Research for Systemic Change in Fashion Consumption. Service Design for Sustainability

A case study of three sustainable retailers – Knowledge Cotton, Le Deux, and Serendipity organics.





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# The Aim

One of my main goals is to help companies understand the service design logic in building meaningful outcomes for their users by applying Design Thinking.

This report aims to communicate the positive change of mindset with Service Design. It offers thorough research in sustainability, sustainable consumption, as well as challenges concerning these. It also covers the industry and user perspective on sustainable supply and demand. The reader will be introduced to some important research topics covered in the Discover phase, with focus on consumerism, service value and values co-creation. Further on, the Field research identifies and helps extract the most critical insights from both users' and businesses analysis.

Combined, the Field and Desk research serves as a foundation for designing the Service Design logic behind the service solution to create value and capture market opportunities for innovation.

This report is a reflection for me as a designer in what impact I would be able to apply outside in the real world with my knowledge of sustainability and my newly acquired knowledge and skills in service design. This report and the practice of researching both discipline has been a great reflection for me in how to combine knowledge and skills to create a truly meaningful impact for businesses and equally so for users.

#### Who will find value in this report?

The report works closely with the insights of three chosen Danish sustainable fashion companies, but the implications of the research can be implemented by any business which has decided to go down the service path and create an extra value for users. Innovation has many directions; sustainability is one of them.

#### ABSTRACT

Globalization and the spread of knowledge through technology have shifted economies from manufacturing/ product based to service-based. This transformative path has increased demand for service design and user experience design to create an additional value for both companies and users. Simultaneously, social and environmental challenges keep increasing their scope, reflecting the rise of trends such as sustainability. With consumers becoming more conscious about their lifestyle and knowledgeable about the global environmental challenges, they have started to reflect this knowledge into their purchasing decisions for products and services. As the second biggest industry, fashion has a tremendous impact on economies and the Planet. Therefore sustainability is specifically evident and demanded. To meet these new needs, companies are slowly shifting their strategies towards more eco-friendly products and operations and ensuring a stable and competitive position. The Experience Economy, which technology and the collective rise of services have enabled, now it is the time for fashion retailers to consider how to embed sustainability services as a value-adding experience to their product offerings as a way of innovation and also as a strategic approach towards their customers.

**KEY words**: sustainability, circular economy, service design, innovation, systems thinking, design thinking, services

#### MOTIVATION

My professional interests sparked my motivation for choosing this area of research. Firstly, I have an established interest in Sustainable fashion from my Bachelor's Degree, and now with my education in Service Design, I am particularly interested in how my capabilities as a service designer combined with my knowledge in the area of sustainable fashion can contribute and accelerate sustainable innovation in business. Moreover, the international environment, which I find myself in, further develops my curiosity around the sociological behaviors and motives driving people to act differently. These factors and areas of interest led me to research and investigate sustainable innovation for retail businesses through services.

#### ACKNOWLEDGEMENTS

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#### // List of Figures

- Figure 1. The Triple Bottom Line
- Figure 2: Circular Economy Model as the preferred service outcome
- Figure 3. Linear Economy Logic resulting in Mass Consumption
- Figure 4. Double Diamond Model
- Figure 5. The Loop / A tool developed by IBM for Service Design
- Figure 6. Mapping the Context
- Figure 7. System Map of Fashion Industry
- Figure 8. Increased level of distrust for period 2012-2020
- Figure 9. Strategic Identity
- Figure 10. The Five Stages of Organizational Learning
- Figure 11. Current brand positioning for the three companies

- Figure 12. Demographics on Danish respondents
- Figure 13. Demographics for international respondents
- Figure 14. Statistics on sustainable behavior
- Figure 15. Statistics on the purchasing frequency
- Figure 16. The level of emphasis people put on sustainability aspects
- Figure 17. Social Media usage in %
- Figure 18. Motives for purchasing clothing in %
- Figure 19. Conventional User Journey for Les Deux
- Figure 20. Sustainable alternatives for the user in the decision-making process
- Figure 21. Most essential item in wardrobe
- Figure 22. The zoom in and out areas
- Figure: 24 Identifying the pain point
- Figure 25. Blueprint for SaaS
- Figure 26. End-to-end cycle enabled by the service
- Figure 27. New Overall strategy incorporating Marketing, Service, and Innovation
- Figure 28. Framework for service value delivery
- Figure 29. New Service Model Canvas
- Figure 30. Motivational Matrix
- Figure 31. Proposed timeline for solution development
- Figure 32. Service Blueprint for SaaS
- Figure 33. End-to-end cycle enabled by the service
- Figure 34. New Overall strategy incorporating Marketing, Service, and Innovation
- Figure 35. Framework for service value delivery
- Figure 36. New Service Model Canvas
- Figure 37. Motivational Matrix
- Figure 38. Proposed timeline for a testing plan

# // List of in-text Images

#### Image 1. KCA website

Image 2. Les Deux website

Image 3. Serendipity Organics website

Image 4. The Loop / A tool developed by IBM for Service Design

Image 5. Screenshot of a FR campaign

Image 6. FR communicates a lot of statistical data to raise awareness

Image 7. Mapping the shopping experience steps with insights from the interview with Niklas

Image 8. Zoom in into the three shopping phases

Image 9. Trends on future consumer

Image 10. Trends on fashion industry

Image 11. Linking Hypothesis to Findings from User Research

Image 12. Supported hypothesis with survey results

Image. 13 The North Face website

Image 14. Sticky Notes Wall, Visual representation of the interviews with three case companies.

Image 15. Highlight of key insights from expert interviews.

Image 16. Interpretations of Sustainability for Users and Companies. (Based on Expert Interviews' Insights and User Research)

Image 17. Emerging challenges in sustainable fashion

Image 18. Clustering Map (Survey insights)

Image 19. Zoom in on findings above; Pre-purchase- Purchase- After-Purchase

Image 20. Identifying patterns in unsustainable consumption

Image 21. Identifying the challenge

Image 22. CE and SD workshop, Kirsten Van Dam, 2019

Image 23. Using the cards in the ideation process (photo by Liv Johanne Eskholm).

Image 24. Overview of the Chosen Cards

Image 25. Sketch 1

Image 26. Sketch 2

Image 27. Sketch 3

Image 28. Sketch 4

Image 29. Sketch 5

Image 30. Proposed New label design

Image 31. Sketch of the C-model

Image 32. Initial sketch of the service value delivery framework

Image 33. ReDesign (2018) Canvas. Zoom in on Innovative and Sustainable Business Models

# TABLE OF CONTENTS

PREFACE. Shaping a new tomorrow in the coming decade11
INTRODUCTION12
Learning Goals14
Disciplinary areas15
Service Design and its role in the age of sustainability15
Understanding design and design thinking in the context of sustainability
Sustainable fashion
Environmental concern16
READING GUIDE19
1.Introduction to services and design thinking
1.1. Network thinking 22
1.2. Design mindset 22
1.3. The competitive advantage 22
1.4. The sustainable experience23
Circular Fashion & Sustainability terms
2.1. Introduction 24
2.1.1. Sustainable development24
2.1.2. Systems change24
2.1.3. Systems Thinking
2.1.4. Circular Economy25
2.1.5. Paradigm change
2.1.6. Post-growth economy

	2.1.7. Resilience	26
	2.1.8 The need for sustainable innovation	27
2.	2. Green Consumerism	28
3.	Servitization (Service Economy)	28
3.	1. The competitive advantage of servitization	29
3.	2 Value co-creation with service design	30
3.	3. Industry paradigm shift	30
4.	Relationships Services - the unique capabilities of designers in creating value	31
5.	Conclusion	32
H	ypothesis	33
В	ackground	33
	Why is Design Wicked?	33
	Combining Design Thinking and Systems Thinking	34
СНА	PTER 3	35
Add	ressing the context	35
	PTER 4	
	Methodology	
7.	Delimitations	38
СНА	PTER 5. Design process	38
	Discover – Building an Understanding	
	1. The approach	39
	1.1. THE STARTING POINT	
	1.2.Circular Economy (applying Systems Thinking)	
	1.3 User Environment (applying Design Thinking)	40
2.	Desk Research	41
	2.1. Global Fashion Industry - introduction and challenges	
	2.2 Understanding Consumption Paradigm	
	2.3. Understanding consumer types	
	2.4. So, why is there a Gap In sustainable purchase?	
	· · / · · · ·	

2.5 Can services help cover the Gap?	46
2.6 Service Models	46
2.7 Service challenge	
2.8 The goal is Conscious Consumption	48
2. 9. THE RISE OF NEW ECONOMIES. Implications	48
2.10. Discussion	
2.11. Summary	
3. Expert interviews	
3.1. The goal	
3.2. The approach	
Discussion	56
4. Conclusion	56
5. User interviews and user journeys	61
6. Surveys	65
7. Conventional user experience journey	
8. Availability of choices	74
9. Hypothesis vs. Findings	
10. Life cycle assessment	
Conclusion Discover phase	
DEFINE PHASE – INSIGHTS	80
1. The approach	
2. Introduction	81
2.1. Expert interviews insights	81
2.2. Discussion	83
2.3. Synthesis of the survey	86
2.3.2. Consumption patterns and INSIGHTS	
2.3.3. Identified Challenge:	88
3. Defining the Need for a service	90
4. Revised Problem Statement	

5	Sub-conclusion	. 93
٦	ime to shift mindset and collaborate	. 93
F	INAL Conclusion	. 93
DEVEL	.OP PHASE – MAKING	· 94
1. S	ummary of the most important highlights	· 94
2. H	MW	. 95
3. D	esign manifest	97
4. Ir	dustry best Practices	. 98
5. F	urther Ideating with Circular Strategy Cards	100
6. P	rototyping	103
e	5.1. Prodcut development	103
e	5.2. User stories	106
e	5.3. Scenarios	106
e	5.4. Service Blueprint	112
7. Fe	edback	113
8. N	ew Circular User Journey	113
Sun	ımary	115
C	Conclusion	115
DELIV	ER PHASE	116
1	.1. Description	116
1	.2. What will the implications for design be with the new service solution?	116
1	.3. The implications for business	.117
2	. Motivational Matrix	124
3	. Testing Plan	125
4	. Reflections and Future consideration	126
	NCLUSION	
	ERENCES	
	APPENDIXES	

# PREFACE. SHAPING A NEW TOMORROW IN THE COMING DECADE.

We live in times of significant disruption. The coming decade will be a very transformative one. During 2020 we could see us adapt to a world of increasingly destabilizing shocks or a reconfiguration of the structures on which we depend currently still based on equity, sustainability and resilience objectives. 'Building forward' implies radical changes in what we as individuals and organizations perceive as appropriate and in the priorities of our processes, away from the existing economic paradigm and towards a distributive one that has at its core the ideals of social justice and a just transition to a zero-carbon future.

These modifications are central to individuals functioning in accordance with living systems themselves and their regeneration powers. It is about recognizing that our courses are not separated events, but a part of a more systemic structural breakdown in human society and the global world. Writing this Thesis on sustainability in times of Global Pandemic has had a dual effect on me. Firstly, it saddens me to see people close to me lose their jobs and to see the rest of society get unsocial. However, the situation also inspires me because it shops that people start to act on sustainability even more and understand the importance of it for the better of People and Planet equally.

If until now the notion of sustainability has had the nuances more of a trend than an established, governing approach, now Slow Lifestyle and Planet's Health is a topic circulating everybody's mind. The situations shows that ultimately, sustainability equals health – for the Planet just as for all of us. Being the second most polluting industry, fashion can have a tremendous impact on reshaping the definition of consumption and purchasing behaviors. As an upcoming professional in Service Design, it is this situation, which motivate me further to set my positive impact, as I realize that I can contribute positively with services in shifting paradigms and achieving valuable results.

Companies, too, must not be afraid to take the next step. Innovation has many enablers as this report aims to explain.

# INTRODUCTION

The thesis is structured around the topic of service design for sustainability. It explores how fashion businesses can deliver new, enhanced value to their customers by adopting a service logic, complimentary to their existing business practices. There are many urgent issues calling for sustainability adoption, such as raising climate temperatures, inequality of wealth distribution and increasing levels of CO<sub>2</sub> footprint. Given the complex nature of both fashion industry and sustainable behavior and perceptions, I am aware that finding such a systemic change will not be easy. This report aims to thereforec develop an understanding as to how consumers can contribute to a positive change by designing a new service solution. First, the research will look into the topics of service design and sustainability, later on get more familiar with the users and build insights, and then reply of diverse Design techniques to help achieve a viable and meaningful result.

# **CHAPTER 1**

# FOUNDATIONS OF THE THESIS

This chapter begins by outlining the main objectives behind this research both personal and academic, and it further explores the disciplinary context and case companies' profiles. At the end it concludes with a reading guide to assist the flow of the reader.

# LEARNING GOALS

Besides the successful writing of this story, the I have outlined diverse goals, which motivated me throughout the process. They are as described below.

#### **Personal goals**

- to learn and make the connection between academic material and industry solutions

- to learn how to use Design Thinking for solving wicked real-life challenges, as well as develop a humancentered approach to my work.

Experience working independently

The other objectives as outlined by Aalborg university's (2017)

# Knowledge

- Must possess awareness of the possibilities for the implementation of suitable methodological methods must be to unique fields of research.

- Must have knowledge of design theories and techniques that concentrate on the production of advanced design must be available and dynamic structures of product-service.

# Skills

- It is important to be able to function independently, recognize significant problem areas (analysis) and adequately Address challenges and opportunities (synthesis).

- The capacity to evaluate, design and depict imaginative ideas must be demonstrated.

- Must show the ability to analyze and resolve significant organizational and organizational (synthesis) in the design of a product-service system, business challenges are emerging.

#### Competences

- Must be able to master design and development practice (synthesis) in circumstances that are dynamic, unpredictable and need new ideas

- Must be able to facilitate and execute discipline-specific and interdisciplinary cooperation independently and to accept professional responsibility (synthesis).

- Must be able to take responsibility for their own professional growth and specialization independently (synthesis).

# **DISCIPLINARY AREAS**

#### SERVICE DESIGN AND ITS ROLE IN THE AGE OF SUSTAINABILITY

Traditional production-consumption systems require drastic change towards more sustainable models, and consequently, changes on the role of design. Transformational change has become an imperative. The discipline of Service Design presents the practitioners with a set of effective tools to make the transition towards a more sustainable world possible, because as discussed by Kuure, E., Miettinen, S. & Alhonsuo, M. (2014), these tools enable a learning process towards social and environmental change. Similarly, Manzini (2009) refers to Design as one of the main agents for change, highly needed to enable cooperation and participatory actions in the social learning process for sustainable change. However, there is still a lot to be done, departing from the ecological re-organization of the entire production-consumption system (Stern 2006) and ultimately extending diverse eco-development initiatives to promote sustainable use of resources (Manzini 2009).

In the context of the network society (Castellas 1996), companies can no longer consider that today's customers will share the same values and expectations in a new tomorrow. This research argues that businesses are in a need of a service design approach to not only keep ahead of the competition but also to be able to deliver the highly sought customer experience and value in sustainable relationships.

#### UNDERSTANDING DESIGN AND DESIGN THINKING IN THE CONTEXT OF SUSTAINABILITY

Joly & Cipolla (2013), discuss the challenges, which designers from all business-oriented disciplines are currently facing. Because design has long been linked to the idea of merely styling or creating products, service designers still have the challenge to effectively translate and communicate the role of innovative design to businesses. In the context of sustainability, the translation is facilitated because challenges such as social diversity and environmental issues are wicked problems, which require holistic and creative approaches. This is where the domain of service design becomes relevant. It enables actors from all disciplines to participate in collaborative approach towards creating a more sustainable economy with shared values and responsibility (Lorek, S., & Spangenberg, J. H., 2014).

Another way to explain design thinking as discussed by Moldoveanu and Martin (2008) is to distinguish between design thinking and business thinking in a sense where the latter is directed towards more predictable results on the basis of data and algorithms, while design thinking makes use of heuristic and far more dynamic ways of decision-making, where it discovers new, possible states of the future.

Manzini (2009) argues that the strategic role of the designer and design activities are capable of shaping such a positive environmental and social position by exploiting the creative approaches of Design Thinking to generate a transformation system change, and thus engage social actors in new ways of thinking and acting within new networks and with new artifacts.

#### SUSTAINABLE FASHION

Sustainable fashion is demonstrated in many forms (weather we talk about sustainable materials, sustainable production, sustainable consumption), yet lacks any agreed-upon formal definition. A literature review finds little in definition; instead, characteristics, ideas, processes, and philosophies drive the discourse.

Sustainable fashion, which values diversity, prosperity and well-being of both people and the world, is a phase of change in the ways of thinking and practices of design, manufacturing, communication, wearing, and enjoying fashion. It illustrates the interdependence of fashion's human, social, environmental, cultural and economic effects, and thus questions the industry's status quo, which still prioritizes profit over critical social and environmental concerns. Innovation in goods and materials as well as improved resource efficiency are all insignificant, while production, use and disposal rates are insignificant to have a genuine impact on fashion and sustainability (Fashion Summit, 2019). In order to have a meaningful effect on fashion and sustainability, we must therefore avoid concentrating on such immediate fixes and symptoms and instead commit to seeking long-term solutions that tackle the root causes of fashion waste and environmental and social costs. (Gwilt & Rissanen, 2011).

# **ENVIRONMENTAL CONCERN**

As designer's solutions engage in different aspects of people's lives, they need to deal with solutions on different scales, with an emerging need for a sustainability vision (Manzini, 2009).

The modern literature regarding social attitude draws a line of distinction between intention and realized behavior. Despite the extensive literature dedicated to the field of sustainability, and the increasing efforts in research and marketing, the transition from sustainable intention to sustainable behavior is still not fully

captured, which remains one of the main challenges in a sustainable fashion. (Lee, E. J., Choi, H., Han, J., Kim, D. H., Ko, E., & Kim, K. H., 2020)

At this point, it appears that the environmental concern can be attributed to both a particular state of mind and attitude and more broadly to a common attitude or a shared value orientation. Therefore the environmental concern is treated as an evaluation of, or an attitude towards, realities and one's behavior with a result for the environment. (Fransson, N., & Gärling, T., 1999)

# CASE COMPANIES

# PROFILE 1. KNOWLEDGE COTTON APPAREL



Image 1. KCA website

Knowledge Cotton Apparel promotes the idea that sustainable clothing truly can make a difference to the World. They work with fashion beyond just producing fabrics to cover our bodies. They produce fashion out of respect to both people and the Planet.

" It is our mission to provide the active conscious consumer with sustainable fashion choices – without having to make any compromises when it comes to style, comfort or quality." (KCA, website)

Having started back in 1969, the company has developed an insight into what the real image of textile industry is, and has therefore dedicated their business operations to try and make a true impact on the well-being of everyone in the value chain. Their take on this is to make people aware of the true value in sustainability and in this way inspire people to act responsible so that together we can achieve a industry shift. With their long heritage, sustainable practices are not new to KCA, it has become at the heart of what they do,

#### PROFILE 2. Les Deux



Image 2. Les Deux website

The story of a cross-cultural friendship between a political refugee and a suburban boy is Les Deux; two personalities that, based on their uniqueness, can inspire each other. For Les Deux, a rare experience between mindsets, the authenticity of this relationship provided the structure.

Their DNA has never changed, although the business has come a long way since and their individuality and determination have enabled us to still inspire each other so that we can never stop following our vision.

From the first autumn evening, Les Deux was created with international origins, and since then it has been a relentless endeavor for everyone involved in the company to become the world's most important fashion brand.

In relation with their sustainable development, Les Deux have developed a comprehensive strategy based on three focus areas; material strategy, conscious consumption and responsible management of supply chains. This strategy is a fundamental part of Les Deux's future and represents a long-term process that is constantly optimized and refined in order to create as sustainable and responsible an organization as possible. The three focus areas are specifically selected as they embrace a wide range and meet our desire for a sustainable transformation across the company's focus areas. The first two focus areas have been implemented where we lack the third and last which is at the same time the most comprehensive, nevertheless, we work at high pressure to get it integrated.

The company shares four fundamental values:

- Inspiration
- Heritage
- Personal Relations
- Thoroughness

#### Profile 3. SERENDIPITY ORGANICS

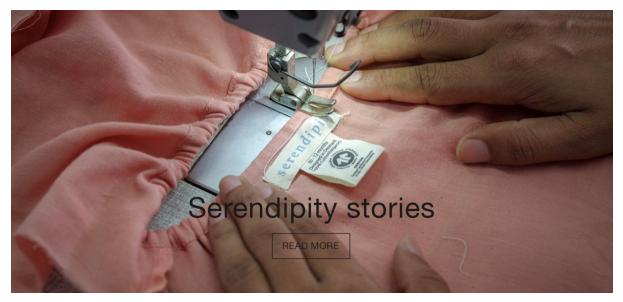


Image 3. Serendipity Organics website

Serendipity Organic design philosophy and aesthetics are rooted in our Scandinavian heritage.

The Danish Design brand produces clothing made of pure organic cotton and natural wool for extra comfort and easy wear. It shares a deep affection for the soft feeling and high quality of natural fibers and fabrics, as well as for our kids and the world in general.

The design and quality of their garments and products are essential to the company. They make an effort to design clothing, which will last in time and will be desirable for wear in a longer period of time.

Their cotton garments are manufactured in India and are GOTS (Global Organic Textile Standard) approved, from the cotton fields all the way through the spinning, dying, weaving, knitting, sewing, finishing, packing and transporting processes.

In comparison to the synthetic pesticides, herbicides, defoliants, fertilizers, and GMO seeds used to cultivate traditional cotton, organically farmed cotton employs nature-based solutions to control pests and create safe soil.

# READING GUIDE

**CHAPTER 2**. is dedicated to Theoretical framework where the user will present the underlying literature, which supported the development of the Service Design Process.

It will go through the topics of Circular Design and Sustainability and will review conscious consumerism, drivers and challenges. The topics of Servitization and Ecology economy will be examined as pathways to build inclusive, sustainable, human-centered service environments.

**CHAPTER 3.** presents the reader to the Circular Economy context, which addresses the Triple Bottom line – People, Planet, Profit. The report starts with examining the landscape and consequences from fashion industry and fashion consumption. Further, it explores how the role of the designers and design can help reinvent the business model with a service logic to enforce the extension of circular product life cycle. In the report the reader will be guided through the key research insights, which resulted in the foundation and argumentation for the final service proposition. As a starting point, the investigation looked at the present sustainable business paradigms for businesses to understand how they sell the value of their sustainable production activities and environmentally friendly business operations. The final aim is to understand and deliver a design concept solution as to how retail companies can engage their customers in the below practices of Circular Economy with a new service offering.

**CHAPTER 4**. is dedicated to the Double Diamond Methodology process as the preferred design system for this report.

**CHAPTER 5**. And in the last chapter, the reader will be presented the design process, broken down into the four phases of Discover, Define, Develop and Deliver.

# List of abbreviations:

- SO Serendipity Organics
- KCA Knowledge Cotton Apparel
- CE Circular Economy
- SaaS Sustainability-as-a-Service

# THEORETICAL FRAMEWORK

The second chapter will introduce and discuss Service Design as a tool for innovation as well as its importance and impact in the transition towards sustainability. The second chapter is dedicated to the topics of Circular Design and Sustainability. As a natural part of the research and the literature, the section will review conscious consumerism to discuss and understand users' behavior towards sustainable fashion. The final section in the literature review is dedicated to the importance of building empathy and brand loyalty through strategically meaningful, sustainable user relationships.

# **1.INTRODUCTION TO SERVICES AND DESIGN THINKING**

Services involve people, technology, places, time and items that form the service's entire experience. In somesituations, the touchpoints are configured, but in certain situations the service as a complete ecology merely 'happens' without being planned. Its capacity for design creativity and participation in the major issues facing us such as transport, sustainability, government, finance, communications and healthcare, is a significant feature of service design.

#### 1.1. NETWORK THINKING

From a digitally native generation professionally focused on network thought, service design emerges. Our emphasis has shifted from effective manufacturing to lean consumption, and the value set has shifted from living standards to quality of life. Complex services can be simplified and made more powerful to the consumer when technology is involved and smart use of people's network applied (Polaine, A., Løvlie, L., & Cause, B., 2013).

## 1.2. DESIGN MINDSET

In innovation, architecture plays a major role. According to a 2005 study conducted for the UK Design Council (Mager, 2009), 41% of all manufacturing companies view design as an integral part of their business. The study showed a 200 percent increase in stock market performance by using strategy design (Design Council 2007). However only 6% of all service companies see any role in design at all (Mager, 2009).

# 1.3. THE COMPETITIVE ADVANTAGE

Industry examples show that, to some degree, design for services can be interpreted as a key advantage for market competitiveness. While physical artifacts and technology can easily be replicated, service experiences are unique in their value delivery, which makes them much harder to copy. Ultimately, people spend most on services, which they perceive as best value for money. Some of the best innovation opportunities lay in a business model, which can be converted from product to service.

As discussed by several academic researchers (e.g. Flikkema, Jansen and Van Der Sluis, 2007; Toivonen and Tuominen, 2009), the existing literature does not provide a common definition of service innovation, which is essentially due to different understandings of its meaning. The researcher has therefore chosen to present some relevant interpretations.

Holmlid and Evenson (2008) note that the exploratory and immersive approach of Design Thinking to discover innovation opportunities differentiates service design processes from traditional approaches. Similarly, Chesbrough (2011) notes that with the growth of service sectors, the service-dominant logic becomes "a practical imperative for innovators."

"Design Thinking' assists businesses in addressing the urgent need of sustainability by broadening their strategy repertoire for tackling complex, open-ended challenges faced by contemporary organizations" (Dorst, 2011, p. 522).

Another aspect that categorizes Service Design as a tool for innovation is its scope of building sustainable communities. According to Manzini (2009), the next economy of services, where local and physical resources need utilization in the best possible environmental fashion, is on the rise. He suggests that industries should move away from the current mainstream way of production and orient towards the local and social use of resources to achieve sustainable systems. We argue that service solutions and service design discipline enable this transition; therefore, a designer's role in developing efficient systems is paramount. The outcome of these compound systems is the value achieved by interacting with the diverse actors (Manzini, 2009).

#### 1.4. THE SUSTAINABLE EXPERIENCE

Mayer and Schwager (2016) claim that the user experience is an inseparable part of every aspect of the service offering - starting in the quality of customer care, product and service features, convenience, reliability, packaging, and advertising. Moreover, Buchenau and Suri (2000) talk about experience as a complex and dynamic phenomenon, a one that is subjective and dependent on a line of diverse sensory characteristics of the design, then filtered and interpreted in a contextual environment. The researcher, thereby argues that even the experience of the most superficial artifacts do not come isolated. They occur in dynamic relationships with people, places, and objects. It is only through careful study and user-empathy that businesses are able to capture these right conditions for building a competitive sustainable experience.

The perception of quality experience changes over time, too. If one of the aforementioned conditions (time, place, design) is influenced to change, it changes the contextual components and the user comes to experience the quality in a different way. In the context of sustainable fashion experience, the attitude and prejudice play a very important part in the decision-making process. This turns the experience into a very complex and challenging process. One example can be drawn from comparing the same value in two different studies. In the first one done by Newman, Gorlin, and Dhar (2014), they noted that consumers do not want firms to be "too" green despite companies' good intentions. The users believed that green products suffer in ways such as low performance and on the other side high price. Another study conducted by McKensey (2020), however, highlights a slightly different attitude shared by consumers. In the report it becomes evident that consumers demand transformation change, meaningful actions and shared environmental responsibility. A third angle as suggested by (Braga et al. 2019) focuses on the harmful practices of greenwashing and greenwashing, which

consumers are aware of and keeping a stand against, and which companies, too, need to avoid. They undermine the positive beliefs and weaken brand loyalty.

# **CIRCULAR FASHION & SUSTAINABILITY TERMS**

#### 2.1. INTRODUCTION

Globalization has significantly led to the alarming rate of overconsumption of apparel as it has lowered textile prices to the extent where it is increasingly viewed as a cheap product (Bly et al., 2015). Many retail companies have used a "fast fashion" business model in recent years, which is characterized by fashionable designs, cheap prices, and low-quality fabrics. According to Walker (2006), the sustainable approaches to design and product development persist to be in the early infant stages and are predominantly viewed as a journey rather than a destination or strategy goal.

Below is an introduction to relevant main terms within sustainability.

# 2.1.1. SUSTAINABLE DEVELOPMENT

The broader public understanding of the term sustainable development goes back to the publication, commissioned by the World Commission on Environment and Development, of Our Shared Future (also known as the Brundtland Report) in 1987. Sustainable development is defined in the Report as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987).

# 2.1.2. SYSTEMS CHANGE

Systems change refers to an intentional transformation of the ways in which a system, such as an organization, industry, society or economy operates. Systems change focuses on the root causes of problems, instead of investing time and resources in temporary fixes that can only treat symptoms. Systems change draws on systems thinking, a recognition that all systems consist of parts that relate to each other and influence the way the whole system behaves across time (Meadows, 2009) This is why any attempt at resolving issues within a

system must rely on seeing it as a whole and addressing the underlying values and goals, instead of just "tweaking parameters" (Fletcher & Tam, 2019). In the current climate emergency, a change in structures is too urgent for fashion. It is now evident that the required results have not been achieved in the last thirty years of gradual changes in sustainable materials, resource efficiency and recycling.(2,5) All such improvements are lost in a system where production rate, consumption and waste generation are constantly increasing.(House of Commons Environmental Audit Committee (2019) Therefore, what is needed is a structural shift in the current business model of fashion that relies on incremental growth.

