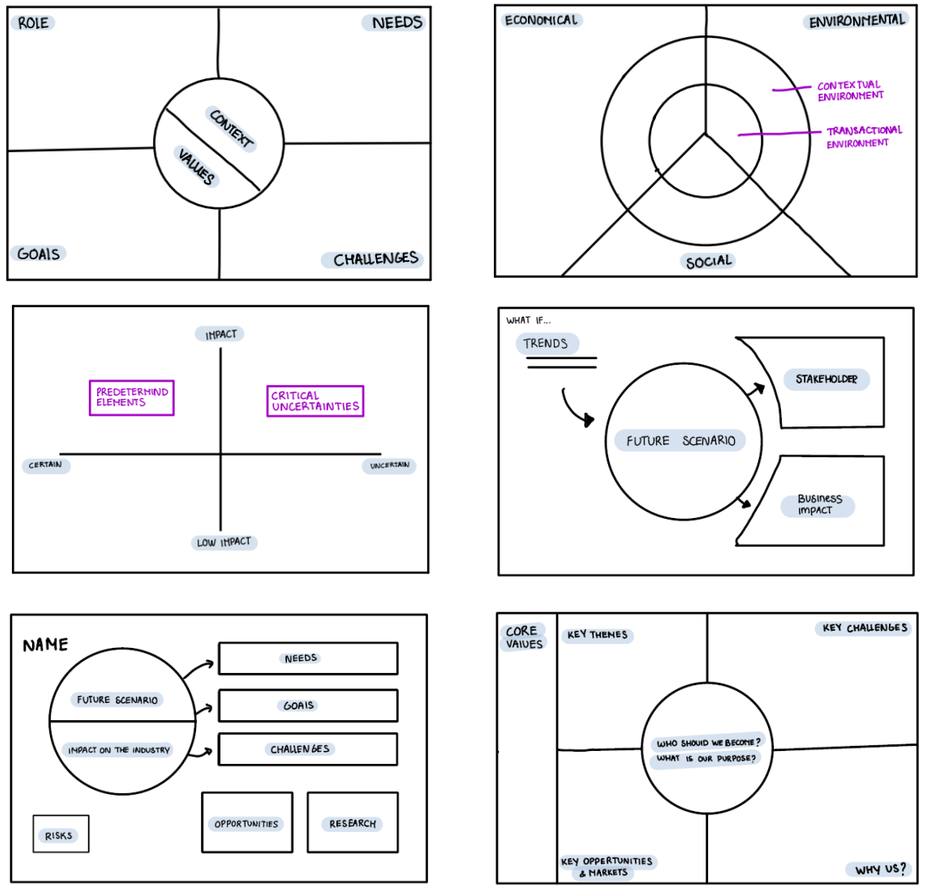


Figure 19: Schemetic view of the Future Equity toolkit

CHAPTER 7
KEY TAKEAWAYS

This chapter describes and introduces the designed service proposition developed through several iterative sessions with Accenture, Van Berlo, SPD students, and stakeholders from chapter 3. The service consists of three phases: explore, envision, and engage, focusing on the interplay between Accenture and the targeted stakeholder, which request several action points from both sides. Therefore, a designed toolkit guides the consultants in creating content. At the same time, FotF can publish the content on the supported platform for the core stakeholder to react to. The service is based on the existing participatory backcasting framework and the FutureEquity method of Van Berlo. Here, the focus first lies on creating future visions through scenarios (exploration) and then reasoning back from those visions to concrete actions (backcasting). The last section discloses the content of the service by providing the theoretical foundation to justify several design choices.

08

DELIVERING THE SERVICE

This chapter presents the final design of the service proposition for the Food of the Future capability. It creates a new touchpoint for engagement and is devised by the participatory backcasting framework and the ‘Future Equity’ method of Van Berlo. The final design delivers a new framework accompanied by a blueprint that visualises all the service parts for Accenture. Furthermore, a use scenario describes the usage of the supported platform and toolkit. Lastly, a roadmap presents the required steps on how to implement the service successfully into the company.

PARAGRAPH 8.1

BLUEPRINT

This paragraph describes the overall proposition's outcome via a new framework and its associated blueprint. The blueprint provides a detailed overview of the interaction between Accenture and the stakeholder and shows how the platform and toolkit position itself within this structure.

FRAMEWORK

Combining the participatory backcasting framework (figure 17) and the 'Future Equity' method of Van Berlo (figure 18) led to creating a unique framework that describes the stages of a new service proposition for Accenture seen in figure 21 on page 70. A new phase is added between exploration and backcasting, whereas the emphasis lies on **catalysing the initiation of the stakeholders to collaborate.** To achieve that, a solid and comfortable fundament is built that first specifies the positioning of the stakeholder in the future scenario and then creates boardable visions and propositions to act on it.

BLUEPRINT

The new framework creates an accompanied blueprint for Accenture, as seen in figure 22, that is inspired by the service blueprint structure of Bitner, Ostrom & Morgan (2008). According to the authors, this design technique is client-focused and helps businesses visualise their service processes and points of client contact. In the context of this thesis, the term 'client' refers to a core stakeholder in the FVC. The blueprint is seen from a new person's perspective that comes into contact with it for the first time. It focuses on the interaction between Accenture and the stakeholder.

Interaction and visibility line
According to Gibbons (2017), a blueprint needs two lines: a line of interaction that depicts the direct interactions between the client and the organisation and the line of visibility that separates all service activities that are visible to the client from those that are not visible. In this context, the consultants generate knowledge with the help of the toolkit (not visible) and publish it on the platform (visible). Afterwards, stakeholders can convey their values and needs, used again as input for the following stages. Figure 20 summarises this interplay.

Phases
The top of the blueprint indicates three consecutive phases: explore, envision, and engage. The first phase explores the food value chain ecosystem by analysing current stakeholders needs, challenges, and trends. The phase elicits the stakeholder to examine their position in the ecosystem. The second phase is envisioning future scenarios, conveyed through storytelling to anticipate future possibilities. The future scenarios are used as conversation starters to catalyse a sense of purpose and urgency. The last phase is engaging, where the stakeholder can enrol in several future visions and propositions to contact like-minded people and participate in ecosystems that Accenture can orchestrate and facilitate. The engage phase encourages stakeholders to be initiators and undertake action by collaborating with others. Each phase is divided into two stages with their sub-goal to create concrete steps for the interaction.

Timeframes
Additionally, other elements on the y-axis are adjusted to fit the context. These were developed and discussed during the concept development sessions. There are two timeframes; one for operating internally, i.e. using the toolkit to generate content, and one for when the content needs to be published. Paragraph 8.4 elaborates on the planned execution that challenges the current way of working.

Accessibility
The blueprint addresses the accessibility, which narrows down into three actions as the stakeholder progresses throughout the journey. These actions are needed because future scenarios consist of valuable information that Accenture can use as an asset to attract potential clients (concluded by the managing partner). In addition, contact details are necessary to enlarge Accenture's food network.

Values
The bottom part shows the value of the service towards accelerating stakeholder collaboration regarding the implications of Accenture on the found barriers in chapter 4.

Use-case
Paragraph 8.3 describes a use-case scenario to visualise how a new stakeholders' journey and the accompanying touchpoints within this blueprint look like to understand the different stages in the framework better.