## 2.1.3. SYSTEMS THINKING

In the current climate emergency, systems thinking refers to the urgent need to rethink our relationship with economic growth in a way that acknowledges and respects the vital interdependence of all life on the planet. Systems thinking draws on system dynamics and computer modeling to demonstrate how different parts of a system relate to each other and how they influence the entire system's behavior across time (Meadows, 2009). Donella H. Meadows, a prominent systems thinker explains that The thought of systems helps us to "hone our abilities to recognize parts, see interrelationships, and ask "what if" questions about alternative behaviors, and be creative and confident about the system redesign.<sup>3</sup> System thinking may also give answers to the future of the fashion industry in this way. It allows us to look beyond piece by piece solutions which draw on the status quo, such as new materials or closed-loop recycling. Instead it focuses on the fundamental role and purpose, which enables a more radical rethought of the whole system. As Meadows argues, a holistic view of a system, as opposed to considering only its parts, helps us to see any system "as the source of its own problems" and so "find the courage and wisdom to restructure it" (Meadows, 2009).

# 2.1.4. CIRCULAR ECONOMY

It refers to changes in clothing manufacturing, design, procurement and disposal from collective, circular operations aimed at closing the loop and shifting from linear to circular business operations. CE uses an approach to the manufacturing, processing and design of apparel that maximizes the benefits of the fashion industry and society as a whole, while at the same time mitigating its negative environmental effects. CE practices aim for integration and social and environmental justice. Circular economy is a growth aimed at shifting the 'take, make, dispose'

The consumption model is a sustainable model which through service design, is restorative and regenerative. (*Circular Design Lecture and Workshop For Service Design Masters September 26th 2019- Kirsten van Dam*)

#### 2.1.5. PARADIGM CHANGE

Paradigm change, or paradigm shift, is a fundamental change in perception and in ways of thinking in the face of new circumstance (Kuhn, 2012). The ways we design, create, connect, market, purchase, use and dispose of fashion items all require an immediate and drastic paradigm shift in the current climate emergency. We must all act on the fact that the ever-faster cycles of fashion and the ever-increasing amounts of fashion consumption and waste are absolutely irreconcilable with our planet's finite limits.

# 2.1.6. POST-GROWTH ECONOMY

Post-growth theory is a branch of economic theory that draws attention to the notion that without dire implications for both people and Planet, economic growth within the limited resources of our planet is unrealistic. Although economic growth presents benefits in terms of improving the quality of life, thinkers of post-growth (de-growth) often argue that it is harmful to both human well-being and the world when it goes beyond a certain point. The economist Fritz Schumacher, the author of Small is Beautiful: A Study of Economics as if People Mattered, was one of the economic pioneers who treated human scale and enabled prosperity without relying on uninhibited growth (1973). More recently, in his Prosperity Without Growth, based on research for the UK Sustainable Development Commission, Professor Tim Jackson argues that "either we must progressively squeeze the material content out of economic expansion, so that we can continue to grow our economies without trashing the planet, or we must learn to find prosperity without relying on economic growth to deliver it for us"(Jackson, 2017).

#### 2.1.7. RESILIENCE

Resilience is the ability to reorganize and rebound from change and disturbance by individuals, communities, cultures, economies, and ecosystems in a way that helps them to maintain their identity and thrive further. The Stockholm Resilience Centre states that resilience "is about how humans and nature can use shocks and disruptions to stimulate renewal and creative thinking, such as a financial crisis or climate change". Resilience in 2020 will then be the ability of economies to overcome the social and natural description of the pandemics.

# 2.1.8 THE NEED FOR SUSTAINABLE INNOVATION

Clothing overconsumption is a growing global sensation with serious environmental and social consequences (Diddi, S., Yan, R. N., Bloodhart, B., Bajtelsmit, V., & McShane, K., 2019).

From the annual "State of Fashion" report issued by McKensey (2020), five main themes are considered to have importance in the future design of sustainable fashion services, and are taken into consideration in the design process of the solution:

1. Ways of living - Authenticity is an excellent way to go when it comes to targeting already overwhelmed and overexcited audiences. Instead of investing infamous people in promoting their products, companies need to turn towards more traditional influencers to market their goods, working with people or other brands who genuinely live the lifestyle and can tell an authentic story.

2. Ways of producing - Even though at a slower pace of 3.5 to 4.5 percent estimate for 2019, McKinsey Global Fashion Index predicts that the fashion industry will continue to expand from 3 to 4 percent in 2020. "Consumers and employees will continue to demand more from purpose-driven companies that champion their values — from climate change consciousness to diversity and inclusion." Digitization will dominate service offerings, while fashion players need to address conscious consumers' demands if they want to ensure their place in the future market.

3. Ways of designing - companies have made a shift from merely generating value for their shareholders. With the consumers' demand for "Wokewear," fashion companies have started to become more explicit in their purpose of leading.

4. Ways of consuming - Innovation has ranked as the third significant opportunity for the fashion industry, alongside sustainability and digitalization.

5. Ways of engaging - with the fail of the conventional communication models, fashion companies will need to rethink their approach and find approaches to create engaging content across multiple channels tailored to each respective market and thus increasing the return on investment.

6. Asia's changing market - Asian customers expect brands to make good use of data and technology. In 2020, the paradox of privacy will remain a crucial battlefield. People across Asia would have a tolerant-anxious relationship with data sharing, if not a love-hate. Scandals can erupt, but most individuals will look at the challenges they face, both individually and as communities, and support proposals for data sharing that offer

tangible social benefits such as increased protection, and a greater access to more educational and social services.

#### 2.2. GREEN CONSUMERISM

Sustainable clothing consumption behaviors (SCCBs) are characterized as a range of behaviors that consumers engage in to decrease their environmental and social impacts in relation to their clothing consumption. (Diddi, S., Yan, R. N., Bloodhart, B., Bajtelsmit, V., & McShane, K., 2019).

Van Liere and Dunlap (1980) link green consumerism to the age factor. They suggest that younger generations are more engaged in environmental preservation than older generations. Fransson & Garling (1999) differentiate between two stages of consumption habits 1) directly affecting the environment and 2) indirectly affecting through demands, which increase the production process.

This appealing overview of the current situation stresses the significance of influencing individual behavior towards more sustainable patterns. However, Dwyer et al. (1993) argue that profoundly changing behavior through interventions is not a regular formula for success.

Research shows that this sort of change is easier said than applied. Sachdeva, S., Jordan, J., & Mazar, N. (2015) attribute this difficulty of change to the dilemma inherent in green consumerism and summarize it as a personal gain in return for a very abstract and even intangible gain for someone or something else.

# 3. SERVITIZATION (SERVICE ECONOMY)

It is important to clarify that services are no longer existing in a separate category for management but are a more significant part of the whole strategic goals and corporate planning (Vandermerwe, S., & Rada, J., 1988).

There has been done an extensive amount of literature and research encompassing servitization, however, only a few have managed to provide an overview of the key practices on how to achieve effective servitization (Baines and Lightfoot, 2014, 2013; Gebauer, 2011; Storbacka, 2011; Storbacka et al., 2011). Servitization is triggered by the search for higher profit returns and further growth opportunities, which motive has changed companies' focus from production to service value-oriented. (Matthyssens and Vandenbempt, 2008; Sawhney,

2006). This shift is described as servitization (Vandermerwe and Rada, 1988), which adds value through adding services.

Servitization literature claims that service maturity in product-centric companies creates a new channel for generating sustainable income (e.g. Brax & Jonsson, 2009; Gebauer, 2008) and supports the impact of economic cycles (Johnstone, 2009), assisting the realization of business strategy and carrying of a competitive position in the market. The marketing profits are mainly connected to customer relationship management in servitized businesses. Baines et al. (2009)

Fully comprehending the company's strategic logic is a prerequisite for the efficient implementation of servitization. Kaplan and Norton (2006) call this "strategic concurrence", and argue that it is the logic in which companies usually invest their strategies and not in the strategies themselves. Said it other words, it is this logic, which defines the level of their competitive advantage. Martinez et al. (2010), write that the strategic alignment of processes during the transformation servitization phase constitutes one of the main challenges for businesses. Similarly, (Kastalli & Van Looy, 2013; Kindström & Kowalkowski, 2014; Paridaet al., 2014; Storbacka, 2011; Tukker, 2015; Wise & Baumgartner, 1999) discuss the changes required in the business model when of main business integrating а service strategy ลร one the challenges. Several authors (Armstrong and LeHew, 2011; Fletcher, 2008, 2010; Fletcher et al., 2012; Hethorn and Ulasewicz, 2008; Niinimaki and Hassi, 2011) argue that there Is a substantial relationship between design thinking, designers and the development of innovative, sustainable solutions in the fashion industry.

Boonset al. (2013) views sustainable fashion as closely connected to innovation as in a sustainable context companies are shifting from incremental (product and process) to transformational (services, future-orientated) innovations that do not cause environmental or social harm. Von Hippel (2017) introduces the idea of open innovation as complementary to sustainable fashion, and he defines it as a free-of-payment product, service or process, which consumers help build and evolve through personal investment of time and knowledge.

The logic of systems thinking within the framework of the report is understood as: "transformative improvements in fashion goods and services produced in collaboration with customers" that encourage "profitable design , manufacturing, delivery and end-of - life reuse , recycling or disposal of fashion that promotes circular processes, minimizes negative effects and maximizes positive effects on both society and the natural environment"

#### 3.1. THE COMPETITIVE ADVANTAGE OF SERVITIZATION

Bustinza, Oscar, et al. (2005) discuss the competitive advantage of servitization as a transformational change in the business model and organizational shift from selling goods to selling a combination of goods and services. During servitization, companies enter stages of differentiation from goods-oriented and production practices

to higher customer satisfaction from service interaction. Servitization thus generates new and additional revenue streams linked with the provision of services associated with the traditional products, which the company offers (Vandermerwe and Rada, 1988). The value of consolidating goods and services has been increasingly explored by firms (Baines and Lightfoot 2013), motivated by likely improvements in profit margins and the possibility of beating the competition for the customer's attention. (Bustinza, Parry, and Vendrell-Herrero, 2013).

Similarly, Porter and Ketels (2003), claim that servitization allows for sustained competitive advantage, as it frees firms from competing solely on costs.

#### 3.2 VALUE CO-CREATION WITH SERVICE DESIGN

The design research in this report focuses on one aspect of the servitization strategy (Rabetino, Kohtamäki, Gebauer, 2017), the Customer Value Proposition.

The concepts of value co-creation and the co-production of value propositions offer a vantage point to comprehend the inter-organizational, dynamic, and systems-oriented view of value creation. Hudadoff (2009) argues that the Customer Value Proposition is among the most crucial designer tools, as it creates an understanding of the use of a product and what value it will bring to the user. The time frame, which is when the service is delivered, is also essential for the outcome of the value it creates. (Hudadoff 2009)

Normann (2001) observes that the new task of business enterprises is now to coordinate the development of value in order to treat customers as co-producers of value rather than the end of the production process (i.e. as consumers and thus destroyers of the value generated by the chain of production and distribution processes).

Under different conditions, beliefs are formed in different ways. Solomon et al. (1985), for instance, uses the term service encounter to characterize a dyadic interaction between two actors; each of these actors brings in the service encounter its own experience, perceptions and culture, each of which plays a role and proposes its own actions. In a context derived from activity theory, Sangiorgi (2004) continues to characterize the service encounter, proposing the service encounter as a dynamic interaction between various human, behavioral, mechanical and institutional influences.

# 3.3. INDUSTRY PARADIGM SHIFT

Ecosystems, specially designed ones, are on the rise. (Jacobides, 2019) As a result, it is paramount for companies to focus on competition between digitally-enabled designed ecosystems that span established industry barriers and offer complex and personalized product-service bundles. (Jacobides, 2019)

There are many industrial examples of a successful ecosystem. Back in the 8os Nespresso launched its capsules and designed not just a product but the perfect ecosystem. Nespresso did not only create a single product to sell on the market, but designed a network of manufacturers for its machines and thus created an inimitable ecosystem of actors, cooperating, and innovating together.

Google Nest created a similar successful ecosystem, starting with the smart digital thermostat operated remotely. It then went on and added an alarm function, bundling both comfort and security to its offering. Next, the company created Works with Nest ecosystem, simply by capitalizing on the opportunities of digital interconnection. And this on the other side creates opportunities for other companies to innovate on e.g. Mercedes-Benz cars, which communicate with Nest to inform them to switch the heating when the user is close to home. All these extensions bundled in an ecosystem create a customer value greater than the competitors can offer, thus winning the market segment. Google Nest is a great example of the excellent work of designers, who realized the needs of the users to not only remotely control one service but multiple services (Jacobides, 2019).

The success of Apple can also be contributed, not just to innovation, but to the carefully and masterly designed ecosystem with Apple Watch and TV, Iphone, iMac, Airpoods etc. It represents the perfect example of an amazing design, which captivates customers to stay in the same ecosystem (Markman, 2017).

# 4. RELATIONSHIPS SERVICES - THE UNIQUE CAPABILITIES OF DESIGNERS IN CREATING VALUE

# THE EMPATHIC ROLE OF THE DESIGNER

Design thinking is an essential mindset for a service designer as they are constantly engaging in research, thinking, and visualization of different cultural, social, and human aspects. The ability of the service designer to empathize with the user is of paramount importance for the successful building of relationships

As outlined by Tim Brown (2008) describes the design thinker's personality as optimistic and challenging, exploring constraints and asking questions. Designers feel empathy for others, notice things that others do not, and utilize this to inspire innovation. Blackman (2008) discusses the designer's role as cross-disciplinary and moving from artifacts to the design of interfaces and processes, which engage and build connections.

Brown et al., (1992) suggests that in today's competitive business environment, the recipe for success has been replaced from customer satisfaction to customer delight. The emotional connection with customers leads to

competitive advantage as it entails exceptional service and exceeded expectations, which are translated into brand loyalty (Kandampully, 1998).

The changing philosophy of business service quality has been attributed to the ability of the business to deliver superior service. (Gale, 1990; Rudie & Wansley, 1984). Parasuraman (1988), also defines a superior service as a prerequisite for maintaining high-quality service. Subsequently, the requirements for potential performance would be decided through the capacity of companies to deliver loyalty: to meet the present desires of their clients, predict their future desires, and strengthen existing partnerships.

Through academic research it has been recognized that customers have a tendency to compare the quality they have encountered to that of previous experiences (Swan and Comb, 1976), which manifests as an emotional reaction of satisfaction/dissatisfaction with the products or services purchased (Woodrufl et al., 1983).

So successful service performance will equal to meeting the "expectations" of the user with regards to service experience.

(Gronroos, 1982; Lehtinen & Lehtinen, 1982; Lewis & Booms, 1983; Lindqvist, 1987; Parasuraman et al., 1985; Zeithaml et al., 1988)

# 5. CONCLUSION

Sustainable fashion is a process of change in the ways of thinking and performing fashion, which values diversity, stability and well-being of both individuals and the world. Sustainable fashion.

Globalization has led to an unprecedented rate of overconsumption of clothing, as textile prices have decreased to the point that it is increasingly seen as a cheap commodity. One of the aims of service design is to address this disparity and to design services with the same appeal and experience as the goods we enjoy.

Design plays a significant role in innovation. Its capacity for design creativity and participation in the major issues facing us such as transport, sustainability, government, finance, communications and healthcare, is a significant feature of service design.

It is easy to duplicate physical elements and technologies, but service interactions are embedded in company culture and are far more difficult to reproduce. If they fly low-cost airlines or spend their money on a first-class experience people want to use the services they believe offer them the best experience for their money. Some of the biggest opportunities are found where it is possible to shift a business model from a product model to a service model.

Design Thinking helps corporations meet the urgent need for sustainability by widening their strategy repertoire to address dynamic, open-ended problems faced by contemporary organizations. By leveraging Design Thinking's innovative methods to create a shift in the transformation mechanism, the strategic role of the designer and design practices can shape such a positive environmental and social position and thus involve

social actors in new ways of thinking and acting within new networks and with new objects.

#### HYPOTHESIS

The research starts with the below outlined hypothesis and aims at either proving or disproving them with the implications from findings and insights further in the report. The hypothesis are as following based on the elements of assumption rather than evidence:

H1. Consumers buy sustainable clothing because they value quality, long-lasting products

H2. Consumers are influenced to be/ act sustainable from Internet and Social Media (they get inspired by the activities and information circulating there)

H3. People started liking a brand first on Social Media and then purchased it offline

H4. Consumers are price and style given when purchasing both online and offline clothing

H5. Consumers are influenced to be / act sustainable through SM (Facebook, Instagram)

H6. Consumers link sustainability more to personal choices and behavior than companies' operations

**H7**. Consumers started living an environmentally conscious life, and sustainable clothing became a natural part of it, but is not the main drive.

# BACKGROUND

# WHY IS DESIGN WICKED?

Every wicked problem is unique (Rittel 1972). In order to understand the complexity of Design and why it is considered Wicked, we need to take a look into what Design entails.

Buchanan (1992) states that design concerns are "indeterminate" and "wicked" because, aside from what a designer conceives, design has no special subject matter of its own.

For it to be. As design thinking may be extended to any field of human experience, the subject matter of design is potentially universal in scope. The designer must discover or invent a particular topic from the issues and problems of specific circumstances in the application process. Fashion provides different possibilities for sustainable principles and practices to be implemented (Hethorn and Ulasewicz, 2008) and designers also want to make more sustainable clothing, but they need to know how to do so. In minimizing the negative environmental and social impacts of fashion goods, architecture is the point of greatest opportunity (Fletcher et al. 2012, Niinimäki and Hassi 2011, Vezzoli and Manzini 2009). Many of the designers' choices encode goods for a particular destiny, resulting in a domino effect as they guide partners and stakeholders' actions and choices from manufacturing to retailers, end-of-life and disposal (Armstrong and LeHew, 2011, Guidice et al., 2006, Wimmer et al., 2004). Therefore, fashion could prove a powerful conduit in the transition to environmentally sustainable and socially responsible production and discourse if designers are perceptive and open to sustainability concepts, sustainable solutions and consumption, drawing focus, energy and creativity (Armstrong and LeHew, 2011)

Therefore, in order to perceive the full extent of an issue, we need to

- isolate and analyze the actions of each component separately (design thinking)
- exploring how parts of a system communicate with each other (system thinking)

- exploring the purpose of a system, how a group of interrelated entities contributes to a larger purpose (system thinking).

# COMBINING DESIGN THINKING AND SYSTEMS THINKING

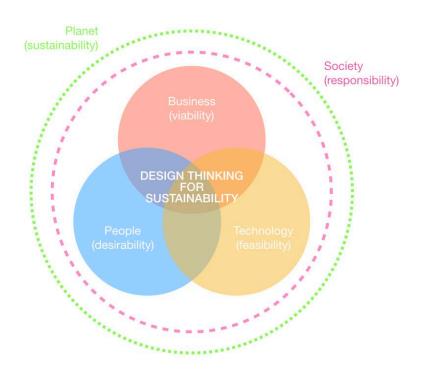
Design thinking is used as a framework for conducting business that puts users' (i.e. customers') needs first. (Interaction Design Organization) Therefore, Design Thinking is people-centric, and System Thinking is systemcentric. Within this report, the researcher applies design thinking after acquiring enough qualitative information (the process of zooming out to gather information) and then zoomed in on parts and tried to understand the motivations behind consumers behavior and to identify patterns. The research also engages in studying the fashion system in order to understand the links between its parts. And how relationships within the system influence its purpose.

#### CHAPTER 3.

# ADDRESSING THE CONTEXT

#### The Triple Bottom Line and Design Thinking

The triple bottom line represents the foundational pillars of Planet, Profit, and Society, which in this report are the foundations of the sustainable environment, working in synergy, complimenting, and positively supporting each other. It is essential to address it because a sustainable business model captures The Triple Bottom Line.



#### Figure 1. The Triple Bottom Line

Above is an illustration as to how this report works with sustainability. It illustrates the three traditional aspects of the model, which include Profit, Planet, People with two additional concentric circles for Planet and Society. In this report, the researcher relies on these three pilers – People, Business and Technology, as foundational and underlying the logic of the Design Thinking process for Sustainability. The two outer rings guide the design thinking within the societal norms and social responsibility perception, for example, ethical activities along the value chain, local community support, fair trade and environmentally friendly operations. Society is perceived as a subset of The Earth/ Planet. The conscious designer must consider the Planetary limited resources and rely solely on these resources for economic and social well-being. Said in other words, the additional external rings represent the sought Environmental Responsibility in Design solutions for service, where Design Thinking is the

central logic around People, Business and Technology reinforced by the circles of Society (responsibility) and Planet (sustainability).

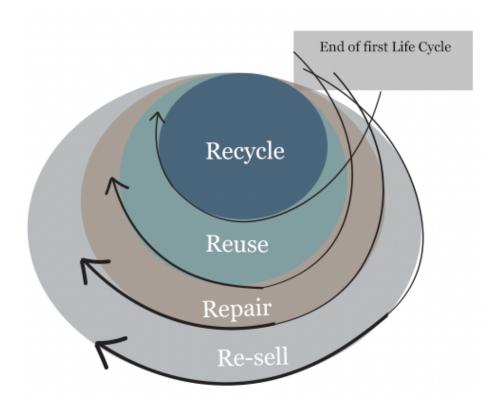


Figure 2: Circular economy Model as the preferred service outcome

The new service model proposition looks for answers in Service Design Discipline, which can help businesses shift from the traditional LE paradigm of produce-consume-throw away and add more sustained value to their business offerings.



Figure 3. Linear Economy Logic resulting in Mass Consumption

Normann and Ramirez (1994) argue that the value co-creation is the result of an actor engaging with other actors in a constellation rather than a linear production chain.

## CHAPTER 4.

## 6. METHODOLOGY

Since the solution to the process from the very beginning is unknown, it is helpful to structure a design process. For this reason, many mechanisms have been created, the most well-known of which is the Design Council's Double Diamond (Design Council, 2005) and the IDEO's 5 Steps Human-Centered Design Process (Dam, R. & Siangm T. 2018). The double diamond model is chosen as the preferred design system for this report. The Double Diamond model is deployed as an organic and dynamic process. It breaks the processes through the four lenses of exploration – Discover, Define, Develop and Deliver, where the first one is a step towards getting to know the user and their current habits and experiences, believes, preconceived notions, prejudices and additional factors, which can significantly influence their purchasing decisions and behaviors; the last phase is dedicated to the concept itself, which presents a service solution to the client. The middle two phases represent the fundament of the design process.

- DESIGN PROCESS – DOUBLE DIAMOND

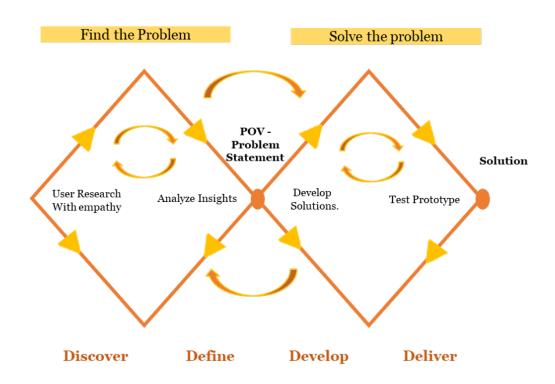


Figure 4. Double Diamond Model

## 7. DELIMITATIONS

Even though the report engages in three case studies, it does not directly aim at researching the target group of these companies. Instead, it takes the three companies as industry examples, and integrates their expertise on the topic of sustainable business practices. Alongside them, surveys and in-depth and user interviews, observations and desk research help to develop a further understanding of the motives people share towards sustainable lifestyle adoption and practice, and how brands such as KCA, SO, and Les Deux, can capture a value from these practices and turn them into a valuable service offering with users in focus. The ideating sessions are also limited to the mind of one, however, appropriate tools were selected to assist and expand the creative space and open up the sustainability conversation.

## CHAPTER 5. DESIGN PROCESS

## DISCOVER - BUILDING AN UNDERSTANDING

The process engaged the researcher in the Looped activities of Observe-Reflect and Make as proposed by IBM.

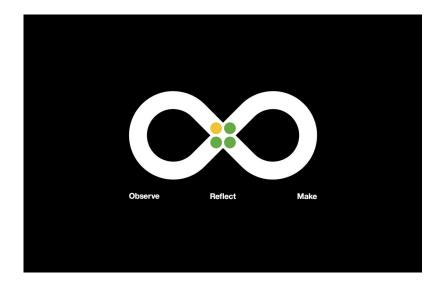


Image 4. The Loop / A tool developed by IBM for Service Design

#### 1. THE APPROACH

Often times, before it can become eligible for solution, the problem-as-presented first must be 'deconstructed' (Hekkert & van Dijk, 2011). The first step, Empathise (Discover) phase, aims to mobilize the researcher and open up the way to users while simultaneously to unfold the many layers of the sustainability and fashion services issues, firstly by gaining useful insights into the sustainability demand and supply from industry experts and then by understanding what consumers need, feel and think and how they behave in relation to buying sustainable clothing.

## 1.1. THE STARTING POINT

The concept of the circular economy addresses the importance of providing goods and services sustainably, where digital technology plays a crucial role in providing the information needed to create habitual logistics and corrective systems.

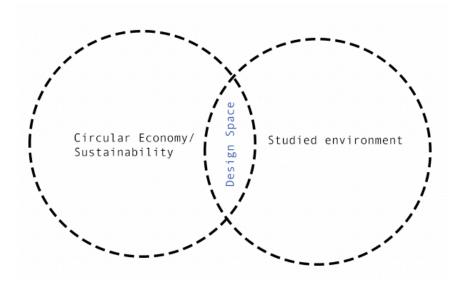


Figure 5. Mapping the Context

## 1.2.CIRCULAR ECONOMY (APPLYING SYSTEMS THINKING)

Not only is it necessary for future service designers to understand the basics of this circular way of thinking, but also this is an area where future service designers can make impact and act responsibly. (Kirsen van Dam, Circular Design Lecture and Workshop, 2019) Covered in the theoretical framework and desk research, the topic was studied in order to draw a holistic picture and gain the right amount of knowledge and realize the possibilities, challenges, and boundaries currently existing. It is worth highlighting that in the framework of this report, CE and Sustainability are used as interchangeable terms.

## 1.3 USER ENVIRONMENT (APPLYING DESIGN THINKING)

The design process starts with unfolding the contextual environment through online observations and expert industry interviews with representatives from the three case study companies. Their professional insights helped to understand the users' demand for sustainability from a business perspective. The experts shared their current and plans to respond to these customers' needs and expectations. Further in the report, an actual user perspective was obtained through in-depth interviews and surveys, which addressed both the Danish and international fashion consumers.

#### Shaping the initial problem statement.

The initial research statement is formulated as following:

"How Can Design facilitate the transition from product-based to service-based business practices and thus a encourage Circular user journey?"

This is a question, which the researcher based on the need for innovation in the Fashion Industry, a need Service Design discipline can facilitate. Moreover, it aims to understand the designer's role and capabilities in innovating businesses thorough services to help sustainable production companies in their transition processes from predominately product-based business models to service-operated, user-centric service models.

## 2. DESK RESEARCH

## 2.1. GLOBAL FASHION INDUSTRY - INTRODUCTION AND CHALLENGES

The role of Fashion has always been dual, both expressive and controversial. In the challenging times we live in, where social and environmental injustice peaks, and people start to become more respondent to it, fashion needs a new role – transformational.

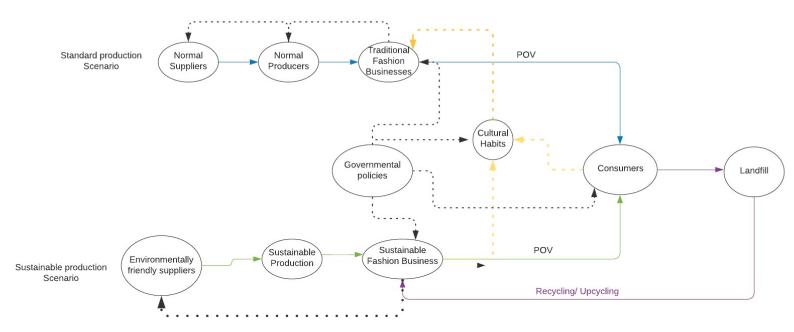
As people across the Globe are united for a local action, fashion industry, the second largest, needs to start leading the way towards a greener, more sustainable world, and use its expressive ability to shape positive habits and behaviors in consumers. This is possible through the concept of sustainable fashion, which recognizes that meeting present needs must not compromise the well-being of future generations. It fights the prevailing logic of overconsumption , which no longer stays an option. Even though, the concept has been present for more than thirty years now, no substantial results have yet been achieved. Unsustainable practices keep accelerating and the traditional business-as-usual logic unacted. It is now evident that many years of discovering alternative materials and sustainable recycling practices are not efficient enough.