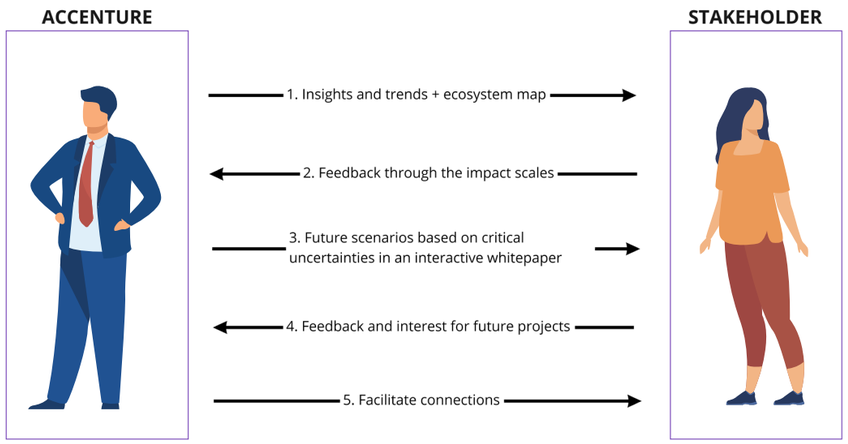


Figure 20: Interplay between Accenture and stakeholder

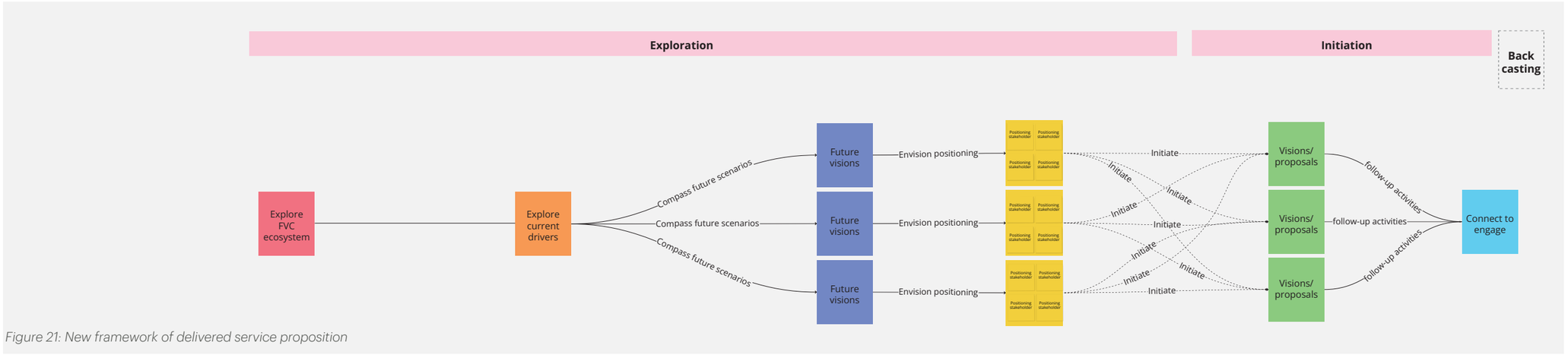


Figure 21: New framework of delivered service proposition

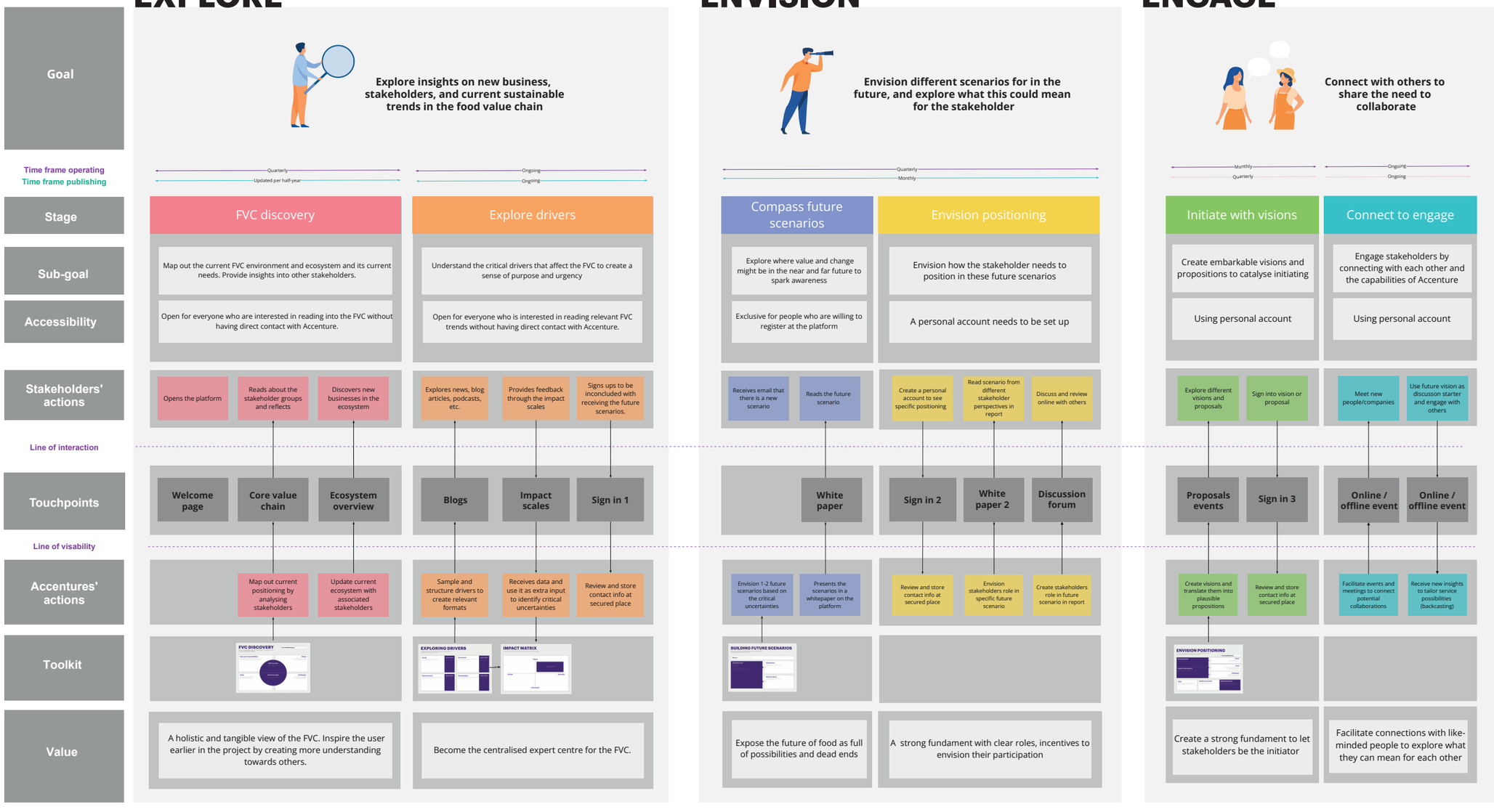


Figure 22: Blueprint of designed service proposition

PARAGRAPH 8.2

TOOLKIT

The concept development sessions concluded that the consultants favoured a storytelling approach for conveying the future visions. However, considering this service consists of a process that does not usually fit in the daily tasks of the consultants, a toolkit is necessary to guide them throughout. As substantiated in paragraph 7.3, the toolkit is devised of the 'Future Equity' approach (figure 19) due to the proven functionality and the ease of designing further with it. This paragraph presents a short description of each tool.

DESIGN REQUIREMENTS

Before redesigning, three toolkit requirements are made up together with the consultants:

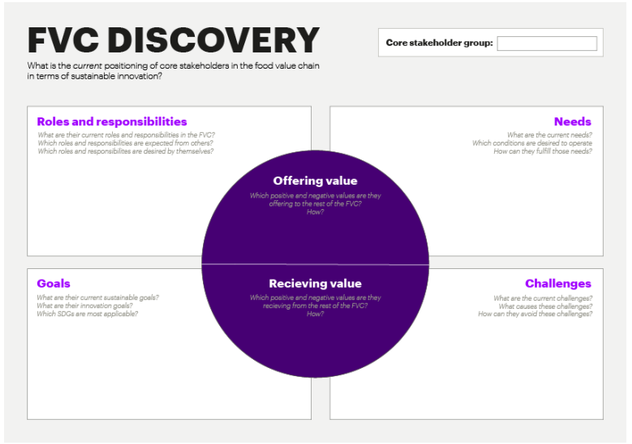
1. The tools need to be user-friendly because they ask for competencies that do not fit the consultants daily tasks. Additionally, different sets of people will use these tools in the capability that can change throughout the months. Therefore, the tools need no additional explanation and prior knowledge. Solution: The title of the canvas corresponds with the stage it needs to be used. Furthermore, it contains a straightforward description of what the tool searches for by providing example questions.

2. The tools need to be easily accessed. Solution: Uploading the toolkit in a digital workspace such as Miro or Mural is recommended. An online environment provides an easy way to use digital post-its, and the consultants can place all information gathered during the process here in one overview. However, it should not eliminate the possibility to use it offline, and therefore it needs to be printable.

3. The tools need to be specifically applicable in the context of the Food of the Future capability. Solution: To achieve that, they contain trigger questions that help the consultants formulate content in the context of the FVC.

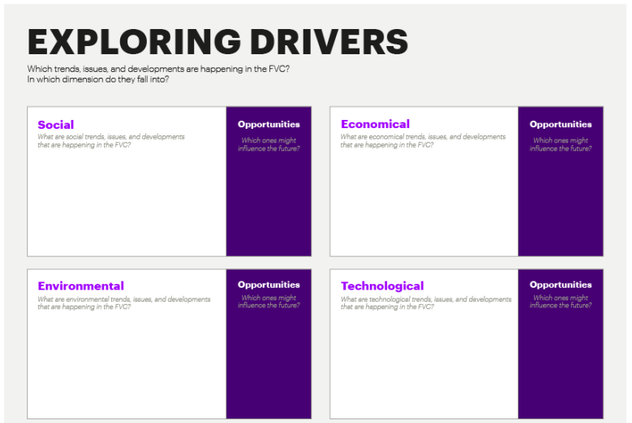
THE TOOLS

The toolkit consists of six canvases, referred to as 'tools'. For a detailled look of the tools, see appendix I. A short description about every tool is presented in the following pages.