In challenging the industry's status quo, which still prioritizes profit over critical social and environmental issues, we must now be bold. The ways of thinking and practicing design creation, communication, wearing and enjoying fashion that respect the diversity, well-being of prosperity and interdependence of human and natural systems need to be revolutionized. This implies a radical "unlearning of fashion-as-we-know-it" by eradicating the logic of continuous growth, overproduction and overconsumption. We need to find new and richer ways of enjoying and giving value to fashion.

#### Center for Sustainable Fashion

Understanding the fashion system.

This is how the fashion industry can be deconstructed. The first scenario relates to standard production



System Map of Fashion Industry

#### Figure 6. System Map of Fashion Industry

Currently the three case companies – KCA, SO and Les Deux are already engaged in the Sustainable Production Scenario.

## Case study. Winning with visuals data.

Fashion Revolution is a British NGO, which employs people around the World to promote Sustainable industry practices within the Fashion industry. The organization engages people from all professions and backgrounds - academics, business leaders, producers, writers and fashion lovers, which all together share a vision for a safer, cleaner environment, with People, Planet and Business Growth in focus. The organization achieves its results through cultural change and social engagement by doing activities to raise awareness and mobilize communities to act. Additionally, they provide a platform for users for express their voice and get informed around the fashion industry challenges, such as the Rana Plaza collapse back in 2009. The NGO has also started the "Who made my clothes?" movement to raise awareness on clothes origins and production practices.

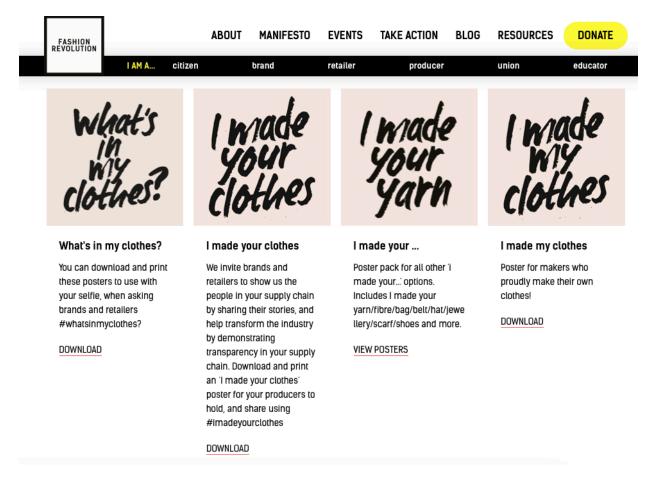


Image 5. Screenshot of a FR campaign



Image 6. FR communicates a lot of statistical data to raise awareness

#### 2.2 UNDERSTANDING CONSUMPTION PARADIGM

The consumption model discusses Generation Z and Y patterns of educational choices, social contexts, shopping behaviors, desires, needs, all of which play a role in determining who the consumer is.

Based on the results of a large study on young people (aged 18-25) conducted in 24 countries in 2000 on behalf of UNEP and UNESCO, Nyberg and Stø (2001) identified three socio-psychological factors that form the basis for the ability of young people to be key agents in promoting a shift in direction of sustainable consumption patterns:

1) strong environmental conservation issues, (2) the ability to generate trends, and (3) the skillful use of digital media. However, there is still a difference between intentions and actions. Among several concepts for sustainable clothing consumption proposed, the majority of consumers still exhibit an intention behavior gap regarding their sustainable consumption. Several scholars have recognized it including e Lapierre (1934) and Wicker (1969), who claim that the attitude of a person rarely and only vaguely translates into actions. In the late 1960s, this difference paved the way for the production of subsequent versions, seeking to shed more light on the attitude/behaviour relation and gap.

#### 2.3. UNDERSTANDING CONSUMER TYPES

Cioffi and Garner (1996). have researched the gap between "active" and "passive" customers in some detail According to these writers, in their peruse to make a conscious, informed decision, active clients are those who look for knowledge. Although such a search process takes time, an opportunity to give more conscious reasons for the intentional decision is the product of the process. A passive client, on the other hand, is one who has not looked for information and thus has fewer conscious reasons for his or decision.

The probability of a passive customer switching to a rival is usually "greater than that of an active customer switching." (Roos and Gustafsson, 2007) This is attributable to a passive customer's inability to think of a deliberate reason to remain in the current relationship when a rival tempts the customer to switch; In comparison, an active client is more likely to stay in a relationship because more (conscious) reasons for staying in the relationship have been accrued by such a client (Cioffi and Garner, 1996). In addition, the passive client who does not pursue information is likely to mobilize cognitive motives through actual activity, such as a decision to leave, since "non-actions" are typically not viewed by such clients as insightful (Cioffi and Garner, 1996). Indeed, if they do not move when tempted by the competitor, a consumer who does not have enough knowledge to negotiate with a competitor about a potential switch becomes much less confident about the issue (Cioffi and Garner, 1996; Eagly and Chaiken, 1993). In the literature on services, the common view is that the transition from one service provider to another requires a cognitive one (Keaveney, 1995) (Roos, 1999).

These causes have been graded into (1) reactionary triggers (such as the poorly handled service provider of a customer); (2) situational triggers (such as a shift in the customer's life condition); and (3 solid triggers) (such as a change in the market).

Researchers have regarded these stimuli as initiating a deliberate and aware switching mechanism in line with the principle of rational action.' Recent research has however, shown that this might not always be the case. (Gustafsson et al., 2005).

Researchers have followed the traditional methodology of service research in establishing the conventional view that switching is a deliberate cognitive process, which holds that service quality evaluations are focused on direct assessments of certain features of the service itself, the service process, the service staff, and the service setting (Edvardsson et al., 2005; Grönroos, 2000.) If this method is extended to the topic of customer relationships, remaining or leaving decisions are believed to be based on the same form of evaluative procedures (Ganesh et al., 2000), which means that customer relationships are entirely dependent on a cognitive assessment of objective facts.

This theory can be applied to sustainable fashion brand choices, where the marketplace is highly overcrowded, and variety of choices are present to consumer, making the switching decision quite simple and available.

## 2.4. SO, WHY IS THERE A GAP IN SUSTAINABLE PURCHASE?

Although they claim to have sustainable attitude and intentions do not convert to real actions (Kollmuss and Agyeman, 2002; Young et al., 2009) The lack of environmental concerns (Hustvedt and Dickson, 2009), together with economic aspects (Hustvedt and Dickson, 2009; Joergens, 2006), unaesthetic appearance and fashion trend sensitivity (Hiller Connell, 2010; Lang et al., 2013), and high search costs (i.e., perceived time and effort) (Ellen, 1994) are the main barriers for consumers to engage in sustainable purchasing behavior.

Motivational factors affecting the actions of the person are captured by behavioral purpose and represent the amount of effort the individual is willing to exercise (Ajzen, 1991).

Despite being a negative value for business, this Behavioral Gap provides an opportunity for the Service Designers, to positively shape behaviors and design new transformative experiences in a value-adding manner. Drawing on the notion that fashion is a state of mind and depends on individual attitudes, uncertain in value, the researcher assumes that an agility in product-service delivery by businesses addressing a changing behavior will be the right choice to answer to these uncertain values.

## 2.5 CAN SERVICES HELP COVER THE GAP?

Service Design allows [designers] to look at the big picture, connect the dots, and transform complex organizations into an easy-to-manage product and service eco-system. IBM Design

Different types of service can enable the re-construction of capitalism logic of produce-consume-dispose. Services in their nature add value, are more dynamic allow for co-creation through interactions touchpoints. Additionally, they leave the users with a great sense of experience when delivered rightly, and lastly, they are the future. Technology has enabled them, and many businesses have moved online to capture the Cyber value in their businesses. Now they have to deliver great value and in the overwhelming cultural times, which we live in, they so too, need to deliver a purpose and meaning for having a place in the market.

## 2.6 SERVICE MODELS

## 2.6.1. SUSTAINABILITY AS A SERVICE

The emergence of SUSTAINABILITY AS A SERVICE is about the convergence with other influential developments of an ultra-convenience mindset: think about new rolling aspirations, iterative personalization, and the epic movement that is the circular economy.

Consumers will welcome new tools, networks and ongoing programs in 2020 to facilitate their mission to reduce the harmful impacts on the environment. Moreover, for millions, subscriptions have become a part of everyday life. But the aspirations these services have fueled for convenience and all-as-a-service are all around us. And now, customers are adding their personal demand for sustainability to this mindset.

2.6.2 RELEVANCE-AS-A SERVICE – CONSUMERS DEMAND RELEVANCE AS A SERVICE.

The demand is driven by two strong perceptions of customers are converging 1). The need for personalization; 2). the concept of convenience for millions around the world has been reshaped by a decade of on-demand and all as a service.'

## 2.6.3. SERVICE AS INFRASTRUCTURE

The action of a designer, in particular needs to be seen as an open-ended action.

Supporting value creation. This view is contrary to the belief that the production of services is

It is a stand-alone project developed by a service provider or a designer with a clearly identified project outcome. To explain the conceptual distinction between this open-ended approach and a project-based approach, some writers (Björgvinsson et al. 2010; Hillgren et al. 2011; Karasti 2014) describe the design action as infrastructure in order to mark the conceptual distinction between a project-based approach and this open-ended approach. Designers who along with service providers, have complete control over the potential configurations of the outcomes of the process can easily explain the product of such a process.

Instead, from an infrastructural point of view, the value process is actually created by a continuous interaction between the customer and a number of other actors, products and technologies. Normann and Ramirez observe that this happens not only with certain services but even when we use an ordinary product (Normann and Ramirez 1994).

## 2.7 SERVICE CHALLENGE

#### Shostack's Evidence

Intangibility in service can be an issue. Shostack argued that an unwillingness to cope with their intangible essence could be due to marketing's disdain for services. "Services are impalpable and non-corporeal, according to her, and thus cannot be touched, tested for scale, or placed on a shelf." The "dynamic, subjective, and ephemeral" existence of intangible elements in services prevents them from being defined as precise as goods. The introduction of her molecular modeling approach was intended to provide a framework for dealing with intangibility.

#### 2.8 THE GOAL IS CONSCIOUS CONSUMPTION

Consumer behaviour refers to the behaviour of the consumer during the selection, purchase, use or dispose of economical goods or services to satisfy needs (Solomon 2011; Gabler 2015). Compared to further developments in this area, focusing on the purchase interaction between consumer and producer, also defined as buyer behaviour, marketers have recognized that consumer behaviour is an ongoing process involving surrounding steps (e.g. prepurchase) (Solomon 2011).

The reasons of consumption these days are crossing basic needs and can be divided after (Lange 2004) into the three sections of rational, conspicuous and compensatory consumer behaviour (Lange 2004). Rational consumer behaviour is about the satisfaction of needs suggested by Maslow needs: physiological (e.g. thirst) and safety needs (e.g. security), psychological needs: social needs (e.g. social acceptance) and esteem needs (e.g. self-esteem) as well as self-fulfilment needs (e.g. self-actualization) (Evans et al. 2010; Lange 2004). Compensatory consumption behaviour is focusing on the use and consumption of goods as compensation for deficiencies. With the purchase of goods, occupational and personal stress can be reduced or disappointments can be comforted away. Feelings of frustration, discomfort and defeat are compensated. Here the focus is set on the act of purchase, as this provides a short period of satisfaction and distraction from negative emotions (Lange 2004). Conspicuous consumer behaviour concentrates primarily on self-realization. Here the purchase and consumption of goods and services should strengthen the social recognition (e.g. achieving a positive impression on friends and family) (Lange 2004). In developed countries consumption is a natural part of everyday life. Most of these people belong to a so-called consumer society. This society is characterized by a high power of purchase, material wealth and low-cost goods due to mass production. The interests and needs of the consumer are defined by mass media as well as advertisements (Kleinschmidt 2008; Schulz 2013).

To reduce the present amount of natural resource usage, resource efficiency in

production as well as technological innovations is necessary but insufficient.

Therefore, social innovations along with additional and equivalent-valued strategies

of sustainable consumption are necessary Leismann et al. (2013) and services can help achieve this.

2. 9. THE RISE OF NEW ECONOMIES. IMPLICATIONS

New emerging economies are shaping new ways of consumption. Therefore, it is important to provide a brief explanation to the most important of them.

## 2.9.1. EXPERIENCE ECONOMY

Experience economy is seen as the new norm. Attributed to the technological advances, which the world has experienced in the last decade, experience economy has drastically changed how people deliver services. Exceptional services provide great experiences. Therefore, to transition from service to experience, it requires businesses to engage in a more personal delivery through some of the following factors:

- User Understanding
- Tangibility
- Local Trust (Glocal mindset)
- Agile and service-oriented

Typically, economists have lumped experiences with services, but experiences are a separate economic offering, as different from services as goods are from services (Harvard Business Review, July-August, 1998). We can identify and describe this fourth economic offering today because customers unquestionably want experiences, and by explicitly designing and promoting them, more and more businesses respond. As services become increasingly commoditized, like goods before them, think of long-distance telephone services sold only on – experiences have become the new economic value.

## 2. 9.2. THE COLLABORATIVE ECONOMY

Collaborative economy supersedes sharing economy. It is marked by the many platforms that engage a diversity of peers to for a greater impact.

Cognitive capitalism is another value, which will keep changing our lives.

Boutang (2001) writes: "Peter Drucker and many others have compared the revolution in information and communication technology to the revolution that took place with the creation of the railways." As regards the size of the changes implemented, the analogy is true, but no comparison is possible at the level of the qualitative changes which are now affecting both the content and the value form. With the latest information technology, what we have is a full paradigm change, comparable only to the growth of the globe between 1492 and 1660. By now the phenomenological explanation of globalisation has largely been completed. The key feature is that the radical shrinking of distances and the low cost of information delivery and transmission are not just a good and useful service that is applied to existing equipment. They are also effecting a dramatic shift in the power matrices." And allow for a share of know-how and unlimited collaboration opportunities.

#### 2.9.3. BEHAVIORAL ECONOMY (BE)

Behavioral economics deals with effect architecture, which also requires behavioral modification. Numerous research and experiments show that human beings are incapable of making good decisions. Findings demonstrate that we are emotional, myopic, and easily confused and distracted. Therefore, companies should consider investing in behavioral economics as a way to improve decision making and lessen the risk for consumers. Thus, they can build more reliable connections and engage with their audiences on a deeper level. What is required from their side is behavioral modification.

Whether it's helping individuals to build good economic habits, embracing more sustainable modes of transport, or developing healthier eating habits, all of these initiatives involve an element of transition.

The concepts of behavioral economics explain at a high level how the majority of people under particular conditions would act. Leveraging the concepts of behavioral Economics will help designers understand and modify behavior. In the case of sustainability designers, for example, an educational environment can be built that can shift customers away from conventional, fast-mode-driven fashion behaviors. Since fast fashion is about making consumer decisions automatic, it reduces consumers' critical thought and encourages them to buy on the basis of emotions. Two scientists and Nobel Prize winners, Daniel and Tversky (2009), address eleven 'cognitive illusions' which distort human truth. The actions of herds, which the author interprets as mass consumerism practices, are among them.

It is difficult to change people's minds, let alone decisions related to fashion and self-expression. However, a good educational design experience, which empowers consumers with knowledge about their choices and habits, can help both companies to build a solid picture of users and behaviors and consumers to make smarter, more informed choices.

## 2. 9.4. ECONOMY OF TRUST. THE USERS' PERCEPTION OF BUSINESSES' COMPETENCE AND ETHICS IS EXPLAINED THROUGH THE EDELMAN TRUST BAROMETER.

In the overwhelmed, competitive fashion market, brand loyalty can be seen as the highest asset. Achieving this requires companies to recognize how consumers choose alternative brands and what stimulates them to choose one brand over the other. Brand trust has a constructive influence on consumer preference. (Gani, 2015)

The research behind the Edelman Trust Barometer, which covers all four societal institutions – Governments, NGOs, media, revealed that none of these is trusted, despite the advanced economies we live in. According to the report, the main reason is rooted in peoples' fears of the future and how uncertain it still is. This demands a new approach from institutions in building trust, which balances competency with ethical practices. The report also concludes that this paradox in opinions results from two different realities: a reality represented by an informed audience, richer, more educated consumers of news, remain more trustful to institutions. The same can be applied to trust in companies, and it goes both ways, when users do self-search activities and when brands reach out with educational information to consumers. The majority remains still in doubt about how good institutions are in reality doing compared to what they claim they do. Sustainable brands have the benefits of a doubt about greenwashing and green hushing.

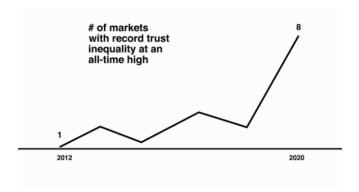


Figure 7. Increased level of distrust for period 2012-2020

## 2.10. DISCUSSION

Sustainability is on the rise. However, the fashion industry is still a complex system, with prevailing operations rooted in conventional business operations, as a result of which are linear user journeys. Information is powerful when harnessed and acted upon in the right way and contributes positively to the life surrounding us.

Technology is the enabler and the encourager of a great change, creating economies of sharing and collaboration, creating diverse new forms of experiences. Beyond experiences, people demand trust and transparency from companies and expect them to deliver no less if they want their positive "vote." Products are no longer the goals, as services in every industry have taken over. From personalization of music taste, video content, traveling, and purchasing AI technologies, fashion can empower consumers to make a choice according to their style and make a conscious choice supportive of People and Planet.

#### 2.11. SUMMARY

The desk research was useful for unfolding the diverse layers of fashion behavior and consumption by looking at the drivers behind socio-demographic factors sustainable consumption. There proved to be gaps between intention and action, though. The user sustainability predisposition is tightly related to established consumption behaviors, which explains this gap in action even though it is present to them from diverse sources. Companies are not doing enough to engage the user in an end-to-end product journey; neither do they provide a sufficient level of services when considering the rapidly changing fashion landscape.

### 3. EXPERT INTERVIEWS

The next step was to do a field research and talk to representatives from the three case companies and find out more about how sustainability works within the business plan and how it is being accepted by users.

3.1. THE GOAL - the main aim of the expert interviews was to gain a professional, industrial perspective on the current situation, which the researcher explores. The goal was to extract Explanatory knowledge relating to objective interpretations of the industry state of being.

## 3.2. THE APPROACH

The chosen approach included semi-structured interview questions, which allowed for a more open and relax discussion of the chosen topic. The researchers used the questions (appendix 1) as a discussion guide, where the covered topics of sustainability and industry practices were organized in a logical sequence of questions. Aware that during the interviews the conversation can go into different directions, the guide was used as a tool to remember all the key aspects of exploration. It so too served well in moderating the interviews and extract most out of it. Later on, I built on what the participants said and tried to investigate the reasons behind their answers. (see Appendix 1)

## 3.3. OUTCOME – KEY INSIGHTS

The main key insights from the expert interviews were organized in the following descriptive topics:

## • Companies have a traditional marketing approach to social media, or none.

During our talk with Helene from Knowledge Cotton Apparel, she comments:

"I know that Johan who is the marketing manager have told us a lot about SM and that he wanted to use it for the women's apparel, but also we wanted to get a little bit away from social media.

## • <u>Companies use Design Thinking with a different human-centered approaches.</u>

"Simon, from the marketing department in Sweden (red.) uses the WHAT-HOW-WHY interactive approach (red.) It is the same approach as you're talking about, I think just maybe it's not that academic. But they are working with experience, so they don't use that, but I know that the design thinking is an aspect, he has shared with us many times, which he uses in his marketing development strategies for Knowledge Cotton Apparel."

"We use Design Thinking as part of our promotional activities, when we for example, travel to different fairs abroad, so yes, it plays a very central part in our strategies." Serendipity Organics

## <u>Companies do not work with user data analysis</u>

"We don't use Instagram data collection that much and Social Media. (red.) I know that they have tried to use data from social media alert from years ago, but it is not the approach that they want to use because he believes that it's not the future if you know what I mean..." - KCA

"Sorry but I have no knowledge about that that's if we do, I think it's my colleague in e-commerce who might have some knowledge about that." Les Deux

"No, we don't work with data collection, but we collect user feedback through our customer service and email correspondences." Serendipity Organics

• <u>Companies work with similar sustainability practices - GOTs certification, supporting charities/</u> local communities in production companies "We are a carbon neutral certified which is a company certification so that's not on product level but more for the whole company." KCA

"we're GOTS certified so we can share that story with the customer because we have a certification and a third party, we can have this validated."

# • <u>Sustainability comes along with the practice - They have started in a very early stage of</u> <u>sustainability, where market was not matured</u>

"Mads who is the CEO, his dad started working with sustainable cotton production apparel in 1969 and then Mads, his son, he started this brand in 2008, so it's it has been a family company for many years so the knowledge go way back from 69" – KCA

"The reason to start sustainable was that when Mads he thought it was extremely hard to find a basic T shirt made of organic cotton and produced in an ethical and environmentally friendly way. So, he started back then but it was a tough market to enter (red.) and we think it still is because people don't really know the process forehead." KCA

## • Circular Economy for companies means high level of production

" I am working on a project where we can be cradle to cradle certified if you know that yeah um and but we're not that big yet um so we cannot do this but this is a product gap where we want to go in so we can use a product again in this life in like to be more um yeah Circular Economy. We are not that big yet and also if you want to provide a service for afterlife of the products, we also have to produce way more clothes than we do not do and we're not overproducing at all."

"So, we actually always have to go a little bit back and not overproduce to make more money but more because we believe in not having to be a part of the overflow production. In big places it makes sense, but not for us."

## <u>Services mean different things for different companies</u>

Companies do not necessarily know the additional value/adding Services, which they offer beside: clothing personalization, repair, re-use of clothing (ReWear), Unique Brand Book aspiring a sense of community belonging, transparency in value chain activities

"I think that the service that we are providing for our customers is that we have a full traceability and transparency in everything we do."

## <u>Storytelling means a great deal, but challenging</u>

"A few people are even afraid of buying pre-owned clothes, so we have to be very good at communicating this concept and tell people a story about why we're doing it and not just what it is." Les Deux

" It's hard to share the story about the school we have in India where we support the local communities with School for Girls and building restrooms and toilets and stuff like that because that's not sometimes it's such a bad story that the customer doesn't want to understand it and hear about it because it's not only good we're it is good that that we are helping with it but it's not the story is really harsh I don't think that sometimes people want to know it an I feel like a lot of companies are really greenwashing a lot of sustainable approaches they said they having and say their ginger equality fighters and stuff like that when we only have women's in the headquarters product Department then they say that they are following the if in 17." KCA

"I think that is one of the biggest problems within the fashion industry it's not whether it's organic cotton or not but it's about the lack of transparency and that is also something we are working about now that one we want to show our clients so to say where are we making our clothes and who is making our clothes. Before it it's been so secret for many years."

## Customer segments play a role in the adoption of Sustainability

"We have two collection - two big and two small each year, but as of the new year 2021 we will launch a female collection, so we will of course have the double collection amount. The big platforms (retailers) are really taking it in so we think it will be a success. But then again, it's a whole new market with a whole new customer segment so it's quite interesting what we will but we will end up with, but as of right now we only have 4 collections." KCA "And also, there's the different generations our generations and the one after us I think it's called generation Z. We have much more interest in sustainability than the older generation so for example our parents are not really into it in the same way as we are. So, there are many, many different things and levels of engagement we need to think about when creating a service like that red." Les Deux

Sustainability goals come primarily from wholesalers – I have asked all three companies what their future strategies in relation to sustainability are, and they all three mentioned wholesales as the introducers of the "Green Level". Henrik, the operational manager from Les Deux said: "I mean it's a combination of different things. One of the game changes for us is that several of our partners and key accounts they are they are they are demanding from us and from all the other clothing brands that by 2025 or 2023 to be let's say 20 or 25 or 60% sustainable so we're seeing demands from big warehouses

When it comes to turnover, it also makes send as he added:

"You can say that about 10% of our turnover is from our own website 90% is wholesale and these online companies like Boozt and Zalando, they are our wholesales partner."

From the expert interviews, the sustainability demand can be further divided into the following categories:

- Demand for information and transparency
- Demand for local community support
- Demand for eco materials
- Demand for Labelling

## DISCUSSION

Expert interviews show a rising consumer informativeness and a demand for transparency. Consumers want to know what will end up in their wardrobe and this is a consequence of many factors among which social shifts, rapid spread of information, the wish to not just buy a product but to make the right choice, and the wish to receive value for money. It seems like consumers are on the right path of action, motivated and empowered by information to act right on buying. All three companies are working at either strategic or managerial level of sustainability, which witness for their commitment to engage in even more sustainable business in the future. One aspect, which is still challenging refers to the aspect of the sustainability story, as there is a lot consumers can experience as "bad" and "unethical" thus irrelevant to them as consumers.

## 4. CONCLUSION

From the expert interviews, the researcher discovered that sustainability is known and practiced from both users and consumers in different forms. For users, sustainability means available information and transparency, which if not available results in proactiveness from consumers' side who address their inquires directly to companies. For the three case companies - Les Deux, KCA and Serendipity Organics - sustainability expands across the whole value chain – from raw materials, to production and selling techniques. In recent period, fueled by the pandemic situation in 2020, companies are inquired to be more explicit as to where their clothing comes from and how it has been produced. This indicate a sense of care from users, who are motivated to practice sustainability in their choices. Bigger wholesalers such as Zalando and Boozt, are too pushing down sustainable goals to smaller brands. These facts all indicate a positive change towards sustainable practices from companies and consumers. Sustainability is being seen and adopted in the lives of consumers and in the business practices for retailers.

#### 4. COMPANIES' SUSTAINABLE ANALYSIS

To understand how "Green" companies are, the following section is dedicated to a companies' analysis concerning sustainability adoption and practices.

4.1 INTRODUCTION - THE BUSINESS ACUMEN AND SUSTAINABILITY

In several ways, business acumen can be related to sustainability. The new reality is that businesses are increasingly required to go beyond their projects and profit-driven methods and to include environmental and social sustainability at levels comparable to or even higher than the levels of investment they make in potential product growth and expansion of production. Therefore, the synergy represented in the Triple Bottom Line between companies, the planet and society is fundamental.

During the course of my research, mainly when engaged in expert interviews and user research, I have noticed a pattern - sustainability in its many forms and variations has spread and was shaped in diverse new operations and policies. Of course, as mentioned earlier, some of the new business strategies are being shaped in relation to the COVID-19 situation, as people realize that Slower Lifestyle is not only benefiting Planet's ecosystem, it is also positively impacting the bottom line. But predominantly, it is the users and more significant retail who keep pushing this trend forward. And companies seem to listen. In the section below, different strategic stages of sustainability will be unfolded in order to understand where the researched companies are positioned.

#### 4.2. ZADEK FIVE STAGES

## Identity at a managerial level

For the analysis of the brand's identity, several important points will be taken into account – the organizational structure of each company as well as the level of strategic drivers behind its business operations. Below is a graphic, which visualizes the points of consideration:



Figure 8. Strategic Identity

For the sake of this report, it is essential to understand why companies engage in sustainability from a more scientific point of view - whether they do it out of defensiveness and reflection of the current situation or they do it strategically to gain the first-mover advantage, for example. In order to paint this holistic, sustainable picture, the research looked at the proposed framework developed by Novo Nordisk, which helped identify the sustainable phase companies operate in.

Moreover, during the expert interviews, all three representatives mentioned the infant maturity stage back in the days when they began their market operations. Therefore, it is relevant to categorize the companies in accordance with Zadek's Five Stages of Sustainability Maturity.

# The Five Stages of Organizational Learning

When it comes to developing a sense of corporate responsibility, organizations typically go through five stages as they move along the learning curve.

STAGE	WHAT ORGANIZATIONS DO	WHY THEY DO IT
DEFENSIVE	Deny practices, outcomes, or responsibilities	To defend against attacks to their reputation that in the short term could affect sales, recruitment, productivity, and the brand
COMPLIANCE	Adopt a policy-based compliance approach as a cost of doing business	To mitigate the erosion of economic value in the medium term because of ongoing reputation and litigation risks
MANAGERIAL	Embed the societal issue in their core management processes	To mitigate the erosion of economic value in the medium term and to achieve longer-term gains by integrating responsible business practices into their daily operations
STRATEGIC	Integrate the societal issue into their core business strategies	To enhance economic value in the long term and to gain first- mover advantage by aligning strategy and process innovations with the societal issue
CIVIL	Promote broad industry participation in corporate responsibility	To enhance long-term economic value by overcoming any first- mover disadvantages and to realize gains through collective action

Figure 9. The Five Stages of Organizational Learning

#### Knowledge Cotton Apparel Sustainable Profile

Currently, the company is at the managerial stage of doing sustainable business. The company had started working with organic cotton back in 1969 when the demand was very immature, and in 2008 they established the brand with sustainability at its core. Now KCA is considering expanding the sustainable production into womenswear and will continue the sustainable tradition to a new, more challenging customer segment. Supporting local communities is also a strategic sustainable business action, which KCA is committed to. Through their "Give Back To Nature" mindset and approach, the company is planting trees in different locations in the world as a way to offset their CO2 carbon footprint coming from their operations.

With a focus on their menswear collections, KCA positions itself as a brand, which values the outdoors, natureoriented lifestyle, and activities. The brand follows traditional designs, this is not fashion-driven, and it keeps selling classical menswear pieces ever since its establishment. With two small and two significant collections each year, the company is trying to keep its production levels relatively low and not overproduce. The company still responds to styles and consumer demand but within the frame of their own values. When it comes to improvement both in strategic operations and design processes, the company is engaging in incremental rather than drastic steps and actions.