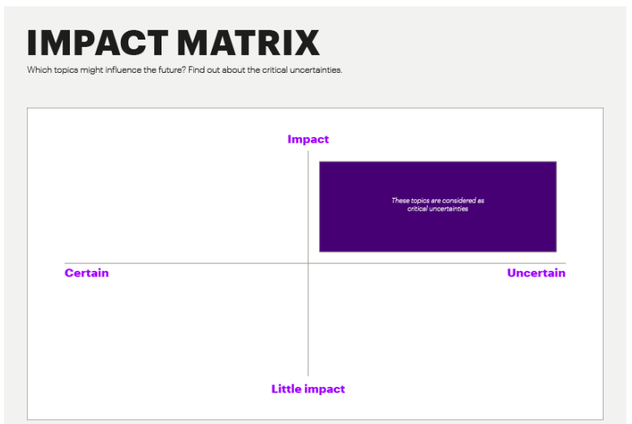
FVC discovery

The canvas discovers the current positioning of the core stakeholder in the FVC in terms of sustainable innovation. The canvas deep-dives into one stakeholder group by mapping its roles and responsibilities, needs, goals, and challenges. Subsequently, provide an answer to how the stakeholder group offers and receives value in the FVC.



Exploring drivers

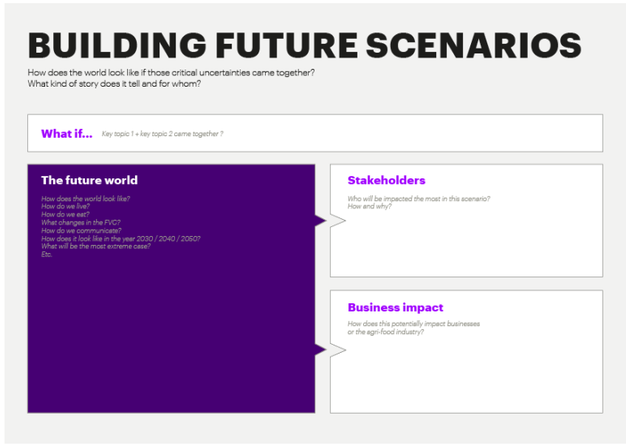
The canvas structures the found drivers in the TBL dimensions: social, economic, and environmental. Because of the technological interest of the company, it adds an extra dimension. The consultants use the canvas as a 'dump' for storing the drivers, whereafter a group discussion can pick out the drivers with the most influence on the future. These influential drivers can be taken into account for the impact matrix or exploited as a topic on the platform.



Impact matrix

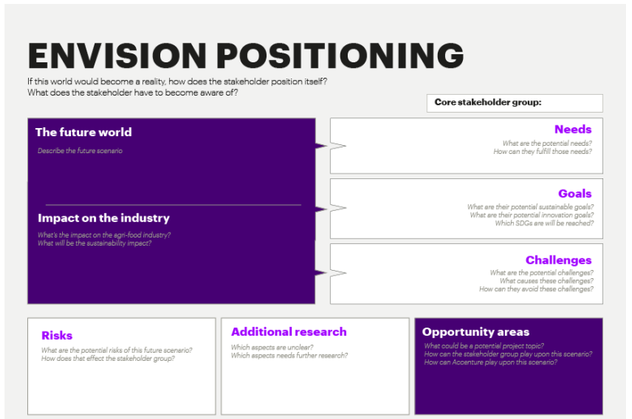
The canvas maps the explored drivers based on the feedback that the stakeholder has passed through the impact scales on the platform. The critical uncertainties are found by mapping them out on an impact matrix. These are necessary for creating future scenarios.

Figure 23: Redesigned toolkit for Accenture to generate content (part 1)



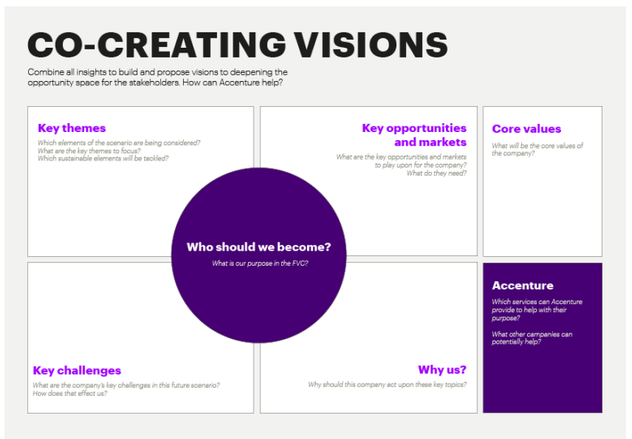
Building future scenarios

The canvas creates future scenarios by combining two critical uncertainties in an imaginary world. It explores how the FVC, in general, positions itself in 2030, 2040 or 2050. Afterwards, a short review of which uncertainties will most influence stakeholders and how that impacts the businesses. This canvas also creates the basis for the following canvas.



Envision positioning

The canvas identifies the specific positioning of the different core stakeholder groups in the future scenario. The canvas solely focuses on one stakeholder group, where the needs, goals, and challenges are reassessed, compared to the outcomes of the 'FVC discovery canvas'. The last step is to already think about opportunity areas for future projects. This canvas can also be used for a co-creation session with a specific company to see how it is positioned in the future.



Co-creating visions

Based on the stakeholder's input, concrete visions and propositions are created with this canvas. The creation is done internally, whereas a plausible service or purpose can be published to let stakeholders enrol when interested. The blueprint describes this pathway. Another option is to execute this collaboratively with a specific company.

Figure 24: Redesigned toolkit for Accenture to generate content (part 2)

PARAGRAPH 8.3

PLATFORM

As mentioned in paragraph 7.3, the final concept calls for a digital platform as part of the service where Accenture can present specific content, whereafter stakeholders can react upon an effective participatory backcasting process. Therefore, it has two main functionalities: create an accessible and creative encounter with relevant information for the stakeholder, while providing insights into the stakeholders' values and needs to achieve the primary objectives effectively for the consultants.

Furthermore, a digital platform is chosen instead of a physical form because all stakeholders can use it simultaneously and access it from any location, which increases the accessibility and exposure of the service. Working remote is also favourable for the consultants because it is often necessary due to different client locations. Moreover, by using a digital platform, data can be easier updated, tracked, and stored at a central place, consequently analysing and synthesising that data more efficiently for the following steps in the service. The created mood boards in appendix J inspires the platforms' user interface and looks at Accentures' competitors to differentiate. Appendix K shows a detailed look of the content and and example of a future scenario on the platform.

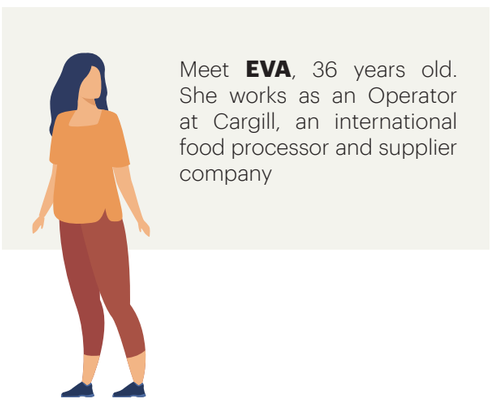


Figure 25: Use case profile

USECASE AND TOUCHEPOINTS

The following pages describe a use case, telling a stakeholders' journey to help demonstrate and understand the blueprint. Specifically, to better understand how the tools and the platform fulfil a supporting role. Since the platform is accessible to everyone, the person using it is referred to as 'Eva' in the scenario (figure 25), to get a better idea. There are also multiple entry points to come in contact with the platform. These are further explained in paragraph 8.4. For the use case, an example entry point is chosen. The touchpoints corresponds to the colour of the associated stage in the blueprint.

In addition, this chapter focuses on explaining the designed proposition that responds to the design brief of the thesis. Therefore, it is important to stress that the blueprint visualises a stakeholders' journey when engaging for the first time and follows the journey from beginning to end to give the broadest explanation. However, in reality, this could look different. Not all users follow all the mentioned stage subsequential every time, nor do they contact all the corresponding touchpoints.

Yet, this does not influence and change the consultants' actions with the toolkit. On top of that, each blueprint stage signifies a particular value or design requirement, which solves at least one of the found barriers in chapter 4. These are emphasised. Therefore, the overall service is valuable in either way.