#### Serendipity Organics Sustainable Profile

Serendipity Organics is at a managerial stage, where the company has adopted the sustainability practice in its core of doing business. Serendipity Organics started as a sustainable clothing producer 18 years ago, covering an infant back then demand, but now strategically working with sustainability to deliver to their users. The brand targets women and children up to the age of 11, and its business identity is based around family comfort and an environmentally friendly lifestyle. These are the established values they see that their customers are sharing.

#### Les Deux Sustainable Profile

With the development of its recycling apparel platform this year - ReWear, Les Deux's Operation manager, shared in an interview that the company managed to grab "s first-mover advantage" despite the trend still being in the maturing phase. Les Deux supports the less fortunate social issue by engaging in charity donations and raising money for children in need through team activities. The last such action was the climbing of Copen hell for raising charity money.

Based on the above descriptive analysis of the three sustainable profiles, the case companies were placed on the axes.

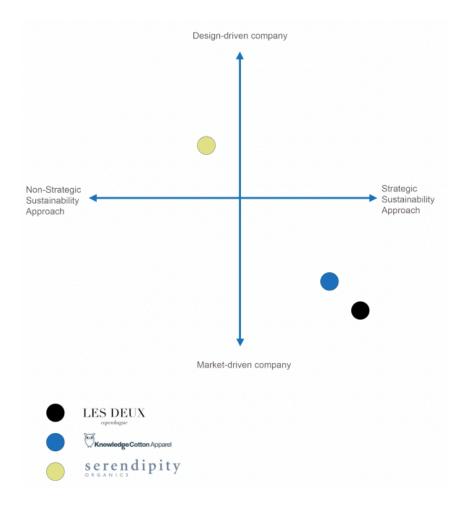


Figure 10. Current brand positioning for the three companies

Further, the graph measures market versus design driven companies. To arrive after whether companies are market-driven (Stein, 2012), the researcher took into consideration the meanings of these criteria:

Market companies:

- 1. React later to shifts, which are unknown
- 2. Add new changes in incremental steps
- 3. Respond insignificantly to customer requirements

- 4. Add foreseen features usually similar to those provided by competitors.
- 5. Are not keen on modifying decisions made in history even if consequences will benefit the business.
- 6. Act late on innovation.
- 7. Determine researching and analyzing seems risky and irrelevant
- 8. Unsure of their value proposition and place in the market
- 9. Are less agile

#### As opposed to:

## Design-driven businesses are those that put the problems and issues of the customer at the heart of their goods and services.

Based on the above-described criteria, all three companies are market-driven, as they cover a specific user segment and do not operate with users' needs in their core.

## 5. USER INTERVIEWS AND USER JOURNEYS

As a next step, I reached out to users and engaged in more in-depth interviews, to discover their point of view on the topic of sustainable fashion consumption. I was particularly interested whether they do it, and if so, what value do they find in it as users of sustainable clothes. My other main interest was how they think of their current consumption habits, how they formed them, and what makes them buy or throw away clothes.

Due to the circumstances under which this report was written, I managed to respond to only two people willing to participate. One other participant called sick after the planned meeting.

The first interviewed user is Stefania.

# **Quotes from our interview:**

" I don't know, but I have many clothes. Some of them I became tired of wearing around, and yes, why not give them to someone who finds them "attractive". I usually ask friends around, send pictures like "Would you like that?" I am not much into online re-sell, unless I bought something super expensive and I want to sell it again to earn a bit back."

"I don't go crazy in style. I mean, I buy kinds of the same items in style, just during different times. For example, basics. I like having neutral pieces in different colors, black, white, grey, T-shirts for example, so they can match my business outfits. But I also have a lot of old crap, which I don't know why I keep. I guess I am sentimental to my clothes."

" I shop Vintage, and usually I find things, which I had to buy in the real brand store, I would not be able to afford."



# **Quotes from our interview:**

"I rely on my girlfriend to remind me to buy or throw clothes away. I rarely re-arrange my wardrobe myself, I just don't bother to do it, and I have things hanging around for 10-15 years. But they are still in good quality."

"I don't know, I think I have around 20 pair of shoes, you know. I go much into sneakers, for me feet comfort means a lot."

"I like ecological and sustainable brands. I found KCA recently when I shopped at Magasin with my girlfriend. I bought a T-short, pants and a sweather, all very good quality. Today I am buying underwear from them again."



The information I acquired from the interview with Niklas helped me map out and understand the experience steps he shares for KCA buying journey.

## MAPPING A LINEAR JOURNEY

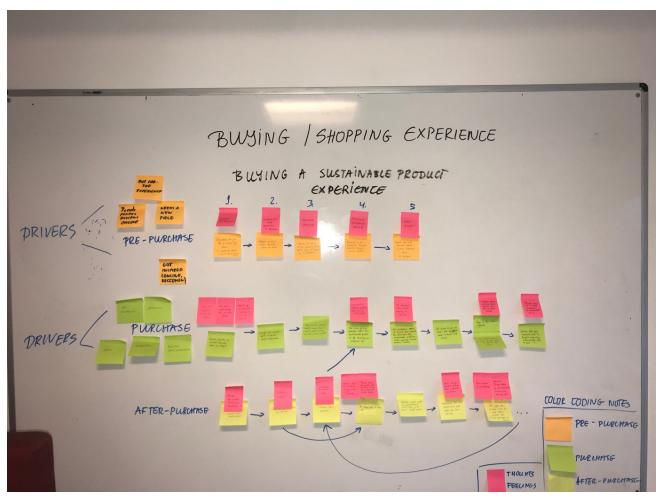


Image 7. Mapping the shopping experience steps with insights from the interview with Niklas



## **Pre-purchase**

Purchase

After-purchase

## Image 8. Zoom in into the three shopping phases

## 6. SURVEYS

6.1. INTRODUCTION – in order to understand the current state of Fashion Industry, I have chosen to introduce some of the most important highlights, which directly and indirectly will have an effect in the near future. They are followed by an introduction to the highlights concerning the future consumer are also presented.



"What is the future of Fashion Industry?"

"The purpose of big data utilisation shifting from monitoring to forecasting." **Jun et al.(2018)** 

"Google Trends illustrates the possibility of accurately forecasting fashion consumer Google Trends using time series analysis models." Silva, E. S., Hassani, H., Madsen, D. Ø., & Gee, L. (2019). Googling fashion: forecasting fashion consumer behaviour using google trends. Social Sciences, 8(4), 111

The ability to analyse fashion consumer Google Trends by country adds more value as it enables brands to personalise their websites according to the consumer search interests in any given country across the globe.

Silva, E. S., Hassani, H., Madsen, D. Ø., & Gee, L. (2019). Googling fashion: forecasting fashion consumer behaviour using google trends. Social Sciences, 8(4), 111

"Facebook reported 2.5 billion monthly active users in September 2019, and both Instagram and WeChat have more than a billion users each. Yet, growth seems to be slowing and users are spending less time on some of the major platforms." State of Fashion, 2020, McKensey and BoF.

"The typical route to reach a large audience on existing platforms such as Instagram is to either build followers organically or borrow followers using influencers — both these routes are starting to wobble. UK cosmetics company Lush realised that its organic newsfeed content reached only 6 percent of its online followers and became tired of fighting the platforms' own advertising algorithms." **State of Fashion, 2020, McKensey and BoF.** 

#### Image 10. Trends on fashion industry

#### 6.2. METHOD - DEVELOPMENT

Two questionnaires were developed, one in English and one in Danish with the aim to compare international vs local perspectives on sustainability perception and sustainable purchase behavior.

Both questionnaires were used as the main means of collecting quantitative primary data in this research. They consisted of two parts: one addressing more general fashion consumption, the other part focuses on sustainable fashion consumption. The questions covered internal factors to consumers such as knowledge, attitudes, existing resources (e. g. time and interest), lifestyle factors, motivations, social media influence and other personal characteristics influencing (sustainable) fashion consumption as well as external factors, e.g. the perception of availability, frequency of purchase and accessibility of sustainable clothing alternatives.

The next step after development was to reach out to relevant audiences. The surveys were spread as posts on Facebook groups related to Sustainability Lifestyle in Facebook. (see Appendix 8). They were additionally published on one of the biggest platforms for online survey conduct called Survey Circle, where a small donation to WHO organization encouraged user to participate and share their experiences.

#### **6.3. DATA COLLECTION**

The data collection lasted during the whole month of October. Certain criteria were used to obtain a desired type of information as divided into the below categories:

Considering the sensitivity and nature of sensitive information relating to money, family life, political and religious beliefs was omitted.

Unstructured, structured and multi-choice questions included.

#### 6.4. DATA SYNTHESIS AND BEHAVIORAL INSIGHTS.

Surveys show that people are pro-active and engage in information about sustainability either through online research or through self-practice e.g. they want to recycle, so they Google whenever that is possible.

Based on the segmentation approach, Danish and international consumers were grouped into the following four different groups. These groups reflect the awareness and knowledge level and willingness to act and purchase sustainable – 1) Pre-consideration, 2) Consideration, 3) Prepare and 4) Action and Care.

Pre-consideration is the stage in which the user still has not express an intention to shift their behaviour in the coming future.

Consideration is the stage in which consumers are becoming aware of the existence of a problem and start to consider ways of changing their behaviour.

Prepare is the stage in which the consumer start to think how to take actions. It is here where extensive amount of research is done, and slowly steps are being taken in different sustainable directions.

Action and Care is the stage is which the individual is active expressing their environmental activism. This stage entails an extensive amount of energy and involvement. These kinds of shoppers consider all stages of environmentally friendly purchasing cycles.

## 6.5. ANALYSIS AND DISCUSSION

While more traditional segmentation approaches frequently attempt to explain differences in consumers' behaviour, abilities and motivation based on socio-demographics, it is interesting to note that the surveys revealed no significant differences between the perception of the Danish and International surveyed groups. While the socio-demographics appear to play a minor role, I have noticed differences in the already developed habits and sources of information, people use for information. Characteristic for Stage 4., Action and Care, is that its members of this group express a higher level of environmental activism and consider the whole cycle of their purchase/decision's behaviours compared to fast-fashion shopper, who tend to think one purchase at a time. This active group prefers second-hand outlets (e.g., second-hand shops, flea markets, Etsy) as a method to express their sustainable actions and environment concerns. (Appendix 8)

Consumers more knowledgeable about environmental issues such as those from group 4, differ from the average mainstream informed consumer. Those consumers who take their sustainability commitment seriously shop more frequently in second-hand shops and/or second-hand markets. However, this does not mean that they buy less. They might even spend the same energy and time in designing their shopping trips and they frequently end up spending the same amount of money. These consumers are more aware of eco-labelling, know what they mean and actually use them in their purchasing decisions. Members of Action and Care group show about the same interest in fashion as the average consumer and also use clothes as expression of individuality and self-assurance. Regarding recycling behaviour, they have more positive attitudes towards reselling, reusing and donating clothes and are generally interested in textile recycling. More often than any other group do members of the Action & Care group discard their unwanted clothes through resale, donation and swapping. Mending and modifying clothes is more widespread among the Action & Care group.

Besides the frequency, modes, duration, number of purchases and financial costs of the respondents clothing shopping activities, the researcher further took into consideration these additional factors that are relevant to the purchase phase and the phase prior to it.

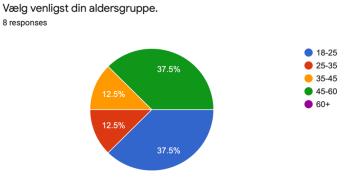
- price and price/quality relationship,
- materialistic values,
- underlying motives for buying clothing e.g. pleasure or functionality
- opinion leader vs. opinion seeker (use of Social Media to express behavior)

- general environmental and/or social impact awareness,
- perceived availability, accessibility and affordability of sustainable clothing
- label knowledge and use as well as
- skepticism towards sustainable product claims.

Price orientation and the price-quality relationship orientation appear to matter to young consumers, with women paying more attention to both the price and value-for-money element than men. The average young consumer demonstrates a balance between shopping for pleasure and shopping only when in need of clothes.

### **Demographic Category**

The majority of respondents are between 18 and 45 for internationals and 18 till 60 for Danish respondents.



#### Figure 11. Danish respondents

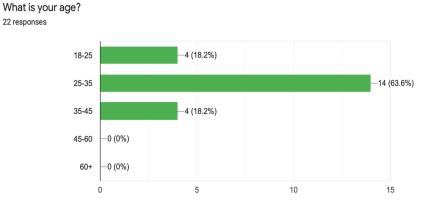


Figure 12. Demographics for international respondents

## **Behavior Towards Sustainability /Hassle**

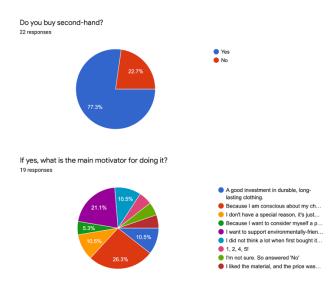
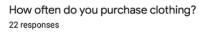


Figure 13. Statistics on sustainable behavior

#### The purchasing frequency



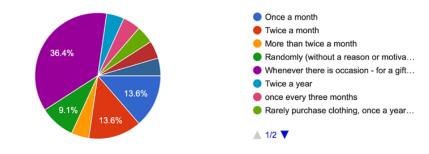


Figure 14. Statistics on the purchasing frequency

#### Materialistic vs. Non-materialistic

Figure 15. The level of emphasis people put on sustainability aspects



## Figure 16. Social Media usage in %

### Conscious Vs- Unconscious Sustainable Purchase

Please select the highest reason as a probability to buy clothing online. 22 responses

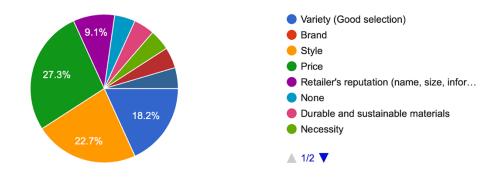


Figure 17. Motives for purchasing a clothing

Below are some of the open question answers, which Danish respondents gave to eco practices beside buying sustainable fashion.

"I would like to be more involved in such activities in the future."

"Yes, I am interested in eco activism, but it depends on how much time and energy is required."

"Would like to start by stopping to use some disposable products (cotton swabs, silver paper, etc.) and find sustainable replacements."

"I'm not involved in any sustainable organizations as such, I'm not a member, but I'm always happy when I hear about it."

"No, because I don't have the time." "No, I don't like it.

## 6.6. OUTCOME AND CONCLUSION

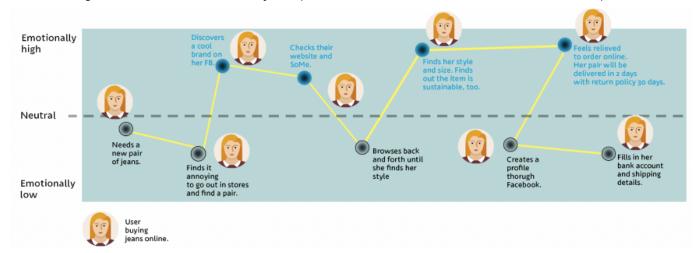
There are many recurring challenges of the choices around wardrobes – what to wear, what to give/ throw away, what did I bought recently (an overview), did I need it (a reason, motive), and as surveys show people buy out of necessity and style, and the choices they make on a particular garment are driven by price. But as it seems consumers do not come up with a logical reason as to why buy a new product. The reason is preference "I like the style.", "I saw this piece when shopping.", "I love new the experience of shopping."

Consumers who purchase second-hand have established sustainable behavior. Their sustainability habits can be contributed to several reasons: 1) people consider clothes to keep having value even after the discarding period 2) sustainable treatment and maintenance of clothing is a practice, which they know from family/friends; 3) men are interested in sustainable brands driven by quality and certain style pieces, while women shop more frequently, are season and style driven, but on the other side are more engaged in sustainability practices (they search more information and are thus more knowledgeable on the topic of sustainability.)

At last, although this research reached to both Danish and international audiences, but it was conducted only in one country. Taking into consideration the Global world we live in, and the role of the Internet in shaping behaviours, the research has a ground to believe that the results from this survey and research are not confined to one country or nation but span across borders. A further implication from this report will be to compare this sort of data across nations, which will be beneficial for the companies operating in international markets, too.

# 7. CONVENTIONAL USER EXPERIENCE JOURNEY

Then I mapped the conventional experience for Les Deux and incorporated statistical data from surveys to support the in/store and online journeys.



Understanding the conventional linear user journey for Les Deux combined with statistics from surveys.

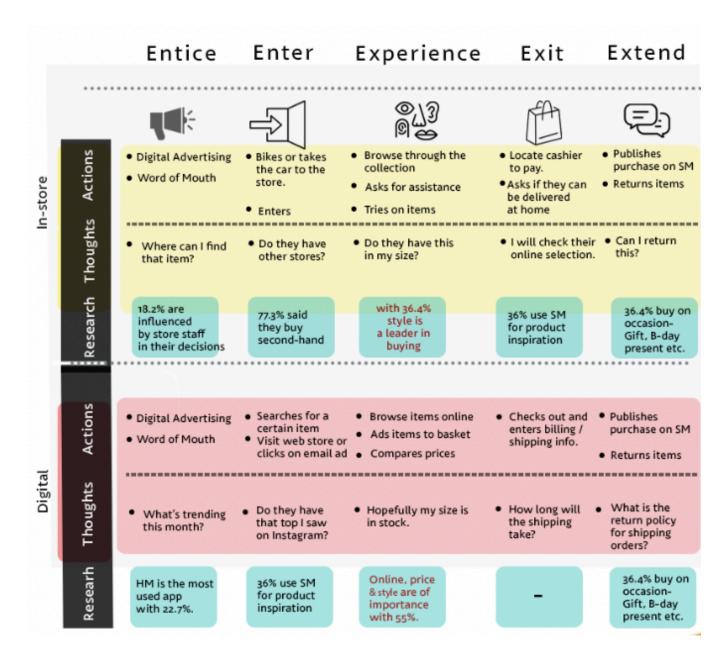


Figure 18. Conventional user Journey for Les Deux

The above User Journey shows that the journey is still linear.

# 8. AVAILABILITY OF CHOICES

Last but not least, it was important to understand the availability of choices, which the consumer is expose to when engaged in the decision-making process. Once decisions are implemented into the situation, future behavior forecasts must also take into account the time, background, and attitudes and subjective norms of the person involved. In this regard, Sheppard et al. (1988) proposed that future behavior is repeatedly generated by people taking into account their perceptions and subjective norms towards each of the choices in the situation

of choice. The alternatives are mapped as below – clothing resellers (both online and physical e.g. markets), second-hand and vintage shops, Peer-to-peer platforms for re-sell e.g. Trendsales and online second-hand markets e.g. Facebook market. It is important to highlight that the much bigger size and the diversity of products makes them direct competitors to sustainable retailers.

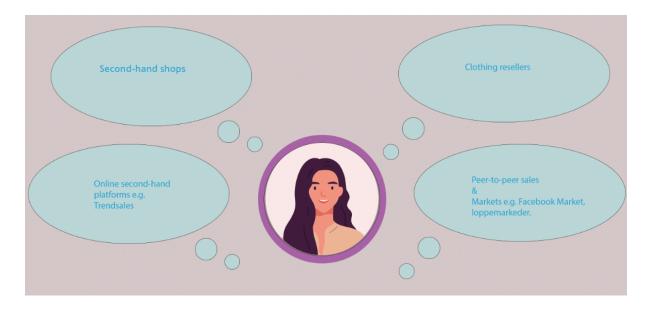


Figure 19. Sustainable alternatives for the user in the decision-making process

# 9. HYPOTHESIS VS. FINDINGS

The report started with some assumptions

The surveys analysis and insights provided a ground for the Proving of Disproving of the Hypothesis drawn in the beginning of the report. Below is an explanation to each of them.

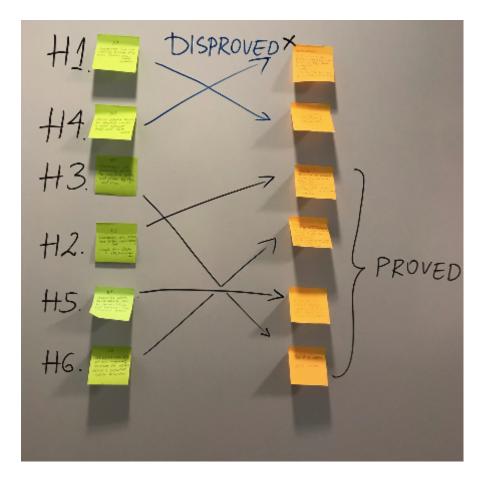


Image 11. Linking Hypothesis to Findings from User Research

H1. was disproved as according to survey responses. To H1, which relates to the sustainable aspects of durability and perceived quality value, only 10,5% gave them as an answer. The dominating motive for buying sustainable remains price and style.

**H4**. From the Danish survey respondents, 50% say that they do not use Social Media to share their Green Activities, but they are inspired to research on eco services and to find more relevant information. The international audience indicated the product on SM as the main driver and not their actions in focus.

H6 was disproved. According to the majority of international respondents' factors such as transparency in production/ communication, eco materials, user-friendly website, CO<sub>2</sub> neutral practices are all important to be delivered from companies alongside users green purchasing.

The other five hypothesis were backed up by the survey results.

Overview of the hypothesis drawn in the beginning of the research.

# H1. Consumers buy sustainable clothing because they value quality, long-lasting products

**H2.** Consumers are influenced to be/ act sustainable from Internet and Social Media (they get inspired by the activities and information circulating there)

H3. People started liking a brand first on Social Media and then purchased it offline

H4. Consumers are price and style given when purchasing both online and offline clothing

H5. Consumers are influenced to be / act sustainable through SM (Facebook, Instagram)

H6. Consumers link sustainability more to personal choices and behavior than companies' operations

**H7**. Consumers started living an environmentally conscious life, and sustainable clothing became a natural part of it, but is not the main drive.

H 3. H4. H1. People stand. Liking a brand online and them Consumers are People are influenced primarily mice and style driven. the Internet an purchased offline Social Mudia H4. consumers leading an environmentally conscious life leating polluting less translate this habits into their clothing behavor and denormaking

Image 12. Supported hypothesis with survey results

# 10. LIFE CYCLE ASSESSMENT

LCA is a globally used and embraced tool for determining the environmental effects of the life cycle of a product from cradle to grave, including the extraction of raw materials, the manufacturing of materials, the manufacture, distribution, usage, disposal and recycling of items.

#### Why is it an important measurement?

In the international survey, the researcher included a question regarding the most valued item by consumers. The idea behind it was to understand what clothing people would pay most for, logically what clothing item they would value most and keep the longest period of time in their wardrobe. Here, the researcher played with the intangible value of products. As answer #1 people said Jacket/ Coat - 27.3%, coming second is shoes, 18.2%, and at third place are jeans with 13.6%. Considering this question from LCA point of view, these clothing piece would live the longest in a consumers' wardrobe. Life cycle assessment can be interpreted as the management of a clothing with its entire end-to-end impact.

# What is the most essential item in your wardrobe? (what do pay most for?) 22 responses

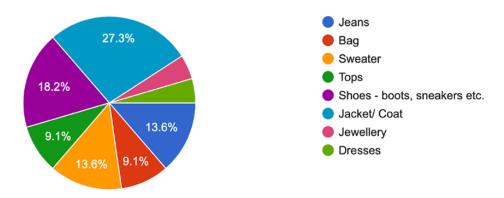


Figure 20. Most essential item in wardrobe

## Case study – The North Face



#### Image. 13 The North Face website

Wanting to assess the evolution of their most popular products, the Denali jacket, The North Face applied the lenses of Life Cycle Assessment (LCA) and was this way able to understand the environmental benefits of change in the product over the course of time. TNF was also able to reduce the negative eco impact of the Denali jacket and other products with the help of this assessment. The company additionally leveraged the findings from LCA to develop unique points of communications, such as an engaging animated video, to inform their customers of their efforts.

Life Cycle Assessment of the Denali jacket bettered the production process as the team is now able to validate the environmental impact and achieve reduction with up to 50% less water and chemicals and 25% less energy on average versus traditional dyeing methods.

#### CONCLUSION DISCOVER PHASE

All three case companies are successfully translating sustainability style through their clothing and operations. KCA has been established with sustainability at its core with a long history from 1969 when the demand was still infant. Les Deux and Serendipity Organics work with sustainability on a strategic level, embedding it into their "value delivering" practices. Les Deux is the only company who has engaged in Circular Economy practices with their ReWear platform, the other two companies produce too less to embrace it. However, this fact can also be considered a sign of sustainable practices. Trends and social environment create the predisposition for the demand of sustainable clothing, such as the current pandemic situation, which encourages people to be more daring and ask questions as to where and how clothing is being produced. Surveys show no significant difference in sustainable practices for locals and internationals. with the results indicating that people are predominantly engaged in a second-hand shopping, and when it concerns traditional retail people prefer to buy less or choose environmentally friendly brands. Companies are setting higher sustainable goals, partly encouraged by bigger wholesalers and partly by consumers driving the demand. Outside the buying and selling relationship, companies are not engaged in user-research as to why and how people consume, how they understand sustainability and reflect it in their choices for clothes and brands.

# DEFINE PHASE - INSIGHTS

# 1. THE APPROACH

During the following phase the two main environments of Sustainability and the Situational environment will be summarized and Defined. The terms of sustainability and Circular Economy in the framework of this report are used interchangeably.

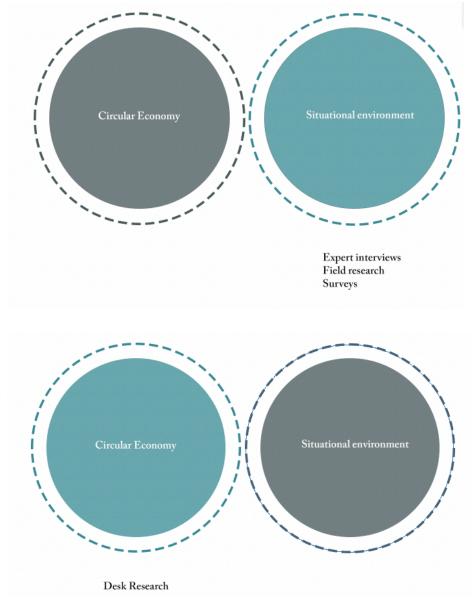


Figure 21. The zoom in and out areas

# 2. INTRODUCTION

# 2.1. EXPERT INTERVIEWS INSIGHTS

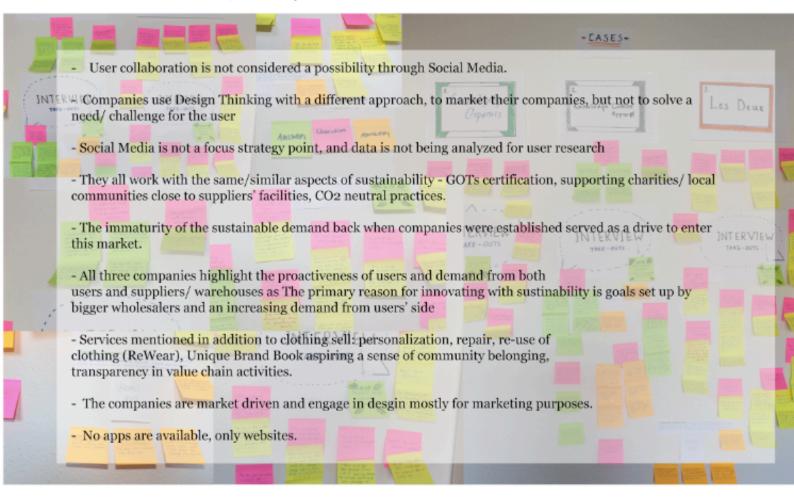
The first step in entering the Define phase was to extract the most relevant insights from three expert interviews with Serendipity Organics, KCA and Les Deux. The interviews were transcribed and visualized on a Sticky Note Wall.

The wall is set in a structured way, listing all the notes under each interviewee (helpful to later identify user behavior similarities and recurring patterns.)



Image 14. Sticky Notes Wall, Visual representation of the interviews with three case companies.

Afterwards, the most important insights were extracted and formulated as below:



ge 15. Highlight of key insights from expert interviews.

Based on surveys, user-interviews and expert interviews, the below additional eleven insights were developed.

Insight 1. Both people and companies are already quite familiar with and engaged in sustainable practices. Consumers are aware of sustainable practices and engaged if not in conscious behavior, at least in information consumption about the topic of sustainability and its advantages for People and Planet. Information does not always convert into behavior.

**Insight 2.** Companies do not engage in user-centered research. For instance, in the Interview with KCA, the interviewee mentioned that the marketing agency they work within Sweden uses Design Thinking in their process, but only to build a selling content, and not as a way to get to know and collaborate with the users. They use SoMe channels to target Scandinavian outdoor fashion buyers but thus engage in a one-sided, selling behavior than collaboration behavior.

**Insight 3.** Companies do not share service mindset, even if they provide services already, e.g. ReWear platform developed by Les Deux.

**Insight 4.** Companies do not consider innovation through services as a strategic move.

**Insight 5.** Companies do not have dedicated business operations and activities to services alone. They are considered a byproduct of their companies' daily operations than a strategic activity.