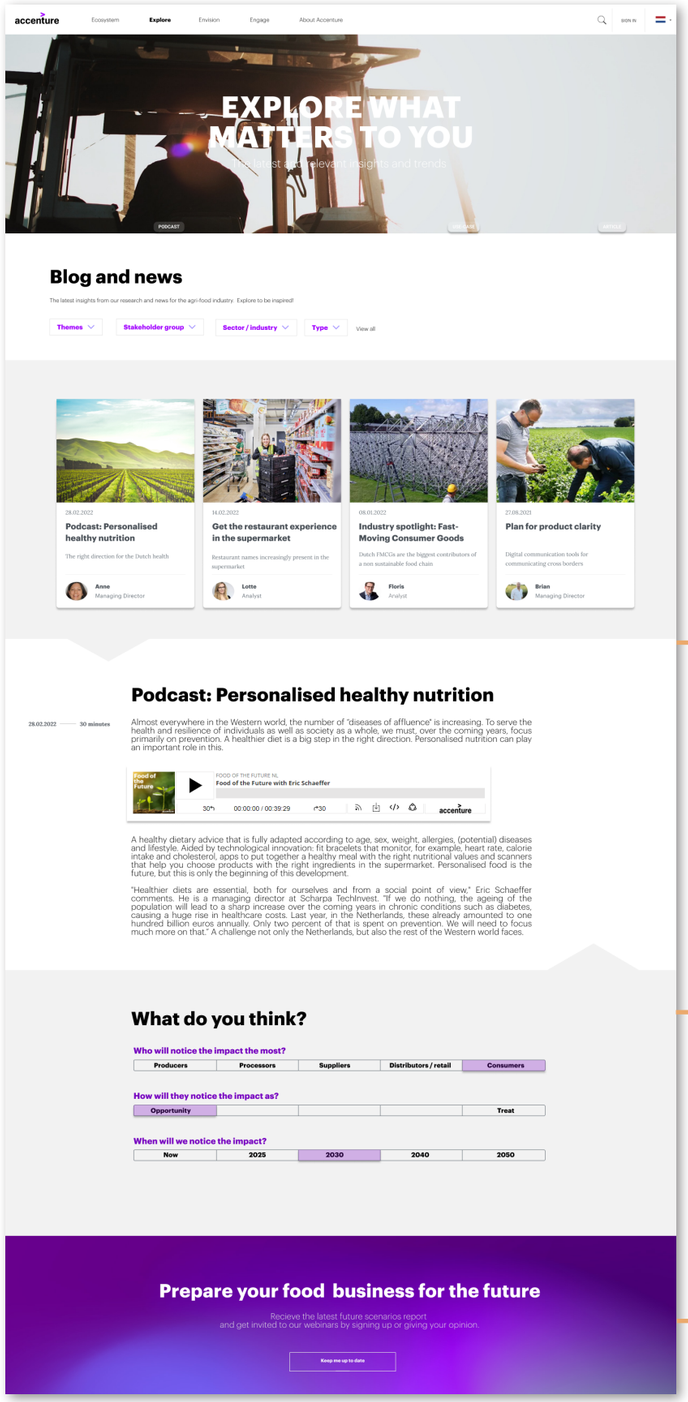
Welcome page
Eva became aware of the platform through a Linkedin post her colleague shared. She opens the link for the first time and sees the 'Food of the Future' title. She gets curious and clicks on it.

Core value chain
Eva sees five different stakeholder groups. She clicks on the processors and suppliers category and sees an extensive analysis of what Cargill needs to consider this year in terms of the companies role, goals, challenges and needs. Eva becomes interested in reading about the other groups and begins to understand more about the current situation, which gives her a more *tangible and holistic perspective* of the FVC. [Tool: FVC Discovery]

Ecosystem overview
She then looks at the ecosystem map. Wow, Eva did not realise how many companies are committed to transforming into a sustainable food system. She clicks on the companies and startups she wants to explore further later.

EXPLORE

Figure 26: The food value chain ecosystem page of the platform



Blogs
In the corner of her eye, she sees a reference to a podcast about personalised healthy nutrition. She listens to part of the podcast and immediately becomes *inspired*. She shares the article link with her co-worker via WhatsApp. [Tool: Exploring drivers]

Impact scales
Below the article, Eva sees three questions. She pauses and thinks about when and how personalised healthy nutrition will hit in the future. She quickly clicks on the scales and immediately sees how other people have voted. They are on entirely different levels than Eva. This mismatch was not what she expected. [Tool: Impact matrix]

Sign in 1
At the very bottom is the possibility to subscribe to monthly whitepapers with her email. Eva is curious about the idea of future scenarios about the food chain, something she has never explored or thought about before. Maybe she will learn something interesting that contributes to her work.

EXPLORE

Figure 27: The blogs and news page of the platform

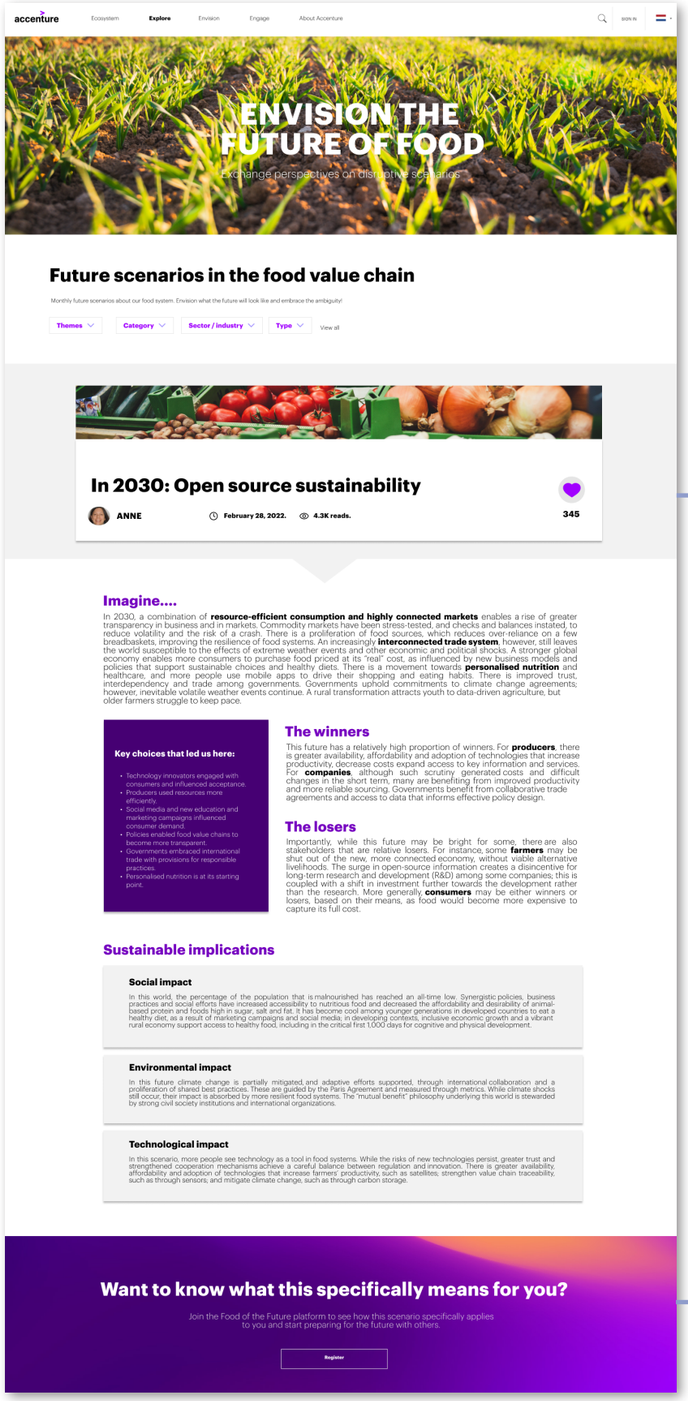


Figure 28: The future scenario whitepaper on the platform

White paper
Eva receives a link to this month's white paper through a notification by email. The future scenario is about Open Source Sustainability in 2030, a topic she had not heard before. Eva reads about a futuristic world with an interconnected trade system and more. It also elaborates where winners and losers are in the chain and how this scenario will impact multiple dimensions. Interestingly enough, Eva also sees the topic of personalised healthy nutrition coming back. The scenario immediately *triggers* her because she could never imagine such a world. [Tool: Building Future scenarios]

ENVISION

Sign in 2
After reading, she is a little bit overwhelmed with all the information. Eva thinks about if this is applicable at Cargill but has difficulty doing so as her company usually does not look beyond three years. Luckily, beneath the scenario, there is a possibility to *envision* more specifically. Therefore, Eva easily creates a personal account on the platform.

ENVISION

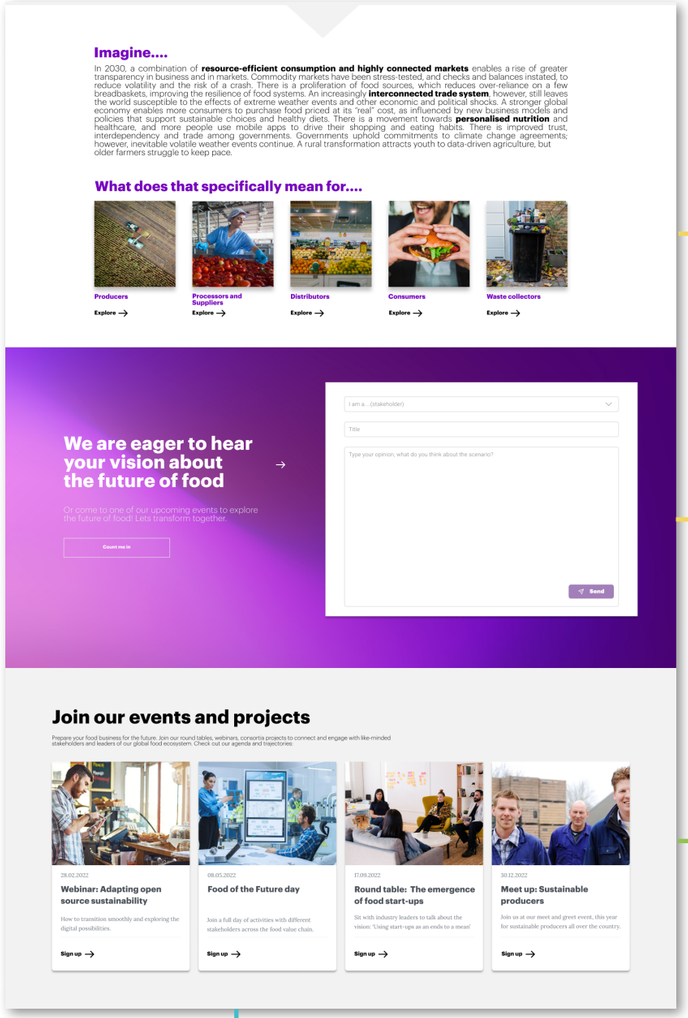


Figure 29: Specific positioning and events page of the platform

Detailed positioning (whitepaper)
She now can read about how Cargill and others of the FVC are *positioned* in the Open Source Sustainability scenario. Eva clicks on the producers and suppliers group she identifies with but is also curious about handling the producers. The scenario can now be read from *different points of view.* The switch in view creates *more understanding* of how the chain can possibly act in the future. [Tool: Envision positioning]

ENVISION

White paper discussion forum
The platform gives the ability to provide feedback on future scenarios. She is very curious if others agree with the scenario or not. Therefore, she places a message.

ENVISION

Propositions / sign in 3
She sees a round table event about the emergence of start-ups that are based on last month future scenario. Eva is very *curious* if collaborating with those start-ups will help or stop Cargill with its goals. Furthermore, she shares the event with a close friend who just started at a food delivery start-up. She *initiates* the idea of going together. [Tool: Co-creating visions]

ENGAGE

Events
At the event, she meets all sorts of *like-minded people* interested in the influence of start-ups in the FVC. Accenture *engages* first with the stakeholders by presenting the vision and their perspective. Afterwards, through triggering questions, a round table is hosted. Eva listens to companies' perspectives about how to achieve a successful collaboration between corporates and start-ups. After the event, she goes home, *feeling empowered*.

Accenture
Discovers new insights about *the values and needs* of the chain about the start-up vision that they never heard before. Many guests mentioned that they first want to understand their sustainable impact before collaborating with a start-up. Accenture can *tailor and offer specific services* to equip stakeholders to map out their sustainable impact effectively based on that insight. In addition, there was much enthusiasm for a new consortium with the presented people. The company will contact them to create a *potential starting point for a project.*

ENGAGE

PARAGRAPH 8.4

IMPLEMENTATION ROADMAP

A roadmap explains the setup and implementation of the service to make the final design as feasible and viable as possible. The service asks for a significant commitment of the Food of the Future team, and the supported platform has to be built from scratch. In addition, Accentures' credibility is not strong enough to successfully reach out to everyone and ask for commitment and trust, as concluded in paragraph 5.2. For these reasons, FotF should consider various elements when implementing the service at Accenture before offering it successfully to the target group.

HORIZONS, GOALS, ACTIVITIES

The overall goal of the roadmap (figure 30) is to synchronise the different development processes within Accenture to execute the designed service successfully. Three horizons divide the roadmap, each representing a year. With the resources and strategic focus of the Food of the Future capability, three years are feasible enough to release the platform to its full potential and the right target group.

The first horizon focuses on laying the foundation internally. Therefore, the usage and content of the general FotF page on the Accenture website should be more extensive. Furthermore, The FotF team has to lay down a solid logistical basis of the internal governance and responsibilities to create more commitment and skills to develop future scenarios. With that commitment, the first business case can be set up. **The second horizon focuses on exploiting the service specifically for existing clients in Accentures' network** (B2B) to establish the first traction and interaction. Marketing campaigns and sales activities are the main focus in this horizon while testing and optimising the functionalities runs in the background. **The last horizon focuses on widening the scope by creating a separate service entity and being available for all core stakeholders in the FVC** (B2B2C). In three years, the service has a dedicated team that can organise, facilitate and guide the engagement to realise the first collaborative projects and scale innovations.

TEAM

The people necessary for the successful implementation of the service include Food and Agri experts, the FotF consultants, platform developers and people who will finally market the service. In the first horizon, the focus will be on developing the platform's foundation internally. That is why the people needed in this phase are either platform developers and Accenture professionals with an affinity for design thinking or food-related topics. It is also recommended to invest the proper time to create this foundation so the next horizons will work more seamlessly. The platform will be launched and branded in the second horizon. Here, salespeople from Accenture will put the platform on the map. In the last horizon, when the service will be a separate entity, events need to be organised, requiring event managers and workshop facilitators.

ENTRYPOINTS

Before being available for all core stakeholders in the FVC, Accenture first has to utilise its current network (B2B). This step will happen in the second horizon, where the Client Account Lead will approach current clients and show up on important industry network events. The team can use and test the service in practice in this horizon. Afterwards, after the platform gets enough traction and interaction, it will be available for the FVC stakeholders (B2B2C). The entry points for the stakeholders to contact the platform will be going through social media, network events, hackathons and dense locations as the farmers market. Here, Accenture is stepping outside of its comfort zone and focusing it on a different client profile but can use the experience of the second horizon to feel confident and committed to offering it to them.

VIABILITY OF THE PLATFORM

Revenue stream

The platform intends to increase the sales of food and agri innovation projects for players within the FVC by creating awareness. The platform itself will gather data on platform usage and platform visitors. After users create an account, with the search/view and personal data, Accenture professionals can reach out and establish more valuable and relevant contact, potentially leading to new projects. This approach will also extend to the third horizon, where B2B2C consortium projects will be added as an extra stream next to new B2B clients, which means the number of projects will grow.

Investment

The overall proposition needs to be seen as a business development activity that requires the right sponsorship and funding in the first two years. Also, due to the growing projects, more experts and consultants in agri-food needs to be hired to handle those projects.