**Insight 6.** Surveys and desk research both show that social media is not considered a touchpoint for exercising buying but predominantly for gaining inspiration.

**Insight 7.** Women are more familiar with sustainability practices than men, but paradoxically, they shop more and spend more money on clothes. Men, by nature, live more sustainably.

**Insight 8.** People who purchase sustainably usually do research first online and then purchase either online or offline. Those that do it in-store are driven by brand style and price tags and the experience provided by personnel.

**Insight 9.** Style-driven people expect labeling information while information-driven people expect information about a company's operation, CSR, Code of Conduct (more organizational, business information) since they are consumers of news.

**Insight 10.** Healthy living, conscious consumers expect support from their communities such as promoting healthier lifestyles and environmental activism.

**Insight 11.** People expect businesses to operate with a purpose different than profit, as they want to resonate with the values as much as with their style.

# 2.2. DISCUSSION

Interviews revealed that sustainability has many different interpretations. To one target group it means one thing, for example, Materials and Treatment of Garments, while another audience is interested in policy practices as CSR and Code of Conduct. Companies, in general, understand and practice sustainability in a similar manner – GOTs and CO2 neutral certification and charity and community support. In an interview with Les Deux, Frederik shared that "There is also a difference in the perception of Sustainability from companies and business side." (see Appendix 4)

As visualized below, Sustainability for companies relates to the way of doing business – ethical, transparent, supportive, while for users Sustainability relates to their lifestyle activities – recycling, buying sustainable, proactiveness in seeking information, personal involvement e.g. activism, and Slow, Minimalistic Lifestyle.

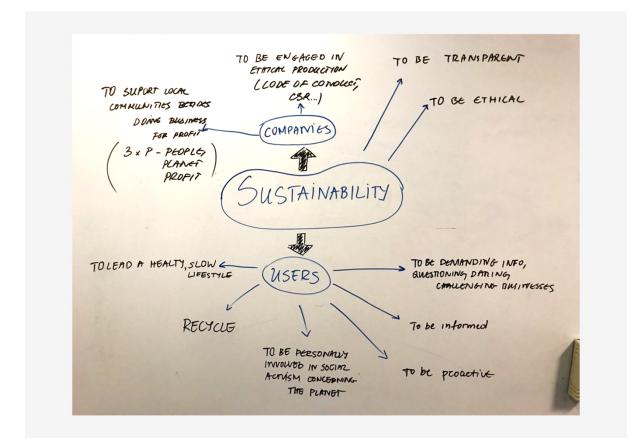


Image 16. Interpretations of Sustainability for Users and Companies. (Based on Expert Interviews' Insights and User Research)

In an interview with KCA, the sustainable production manager shares:

"I have a lot of customers who asked us why we are producing in India and why not only in Europe and The thing is that the projects and suppliers that we have in India are partners we have had from the beginning and they are suppliers that we're giving so much more than just money/ business relationship but we are building villages with implementing schools and getting jobs and supporting the small communities in many ways. Sometimes people want to know only the good story and they don't want to hear about the full story." (see Appendix 2)

Helene's statement reveals a difference in sustainability understanding. Companies talk about sustainability in relation to production and supplier-relationships while consumers understand it more from the lens of the aspects, which have a direct impact on their "way of being sustainable" such as materials and ways of consuming. The other aspect as Helene mentions is the storytelling surrounding sustainability. For companies

to engage in sustainable production, they often embrace and work with the "Bad Story", which users do not necessarily find relevant to be informed about. "The Bad Story" refers to the poor conditions and unethical working environment, which sustainable companies are trying to fight against and eradicate. Additional challenges are mapped out below such as the Greenwashing and Green hushing activities where consumers become exposed either false of overwhelming amount of information. This in itself complicates the decisionmaking process for users. Green Washing relates to false information being spread to consumers to buy what brands claim as sustainable clothing. The second term Green hushing relates to the overwhelming amount of information consumers face.

The Desk research and expert interviews also helped identify prominent challenges about sustainable fashion expressed in the graph below.

3 MAIN CHALLENGES
IN FASHION ALBEADY HAS TOO MANY BAD EXAMPLES ( RANA PLAZA, BANGLADISH CASE )
SUSTAINABILITY CHALLENGES
TOO INTANGIBLE NOT GASY TO COMMUNICATE
(DEPENDS ON EFFICIENTLY ATTITUDE) (THF issue OF green-washing, GREEN-HUSHING)

Image 17. Emerging challenges in sustainable fashion

The first main challenge is definition of sustainability by companies. Being a value dependable on attitude and individual beliefs, sustainability is very intangible in nature. Companies have difficulties shaping its meaning for their target group. Therefore it is usually adopted as values shared by the consumer, for example, healthier lifestyle, cleaner air, recycling.

The second main challenge is the negatively labelled activities surrounding fashion industry such as Green Washing and Green Hushing. Their establishment in the consumers' minds requires efficient communication if companies want to convey the message righteously.

A third main challenge for fashion companies is the undesirable reputation of unethical labour and production incidents such as the Rana Plaza accident.

# 2.3. SYNTHESIS OF THE SURVEY

2.3.1. The synthesis wall was a key support exercise in the moment of debriefing and analysis of the research outcomes. All relevant notes from the research were organized on a representation wall identifying clusters, relevant themes, important and insights that can inform and inspire the design process. The wall was used in structured way, listing all the notes under each interviewee (helpful to identify personas and patterns), or under each step of the journey (helpful to analyze an experience and its pain points).

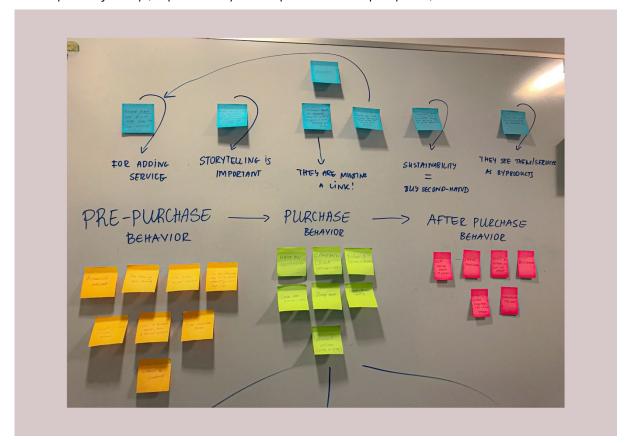


Image 18. Clustering Map (Survey insights)

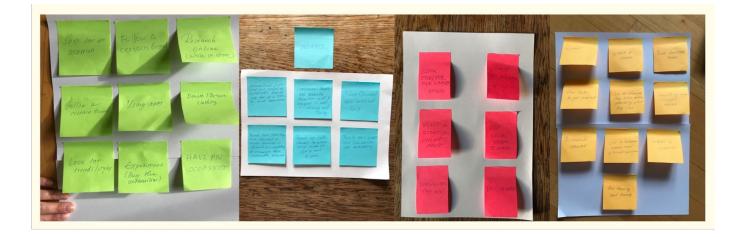


Image 19. Zoom in on findings above; Pre-purchase- Purchase- After-Purchase

#### 2.3.2. CONSUMPTION PATTERNS AND INSIGHTS

- consumers are seeking information proactively and this drives sustainability higher goals

- consumers are looking for ways to engage with brands on a deeper, informative level (sending inquiries on production details and technicalities.)

- changes in lifestyles result in changes in consumption (during the pandemic, consumers became more aware of what products they put their money on.)

- Brands are not engaged in the management of consumer choices and clothing.

- Consumers are passive buyers and active wearers of clothing

- Online the main value occurs when the consumer decides to buy from one brand over the other

- Second-hand shops provide the after-life environment for clothes.
- Consumers are engaged more in buying than managing their wardrobes e.g. re-selling, donating etc.

- Despite that, the rise of clothing management platforms keep growing, and sharing culture keeps growing, too.

- Consumerism takes up to 80% of the profile of a person, yet it is difficult to create an overview

The sustainable practices are existing and known – recycling, repairing, reselling. Consumers engage with brands due to many reasons – experience, learnt behaviors, but they do not engage with brand for "healthy reasons." In fact, there is no relationship established outside the produce-sell-buy relationship.

#### Exercise #1

#### Why people still buy unsustainable?

I tried to understand why people are still engaging in unsustainable practices despite the availably of information there is.



Image 20. Identifying patterns in unsustainable consumption

# 2.3.3. IDENTIFIED CHALLENGE:

With the existing sustainable behaviors from both companies and fashion consumers, it seems from the insights that the main challenge is not in the Purchasing phase, but rather in the pre- and after- purchasing where the initial decision takes place, followed by the management and clothing consumption takes place.

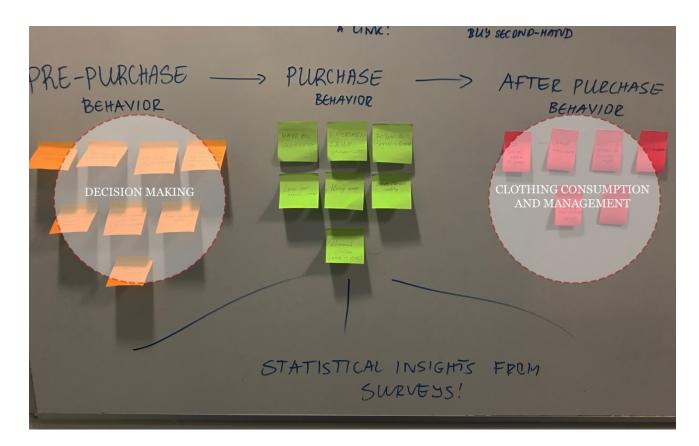


Image 21. Identifying the challenge

Painpoint PRODUCE - SELL - BUY - (CONSUME) - DISREGARDS SUSTAINABLY - DISCREGARDS UNSUSTAINABLY

Figure 22. Identifying the pain point

The two main Pain point for users are:

1. The user consumes linearly – they still engage in buy and use activity. The disregard of clothing happens outside the retailer, meaning retailers do not see the disregard phase as a responsibility, and users therefore enter a linear sell-buy relationship over and over again.

2. Users find a pain point in consuming clothes – they have challenges in planning the shopping experience (based on logic and reasons). Consumption equals the decision preceding buying behavior (motives); how to consume sustainable (as per the needs in my wardrobe, do I really need another T-shirt), how to disregards sustainably etc.

The new service design solution will therefore need to aim at covering these pain points to both reverse the user journey from linear (buy) to circular (buy-resell/ recycle/ re-use) and to assist in the sustainable choosing and managing users' wardrobes.

# 3. DEFINING THE NEED FOR A SERVICE

3.1. Summary

Insights suggesting a need for a service. "Maybe an app, which makes it easier to cut through the crap being sold." (Survey insight)

" It could then be nice with a service where you can enter when you have bought a piece of clothing (possibly take a picture) and then it keeps track of how long you keep the clothes, or what use you get out of it. It could, for example, give a suggestion as to when it may well be forwarded. For example, you might think of a coat that if it lasts a couple of seasons then it's fine, but in reality, you should keep it for 10 years before it beats anything on the sustainability account."

"I would like a search engine where you can only search for products and profiles that meet some criteria for sustainability."

"A service where you swap with neighbors e.g. and also share some stories around the clothes. It could be fun."

"An app maybe where I can share my clothes in my wardrobe with others and swap or something like that."

" Something one may need to see who owns next my clothes. Like who's next in the chain."

"Something with my wardrobe, service where you can swipe clothes."

With these insights, consumers indicate a need for a service related to management and for co-creation as right now the relationship a passive one. Said in other words a service focused on the users' needs outside of buying.

Sustainability is predominantly perceived thorough action, both for companies, who engage in it through production and selling practices, and to consumers, who within the fashion industry exercises sustainability though the "buying sustainable practices" and outside the buying behavior through practices such as re-pairing, re-selling, recycling, up and downcycling and all practices, which do not end the life of a product but extend it.

#### Statements from the Surveys:

"I am sustainable because I recycle."

"I consider donating clothes as a sustainable practice." "I am sustainable because I do not throw away but re-sell, re-pair, re-use ..." "I am not the perfect shopper, but I would like to become one. " "I try to live a simple life, not consuming too much." "I buy ecological and CO2 neutral."

Sustainability relates also to the way of consuming and owning and not just the materials, production and selling. Apart from producing sustainable clothing, truly Sustainable brands help consumers make smart choices

These statements all indicate an action, which makes people see themselves as sustainable and not a brand.

If people knew why they engage with a brand based on a certain relationship values – recommendations, personalized service etc. then they will have a motive commitment and loyalty too, and will be able to make informed, calculated choice. This can be possible through a service enabled by technology.

# 4. REVISED PROBLEM STATEMENT

The Thesis research started with the following research question:

"How can Design facilitate the transition from product-based to service-based practices for fashion clothing businesses, and thus create additional business value and encourage Circular Economy for users?"

This problem statement was in relation to innovation with service design towards Circular Economy practices. It was formed on the basis of two main interest – service design and clothing sustainability– as the main motivators to find an approach, which will help integrate Service Design logic in the consumption of clothing. As an upcoming designer, I felt that the knowledge I have gained from Design discipline will provide me with the skills to come up with such a feasible solution.

#### A shift in focus.

During the research, however, the problem shifted, and took another dimension. From business-focused solution, as per the initial problem statement, the service design solution is now focus on users and how to help them engage in a Sustainable consumption practices when buying and using clothes.

Instead of organization service solution, which I was leading towards in the beginning, the report provides a user-centered solution due to the fact that a challenge is identified through both user interviews and surveys concerning the lack of choice-structure and management of existing clothing collections. The unstructured buying and management behaviors in themselves result in sporadic, deprived of logic, history and overview decisions, and this in itself is unsustainability on the user end. Companies can help manage these choices through a service.

So, the new problem statement is:

"How to design a sustainable way of consuming clothes and thus engage users in Circular practices?"

#### Sub-question

"How can customers experience the enhanced value of a sustainable product through a service? Design of a service for the sustainable experience of clothes."

Here the "sustainability-as-as-service" is the preferred outcome, which aims at integrating the SD logic into the core of the human-centered solution.

#### The role of the Designer.

Hill (2010) argues that the strategy designers' job is to convince the management that there is potential in investing in new business models and adopting new technology into this new business model. Fail to do so can lead firms to miss potentially valuable uses of technology, which do not fit their current business model.

After identifying the positive relationship between sustainable production on companies' side and interest in buying sustainable and practicing sustainability outside the purchasing behavior, the news question focuses on consuming clothes and how a service can add value in educating people on how to consume clothes sustainably.

The focus will be on educating consumers, not imposing drastic changes but instead collaborating with them to achieve a positive difference in their buying behavior and action. As mentioned by Rogers et al. (2013), "the new service offering should have a direct impact on the conditions of the world around us.". This means it will encourage people to act in a network and think from a social network perspective, that, for example, buying an organic T-shirt as a single individual act does not drastically impact the world but considered and seen in a systemic, ecosystem perspective, it has a meaningful impact.

# SUB-CONCLUSION

In the Define Phase, the researcher extracted recurring patterns and identified the overall challenge to be around the decision-making processes and how to consume clothes. This insight provides an opportunity for brands such as the case companies, with currently product-oriented sustainable practices to shift their business model and include Service Design Logic for innovation in their current business model. Since all three companies are already working with sustainability in production and value chain (described as the backstage), the next consecutive action will be to provide sustainability as a service to the user, therefore, bringing frontstage value and helping consumers in the following steps before and after purchasing – thus managing consumption in an end-to-end solution.

# TIME TO SHIFT MINDSET AND COLLABORATE

# FINAL CONCLUSION

Conducting the first and second phase in the Design process revealed that people are aware of sustainable services primarily outside of the traditional market-driven retailers such as second-hand practices, with women leading in the sustainable practices. At the same time, men buy less frequently and are more prone to stay loyal to brands and styles over a more extended period. Sustainability is also a goal, which becomes more dominant in many individual lifestyles and wholesalers' strategies, communicating it down to retailers and customers.

Even though companies deliver a sustainable product, the relationship between buyer and consumer is still passive. It turns out that surveyed people do not focus on buying newly sustainable, but on managing sustainability such as through the practices of recycling and re-using. Overconsumption is a result of overproduction, which in itself is a result of not rightfully planning what people needed in the first place. And instead of satisfying their consumer desires with yet another garment, companies should engage in different manners, which builds an understanding into what people need and own and help them manage their consumption alongside selling to them, a user-friendly service to show that businesses care and engage users in a dialogue.

# **DEVELOP PHASE – MAKING**

# 1. SUMMARY OF THE MOST IMPORTANT HIGHLIGHTS

The majority of the research users are still engaged in linear buying behavior

The main pain point for consumers is management of information and diverse practices inside and outside the shopping experience.

People exercise sustainability in different forms depending on their level of existing knowledge

New retailers are already committed to sustainable strategies in production and "Giving back to nature" initiatives.

Companies do not work with user research. There is no knowledge companies have on their customers' existing behaviors and preferences

People attribute sustainability to practices – producing sustainable, buying sustainable, wearing sustainable, repairing, recycling, re-selling; activities in which they are personally involved

People practice sustainability out of personal goals and interest – they read, aggregate knowledge, and then seek ways to translate this knowledge into their daily practices, for example, by embracing a healthier eating habits, buying ecological and ethically produced products and locally produced products.

Current practices show that people view sustainability as a social matter – people perceive sustainability as a collective action and a way to give further. This explains the rise of the sharing economy, which empowers people to provide services to one another.

Brand are sustainable in production (backstage) and their main aim is to communicate this positive practice information to users. This way they expect people to "understand" sustainability, but for the user the value in this is sometimes vague. They end up being passive recipients of information about Good practices, and not always engaged in the sustainability itself.

Brands produce, consumers consume, but co-creation is missing.

Typically, consumers are sustainable outside of buying sustainable products, meaning that they are already familiar and practicing some sustainable activities e.g. buying second-hand.

Technology and information empower consumers - to share, to learn, to act. Surveys indicate that usually before purchase the average consumer would have looked on the Internet and do a sort of research or inspirational journey on websites and SoMe.

Digitalization creates visibility and adds value to the user.

Clothes are social, as they have the power to connect. Even though surveys suggest that people do not consider SoMe activity so important, people are still very much engaged in online information "digging" activities when they buy clothes.

Consumers know about sustainability, but they do not always buy sustainable.

So, now when we know that both brands and consumers are already committed to sustainable goals, HMW exercise came as a natural consecutive step.

### 2. HMW

They are engaging in "How Might We" hypotheses at the beginning of the Develop phase, allows me to reflect on the already discovered assumption and insights about users' behaviors, demands, and needs as well as painpoints. The highlighted points below suggest service possible service features and experiences, which are the first ground step towards building a solution.

• How might we incorporate the existing sustainability practices into a new business model to generate service value?

• How might we bring sustainability awareness as a positive experience, where the consumer is a cocreator of the experience?

- How might we base service on the well-established Sharing Economy Mindset?
- How might we design for more and not for individuals?
- How might we empower people through clothing purchases?

• How might we harness the power and capabilities of technology and service logic to initiate a behavioral change in consumerism

- How might we how can we create a network/ a sustainable shopping environment?
- How might we add a social aspect to the practice of buying sustainable?

Engaging in a HMW brainstorm helped me also develop a systems mindset.



ADOPTING A SYSTEMS MINDSET

When designing for the circular economy, we need to get comfortable with the idea of zooming in and out.

Image 22. CE and SD workshop, Kirsten Van Dam, 2019

By asking myself how as a designer I can design for an environment in the sense of constellation, from a system and holistic point of view, I tried to see can extends its lifecycle and value for an array of consumers rather than individual users.

I tried to look deeper into how garments and experiences around wearing clothes can be designed with a systemic approach, where the end-cycle in included in the design and production process. If, for example, the

user of a product is aware of the after-life environment for a clothing, from the beginning of the purchase, the user is assumed to show interest in a more sustainable consumption. This is how me as a designer interpreted the creative process of Service Design for Circular Economy. So, I deconstructed the HMW further into:

- **1**. How might we sell? **Step 1**.
- 2. How might we sell sustainably?
- 3. How might we make people aware that we sell sustainably? (marketing)
- 4. How might we make people buy sustainable? (value) **Step 2.**
- 5. How might we make people buy again from us, so we can keep producing sustainable? (retention)
- 6. How might we make people start thinking sustainable? (change of mindset) **Step 3.**
- 7. How might we engage people in sustainable behavior in the choice and management consumption activities? (creating a network) Step 4. Here people become advocates.

# 3. DESIGN MANIFEST

The Design Manifest serves to outline the goals of the service solution, key features and the scope of its use for businesses.

• **Problem Description** – consumers' main pain point is pre and post choice and existing consumption management. Their decisions are not always planned, and people do not always know how to manage the end of life for clothing.

• **Constraints** – it is difficult to shift behaviors.

• **Companies profiles and design capabilities** – all three case companies are already engaged in sustainable production (backstage). My profile will help with design knowledge and facilitation of the adoption of a new service model for user value

• **Characteristics** - the goal of the design project is to achieve a sustainable service offering, which integrate in its essence the following design principles of Multiple Use-Cycle Design (Kirsten van Dam, Service Design for Sustainability Workshop, 2019)

1. Provide a product as a service.

2. Extend the life cycle of a clothing.

3. It will be an intersection of experiences, existing business and individual knowledge and practices (Morelli, De Götzen, Simeone, 2020)

4. Design to activate a set of aggregated knowledge (from existing practices, as mentioned before users and companies already know what sustainability for them is and are practicing it in ways relevant to their beliefs.)

5. It will be based on Design thinking for sustainability and systemic thinking.

6. It will be based on Service thinking principles.

7. It will allow Co-creation, which is currently missing on all three business operational profiles.

8. It will use Data to generate new behavioral insights and use them in the future to base decision-making processes and draw strategies on. One example - if clothes have profiles just like people on Social media networks, this generates data; if clothes have profiles, they have users, resulting in more data. These factors all help companies to understand who they are selling to, to help users track the life of their clothes and to bring user consumer and brand together in a sustainable network environment.

9. It will utilize the "as a service" model.

10. A solution, which will engage in Behavioral economics, Design for Behavior and Sustainable change in a network (the missing element after the purchase phase), bringing the sustainability approach in a digitalized network promoting style and sustainability. It will also bring the desired storytelling and engage consumers in Omnichannel experiences empowering and educating them. And considering the dual nature of service (Morelli, 2009) the new solution will avoid the negative side, which relates to depriving people from certain skills, by placing it only in the hands of the service-providers.

11. It will make design interactable

#### THE DESIRED SERVICE LOGIC THEN BECOMES THE FOLLOWING:

# PRODUCING - SELLING – BUYING – USING – MANAGING (WHICH RESULTS IN CIRCULAR ECONOMY) THROUGH SERVICE APPROACH

## 4. INDUSTRY BEST PRACTICES

The author has chosen to present some of the industry best examples that share the model of Circular Economy.

Other businesses have a narrower emphasis, such as those that simply accommodate clothing reuse in various settings. In other words, reuse without changing the apparel's original design. For decades, mainly in non-profit organizations such as aid agencies and municipal facilities, this business model has been in practice. However, it has recently spread to profit-oriented online markets such as Australian-based Clothing Exchange and Danish-based TrendSales, which link private users the practice of selling, buying or swapping clothing. Users post goods and negotiate prices or "swap-items" along with terms of shipping through online websites, while platform companies turn a profit through transaction and membership fees and through the sale of premium services and website ads.

These marketplace models, including business models focused on a social network - a so-called shared wardrobe - take on several types. An example is Resecond, which focuses on garments. Users are able to borrow as many clothes as they want for a monthly fee, with the additional requirement that they share the same amount of clothes in the online collaborative closet (Resecond n.d.). In Share Your Closet, the same idea of a collaborative closet applies, but no money is involved here. Instead, you gain points when your clothing is borrowed by other members, and these points allow you to borrow from others. Users can quickly try out different models, fancy shoes, and so on without any expenses other than postage. Members hold the clothing for as long as they want it or until others want to borrow it (Share Your Closet 2015). Clothing is likely to be used more often by these collective methods before being discarded.

Centered on shared usage, American Rent the Runway, British Girl Meets Dress and Australian Rent My Rack reflect even more business models. The companies provide the ability to rent online and in physical stores for designer fashion. In this way, for different consumers, quality clothing is granted a much longer useful life for special occasions that would normally only be worn a few times. For years, reuse has been the priority of conventional second-hand shops. This form of company has recently been augmented with second hand physical and online luxury shops. Such shops act as intermediaries between sellers and buyers. Thred Up is an example of an American company that works on the basis of clothing mailed to the distribution center from across the US. The goods are inspected and eventually placed online for sale. In on-trend, in-season pieces", the company focuses on like-new condition" (Thred Up 2014). The seller pays up to 80 percent of the purchase price. The increase in clothing reuse firms is made possible by a change in consumer beliefs and actions.

Used clothing is socially appropriate today, whether borrowed, swopped or bought, as opposed to traditionally. In the western world, the pattern is clear, and research into UK consumer perceptions has shown that more than two-thirds of the population is prepared to buy and wear pre-owned clothes.

In relation to niche market practices - In their shop in Copenhagen, SortSlipsHvidtSlips designs made-tomeasure clothes for women and men. The clothes, supplied by a steam laundry company, are made of recycled linens, serving aprons and hospital gowns. SortSlipsHvidtSlips clothes are high-end, niche items with a distinctive theme.

Similarly to SortSlipsHvidtSlips, Globe Hope, a Finnish company, specializes in unique clothing made from unused and discarded textiles, but in this case, textiles come from a wider range of sources. The company uses materials such as antique fabrics, posters for ads, sails, vintage army blankets and raincoats for the vintage army. Vintage fabrics can be found at flea markets, at clothing sorting centers and at dead-stock textile factories. In the footwear and bags segments, several other firms produce new goods based on recycled materials. Examples include FeuerWear producing bags, belts and wallets from discarded fire hoses and old life vests, Bag to life producing bags from old parachutes, and Freitag producing bags as well but from old tarps.

#### 5. FURTHER IDEATING WITH CIRCULAR STRATEGY CARDS

One final step in the service development was to use the Sustainable Design Cards (Appendix 5) developed by Design School Kolding as an inspiration as to which topic should be covered in the solution, so that it is considered also a sustainable design.

For designers working with product longevity and circular thinking, the Sustainable Design Cards are a practiceoriented instrument. (Ræbild and Hasling, 2018.)

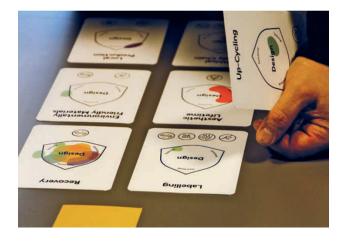


Image 23. Using the cards in the ideation process (photo by Liv Johanne Eskholm).

The logic behind the use of the cards is that product lifetime relates to product service and systems thinking, as discussed by e.g., Ceschin (2013) and Vezzoli et al. (2014). To further emphasize sustainable design, the cards draw on a design for sustainability framework proposed by Ceschin and Gaziulusoy that offers a mapping of ways in how sustainability is perceived and approached (2016).

Based on the acquired information so far, the researcher provided an overview of the existing perceptions of sustainability and identified the main pain point. Cards, as a tool, helped to place those insights into the existing sustainable categories.

# How did I use the cards?

The guidelines suggest choosing 2 to 5 cards and using them as a frame for developing concepts and exploring how the use of the cards creates a synergy. The guidelines also suggest using the cards as a support tool in gaining a holistic approach.

# Which categories did I choose?

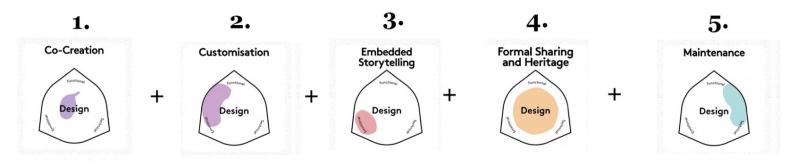


Image 24. Overview of the Chosen Cards

To address the relevant aspects of sustainability in the new service design solution, the researcher looked at the influence of the chosen five sustainable categories suggested by the sustainable cards.

# 1. Co-creation (Design)

#### Why?

PRODUCT LONGEVITY CO-CREATION WILl SUPPORT:

Designing specific specifications and preferences for users.

Creating a sense of product ownership for the consumer. Users are less likely to step away from goods that they have invested in making.

# Overall challenges

Users should not be aware of needs and expectations or able to express them.

Temporary and financial constraints throughout the process of design.

# 2. Customization (Functional / Emotional)

# Why?

Via more important customer satisfaction and emotional investment, customization will help product longevity.

#### Overall challenges

Users should not want choices to be made.

Customization requires a framework that is user-friendly.

#### 3. Storytelling embedded (Emotional)

#### Why?

By having the consumer attached to the product, emotional value will extend the general lifetime of a product.

### Overall challenges

It is difficult to define, anticipate and tangibly establish emotional meaning.

#### 4. Formal sharing and heritage

#### Why?

It speaks to the new model of sharing that serves to maximize the usage of resources. These types of programs focus on the economic usage of users and encourage the diversity of users.

## **Overall Challenges**

Identification of how?' can be challenging. ',' and what? ',' who? 'A method of operation is formalized.