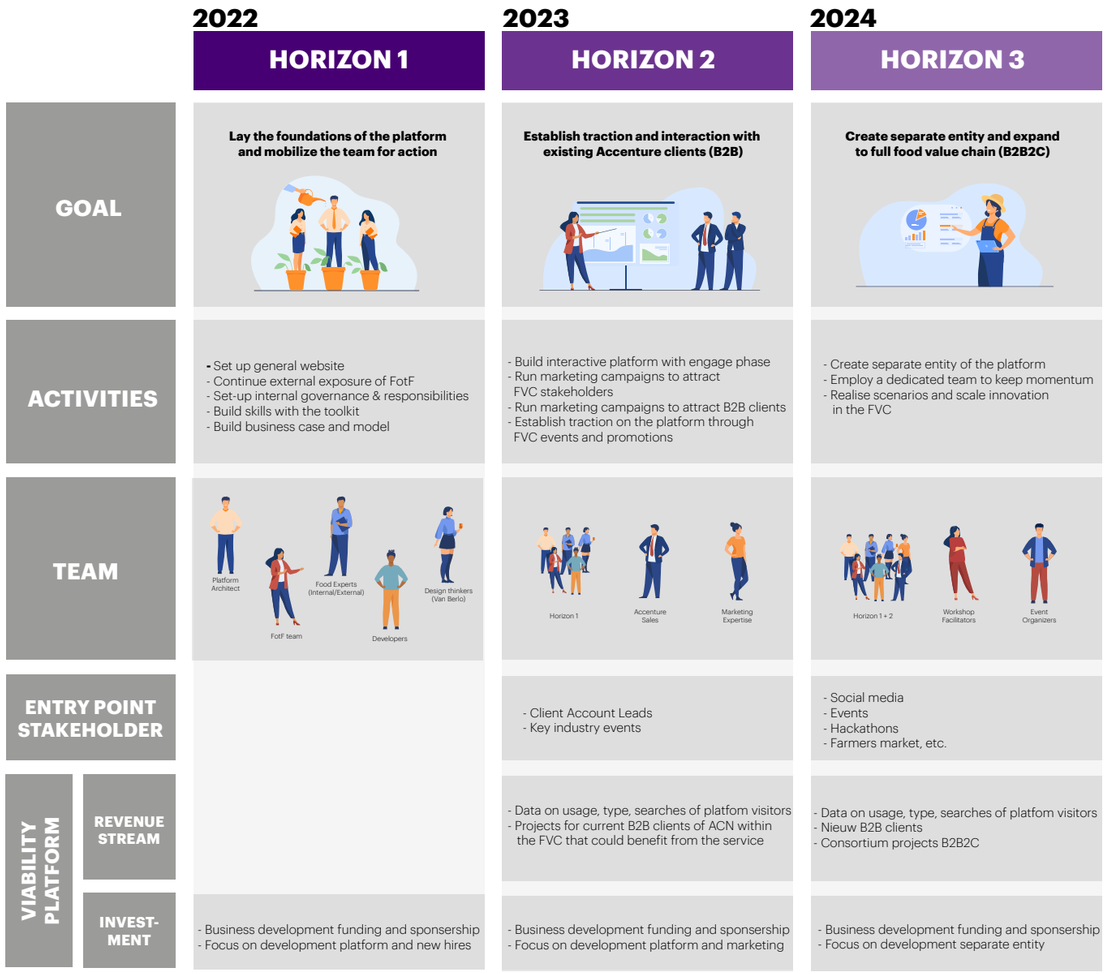


Figure 30: Roadmap for Accenture to implement the service in three horizons

PLANNING

The Food of the Future capability meets up twice a month to discuss and create. However, FotF have to dedicate more time to set up a strong proposition for clients to impact the food value chain and stakeholders. Therefore, figure 31 creates a planning for when consultants must use specific tools throughout the year. The planning is a guideline for when crucial points are when using the tools. FotF can discuss these at the beginning of the year to plan specific meetings. How long each tool needs depends on the experience and skills of the consultant who uses them. That is why investing time and money in the first horizon is crucial.

However, it is observed through the concept development meetings that in the beginning, consultants will be hesitant to invest their time in developing and creating the proper governance. Therefore, it is recommended to have highly motivated team members who seriously want to impact and help sustain the FVC. Otherwise, the service will not be a priority and could lose its value. If the dedication is there and the service is set upright, the service will eventually have its seperate team, which means it will not conflict with the planning of the consultant anymore.

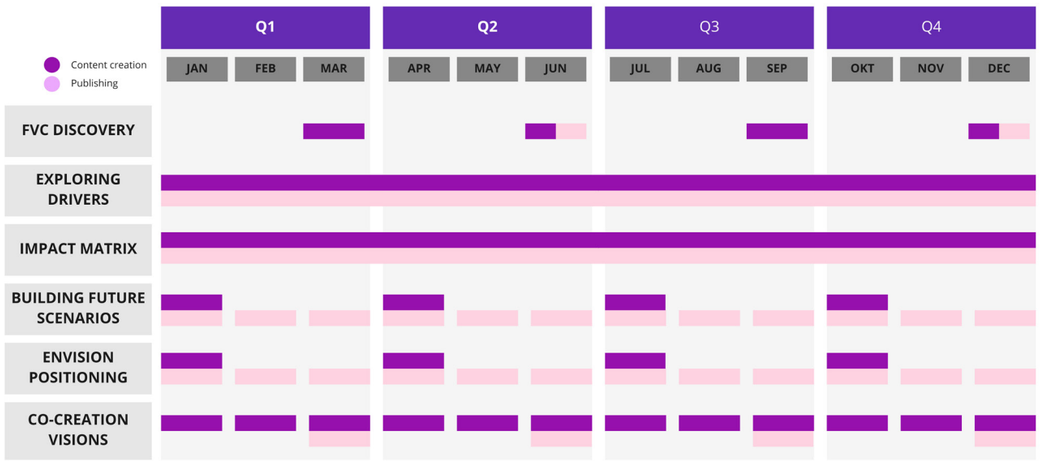


Figure 31: Toolkit planning throughout the year for Accenture

CHAPTER 8
KEY TAKEAWAYS

Chapter 8 delivers the final service proposition for the Food of the Future capability by presenting several elements. First, a new framework is created that introduces a new phase between exploration and backcasting, where the emphasis lies on catalysing the initiation of the stakeholders to collaborate. A blueprint accompanies the framework that visualises Accenture's service parts and shows the interaction between the core stakeholder and Accenture.

The blueprint indicates three consecutive phases: explore, envision, and engage. The first phase explores the food value chain ecosystem by analysing current stakeholders needs, challenges, and trends. This elicits the stakeholder to examine their position in the ecosystem. The second phase is envisioning future scenarios, conveyed through storytelling to anticipate future possibilities. The future scenarios are used as conversation starters to catalyse a sense of purpose and urgency. The last phase is engaging, where the stakeholder can enrol in several future visions and propositions to contact like-minded people and participate in ecosystems that Accenture can orchestrate and facilitate.

A redesigned toolkit with six canvases guides the consultants in creating content for the supported platform. The stakeholders' journey and platform touchpoints are described and substantiated through a use case. Lastly, a roadmap presents the required steps to implement the service successfully into the company. The steps consist of laying down a proper foundation then launching it for current clients (B2B), whereafter the service becomes a separate entity that reaches core stakeholders (B2B2C).

Combining all elements creates a proposition for Accenture to offer to existing and potential FVC clients.

09

DESIGN DISCUSSION

After designing the final concept, two validation sessions are organised to ensure if the design fits with the expectations of the (FotF) consultants at Accenture and the FVC stakeholders sampled in paragraph 3.1. This chapter discusses the outcomes of those sessions, followed by the design limitations (paragraph 9.2) and future recommendations (paragraph 9.3).

PARAGRAPH 9.1

DESIGN VALIDATION

INTERNAL VALIDATION WITH ACCENTURE

Four consultants of FotF validated the final design internally. The consultants are aware of the project from the beginning and contributed during the concept development. The final design is presented in an online meeting, whereas the focus is on validating the feasibility and viability of the service and the toolkit.

The overall reactions to the final design were positive. The following statements reveal the desirability of the service:

'Setting up a new initiative goes hand in hand with creating new services and proposals. This service can already be beneficial and valuable to expand the FotF capabilities'.

'The platform and toolkits are super concrete and practical to communicate with the customer. Even if you are a bit further in current projects, they are still relevant to use.'

'I do see potential in it as a part of FotF to own and continue with it'.

Implementing the service internally
Looking back at the strategic pillars of the Food of the Future capability in paragraph 5.2, the new proposed service should fit within 80% of the current capabilities to make it feasible and strengthen the company's foundation (Orton, 2019). The consultants validated that the platform fits well in the 'awareness' pilar, whereas the generated content by the toolkit is positioned under 'assets', which can attract (new) clients. In addition, the consultants are experienced in working with and building up a platform, whereby a toolkit is also known in their way of work. Therefore, a consultant suggested that this final design can be implemented into their current collection methods.

However, the service also requires a new capability: creating future scenarios through storytelling. It is seen as a unique competitive differentiator, but the consultants are not acquainted with its ability. *'In everyday life, I am not necessarily used to creating future scenarios. However, I am very triggered by the idea of exploring it'.* While in paragraph 8.4 the idea of incorporating a designer in the team that could teach consultants the capability of creating future scenarios, the consultants proposed another recommendation to outsource this capability more effectively, which was more desired by the team. Yet, outsourcing requires more preparation and resources. Therefore, outsourcing is not seen as a practical step when implementing the service for the first time.

Sustaining the success of the service
The service is seen as a way to make stakeholders in the FVC more viable and sustainable for the future. In return, this makes Accenture desirable, which is beneficial for the companies viability. Because the proposals and visions are based on the users' feedback, the service can constantly generate relevant proposals and visions that fit the stakeholders' interests. Playing into those interests prolongs the success of the service. However, this is based on the interviewed stakeholders, which can cause positive bias since the stakeholder is aware of the purpose of the project subject. This emphasises the need for further validation with unknown FVC stakeholders.