Formalized sharing can involve broader data systems to process product flows or users' information.

#### 5. Maintenance (Functional – Technical)

# Why?

With the right handling, the energy usage in the use/maintenance processes can be reduced.

The lifetime of the product can be increased by careful handling.

# **Overall CHALLENGES**

Users should not read labels for treatment and are habit-driven.

Users have little knowledge of materials and repair, on average.

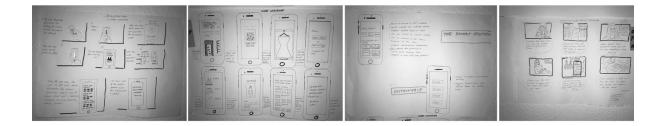
## Proposition

#### Business model based on collaborative use

So far, the research has show SMEs seem commitment in their pursuit of circular business models in the clothing industry, and consumers are showing interest and practice, too. Therefore the research proposes a new service business model, which is based on collaborative use of clothing.

Then as a final step I engaged in prototyping, experimenting with ideas about what the new circular service solution could feature and how it can function. These are low-fidelity sketches, also sent to business, but they main purpose was to introduce the client and the reader of this report to the first at mind design logic to the solution. Further improvement are always possible to implement.

# 6. PROTOTYPING



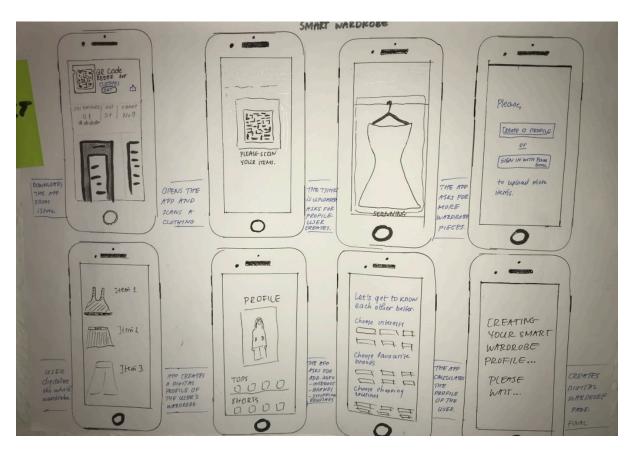
Prototyping is a distinguishing feature of design work (Coughlan et al, 2007; Cross, 2001) and important for different design disciplines (Kelley, 2001; Schrage, 2004) to explore how to implement a design. Prototyping can also allow designers to make more precise predictions about how a service will be experienced (Buchenau and Fulton Suri, 2000). Prototyping can also generate design alternatives and inform the process of choosing among those alternatives. Lastly, prototyping is a tool for inclusion in design. By prototyping with different stakeholders, it is possible to understand what and how different design decisions will influence different viewpoints (Brodersen et al, 2008).

6.1. PRODCUT DEVELOPMENT – sketching was the first step in the process of prototyping. I sketched how the service solution's wireframes could function, the main features within the service, both of value to user and business. I outlined the service scenarios in a context, firstly how the user will get introduced to it, and later how the service will play a role in the person's everyday life and the value of the QR function.

Cross-channel systemic experience

Rasmini (2009) says that: "Digitalization and constant read/ write access to information blurred the distinction between products and services."

# Sketch 1. Wireframes



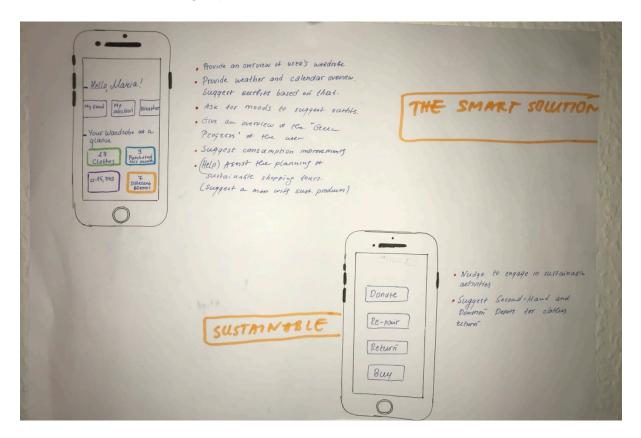
Sketch 2. Key most prominent design features



# Sketch 3. Making sense of the product



Sketch 4. The features of the digital product



#### 6.2. USER STORIES

A common technique borrowed from the Agile approach is user stories. It is used to explain how consumers interpret the specifications of the service solution from the end (this contrasts with the product-based requirement documents). The user stories below were used to articulate how the service will deliver a particular value back to the customer once they use it. The value is presented as desired statements from consumers.

" I am sustainable with SaaS. It nudges me to

engage in sustainable activities on a regular basis, but also in a fun way. It also provides a digital management system of my wardrobe, which helps me plan better and consume less."

"By having an overview with SaaS I became better at planning my shopping. I have an insight into what I buy and how much."

" Having an overview of my consumption is sustianble in itself."

" SaaS is an insightful tool for managing my consumer choices."

" Saas helps me recycle."

"Now I realized that clothes are more than just stylish. They are insightful as to who we are and how we behave. I am greatful for having been introduced to Saas."

" Saas helped me build sustianble habits around my clothes consumtpion."

"I like that SaaS enables a dialogue with brands, and I appreciate the recommendations they provide to me through the service. It feels very personal."

# 6.3. SCENARIOS

Every new service consists of an ecosystem, which implies a systemic approach to the organization of such interactions (Morelli, N., De Götzen, A., & Simeone, L., 2020).

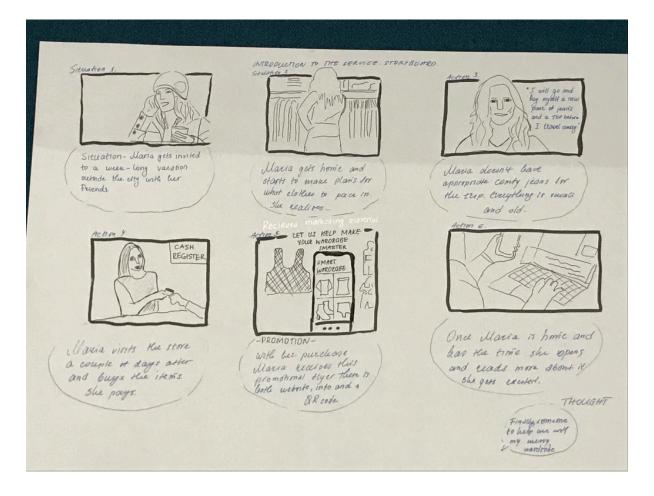
The scenarios represent the interaction of the user with a platform-based service.

The narrations aim to help the client understand how the service will be used and interacted with everyday life. In order to do so, specific contexts were chosen where the service will happen.

#### The solution is based on the framework of blended spaces

Similarly to digital tourism (Benyon et al, 2013 and meeting rooms (Benyon & Mival, 2012), the idea of blended spaces can be applied to clothing, and more specifically the physical home-located wardrobe. This framework of blended spaces will be used for the design of a systemic, cross-channel experience. (Rasmini, 2009)

# Scenario 1. The user gets introduced to the SaaS (Sustinability-as-a-service) for first time

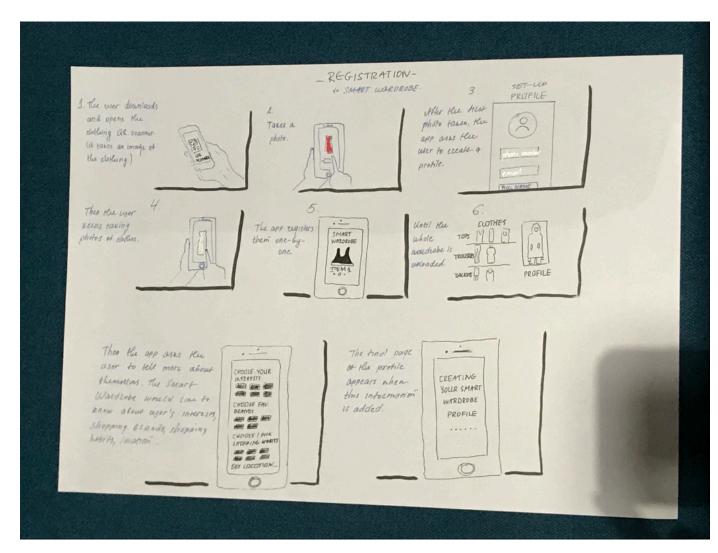


# Image 25. Sketch 1 (Service Introduction)

- Situation 1. The user has an occasion to travel with her friends for a one-week trip.
- Situation 2. She plans her clothes for packing.
- Situation 3. She decides that she needs new clothing piences jeans and a top.
- Situation 4. She goes out shopping before the trip.
- Situation 5. She goes into the service-provider store, shops, and gets introduced to the new service

Situation 6. She receives a promotional flyer with the new QR code esrvice.

Situation 7. She reseraches more and evenutally downloads the service. She is interested in digitalizing her wardrobe.



# Scenario 2. They download the service and upload their wardrobes by scanning them.

#### Image 26. Sketch 2 (Service usage)

Step 1. The user downloads the app and opens the QR scanning.

- Step 2. They take a photo of clothing
- Step 3. The apps asks them to create a profile to continue further
- Step 4. The user continues to scan other pieces after they completed the registration

Step 5. The app registers and clothing

Step 6. The app provides a digital overview of the users wardrobe

Step 7. The service would like to know additional details about the user such as Shopping habits, interests, favourite and most shopped brands.

Step 8. The service app updates with information from Step 7. And shows a final overview of the profile

Scenario 3. The Service will give suggestions every day to the user.

acreens of SCREEN 3. SCREEN 2. APPSENDSA VETIFICATION Suggestion ( ) 0 150 TE Loves like m 9 9 (0.00) cather 00500 Later it might STYLE 1. .0 STYLE 2. (TEM ) O MONDAY WEEK 39 0 (Mazig is ageing SCREEN 3 SCREEN 1. SCREEN 2 TIP! LE PANTS Remember to Hello Maria ATH AT SO 2 the short ase Today is a day to ... TIOY UP rograms on 30 to save water D WASA energy and (CLEARANE 4 week Monday (WARSHING ) ( Maria Is at work) SCREEN C Scheens CREENS A PR SENS Here are some of our new sust [Frent collection items, Your wardede you (might) may loops clean like. sustainable. and (VIEw) LICICI Good job : BROWSE 0 hece 43 Monday Maria is at home, leading)

Image 27. Sketch 3. (Usage scenarios)

1. Story 1. It is Monday morning. The service app registers the weather outside and sends a notification to the user with Style 1 and Style 2.

2. Story 2. The user is at work. The app sends a reminder notification to the user for upcoming wardrobe maintenance activity. It reminds the user that he/ she has a sensitive material items, which require extra care e.g. clothes from wool or silk, and how to be washed.

Story 3. The user is at home. The service app sends a notification of the sustainable overview of the user, and lets them browse through some similar sustainable styles.

## Scenario 4. And it is also possible to register the QR clothing each time you have it on for bonuses.

It is an incentive to wear clothes more and for a longer period.

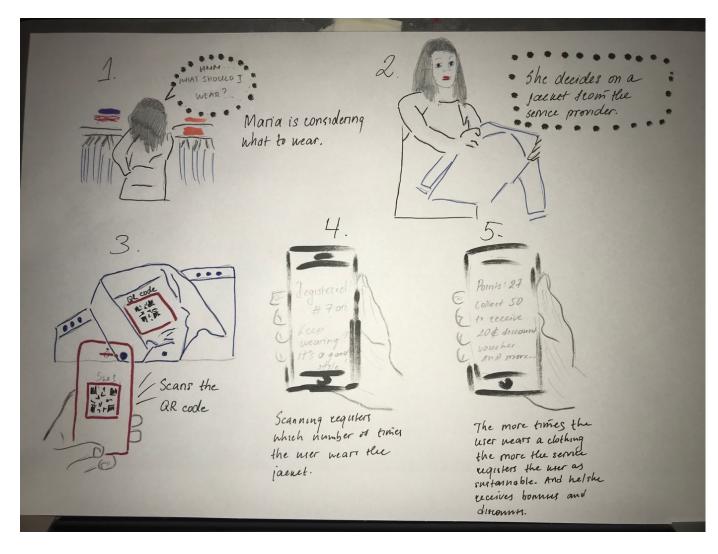


Image 28. Sketch 4 (QR scanning for bonuses)

#### Steps:

1. The users is engaged in the decision-process of what to wear

2. She picks the jackets bought by the service-provider

3. The users opens up the service app, scans th QR label on the jacket

4. The app registers the use of the clothing, and shows and overview of the number of times the clothing has been used. (To be able to register the actual use, the service app needs the register a different GPS location)

5. Each time the clothing is registers, the user gathers more points, and their sustainable profile grows. It gives them bonuses and discounts.

Scenario 5. When the user wants to discard the clothing, they can scan the QR code again, and the app will give them the following opportunities – Re-sell, Re-use, Swap.

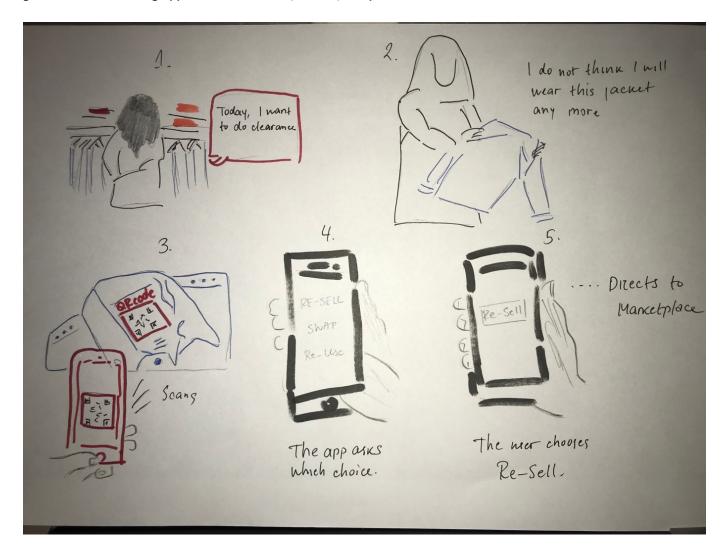


Image 29. Sketch 5 (QR scanning for end-of-life of clothing)

- **1**. The users has decided to do a clearance of their wardrobe.
- 2. They choose the bought piece from the service-proivded
- 3. Scan the QR code to return the piece back

#### 4. Choose which re-cycling option they prefer

5.Re-sell, which makes the piece available to the users in the app

# 6.4. SERVICE BLUEPRINT

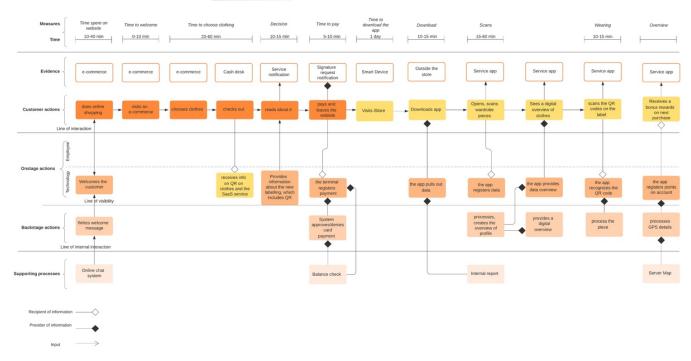
The above scenarios were structured into steps in the new service blueprint.

Shostack (1982) first implemented Blueprint as a main service design practice. A Blueprint reflects the conceptual result of structural interactions between the customer and the service. The designer must create frameworks or conceptual and organizational structures that define the key stakeholders and their role in shaping the service environment in order to build a logical architecture of a proposed system. (2020) (Morelli, N., De Götzen, A., & Simeone, L.).

Although the validation process is capable of evaluating the service to some degree, in this simulation step, which causes uncertainty, it is still not possible to fully evaluate all aspects. The journey touchpoints can also vary in practice as the customer is introduced and interacts with the service from the originally built one.

At this point, in relation to the digital solution, the overall touchpoints are known and included in the service blueprint.

The outcome of the method is open in this perspective and may not be fully defined by designers (only potential usage scenarios are described in blueprints), and neither there is complete control over the value generated by the designer or service provider (Morelli, N., De Götzen, A., & Simeone, L., 2020).



ervice Blieprint for SaaS (Digital Wardrobe)

#### Figure 32. Service Blueprint for SaaS

The blueprint introduced the online shopping experience for the user. They engaged in the traditional steps of firstly visiting the e-commerce website, choosing clothing and once they are ready with choosing and want to check out, a message will appear and inform them about the new possibility to use SaaS to manage their wardrobes digitally. They will be presented with a guideline step as to how to download, create a profile and upload their wardrobe piece, and then receive help with buying tips, planning tips, clothing maintenance tips and recycling by using the QR code scanning option. It enables the user, once they do not want to use the purchased clothing any more, to scan it back and make it available for re-purchase, re-cycle or re-use by other people (later businesses), users of the app.

It is important to highlight that there is no business plan for profit around this solution, as at least in the beginning of its introduction, it is seen as value-adding rather than profit-generating. And since the solution uses "as a service" model, the chosen name is an abbreviation – SaaS.

## 7. FEEDBACK

Feedback was received only from KCA's representative. She shares her good opinion on the idea, only questioning what the value for the company and what it can gain out of it. (Appendix 6)

## 8. NEW CIRCULAR USER JOURNEY

The journey in itself would not drastically change. The customer will still experience the conventional shopping steps, such as buying in-store. However, the main difference now is that the journey becomes closed-end, or looped, with the possibility to give further the clothing enabled by the new service. The additional QR code labeling allows for clothes to be scanned back in the service app and either donated/ swapper or resold. Initially the idea this service to be peer-to-peer, but it can be extended further to include recycling companies in the journey which can buy out the clothing for re-use. The QR enables another logic for the value of the user that the more times the clothing is registered by being scanned with the QR service app, the more sustainable profile the customer builds in the application (it needs to be registered each time from different locations to prove actual wearing), and they will be rewarded by the brand with discounts and bonus points.

This is how SaaS aims at shifting the linear journey to a circular one.

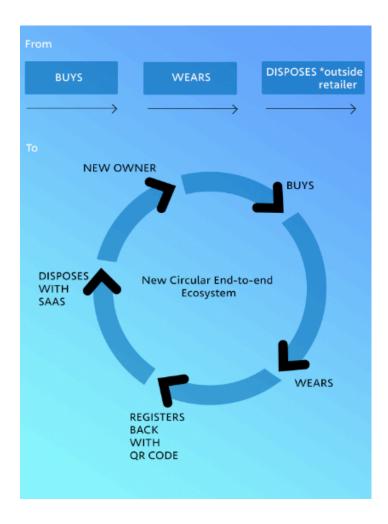


Figure 33. End-to-end cycle enabled by the service

# SUMMARY

Sustainable fashion is related closely to innovation in many aspect. Innovation in a sustainable sense is described by Boons et al. (2013) as fundamentally redefining and shifting from incremental (product and process) to revolutionary (services, future-oriented) technologies that do not cause environmental or social damage. Von Hippel (2017) presents the principle of free innovation, which complements the objectives of sustainable fashion and describes free innovation. "As a functionally novel product, service or process that (1) has been developed at private cost by customers during their unpaid discretionary period... (2) is not protected by its makers, and can therefore be purchased free of charge by anyone."(p.1).

# CONCLUSION

Developing the concept required a systemic view of the components, which will sustain the solution.

The diverse service design tools and activities helped me to stay engaged in ideating, a process, which is quite challenging for the mind of one. Therefore, it was important for me to keep an open mindset and approach.

The proposed design solution is not a final one, it is a consequent and logic suggestion based on the insights, problem areas 1) Organizing clothing consumption by providing and overview with SaaS and ideation practices and 2) Assisting people choices related to sustainable activities such as recycling, swapping, re-using.

## 1. CONCEPT – INTRODUCING REUSE SERVICE MODEL WITH SAAS

# 1.1. DESCRIPTION

Sustainability-as-a-Service is designed as management digital service solution, which will support users in drawing sustainable decision on styles and maintenance. The desired outcome is to gradually provide consumers with more insights and information on the sustainable management of their wardrobes. Assuming that every consumer owns a smartphone device, with the new Sustainability-as-a-Service they can create a digital profile in the app and digitalize their wardrobe by scanning their clothes. This will be made possible with the Digital Image Processing technology, where a QR code will scan and register data on clothing provided by the customer and required by the app such as Brand, usage period, materials etc. The app will create an overview of the user's clothing repertories, and based on it, the service will give recommendations in different categories – style, maintenance, clearance, and well-being (this will come gradually when the app accumulates input data and knows the user better.) Companies will have access to this data the digital wardrobe pieces scanned by the user. Apart from sending reminders to users as to what to wear, how to style it, when to engage in clearance, how to plan sustainable shopping journey, designers will be able to plan development of collections more efficiently based on these insights. The additional value for both users and business, will be in the enabled dialogue and co-creation.

## 1.2. WHAT WILL THE IMPLICATIONS FOR DESIGN BE WITH THE NEW SERVICE SOLUTION?

The author believes that good design starts at the beginning of the life cycle and is a simple design. The most prominent implication is that design becomes its instructiveness, which as desk research shows is valuable to users. Clothes will be sewn with a QR code label as proposed below for the purpose of enabling the capture of data and clothing management.

The possible new outlook of a design:

Our new collections include a QR code to help you track garments with SaaS Service.

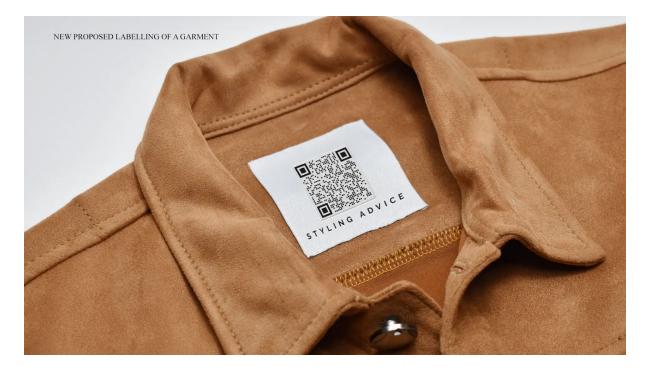


Image 30. Proposed New label design

## 1.3. THE IMPLICATIONS FOR BUSINESS

#### 1.3.1 Service Strategy

In terms of service transformation business model, companies will have to adopt a new service mindset. It's a mindset that includes service logic to cover a specific need, which people share. This need refers to managing wardrobe overview and clothing consumption. It will require companies to think strategically and then engage in operational activities to deliver this strategic value to users.

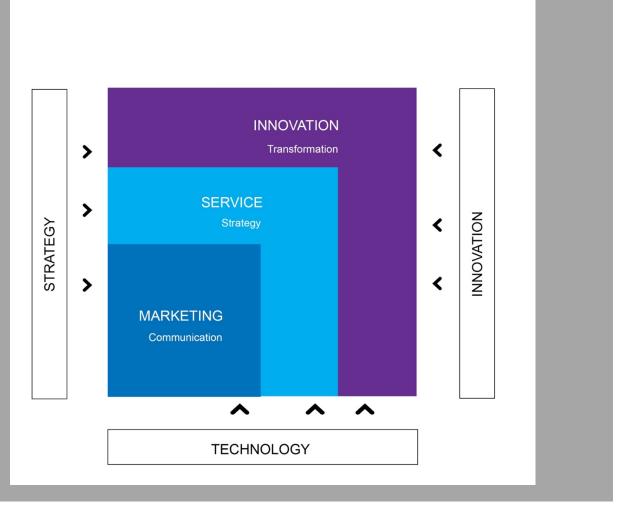


Figure 34. New Overall strategy incorporating Marketing, Service, and Innovation

As we can see in the model above, sustainable marketing is still at the heart of companies for efficiently communicating the message forward to customers, as brand image plays an equally important role in decisionmaking. The new service strategy comes in addition to enable a dialogue between the user and the designer. It enables the foundation of common ground and becomes a stepping stone for achieving the new and final step of the overall new strategy - Innovation. In all three stages of the strategy, technology is fundamental and adds value to the business activities to efficiently sell and communicate.

#### 1.3.2 Service Mindset flip

Businesses that embrace service support solutions will have to become more agile in their operations if the value should be delivered efficiently. The newly proposed service solution requires the adoption of a service mindset to complete the tasks related to the value delivery, and a new C-model (customer model), which is a user-centered approach to innovation, is proposed. C-model represents a co-creation value between the expertise and knowledge of the organization and its team members for meeting user needs and helping with user challenges outside the buying practices.

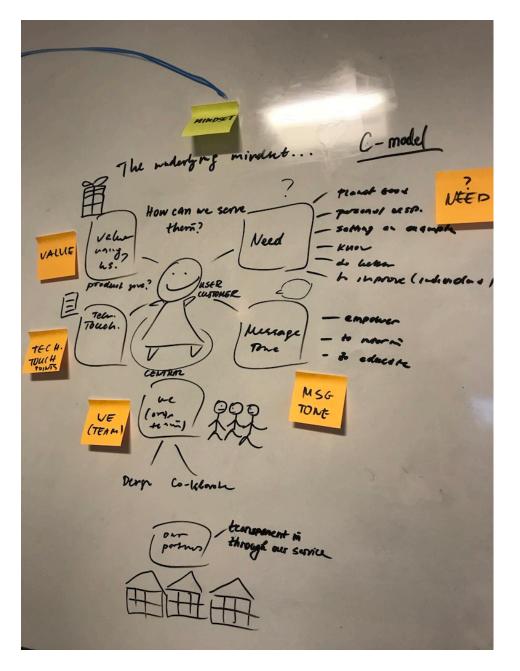


Image 31. Sketch of the C-model

Below is a proposed framework for achieving the service value delivery in an organization context for SMEs.

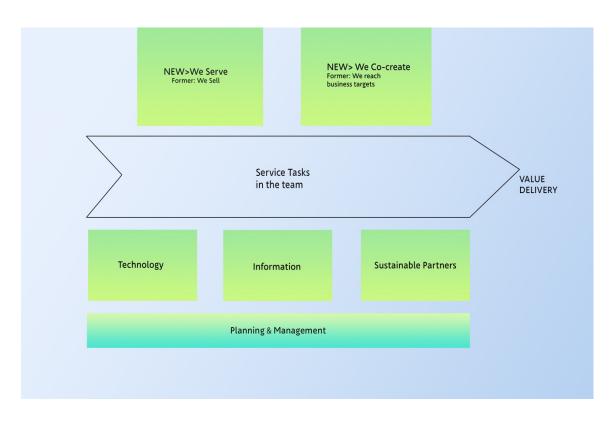


Figure 35. Framework for service value delivery

## Explanation of the organizational model

The top two quadrants are reframed to 1) We Serve, compared to the traditional "We Sell" and 2) We Co-create, meaning as a team we will now co-create based on our knowledge and capabilities, and not merely use them to meet sales goals. This covers the first part implying an organizational environment around customer journeys.

The below three quadrants – *Technology*, *Information*, *and Sustainable Suppliers* – are external to the organization but still bringing value and, therefore, vital to consider.

The last quadrant is dedicated to the Planning and Management of the new service tasks. They cover the second part, which shifts from individual capabilities inside siloes to applying them in designing improved user journeys.

The tool is inspired by McKinsey's Operating Model Canvas. It implies that Putting customer experience at the heart of next-generation operating models (McKensey, 2020 Report), and it shares the below two fundamental characteristics:

• The first component requires a change from running uncoordinated silo activities to launching an integrated organizational enhancement program structured around consumer journeys (a client's collection of experiences with a business when purchasing or providing services) as well as internal journeys (end-to-end processes inside the company).

• The second aspect is a move from using individual technologies, organizational skills, and methods to applying them to journeys in combination and in the right sequence to achieve compound effect in a piecemeal way within siloes.

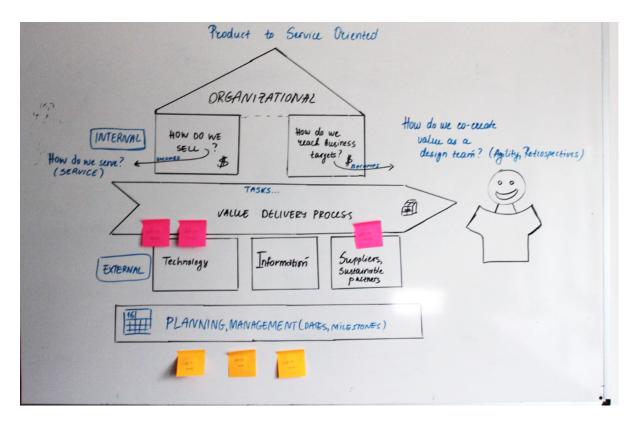


Image 32. Initial sketch of the service value delivery framework

## 1.3.3. New Business Model canvas

Since the company will adopt services, they will also have to work with a new Business Model canvas, which will guide the delivery of the value. The new service BMC is a combination of ReDesign (2018) (Appendix 7) and Service Model Canvas.

It is an easy, manageable and holistic tool to inform businesses on the key new business aspects.

For example, as discussed earlier in the report under Industry Best practices, many companies use unconventional materials from workwear leftovers to create new products. Such new, alternative partnerships are enabled by the change of mindset and expressed in the Service Sustainable Business Model Canvas.