EXTERNAL VALIDATION WITH FVC STAKEHOLDERS

The final design is also validated by existing FVC stakeholders who contributed to the qualitative research interviews. Consequently, they are already aware of the project's subject and therefore easier to approach for a validation session. Four separate sessions are conducted, each representing the producers, intermediaries, or distributor stakeholders group. The focus was on the service's desirability, credibility, usability and the supported platform.

Meeting their needs
All stakeholders groups reacted overall positively to the service. The sessions validated that all three phases are desirable in various ways. The different stakeholders stated, for example:

EXPLORE
'At the moment we have to fill in what we have to do ourselves after reading a general article, so it is a refreshing aspect if the trends are specifically applied per stakeholder because then it becomes less abstract but more identifiable. This is a big plus!' - Representative of Future Farmers Association

ENVISION
'I love the idea of reading a future scenario every month. At the moment we have a certain cooperation conflict with some chain partners that would have been easier to solve if it had been anticipated earlier. So it is definitely valuable information which we should not underestimate' - International FMCG company

'Sustainability is very dynamic, you have to constantly keep up with it. Figuring out what is relevant for yourself is a bore. This makes it fun and engaging'. - International Food Trader

ENGAGE
'It becomes difficult to filter where you can participate. So many people contact you and it takes a lot of time and effort to take an overview of what is all possible and where the opportunities lie, which in turn leads to many unnecessary introductions. This engaging phase ensures that you can work together more goal-oriented and efficiently'. - Sustainability Lead of Dutch supermarket chain

Noteworthy, the desirability of the explore phase was more noticed at the beginning of the chain. In contrast, the desirability of the envision and engage phase is more recognised by the stakeholders at the end of the chain. This recognition validates the perceived roles and needs that paragraph 4.1 identified, whereas producers are more short-term oriented than the intermediaries and distributors.

Partnering with Accenture
The service's credibility is validated by discussing if Accenture is the right partner to provide this service. First, all stakeholders mentioned that they are used to doing trend research to stay updated. This research can vary from open source news sites to specific marketing agencies, depending on the type of research needed. This implies that they are accustomed to using an external partner to explore and present the information. When asked which sources the stakeholders trusted the most, those who have a strong analysing capability and staying neutral were mentioned. Considering that analysing is one of the main functions of a consultant and the desire to act as a neutral ground (paragraph 5.3) it makes it applicable for Accenture to play upon this.

Secondly, when asked if the reputation and brand of Accenture influence their perception of the credibility of the service, it is concluded that it is helpful that a company with an extensive network and experience in other industries could pull them out of their so-called 'bubble' and facilitate the possible collaboration, even if the company is not well known for the stakeholder. Therefore, making it unnecessary to brand the service as a separate entity. Nonetheless, to enhance and retain the credibility of Accenture, the company should take certain conditions more into account according to the stakeholders. Paragraph 9.3 presents these recommendations.

Usability
intermediaries and distributors stated that the service, in general, is easily adaptable in their current way of work because it can be added as a new touchpoint that does not interfere with their daily work. The international FMCG company even concluded that their innovation funnel's 'exploration' phase could adapt the service.

PARAGRAPH 9.2

DESIGN LIMITATIONS

This paragraph discusses the limitations regarding the project's design to value the final proposition. It is important to notice that some limits of this thesis correspond with the found barriers from the research diamond as this project experiences itself in the FVC to collaborate for sustainable innovation.

GAINING TRUST IS DIFFICULT

The first limitation is that the design is based on trust. If there is no trust among stakeholders or Accenture, people are not willing to commit to the service, leading to not wanting to give feedback or interact with others. Research from chapter 5 explained that trust should not be forced but be stimulated, whereby intrinsic motivation plays a key role. It is therefore desirable to do further research on how to gain the stakeholders' trust.

CREATING FUTURE SCENARIOS IS A CHALLENGE

Secondly, the ambiguity of the future scenarios is still difficult for both the consultant and the reader. The scenario must be convincing enough and substantiated with relevant trends without being concrete. This causes a confusing line whether the scenario is well set up or not. The scenarios can also frighten the stakeholder instead of encouraging. Additionally, scenarios are challenging to create without an experienced person in the team. Not all people have this ability, which can be hard when scaling the service.

THE DIRECTION OF FOTF

Also, since the Food of the Future capability is still in the searching phase of what kind of topics it needs to cover, it is difficult to predict whether they will specify the type of content in a later stage this year. This could lose the holistic view and accessibility aspect of the design since it will be more targeted to a specific subject which impacts the original purpose of the service.

THE IMPORTANCE OF A BUSINESS CASE

Furthermore, the overall purpose of the design can be limited through the phases that come after the engage phase. At the same time, the proposed 'initiating' phase can be retained due to a lack of a business case. Even if Accenture is making it for the client (B2B), the proposition will not automatically work if there is no precise 'scale' and 'maintain' phase afterwards. The focus on purpose and urgency is much more important than the design shows.

PARAGRAPH 9.3

RECOMMONDATIONS

This paragraph discusses how the service in chapter 8 can be further iterated and developed to remain relevant for both the company and the FVC stakeholders. In addition, it explains which elements concerning the implementation should be further explored and considered.

ENHANCE THE USABILITY

The service and platform are currently communicated in English as Accenture uses it as the primary language. It is also recommended to offer it in Dutch, making it more applicable for the Dutch market and accessible for the less acquainted with the English language, e.g. the producers' stakeholder group. Additionally, the consultants must not use complex jargon, as mentioned earlier in paragraph 4.2.5. Lastly, more UX research and tests are needed to ensure the platform will be inclusive for all stakeholders because of the desired open target group in paragraph 6.1. For the toolkit, it is advised to create a playbook for the designed toolkit to make it more self-explanatory and accessible. The FotF consults can upload the playbook and tools to the KX of Accenture (repository) to make it more available.

BE TRANSPARENT

Based on the drivers of paragraph 4.2.3 and the validation in the previous paragraph, there are several elements to enhance and retain the credibility of Accenture. First, all stakeholders' feedback should be given anonymously to be seen as a neutral partner. Furthermore, it is recommended to research how and where the stakeholders' data should be stored and handled. Also, promoting Accentures' services should not be the primary goal. This could interfere with the credibility of the purpose of the designed service.

EXTRA FUNCTIONALITIES

EXPLORE

For the explore phase, various content is generated regarding news and trends for the stakeholder. A pitfall could be that the content does not differentiate from other trend/news platforms, so the incentive for the stakeholder to return is getting progressively smaller. To stay relevant, make sure that the focus is clearly on the stakeholder and not only the industry in general. That is why it is recommended to assign one or two people as 'editor-in-chief' to check if the content is relevant enough to post.

ENVISION

The envision phase aims to create future scenarios for the stakeholder every month. Due to the high publishing past, it is recommended to add a leader who takes responsibility because the scenario should be published on time. These people can keep an overview of the building process.Another recommendation is to integrate a filter into the platform when signing up. This will allow the user to specify its content and only see what is relevant.

ENGAGE

The engage phase lets the stakeholder be the initiator by participating in proposals and visions through events. It is recommended that Accenture also add a match function to this phase, whereas pools of potential collaborations can be made beforehand by the company. Furthermore, this phase can also be utilized to encourage existing ecosystems to expand their system, whereas the engagement is not solely focused on person to the person anymore.

REMAINING DRIVERS AND BARRIERS

In chapter 4, there are multiple drivers and barriers found to focus on. This thesis only focuses on a couple of them, whereas the others can be used to be further explored in future projects. Another recommendation is to focus on the phase after the engage phase, where the focus lies on scaling the scenario to a use case or to a pipeline of ideas that goes back to the explore phase. Both recommendations provide a way to continuously generate future projects and engagement with stakeholders in the service.

IMPLEMENTING AND BRANDING

In the implementation, every part of the service has to be self-explanatory. Often, *'a tool like that has to be picked up at the last minute and you are always working with different people, so it takes much time to understand how it works fully'*. Simplicity is therefore essential. Also, the branding of the tool is essential when implementing. With external branding, corporates in the FVC often have a ten-year contract with other chain partners whom they consider their own. This contract makes the incentive and logistics of creating new partnerships for existing projects difficult. However, this is not the focus of the service but can easily be mistaken. Therefore, the external branding of the service should emphasize more on the functionalities of the service. E.g. creating collaborations and relations for new projects instead of optimizing running projects makes it more desirable.

When looking at internal branding, consultants feel unfamiliar working with future scenarios, as validated in the previous section. That is why it is recommended to focus on conveying the value of working with future scenarios in its internal branding to enable more understanding and commitment.