USERS	SUSTAINABLE SERVICE PROPOSITION	CHANN	ELS	SUSTAINABLE KEY ACTIVITIES	CHALLENGES	
/Conscious /Sustainability entusiasts /Technology entusiasts /Organizers	/Clothing management /Styling advices /Bonus rewards /Consumption overview	/ Mobile app / Website		/ Getting people to agree and digitalize their wardrobes. / Updating website and app. / Supporting issues	/ Scanning wardrobe clothes with QR technology	
USAGE	ACTORS	COMPETI	ITORS	KEY RESOURCES	COSTS	
/ When users buy new clothes / When they wear a QR label clothing / When they want to discard a clothing	Brands a developing agency supporting staff customers staff	/ Trendsales / Facebook markets / dba / Kanzee / Mooch / By Rotation / Neu		/ Mobile app / Marketing team / Product development team / Customer Support team	/ Cost free for uesrs / Costs concernign the development of the app	
ROV (return on value) - number of subscriptions			KIPS - Feedback - Customer satisfaction			

Figure 36. New Service Model Canvas

The new service offer is based on the proposed new aspects of the redesign Canvas (2018), which proposes fashion design as a tool for sustainability. More precisely it bases on the aspect of:

# Innovative & Sustainable Business Models

Does your BM reflect your **vision** for the brand? Does your BM align with your **frame?** Does your BM reflect your **aspired value?** How might your BM create **new forms of value (human, social or natural capital)?** Is your BM **value-driven** rather than cost-driven? What **products &/or services** are offered? Does the BM, products **&/or services promote circular design & economies?** Does the BM consider **customer use & end-of-life?** Does the BM consider **stakeholders** within all the building blocks? What is your **competitive advantage?** 

## Types:

Co-creation Mass personalization (levels) Mass customization (levels) Open-source DIY Circular Participatory Workshops Clothing Libraries Repair services Crowd funded

Image 33. ReDesign (2018) Canvas. Zoom in on Innovative and Sustainable Business Models

## / The role of the Designer

If the company is to implement this proposed solution, then the responsible person should be aware of what the role of the designer could include. The primary task will be to translate users' needs and design the solution with them in mind. Their role is also strategic to the company, as the designer will contribute with knowledge Is to translate the strategic value of such a service solution. The value comes of meeting a needs, cover a need for the user, which will make a company a preferred choice, in an overwhelmed fashion market.

## // Designer capabilities involved

Designing the value co-creation infrastructure means defining the conditions for actors to create value -(Morelli, De Götzen, Simeone, 2020)

The development of services as a value-creating infrastructure involves the use of expertise with respect to technical problems (e.g. knowledge) Relevant software), device organization (e.g. knowledge of a structure's structure) Company or organization as far as its purpose is concerned), other specialized information and social and behavioral awareness (e.g. about logistics, healthcare, et cetera), about the service's users, their interests, their attitudes and needs. None of these skills are actually unique to the designer, but refer to different fields, from IT to marketing. However the role of design,

requires orchestration of such information, possibly merging perspectives that may not necessary refer to their expert skills. Through their ability to reflect conceptual architectures, interactions, time sequences and experiential elements of the service, designers promote the process of developing this infrastructure. Designers' contribution could be to generate

Tangible negotiating elements between stakeholders that communicate at random stages, bringing into the framework different cultures and practices.

#### **Technicalities aspect**

Why a QR code?

QR codes are a sufficient way to store loads of data. They use Digital Image Processing, where the user scans an item with their smart phone to register it in a digital environment.

# 2. MOTIVATIONAL MATRIX

The Motivational Matrix is a representative of the stakeholders, who will find value in the new service design solution.

>	BUSINESS	CUSTOMERS	SOLUTION	DESIGNERS	<u>COMMUNITIES</u>	<u>NGOs</u>
Gives to: BUSINESS		Opportunity to improve their consumption habits.	Funding, ground for realization	Service, which will help them design better, more insightful collection	A solution opportunity to manage their consumtpion of clothing.	Support with an environmentally friendly solution
CUSTOMERS_	Opportunity to make a new platform successful		Insights from their consumption	INSIGHTS	Reduced CO2 footprint	
SOLUTION	INNOVATION Opportunity	Environment to manage their wardrobes		SUPPORT	Support with an environmentally friendly solution	Support with an environmentally friendly solution
<u>DESIGNERS</u>	More success with better, more insightful coolections	DATA	INSIGHTS		Better ways of consuming	
COMMUNITY	INFORMATION	INFORMATION	SUPPORT	INSPIRATION		
NGOs	Advice, Support			SOLUTION		
						•

Figure 37. Motivational Matrix

3. TESTING PLAN – there is much more to be done on the testing. Unfortunately, this report offers very limited feedback, only from KCA, due to the conditions during pandemics, limiting the whole testing phase. Possible testing steps are offered below, which will make sense to engage in after the business is back to normal.

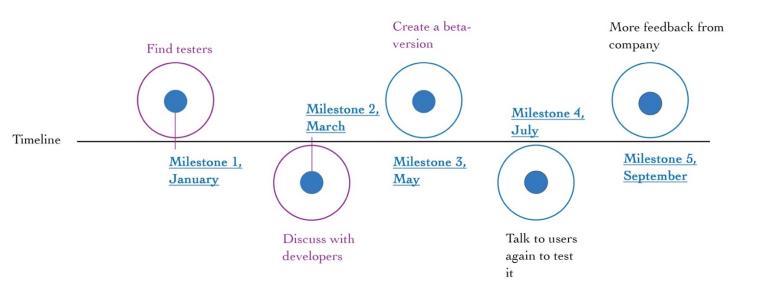


Figure 38. proposed timeline for a testing plan

## 4. REFLECTIONS AND FUTURE CONSIDERATION

One of the most profound reflection I can draw out of writing this report is that CE and Sustainability are immense topics, with a lot of academic literature covering all aspects known in both areas. This gave me a great source of inspiration in the beginning, but the more I researcher, the more complex the environment became, and this creates challenges in narrowing down the appropriate aspects to cover. Working with wicked systemic challenges is another reflection I can make. It is not easy to organize a solution around a new system, let alone fashion, which is so complex in nature. However, the whole experience thought me systemic, holistic thinking, seeing the bigger picture in both fashion industry and sustainability topic, the challenges and so the opportunities for marketers and for me as a service designer to help create a better environment for present and for future generations. I would have appreciated more dialogue and feedback from the companies; however, the circumstances did not allow. Since he topic which I have chosen is quite rich, it would have been

more helpful to work in a team instead of alone. As future consideration the report would like to examine more users to research and test the new service. For the ones reporting this, for the embracers of the concept. More in depth study of CE systems.

# CONCLUSION

Design thinking helps companies achieve value for user and innovation. This research process is a proof that engaging in user research gives value. Service design is a rich discipline, which provides broad set of tools enabling the conversations between different stakeholders and help them find new ideas and solution. Companies such as KCA, Les Deux and Serendipity Organics have already taken the first most important step of organic production of sustainable clothing. As a next innovation step will give meaning to design a service offering, which support the users' current journey and, in a way,, help them develop sustainable habits beyond the purchase activity. This will create the sought-after value and experience. Millennials and the upcoming generations live in economies of sharing and experiences, where technology is the enabler of everything – from consumerism to education, connectivity and work possibilities. Design has evolved to have a very impactful role, too. It is an enabler of better choices, it educates, and converts the intangible values into tangible artifacts. Design has become paramount in how consumers experience and how consumers consume and behave, and this is why so much emphasis is being placed on it. From design of products, which is very physical, to design of services, which is design with users in focus, design is agile in its forms. Design for Sustainability is a particularly challenging area due to its wicked nature, based predominantly on beliefs and preconceived values. Therefore, the user research is so important for the right implementation of service, but also requires a careful studying of the paradigms of fashion, more as a system than industry. Engaging the user in sustainable behavior is possible through a meaningful service offer, which shows that users are centric to companies' way of being.

## REFERENCES

Armson, R. (2011). Growing wings on the way. Triarchy Press.

Armstrong, C. M., & LeHew, M. L. (2011). Sustainable apparel product development: In search of a new dominant social paradigm for the field using sustainable approaches. Fashion Practice, 3(1), 29-62.

Armstrong, C. M., & LeHew, M. L. (2011). Sustainable apparel product development: In search of a new dominant social paradigm for the field using sustainable approaches. Fashion Practice, 3(1), 29-62.

Barnes, L., Lea-Greenwood, G., & Joergens, C. (2006). Ethical fashion: myth or future trend?. Journal of Fashion Marketing and Management: An International Journal.

Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. Journal of research in personality, 25(3), 285-301.

Benyon, D. R., & Resmini, A. (2015). Blended spaces and cross-channel ecosystems. ACM Creativity and Cognition 2015.

Benyon, D., & Mival, O. (2013). Scenarios for companions. In Your virtual butler (pp. 79-96). Springer, Berlin, Heidelberg.

Björgvinsson, E., Ehn, P., & Hillgren, P. A. (2010, November). Participatory design and "democratizing innovation". In Proceedings of the 11th Biennial participatory design conference(pp. 41-50).

Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. Journal of Cleaner production, 45, 9-19.

Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. Journal of Cleaner production, 45, 9-19.

Boutang, Y.M., Cognitive Capitalism, 2014

Braga Junior, S., Martínez, M. P., Correa, C. M., Moura-Leite, R. C., & Da Silva, D. (2019). Greenwashing effect, attitudes, and beliefs in green consumption. RAUSP Management Journal, 54(2), 226-241.

Brown, T. (2008). Design thinking. Harvard business review, 86(6), 84.

Buchanan, R. (1992). Wicked problems in design thinking. Design issues, 8(2), 5-21.

Buchenau, M., & Suri, J. F. (2000, August). Experience prototyping. In Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques (pp. 424-433).

Buchenau, M., & Suri, J. F. (2000, August). Experience prototyping. In Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques (pp. 424-433).Buchenau, M., & Suri, J. F. (2000, August). Experience prototyping. In Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques (pp. 424-433).

Bustinza, O. F., Parry, G. C., & Vendrell-Herrero, F. (2013). Supply and demand chain management: The effect of adding services to product offerings. Supply Chain Management: An International Journal.

Castells, M. (1996). The Rise of the Network Society (Malden, MA. Blackwell, 373, 307-341.

Ceschin, F. (2013). Critical factors for implementing and diffusing sustainable product-Service systems: insights from innovation studies and companies' experiences. Journal of Cleaner Production, 45, 74-88.

Ceschin, F., & Gaziulusoy, I. (2016). Evolution of design for sustainability: From product design to design for system innovations and transitions. Design studies, 47, 118-163.

Chesbrough, H. W. (2011). Bringing open innovation to services. MIT Sloan management review, 52(2), 85.

Cioffi, D., & Garner, R. (1996). On doing the decision: Effects of active versus passive choice on commitment and self-perception. Personality and Social Psychology Bulletin, 22(2), 133-147.

Cioffi, D., & Garner, R. (1996). On doing the decision: Effects of active versus passive choice on commitment and self-perception. Personality and Social Psychology Bulletin, 22(2), 133-147.

Connell, K. Y. H. (2010). Internal and external barriers to eco-conscious apparel acquisition. International Journal of Consumer Studies, 34(3), 279-286.

Council, D. (2005). The design process. Elev. lessons Manag. Des. Elev. Glob.

Cross, N. (2011). Design thinking: Understanding how designers think and work. Berg.

Danish Ministry of Environment and Food, Best Practice Examples of Circular Business Models, 2016

Desautels-Stein, J. (2012). The market as a legal concept. Buff. L. Rev., 60, 387.

Diddi, S., Yan, R. N., Bloodhart, B., Bajtelsmit, V., & McShane, K. (2019). Exploring young adult consumers' sustainable clothing consumption intention-behavior gap: A Behavioral Reasoning Theory perspective. Sustainable Production and Consumption, 18, 200-209.

Dorst, K. (2011). The core of 'design thinking and its application. Design studies, 32(6), 521-532.

Dorst, K. (2011). The core of 'design thinking' and its application. Design studies, 32(6), 521-532.

Edvardsson, B. (2005). Service quality: beyond cognitive assessment. Managing Service Quality: An International Journal.

Ellen, P. S. (1994). Do we know what we need to know? Objective and subjective knowledge effects on proecological behaviors. Journal of Business Research, 30(1), 43-52.

Fletcher, K., & Tham, M. (2019). Earth Logic: Fashion Action Research Plan.

Flikkema, M., Jansen, P., & Van Der Sluis, L. (2007). Identifying neo-Schumpeterian innovation in service firms: A conceptual essay with a novel classification. Economics of Innovation and New Technology, 16(7), 541-558.

Fransson, N., & Gärling, T. (1999). Environmental concern: Conceptual definitions, measurement methods, and research findings. Journal of environmental psychology, 19(4), 369-382.

Gambardella, A., Raasch, C., & von Hippel, E. (2017). The user innovation paradigm: impacts on markets and welfare. Management Science, 63(5), 1450-1468.

Gambardella, A., Raasch, C., & von Hippel, E. (2017). The user innovation paradigm: impacts on markets and welfare. Management Science, 63(5), 1450-1468.

Ganesh, J., Arnold, M. J., & Reynolds, K. E. (2000). Understanding the customer base of service providers: an examination of the differences between switchers and stayers. Journal of marketing, 64(3), 65-87.

Gustafsson, A., Johnson, M. D., & Roos, I. (2005). The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention. Journal of marketing, 69(4), 210-218.

Hashem, I. A. T., Yaqoob, I., Anuar, N. B., Mokhtar, S., Gani, A., & Khan, S. U. (2015). The rise of "big data" on cloud computing: Review and open research issues. Information systems, 47, 98-115.

Hekkert, P., & Van Dijk, M. (2011). ViP-Vision in design: A guidebook for innovators. BIS publishers.

Hethorn, J., & Ulasewicz, C. (2008). Sustainable fashion. Fairchild books.

Hill, C. (2010). Grand Strategies: Literature, Statecraft, and World Order. Yale University Press.

Hillgren, P. A., Seravalli, A., & Emilson, A. (2011). Prototyping and infrastructuring in design for social innovation. CoDesign, 7(3-4), 169-183.

Hirscher, A. L., Niinimäki, K., & Armstrong, C. M. J. (2018). Social manufacturing in the fashion sector: New value creation through alternative design strategies?. Journal of cleaner production, 172, 4544-4554.

Holmlid, S., & Evenson, S. (2008). Bringing service design to service sciences, management and engineering. In Service science, management and engineering education for the 21st century (pp. 341-345). Springer, Boston, MA.

House of Commons Environmental Audit Committee. (2019). Fixing fashion: Clothing consumption and sustainability. London: House of Commons.

Hunt, R., Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008). Project portfolio management for product innovation. International Journal of Quality & Reliability Management.

Hustvedt, G., & Dickson, M. A. (2009). Consumer likelihood of purchasing organic cotton apparel. Journal of Fashion Marketing and Management: An International Journal.

Hustvedt, G., & Dickson, M. A. (2009). Consumer likelihood of purchasing organic cotton apparel. Journal of Fashion Marketing and Management: An International Journal.

Jackson, T. (2019). The post-growth challenge: secular stagnation, inequality and the limits to growth. Ecological Economics, 156, 236-246.

Jacobidies M, 2019, In the Ecosystem Economy, What's Your Strategy, Harvard Business Review

Johansson, F. (2006). Medici effect: What you can learn from elephants and epidemics. Harvard Business Press.

Kandampully, J., (1998) Service quality to service loyalty: A relationship which goes beyond customer services, Total Quality Management, 9:6, 431-443, DOI: 10.1080/0954412988370

Kaplan, R. S., & Norton, D. P. (2006). How to implement a new strategy without disrupting your organization. Harvard business review, 84(3), 100.

Karasti, H. (2014, October). Infrastructuring in participatory design. In Proceedings of the 13th Participatory Design Conference: Research Papers-Volume 1 (pp. 141-150).

KELLEY, T. A. (2001). The art of innovation: Lessons in creativity from IDEO, America's leading design firm (Vol. 10). Broadway Business.

Kirsten van Dam, Internal presentation at AAU, 2019

Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. Environmental education research, 8(3), 239-260.

Kozlowski, A., Searcy, C., & Bardecki, M. (2018). The reDesign canvas: Fashion design as a tool for sustainability. Journal of Cleaner Production, 183, 194-207.

Kuhn, T. S. (2012). The structure of scientific revolutions. University of Chicago press.

Kuure, E., Miettinen, S., & Alhonsuo, M. (2014). Change through Service Design–Service Prototyping as a Tool for Learning and Transformation. Proceedings of Design Research Society 2014: Design's Big Debates.

LaPiere, R. T. (1934). Attitudes vs. actions. Social forces, 13(2), 230-237.

Lee, E. J., Choi, H., Han, J., Kim, D. H., Ko, E., & Kim, K. H. (2020). How to "Nudge" your consumers toward sustainable fashion consumption: An fMRI investigation. Journal of Business Research.

Leismann, K., Schmitt, M., Rohn, H., & Baedeker, C. (2013). Collaborative consumption: towards a resourcesaving consumption culture. Resources, 2(3), 184-203.

Liere, K. D. V., & Dunlap, R. E. (1980). The social bases of environmental concern: A review of hypotheses, explanations and empirical evidence. Public opinion quarterly, 44(2), 181-197.

MacGillivray, A., Sabapathy, J., & Zadek, S. (2003). Responsible Competitiveness Index 2003: Aligning corporate responsibility and the competitiveness of nations. AccountAbility.

Mager, B. (2009). Service design as an emerging field. Designing services with innovative methods, 1, 27-43.

Mager, B. (2009). Service design as an emerging field. Designing services with innovative methods, 1, 27-43.

Maglio, P. P., Vargo, S. L., Caswell, N., & Spohrer, J. (2009). The service system is the basic abstraction of service science. Information Systems and e-business Management, 7(4), 395-406.

Mańko, R. (2013) . The notion of 'consumer' in EU law

Manzini, E. (2009). Service design in the age of networks and sustainability. Designing services with innovative methods, 44-59.

Markman, J. (2017). Apple Grows its Ecosystem, And and Its Advantage, Forbes, Apr 12, 2017,10:23am ED

McKensey, Global Media Report, 2015

Meadows, D. (2009). Donella-MEADOWS, L. Dennis-RANDERS, Jorgen-BEHRENS, W. William, Ekonomik Büyümenin Sınırları.

Meyer, C., & Schwager, A. (2007). Understanding customer experience. Harvard business review, 85(2), 116.

Morelli, N., De Götzen, A., & Simeone, L. (2020). Service Design Capabilities.

Newman, G. E., Gorlin, M., & Dhar, R. (2014). When going green backfires: How firm intentions shape the evaluation of socially beneficial product enhancements. Journal of Consumer Research, 41(3), 823-839.

Normann, R., & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. Harvard business review, 71(4), 65.

Nyberg, A., Stø, E., Fien, J., Skoien, P., Clover, D. E., Brusdal, R., ... & Maggi, M. (2000). Youth, sustainable consumption patterns and life styles.

Pine, B. J., & Gilmore, J. H. (1998). Welcome to the experience economy. Harvard business review, 76, 97-105.

Polaine, A., Løvlie, L., & Reason, B. (2013). Service design: From insight to inspiration. Rosenfeld media.

Popescu, C., Simion, C., Popescu, M., & Dobrescu, R. (2020). Digital Economy and E-Marketing Advices for Small Businesses. *FAIMA Business & Management Journal*, *8*(2), 59-69.

Rabetino, R., Kohtamäki, M., & Gebauer, H. (2017). Strategy map of servitization. International Journal of Production Economics, 192, 144-156.

Ræbild, U., & Hasling, K. M. (2018). Sustainable Design Cards: A Learning Tool for Supporting Sustainable Design Strategies. Sustainable Fashion in a circular economy, 128-151.

Rissanen, T., & Gwilt, A. (2011). Shaping sustainable fashion: changing the way we make and use clothes. Earthscan.

Rittel, H. (1972). On the planning crisis: Systems analysis of the'first and second generations'. Bedriftskonomen, 8, 390-396

Rogers, R. (2013). Digital methods. MIT press.

Roos, I., & Gustafsson, A. (2007). Understanding frequent switching patterns. Journal of Service Research, 10(1), 93-108.

Roy, R., Shehab, E., Tiwari, A., & Morelli, N. (2009). Service as value co-production: reframing the service design process. Journal of Manufacturing Technology Management.

Ryan, F., Coughlan, M., & Cronin, P. (2007). Step-by-step guide to critiquing research. Part 2: Qualitative research. British journal of nursing, 16(12), 738-744.

Saad-Sulonen, J., De Götzen, A., Morelli, N., & Simeone, L. (2020, June). Service design and participatory design: time to join forces?. In Proceedings of the 16th Participatory Design Conference 2020-Participation (s) Otherwise-Volume 2 (pp. 76-81).

Sachdeva, S., Jordan, J., & Mazar, N. (2015). Green consumerism: moral motivations to a sustainable future. Current Opinion in Psychology, 6, 60-65.

Schulz, P. D., & Cannon, A. (2013). Trial by Tweet-Findings on Facebook-Social Media Innovations or Degradation-The Future and Challenge of Change for Courts. In IJCA (Vol. 5, p. 25).

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. Journal of consumer research, 15(3), 325-343.

Shostack, G. L. (1982). How to design a service. European journal of Marketing.

Shostack, G. L. (1988). Limitation is the mother of innovation. Journal of Business Strategy.

Solomon, M. R. (2011). Consumer behavior: Buying, Having, and Being.(Global Edition). Pearson, 14(2), 116-124.

Stake, R. E. (2007). The art of case study: perspectives on practice.

Stickdorn, M., Hormess, M. E., Lawrence, A., & Schneider, J. (2018). *This is service design doing: applying service design thinking in the real world*. " O'Reilly Media, Inc.".

Swan, J. E., & Combs, L. J. (1976). Product performance and consumer satisfaction: a new concept: an empirical study examines the influence of physical and psychological dimensions of product performance on consumer satisfaction. Journal of marketing, 40(2), 25-33.

Teas, R. K. (1993). Consumer expectations and the measurement of perceived service quality. Journal of professional services marketing, 8(2), 33-54.

Tversky, B., Heiser, J., Lee, P. U., & Daniel, M. P. (2009). Explanations in Gesture, Diagram, and Word.

Vandermerwe, S., & Rada, J. (1988). Servitization of business: adding value by adding services. European management journal, 6(4), 314-324.

Vendrell-Herrero, F., Bustinza, O. F., Parry, G., & Georgantzis, N. (2017). Servitization, digitization and supply chain interdependency. Industrial Marketing Management, 60, 69-81.

Von Hippel, E. (2005). Open source software projects as user innovation networks. Perspectives on free and open source software, 267-278.

Walker, B., Gunderson, L., Kinzig, A., Folke, C., Carpenter, S., & Schultz, L. (2006). A handful of heuristics and some propositions for understanding resilience in social-ecological systems. Ecology and society, 11(1).

Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. Journal of Social issues, 25(4), 41-78.

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Defining service innovation: A review and synthesis. Journal of Business Research, 69(8), 2863-2872.

World Commission on Environment and Development, & Brundtland, G. H. (1987). Presentation of the Report of the World Commission on Environment and Development to the Commission of the European Communities, the EC and EFTA Countries... 5 May 1987, Brussels. World Commission on Environment and Development.

Zenghelis, D. (2006). Stern Review: The economics of climate change. por HM Treasury. London, England.

Zhang, W., & Banerji, S. (2017). Challenges of servitization: A systematic literature review. Industrial Marketing Management, 65, 217-227.

#### APPENDIXES

Appendix 1 interviews questions

#### **Questions to Les Deux**

Wednesday questions for Les Deux

Just a quick re-introduction to the topic - Circular Economy and Sustainable Services. As a Service Designer, I am researching what services can add value and create more sustainable habits in relation to fashion.

I am researching how to make fashion companies more service oriented and encourage CE, which Les Deux is doing already. So I would like to start off by asking you

- How did you come up to this idea of launching <u>ReWear</u>? Is it part of an innovation business plan? Or a response to a need from the user you discovered? And saw business opportunity in it?
- In SD we talk a lot about the need of the consumer in the center of the design, what is the core value and need of the Les Deux persona?
- 3. And your presence of the user is very dominant on your website and social media? How do you define your user's biggest need – is it a need to buy sustainable? Or is it the style, which drives them their purchasing behavior?
- 4. How is your team organized? Do you have a service design team around ReWear?
- 5. How do you engage in a conversation about sustainability with your users ?
- 6. Do you use DT in your business operations?
- 7. How do you innovate? What is the trigger?
- 8. Do you look a lot at consumer trends and technology?
- How do you treat data? DO you shape it into a strategy?
- 10. How do you keep ahead of competition?
- 11. Do you use Social Media channels to spot innovation opportunities?
- 12. Being a menswear brand can you mention some of the highlights of the male sustainability consumerism? What characterizes it?
- From your experience What is your vision for the future of sustainability and the opportunities it gives to businesses in general and <u>KCA 2</u>
- 14. Why do you think people get inspired to purchase sustainable fashion? What motivates them from your experience to be sustainable?

15.

Aleksandrina Sabeva

Whether you research the Online persona, too? Who are\_\_\_\_\_

		1
1.	What does it mean to be responsible for the environment aspect of a company like KCA?	
2.	Are you at KCA familiar with or practicing human-centered design?	
3.	How does innovation happen for KCA? And what triggers it? (e.g. market competition,	
	introduction of new styles, meeting new needs of customers? etc.	
4.	You have a long history on the market, how would you innovate next?	
5.	On your website you introduce yourself as the game changer – what does it mean to	
	be a game changer?	
6.	You also state that "you design and develop for a new tomorrow. What does a new tomorrow mean in the context of sustainability?	
7.	You have a very interesting and inspiring brand book available on your website.	
	Knowledge is enough to shape a conscious purchase. Is it enough to shape conscious	
	habits and a mindset? How is it different from marketing sustainability?	
8.	Do you use Social Media channels to identify innovation opportunities?	
9.	How do you collect feedback and conversate with your users?	Aleksandrina Sabeya
10.	Do you consider platforms for re-selling and swapping clothes e.g. Trendsales as	It seems that they rely on informing this consumers about
	sustainable competitors (additional social aspect?)	their history and values
11.	How do you stay ahead of competition? (How do you make sure to be the preferred	]
	choice?)	Aleksandrina Sabeva
12.	Do you collect user data from Social media and own website? In what direction do you shape it?	Understand if they analyze it to identify user needs or just for promontional activities
13	From Facebook "We design and develop for a new tomorrow. Determined to be one of	Aleksandrina Sabeva
	the game changers - we take action by sustainable innovation." (innovation in clothing	Or also in servicing their customers after purchase
	production and materials? Would that mean a change in the business plan towards	Aleksandrina Sabeva
	more service-oriented than production-oriented business?	Could you think to be a servicer of customers who have a
14	How many collections do you introduce to your users yearly?	sustainable need
15.	From website: "Textile production is one of the world's most polluting	Aleksandrina Sabeva
	industries."	How sustainable production do you have?
	Mentioning the polluting effects coming out of the production of clothes,	Aleksandrina Sabeva
	have you thought about adding more service-oriented practices to your	Thus joining CE, swapping, renting out etc.
	business plan?	Aleksandrina Sabeva
16	Who do you consider your biggest competitor?	Patagonia?
	.Do you target sustainable fashion users (outdoors, nature people) pr	
	conscious consumers?	Aleksandrina Sabeva They state the Knowledge Persona, urban dwellers, inclined
18	Why do you think people get inspired to purchase sustainable fashion?	to
	What motivates them from your experience to be sustainable?	
19	Do you engage in a conversation about environment challenges with your	Aleksandrina Sabeva Inform a lot about it, but do they engage in it?
	users? How?	anorma nas abbat it, bat do trey engage in it:
20	From your experience - What is your vision for the future of sustainability and the	Aleksandrina Sabeva
	opportunities it gives to businesses in general and KCA ?	Is information enough for men? Do they have other needs?
21	s there a difference between conscious male consumerism and female	
	consumerism? Have you researched it?	

#### Questions to KCA

#### Appendix 2 Transcripts

#### KCA transcripts

Yes and dearest M as of now yeah that we have for products and then we are a carbon neutral certified which is a company certification so that's not on product level but more for the whole company

Yes yes it is yeah you can say that it's it's it's a hard question because when people ask why you sustainable company there's a lot of aspects to it but we're leaning as of right now upon the certificate from the product a lot but we also have a lot of different projects with our suppliers for example that also makes us stable in some ways that we buying organic certified fair trade cotton from farms in India who support small local farmers and we also have product with the suppliers where we're helping with green energy and solar systems and stuff like that so like it's difficult to say one thing that makes us most sustainable but as of right now I would say that it is this certificates that we have um yeah

that's also predict we're pretty proud of and one of many we have like **knowledge forest** we call it it's near one of our biggest suppliers in India we had a long term relationship with that we are valuing really high and yeah that's it yeah that's the that's a product that and project that the customer can easily understand so I am glad to hear...