Furthermore, the toolkit and platform should not be seen as a 'miracle cure' for transforming FVCs. However, it should be internally branded as an aid for collaboration. I.e. strong expectation management of the service and what it can achieve. Last, the service's target group are all core stakeholders in the FVC. Since Accenture mainly works with large corporations, it can be difficult for the company to open up and interact with stakeholders that it would typically not work with. This stresses the need for a mindset change again.

10

OVERALL DISCUSSION & REFLECTION

This paragraph discusses and reflects on the process and the outcome. First, the connection between the research diamond and the design diamond is discussed. Secondly, a personal reflection on the design process and the overall project are described.

PARAGRAPH 10.1

CONNECTION RESEARCH WITH DESIGN

The discussion for each diamond can be found in paragraph 4.3 and chapter 9. In this section, the connection between both diamonds will be discussed to go back to the overall aim of the assignment.

The research diamond focuses on the sub-question: **What are the drivers, barriers and roles of stakeholders in the FVC to collaborate for sustainable transformation?** Looking back at page 34, the research identifies five drivers as either a motivation or a desired condition that needs to be met. In addition, eleven barriers are clustered into three categories: lack of trust, lack of leadership, and a conservative mindset. The found drivers and barriers are discussed and prioritised collaboratively to create a specific scope for the design diamond. The focus lies on the three main barriers and not looking holistically. In addition, also two drivers are considered: clear roles, incentives, and vision, and handling the complexity.

The overall research question of this project is: **How can Accenture accelerate sustainable innovation through stakeholder collaboration in the food value chain within the agri-food industry?** The following section will evaluate whether and how the final service proposition for Accenture includes all drivers and tackles all the barriers to accelerating sustainable innovation in the FVC:

First, when looking at the lack of leadership, Accenture shows its leadership skills by providing a neutral fundament for stakeholders to initiate and guide and align all actors. Furthermore, devising the service on the participatory backcasting framework and future scenarios helps embrace the ambiguity of the future. In addition, the future scenarios catalyse the thought process of the stakeholder to expose the possibilities and dead ends of sustainable innovation, which helps with the conservative mindset. Lastly, the lack of trust is not precisely processed in the proposition, as increased trust is the desired result that derives from the functionalities of the final design. Solving the lack of trust is one of the fragile spots of the final design since it can not be made tangible. Therefore, it is difficult to conclude if this barrier is met because of the early stage the concept is in.

The final service makes the FVC tangible and provides a clear insight into the current and future role, goals, needs, and challenges of the different stakeholder groups, which resolves the not looking holistically barrier. With those insights, the service can create future visions to anticipate the roles and incentives of the stakeholder that drivers the need for collaboration. Moreover, by creating embarkable proposals and events in the engage phase, the complexity of the FVC can be more reduced, which motivates the stakeholder to participate which enhances the overall interdependence.

To conclude, the connection between the research diamond and design diamond is noticeable, creating a valuable service proposition that Accenture can offer to the stakeholders of the FVC and plays upon their needs.

PARAGRAPH 10.2

PERSONAL REFLECTION ON THE DESIGN PROCESS

This paragraph shares a personal reflection on the design process to justify several design choices that the previous chapters did not mention. It will describe why I chose specific directions and which elements I left out during the design process.

When concluding the research diamond, I was left with multiple drivers, barriers and external factors to work with. However, I quickly realised that it was impossible to incorporate every element found in the research phase into the final design. That is why I did several sessions to scope the assignment even further to the extent that it was feasible to solve. After I collaboratively with Accenture decided on the target group and opportunity area, it had enough boundaries to start designing. Since the design has to fit the stakeholders' needs and Accenture, I had to consider both sides constantly. That is why I chose to create a platform to centralise both interactions in one place.

The idea of future scenarios and participatory backcasting derived from a discussion with fellow SPD students about the difference between gamification and serious gaming (appendix H). After a deep dive back into literature, I found the participatory backcasting framework. An approach that is gaining more attention in the literature and is currently being explored in solving sustainable challenges collaboratively, which had many similarities with this project aim.

After talking with Van Berlo and their experience with creating future scenarios, I knew this could turn into something valuable. However, Van Berlo pointed out that future scenarios usually contain valuable information for a specific client. The idea of using it as an 'acquisition tool' would feel like giving away free advice. Nonetheless, when brainstorming with the SPD students on how Accenture can be seen as a trustful partner while creating credibility in the chain, the group concluded that Accenture first has to do 'pro bono' work to show its expertise, gain trust, and expand its network. That is why I decided to use future scenarios as a teaser of Accenture services and incorporated the three levels of accessibilities in the blueprint to create adequate traction.

There are also certain shortcomings in the concept, which I am fully aware of. While the service adapts the context of Accenture and the Food of the Future capability, the service proposition is expected to be applicable for other consultancies since all the companys' tasks are similar. However, as a consultant in paragraph 5.2 already stated: *'if the sector achieves the same with a PwC or a Deloitte, the world will only be a better place'*, which was the reason I left out this consideration.

Furthermore, the implementation of the service is less justified than other design elements. This is because the Food of the Future capability is still exploring themselves of what they want and can, which sometimes causes differences in opinion when discussing the concept. This was, for example, noticed when prioritising the segments in chapter 4.4. Therefore, the roadmap is based on assumptions.

The last difficulty when designing the concept was the time and effort the consultants wanted to bring in. Since every hour needs to be reported, time is valuable. However, I chose to make this aspect less critical since I genuinely believe that if the company wants to impact an industry with the ambitions that chapter 5 showed, time should not be a factor.

To conclude, there are multiple pathways in a design process and hard decisions are taken to scope the design focus to develop a concrete concept. There is room for improvements, but a design is never finished like a true designer always says.

PARAGRAPH 10.3

PERSONAL REFLECTION

THE ASSIGNMENT AND CONTEXT

During the search for my graduation project, one of my requirements was that the project needed to have an impact. My other interest in business innovation, sustainability, service design, and digital transformation made me decide to work together with the Innovation department of Accenture. I got the opportunity to create my own project assignment. I had no specific preferences; however, I wanted to impact an industry that needed to be disrupted by sustainable innovation, which led me to the agri-food industry.

Before this project, I had no prior knowledge about the food value chain and the agri-food industry. This gave the assignment an extra challenge because I still had to thoroughly understand the industry while conducting my qualitative interviews. I discovered that the context around the FVC was quite complex, consequently realising that my project scope was too broad. Luckily, the people of Accenture guided me through it and were open to sharing their knowledge with me, which made me handle the complexity and create a more specific focus.

CONSULTANT OF THE CONSULTANTS

It took me a while to realise that my project was a bit different from fellow students' projects. I acted as a 'consultant' who advised actual consultants, who advised the stakeholders in the FVC. At the beginning of the project, I did not know whom I was designing for. However, it soon made me realise that I was in an unique position to experience both sustainable and social design while taking corporate considerations into account. A position not everybody gets to experience. Furthermore, I truly enjoyed working at the Accenture office, meeting new people and getting a glimpse of their daily work.

WORKSTYLE

Graduating was also an opportunity to determine which way of working I preferred. I have to admit that working from home was quite challenging for me. As somebody who always liked working in a group context with lots of interaction, conducting a project by myself was the opposite. That is why I tried to talk with as many people as possible at Accenture. However, this also caused me to never stop designing since I constantly got new insights. I had difficulty moving on to the next phase, which usually happens naturally when you work in a group. This indecisiveness sometimes conflicted with my planning and time management skills, which I am aware of. It taught me that I should be more independent in setting boundaries in a project and making concrete plans, whereby I have to be content that a particular phase is finished.

PERSONAL OBJECTIVES

At the beginning of this project, I formulated several personal objectives. I got the opportunity to work at the Accenture office for two days a week, which allowed me to learn more about its culture, how they handle innovation and the people there. Next, I facilitated multiple co-creation sessions during the design process with consultants of FotF and fellow SPD students. I enjoyed creating and guiding people throughout the session. Moreover, I wanted to improve my communication skills, which I sometimes still find challenging to achieve. There are thousands of thoughts and links running through my head that make sense to me. Writing this report really pushed me to improve my communication skills, considering that a reader does not know anything. Lastly, I grew as a person when it comes to handling feedback. At the beginning of the project, I was quite insecure about my abilities and how people perceived my work. As the project progressed, I got to utilise the given feedback better by perceiving it less personal, which made me more confident as a designer.

To finalise this reflection, I would like to share that the overall experience of this project taught me a lot about myself, sometimes in a good way or a wrong way. Still, most importantly, I learned about where my values lies, my ambitions, my boundaries, and what I am capable of—making me very proud of this project and my capabilities as a strategic designer.

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