Umm The thing is that **Mads** who is the **CEO**, his dad started working with sustainable cotton production apparel in 1969 and then Mads, his son, he started this brand in 2008, so it's it has been a family company for many years so the knowledge go way back from 69 but I can see that it's maybe a bit confusing when we put it like that because you are not the only one who thinks that. The reason to start sustainable was that when Mads he thought it was extremely hard to find a basic T shirt made of organic cotton and produced in an ethical and environmental friendly way. So he started back then but it was a tough market to enter (red.) and we think it still is because people don't really know the process forehead. In that sense, we have not changed from a conventional company to a sustainable - there has always been sustainability in our business core. I think it was because Mads have seen throughout his dad that it's important to do this and he has believed in it so yeah from the beginning we have been sustainable.

Yeah I think I understand what you are asking this is the part where the marketing is sitting and it is involved in searching for these services but I think that the service that we are providing for our customers is that we have a full tracibility and transparency in everything we do. We want to share the value, which our product has and people are buying in by its by its standard in concerns of certifications and localization of the production and parts like that and it is product that you can have forever and also because we are mainly now have the Male collection and that's a different kind of customer segment because women are buying new clothes all the time but the male customer is going back to buy the same pair of jeans. We have had customers from almost the beginning buying our first pants and they are still buying them because they come back all the time so they know where they're getting. I think the additional service that we are providing is the full transparent approach about the product and when we get customer requests and questions in different ways we always are very open about everything. And so I think that is the main service we're providing the customer is that. I am working on a project where we can be cradle to cradle certified if you know that yeah um and but we're not that big yet um so we can not do this but this is a product gap where we want to go in so we can use a product again in this life in like to be more um yeah Circular Economy. We are not that big yet and also if you want to provide a service for afterlife of the products we also have to produce way more clothes than we do not do and we're not overproducing at all. It's actually funny because when we have the order deadline and all the sales people have to apply there the numbers we have sold and are getting request for many pieces but we will not provide that many pieces because we don't believe that much in overproduction, so we actually always have to go a little bit back and not overproduce to make more money but more because we believe in not having to be a part of the overflow production. In big places it makes sense, but not for us.

You cannot really make that much out **of cradle to cradle** but you cannot make anything out of it if we have **like really low** quantity for it so it's you can always start projects up that seems nice and is super good PR in anyway but it like we also believe in like not doing something just because it sounds good **but because it's like it makes**  **sense. We** have two collection - two big and two small each year, but as of the new year 2021 we will launch a female collection, so we will of course have the double collection amount. The big platforms (retailers) are really taking it in so we think it will be a success. But then again it's a whole new market with a whole new customer segment so it's quite interesting what we will but we will end up with, but as of right now we only have 4 **collections**.

Yeah it's funny because like it was there the management team knew that they could not like who loved the task for the for the designing without a new designer and a new and view on it so we we got a new head designer in and she had worked for really big brand with both female and male so she had like a a bigger trend experience which beer which is is important to like have enough aspect for the female apparel because people women are buying the colors for trim them different kind of shapes and it's not like the same with the Mail because then you have like the certainty know and then you have it in free colors and that pandas just like something that the Mail would go back to all the time but women don't go back to the same style all the time they want new and new styles and new trends and colors and fit and everything so we don't know who so much yet but we are we have the they hired the new designer she's really good an she's focusing focusing a lot more about trend because male apparel is not that trend focused in the same way as women's yeah yeah exactly

Marketing Department is sitting in Sweden but I know that there working on making as close as possible the same persona As for Mens apparel but it but they know that it's a area that we haven't worked in and it's different values and stuff like that but as of now we have less as you also one of the questions you have noted we have less outdoor uh kind of vibe an tracking and in the nature but we created this strategy like two years ago an we wanted to make apparel for the nature loving kind of person who wanted to wear something in sustainable apparel besides his activities you know so we're not making the ski wear but we're making the clothes that they but the nature person can wear once he's home from this if that makes sense

Their **apparel** for now for every **person** who wants to **care** and wants to pay that extra prices for a sustainable and ethical product, which they will have for a longer time. We are working on so many different projects every single day in order to make our sustainable clothes. For example, our denim collection we worked on for five years before we launched it because it was really hard to find the supplier who was like living up to all the criteria to be 100% sustainable so and have the minimum wash and the minimum chemicals; to have the right fit and getting the correct cut and and it's a really extensive process that I think that the in consumer doesn't know. Rright now we are working on making some pants in a tea color with a supplier from Turkey, and it's really interesting but it's like the color we want is hard to get and then all these questions - is that color going to be trendy for the next season and so on. It is really difficult to find the persona who would want to invest in us if you can say so because when we have them we really want them to come back again and again.

Interesting the approach you have, it's really good questions you have written because normally I love to help different kind of projects with school assignments and bachelors and whatever but it's sometimes really hard to find the time because we are really busy and I'm really busy but do you think that the approach you're having is super relevant and really important because it's funny because when **Corona** really hit **Denmark** in March it was

really quiet here like one week at the office and we were like what's going to happen and stuff like that but then my email and phone just exploded because customers and school assignments and different kind of projects whereas reaching out because suddenly the **environment was in focus and** people are having different demands and kinds of values from companies and we are **still sometimes getting the most insane questions** from the **customers regarding e.g. the chemical process** then all kinds of requests before they will buy our raincoat and stuff like that we always have this **information out there because it's really important** and it can be really hard for us to **like get the the info out to the people** and why it's important so it's **it's funny how you can see that the world is changing** an and we see that **the customer is asking so much more about the most technical questions** and **we think that it's the right time for us to also expand to the women's apparel** because it is requested out there.

Some match but I think like it's the last part of you said that people think they have to take in to take action because everybody knows what's happening in the planet and stuff like that and then maybe social media FX them to be to think about the environment then think about the use and the money and I think that it's also because people have a lot of people got laid off so the money is not out there that much in the customer is really thinking about what they should buy and I think that change is coming and people are know that and I think that the big for example Boozt and Zalando who is one of our biggest customers in immediately for example approaches for making the mask for producing mask already in March because they knew that it will be a request from the customer and like 2 weeks after the crystal made were like OK we didn't need it now because the customer is asking for this so the people all I think that the customer also want to buy into Anne this sustainable value in some way if that makes sense so and people think it's cool to like buy a product who is made from recycled bottles and people wanna have ethical produced organic cotton and even better if you can have a label on it I think that it's a it's a mega trend that is here to stay and I think that it's important for companies to do it the right way and don't do so much green washing and I really have a lot of issues on a daily basis with projects about greenwashing because I think that the customer will let be affected by that and what they may hear. I have a lot of customers who asked us why we are producing in India and why not only in Europe and The thing is that the projects and suppliers that we have in India is partners we have had from the beginning and they are suppliers that we're giving so much more than just money/ business relationship but we are building villages with implementing schools and getting jobs and supporting the small communities in many ways. Sometimes people want to know only the good story and they don't want to hear about the full story

we're GOTS certified so we can share that story with the customer because we have a **certification** and a third party we can have this validated by but it's hard to share the story **about the school we have in India where we support the local communities with School for Girls and building restrooms and toilets and stuff like that because that's not sometimes it's such a bad story that the customer doesn't want to understand it and hear about it** because it's not only good we're it is good that that we are helping with it but it's not the story is really harsh I don't think that sometimes people want to know it an I feel like a lot of companies are really really **greenwashing** alot of sustainable approaches they said they having and say their ginger equality fighters and stuff like that when we only have women's in the headquarters product Department then they say that they are following the if in 17 goals and you know it's and sometimes it's really really hard process because I got the informed by a different kind of turn recently which is called **green hushing** which is when you have **so much good information** that you don't share it because you don't know how and

So you also really have to inform the people about the **bad story** and now I don't think that the **people want to know the bad story** all the time and think that closes producing in China is bad compared to Italy but in Italy you working often in a small garage and you think it's so culture thing and it's it's horrible working conditions compared to the fabrics you can get in China for example Yep

Simon, from the marketing department in Sweden (red.) **uses the WHAT-HOW-WHY interactive approach** (red.) is why do why do you do it how do we do it in but I know that he have a whole platform for his strategy and he's really really good but I would love to take you in contact with him but he's really busy so don't think that yeah

It is the same approach as you're talking about I think just maybe it's not that academic if you know there they're working in them with their experience so they don't use that but I know that the design thinking is is the aspect that have shared with us a lot so he works with that for sure Probably see a cenar Instagram have you yeah it's not like the typical brand fashion brand Instagram we don't have that the product so much in them in focus and a lot of people are asking why we don't have it but we want to put them put the value over the product before the product will be sold if that makes sense and so we we creating the value and the environment and visual field for the customers before they want to buy the so we put the service and the value into the product by creating the environment but we don't use Instagram data collection that much and social media we don't because I know that Johan the marketing manager have asked have told us a lot about he wanted to for the women's apparel we're using micro macro influences big ones because he believes the strategy that a lot of companies are working in and we wanted to get a little bit away from social media actually but I know that they have tried to use data from social media alert from years ago but it is not the approach that they want to use because he believes that it's it's not the future if you know what I mean...

But we don't anymore it's it's a it's actually funny approach and if you have asked me like a half a year ago it will be like that is so stupid and we don't use more energy on Instagram and stuff like that but and we wanted to your hand is believed that it's had convinced me that it's not like the future to hit the big platforms like that M again with the influence of choice because we believe in creating a more in real approach because you know some of the really biggest influence influences in Sweden is getting so highly paid but recently they are getting less because companies don't want to buy into them because they are advertising for so many so as a consumer it seems more real to get the small ones and more authentic influences in that way and I don't know if it will work and we will get hit bad by it but The thing is it's an interesting approach because I had a talk with them manage are from Patagonia from 2 weeks ago or something and she was talking a lot about it too and they're like the big the big concern company it's a really really see them in a big way as are you also ask who is our competitors or something like that and I have voted them because it could be nice to be that influence as there an that bigger size Ebony but we're definitely not there yet but they approach their having it's it's it's really interesting because I don't I don't ask about the influence this an marketing and data they of course use social media data in a bigger way than us but she also told me that the approach they are having is is also getting away from the social media because it's not there that there in consumer is in the same way M and not be in consumer they wanna influence and yeah

Yeah loud and clear map yeah no problem Nope

#### huh Joe

ReWear has three focus points where one of the focus points is about conscious consumption then when we created this strategy was with the consultant some consultants which actually helped us create this this this concept called ReWear, and it was it was because there is a there is a there is a demand in the market in general it's not really matured yet when it comes to men's fashion it's much more mature in women's fashion but we saw it first mover advantage and then we started to develop this platform so I think it's it's a combination of a minor demand in the market and the possibility of 1st mover advantage I would say so but but when that's being said it takes a lot of effort to really truly grow this this concept because men are different to women when it comes to sustainability we are we are I would say many steps behind in understanding the importance and just understanding the whole concept of being sustainable. And also there's the different generations our generations and the one after us I think it's called generation Z. We have much more interest in sustainability than the older generation so for example our parents are not really into it in the same way as we are. So there are many many different things and levels of engagement we need to think about when creating a service like that red. A few people are even afraid of buying pre-owned clothes so we have to be very good at communicating this concept and tell people a story about why we're doing it and not just what it is. but it's still it's still quite new we've only had it for a few months and then when we were about to launch it Corona about the coronavirus that it came and so it had to be on standby for some months yeah

What you say the **biological difference** because men are men and women to women I just think that that **meant they don't really think about it the same way as women** to be honest I do because I've been working with sustainability for 1 1/2 years so to **me it's a big issue** but just in general and when I talk to my friends about it they don't really care about it. **They don't think about it on a daily basis when it comes to clothing and fashion** so I think yeah it could also be that that **women buy more**. it's a very good question and we have we are talking about it almost every single day and to be honest we or I don't know we don't know exactly why to be honest some people think because of the product itself and the quality and the design and for others it is more of a brand thing because of the story behind and of our perception of how to be a fashion brand. Maybe it's a balance between the products that we that we produce and sell and the brand the values that we represent I think it's a balance between two things. For many years in Denmark we have been known as the entrepreneurial company and it is actually true story that the owner he started with just a single white T shirt where he was sewing patches on the T shirt by himself and then it just produced a couple of hundreds of those T shirts and they just drove around Denmark selling these T shirts. So I think it's very authentic story behind the brand and people they like that story and there's just been a part of the brand for 10 years. I think one of the one of the big tasks for us now is when we start spreading all over Europe and the world we have to be able to tell the same story in a in a commercial way so people can understand it because we are still a very small company I mean I've been here for seven years and it's been going we've been growing every single year but when you compare us to other two other big international companies were still very small so it's very important for us to tell to tell the story in the right way because everybody can produce clothing that's my opinion or is that what we produce is it's a beautiful design and its qualities are also great and we are becoming more and more sustainable but for me it's not really the competitive advantage that's more about the authentic story and the brand in itself

I mean it's it's a combination of different things one of the game changes for us is that several of our partners and key accounts they are they are they are demanding from from us and from all the other clothing brands that by 2025 or 2023 to be let's say 20 or 25 or 60% sustainable so we're seeing demands from from big warehouses no not warehouses big big retailers around Europe one in Holland and one in Sweden so on and England which actually are saying that if you're not sustainable during the next five years a certain amount we're not going to sell your products in our shops and our stores so that's for us was kind of eye opening that we have to do something now and then also because of there is weather weather you you like or not there is a need for it and the consumer is some of the consumers are starting to ask questions and not just about the product what they're made of it it's also how they are made and I think that is one of the biggest biggest problems within the fashion industry it's not whether it's organic cotton or not but it's about the lack of transparency and that is also something we are working about now that one we want to show our clients so to say where are we making our clothes and who is making our clothes. Beforeit it's been so secret for many years and not just for us but for everybody in the industry no one couldn't know about the working conditions no one knew how the people were treated so this transparency and traceability aspects of sustainability it is very important. I can see it on social media and so on that people they want to know who made their closed and there is actually something called I think it's called fashion revolution with this kind of nonprofit organization which have created this kind of viral movement called who made my clothes. they want clothing companies truly to show who is making the clothes and where in the world because before the only thing that consumers knew was "made in China or made in Turkey" which is on the care label inside the clothes. That's just not enough information, people demand to know more about it and you're seeing it in another in other industries than fashion that transparency is becoming more and more important to all kinds of companies.

yeah you can say that about **10% of our turnover** is from our own website **90% is wholesale** and these online companies like Boozt and Zalando there for us a wholesale partner because it's according to the prices, so 10% is only our own E Commerce, yeah

We have three stores now we open #4 in this month, but it is still so new for us and because of the **coronavirus** beginning had been as we hoped, but **it's part of a long-term investment then we want to open more physical shelves in in the future**.

(Coronavirus) I mean you have to adapt to the situation and I think some things are going to change for good in the future also after this COVID-19 has settled, somethings I'm gonna change I think forever but it's going to be interesting to see how the landscape is going to be in next year. And I mean all of us we have never been in a situation like this before so we can really be sure but we just have to do what's best for us.

We have management team working with the overall strategies. We don't really have innovation team so to say I mean we don't have a research and development, we still are too small to have that but I think we have five or six in the management team and they have a meeting twice a **month once a month discussing the strategies for the next years** to come and **then it's each and one of the employees in our department's responsibility to develop a strategy then presented to the management team, that's how we do right now** 

**Sorry but I have no knowledge about that that's** if we do I think it's my colleague in each commercial has any knowledge about that, II don't have it sorry.

So we have in our I mean we are we have some minor Department for example the production Department there are hire now so there are **three in the product and the one designer** then we recently hired at it's called a **pattern maker** so she's in charge of all the sizes. I'll explain - we have had some problems with our sizes because we have I think we have **15 different suppliers** so for example a medium from one supplier is sometimes small from other suppliers and that's a big problem so **she's going to streamline all the sizes** are so when it's a small from what it's a small from the other. **Her and I also the ones in charge for all four hours sustainable development** in cooperation with other from the company and also we're having we're having some meetings with for example a **Dutch Department store called Bijenkorfof how we're going to evolve as a company in regards to sustainability** and then we have the marketing Department or marketing team and then we have

one of the bigger ones right now is the **retail team because we are open so many shops and you can see that for each shop there are two to three employees but the production and design Department they are working with innovation so to say but they're working you can say a year ahead** all the time **because right now they are they're designing and developing the I think it's called the ultimate 21 collection** so it's almost a year from now so they're working in quite a different way that that I am for example my work is more **from week to week or month to month** uh they're working at your head all the time so like different

Now it's our customer service because we are receiving some feedback from I mean we're getting a lot of questions and inquiries from the consumers and actually we have not collected it yet but we're getting a feeling of so far what people's perception are of it if they like it or don't, I mean we haven't we haven't experienced 1A single person who do not like it but we have some questions about how come we don't have more clothes and so on and it's not really in our control because we are encouraging people to send back their use closed that is just laying in their wardrobes and then it's our job to keep pushing the story out so people they naturally want to be part of the concept and send their own clothes wear.

I mean it's interesting what you talked about the social media thing I'm going to talk to my colleagues about next week because we have two we have to document all of the data that we get from from our consumers both in terms of reward but also just in general

#### OK K

We know you are welcome to write me an email if you have other questions I will be happy to help so let me know. Thank you.

## Appendix 3 email correspondence

Serendipity Organics

Re: collaborative interview

To: Aleksandra Sabeva

#### Dear Aleksandrina,

Okay 😊

My mobile number is 40617413.

Best regards Sofie

Med. venlig. hilsen. /. Best. regards. Anne-Sofie Tobiasen Serendipity Organics Dyrehavevej 10 2930 Klampenborg Denmark Tel +45 4692 0433 www.serendipity.organics.com www.serendipity.dk / info@serendipity.dk

See More from Aleksandra Sabeva



On 1 Oct 2020, at 08.26, Helena Valentina Ysaraba Pedersen <<u>hp@knowledgecottonapparel.com</u>> wrote:

Hi Aleksandrina,

Thank you for reaching out to us regarding this, I am sitting with the Environment here at KCA, and I would be glad to help you the best way I can.

But I have to make it clear, that we're currently not working so much within the aspects of *Circular economy* at the moment due to the size of our company.

We have sat some sustainable goals regarding this, that I can share with you under this interview.

I would anyways be glad to schedule a call with you - I am available Tuesday 6/10 or Wednesday 7/10 between 9-11:30 these days. If possible would it be great if you could send me some questions before,

Let me know, Thanks.

### Helena Valentina Ysaraba Pedersen

D: +45 22 12 08 22 hp@knowledgecottonapparel.com

HQ: Orebygårdvej 11, DK – 7400 Herning

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<image003.jpg>

We design and develop for a new tomorrow. Determined to be one of the game changers - we **take action** by sustainable innovation From: Frederik Waage tredetik@lexic.com Subject: Ra Interview Date: 7 October 2020 at 11.05 To: Neksandrina Ivanova Sabeva asabev10/8student.aaudk

Hi,

Hope one of these works:

Skype-name: live:.cid.5f2b43bd97443d60 Mail: fcwaagepetersen@gmail.com

Med venlig hilsen / Kind regards / Mit Freundlichen Grüssen

C

Frederik Waagepetersen Operations Manager

M. +4552794274 E. frederik@lesdeux.com

LES DEUX www.lesdeux.dk

Fra: Aleksandrina Ivanova Sabeva <asabev18@student.aau.dk> Dato: onsdag den 7. oktober 2020 kl. 11.04 Til: Frederik Waage <frederik@lesdeux.com> Emne: Re: Interview

Hi Frederik,

would you please forward me a skype contact?

Thank you. Kind regards, Aleksandrina

Appendix 4 User Research Questions Where would you usually shop for second hand?

What motivates you?

Do you share your experiences with friends, family?

Do you recommend, what do you highlight / clothes, low prices, style of the shop, staff, atmosphere, some memories

Does it bring memories to purchase second-hand compared to new?

Do you do it out of style, necessity, to try out something new

Do you like the idea that you don't always find an exact style but something unexpected? Could you consider this a drive, or do you find it challenging for second-hand stores that they sell random clothing?

Are you interested in the story, who had it, for how long, do you try to look for that on the clothing itself, how worn it looks, the smell even, the tough of the materials etc.

Do you consider the secondhand culture an integral part of the danish culture to some extend? The slow and minimalistic lifestyle are driving this interest in second/hand and vintage? Or do you experience the same interest at home?

Do you buy SH out of environmental concern, do you ever think about the environment when purchasing second hand?

Do you compare? Old vs new the impact, the quality etc ...

Could you please describe your shopping experience when you buy old? And new?

Do you have any concerns when buying second hand?

/ not finding what you want

/ you may receive a faulty product

/ trust in seller

/ compromised condition

/ genuinely of the brand, the value is compromised once the product is used. Do you treat these different in your wordshee?

these different in your wardrobe?

/do you expect to pay less for SH than new? Or do you think about it at all?

Do you buy new, SH because of the people value? Humanizing the experience What is different emotionally in buying new vs. SH

How would you react if you receive a SH gift?

Would you give a SH gift?

Can you remember the thoughts you had on your last purchase?

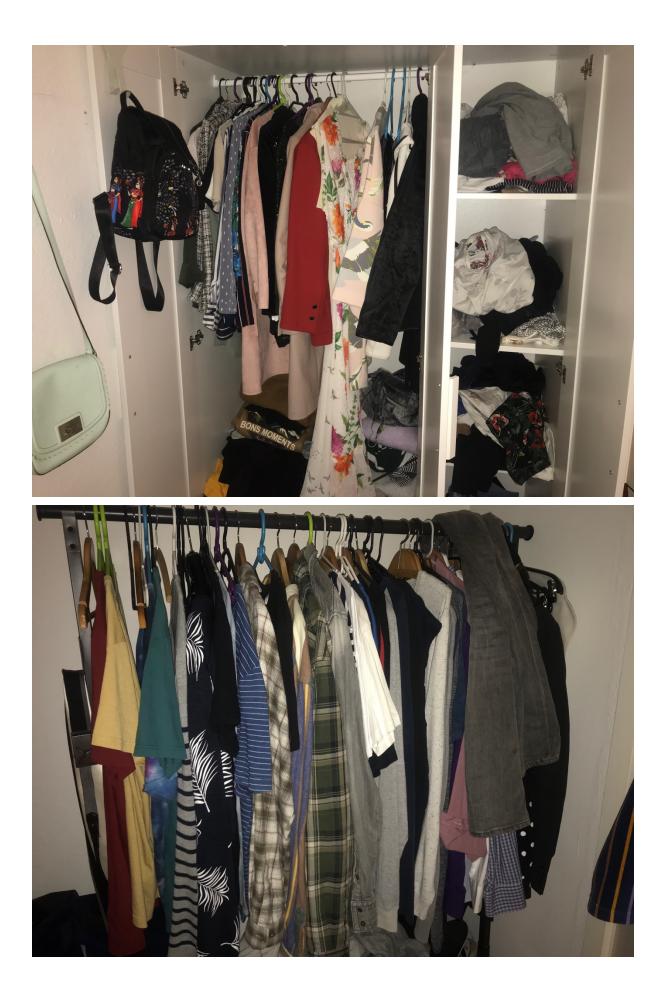
Being a student, was it in itself a motivation to buy cheaper, more SH than new?

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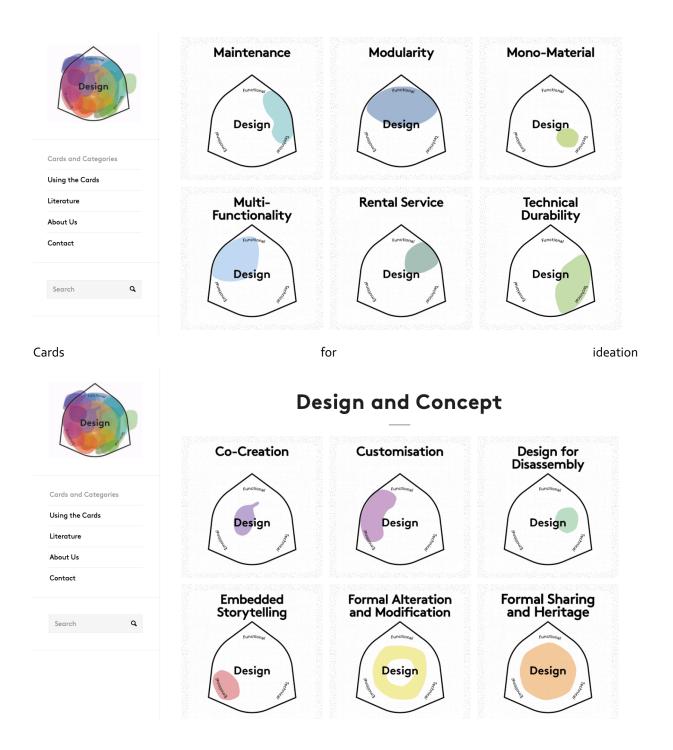


Image: Sustainable items purchased by Niklas (User 2 interview)

Wardrobes below



## Appendix 5 Sustainable Cards



Appendix 6. Feedback

Helena Valentina Ysaraba Pedersen	Ø	8 December 2020 at 13.50	HP
SV: feedback			
To: Aleksandrina Ivanova Sabeva			

Hi Aleksandrina,

Thank you I am well, I hope you are as well 😊

The idea seems nice, and good thing you send me the sketch for better understanding.

If we as a company should implement it, and be a part of it, would it be the key to understand how much, and exactly what, we will get out of it. I like the idea of it. But the main questions will be, if we could get anything out of it, and will it actually be used once needed.. and what is it exactly, that the end user will get out of it, by using their time on it? If that makes sense.

The idea either way seems really cool!

## Helena Valentina Ysaraba Pedersen

CSR & Environment responsible

D: +45 22 12 08 22 hp@knowledgecottonapparel.com

HQ: Orebygårdvej 11, DK – 7400 Herning

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Appendix 7 ReDesign Canvas

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Appendix 8: Surveys

Links

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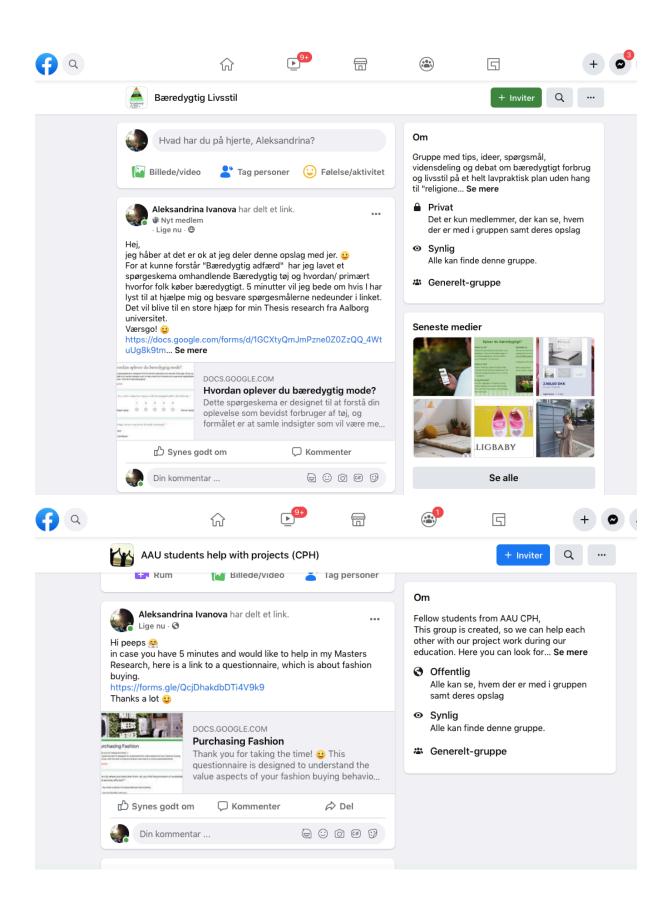
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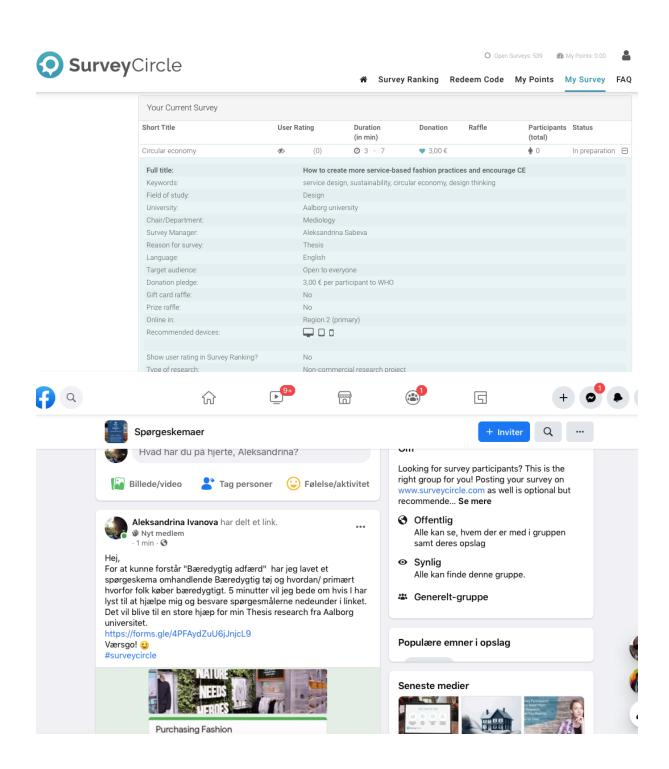
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Danish

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Publications of surveys online:





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# Working environment

