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Expanding the Circular Life of a Garment

Proposing a Circular Concept for the Clothing Company EmmaMalena

Master's thesis in Industrial Design Engineering

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CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden 2022
www.chalmers.se

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Master of Science Thesis IMSX30
Expanding the Circular Life of a Garment
Master of Science Thesis in the Master Degree Program, Industrial Design Engineering
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Cover image: blogg.emmamalena.com
Print: Chalmers digital printing, 2023
Cooperation: Emma Malena, Use2Use

Expanding the Circular Life of a Garment

Proposing a Circular Branding Concept for the Clothing Company

EmmaMalena

Elis Minborg

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Chalmers University of Technology

Summary

Textiles are an environmental problem causing water use, pollution, greenhouse emissions and great landfills. One way to reduce global textile impact is through increased circularity, meaning that the textile is used as much as possible through methods such as passing it on to several people or re-making the material into new items before disposal.

Although many people are willing to participate in a circular economy by donating used clothes, these garments can still face disposal instead of being re-used. Improvements in production standards, infrastructure, and user motivation is required for a successful re-utilization of the products.

This thesis was done in cooperation with EmmaMalena, a clothing company from Kärningön Sweden, and representatives from the Chalmers Department of Industrial & Material Science. The purpose was to find a solution where the clothing company can increase circularity of their garments in a way that is attractive for their customers and helps strengthen their brand.

Field studies, data collection from existing personas, and in-depth interviews were conducted to explore existing user needs and requirements. A new concept was created by ideation and workshops together with EmmaMalena. The design Toolkit, Use2Use, supported and structured the development process. Furthermore, the motivational design tool Octalysis was utilized to increase the likelihood of users successfully performing the required actions.

The final concept consisted of a pilot project designed to collect disused EmmaMalena clothing and resell them in-store. It further included a branding concept called "Tångcirkeln" to be implemented in-store, on garments, and online to symbolize and highlight EmmaMalena's sustainability efforts. Moreover, Tångcirkeln is also a name of a loyalty program where people provide action in a group for a higher cause. One specific common-cause solution is to participate in replanting eelgrass. Eelgrass acts as a carbon sink, and keeps the local shores clear and diverse, making participation in replanting initiatives a suitable cause for all EmmaMalenas customer segments. This report's design process has further yielded a great number of concepts that can be implemented in Tångcirkeln in a long-term perspective.

Circular, garment, textiles, clothing, environment, Use2Use, Octalysis, EmmaMalena, Chalmers, Tångcirkeln

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1. Introduction

1.1 Background

Textiles, in the form of garments and household items, are responsible for water use and pollution, contribute to the greenhouse effect, and cause great landfills. 10% of global greenhouse emissions are caused by clothing and footwear (European Parliament, 2020).

Although many people are willing to participate in a circular economy by donating their used clothes, these garments can still face problematic disposal before getting a second life. For example, in 2021, it was reported that every day 15 million used garments from North America and Europe enter the capital of Ghana to be bought in bulk and resold. Due to the poor quality, approximately 40% were deemed unsellable. These garments have, in turn, created cliffs of textile waste, some as high as 20 meters tall. As they cannot be properly compacted, methane bubbles are created among the polymer textiles, making the possibility of a toxic fire a significant threat to the population (Besser, 2021). This example demonstrates that although there is a customer willingness to participate in the circular economy, there must be improvements for a successful re-utilization of the products. These improvements concern the production standards, infrastructure, and user motivation.

By 2050, the EU aims to have a fully circular economy (European Parliament, 2020). Companies will benefit from being prepared for this change and provide products and services that can exist within such a financial environment early. This may open new ways for companies to place themselves in a favorable position in regard to their customers and monetize their products in several steps of their entire lifetime. An EU strategy for textiles is included in the European Commission's circular economy action plan from March 2020.

EmmaMalena is a clothing company from Kärtingön with the idea to create timeless garments that last a long time (EmmaMalena, 2022). The initiative for collaboration between EmmaMalena and Chalmers comes from Johan Heinerud, Senior Lecturer in Visualization in the program Technical Design at Chalmers. Three collaborative parties were formed upon the start of the project: representatives for EmmaMalena, representatives from the Chalmers Department of Industrial & Material Science, and the student executing the project.

1.2 Aim

EmmaMalena wishes to strengthen its brand image and practices as more sustainable through implementing features compatible with a circular economy. This, in turn, should make their brand more widespread to attract and retain a higher number of customers. The overarching purpose of this project is to extend the lifespan of EmmaMalena products through increasing user behavior that stimulates a circular and sustainable way of obtaining, using, and re-assigning areas of use or ownership of the product. This will successively contribute to sustainable development.

Another aim is to make sure the circular consumption is performed in an ethical way, where people of low socioeconomic status are not a required target group for the life cycle of the garment to continue.

On a large scale, this Master Thesis aims to address the question: How can EmmaMalena be a spearhead brand in the change following the EU's goal of full circularity by 2050?

1.3 Objectives

The result of the thesis shall be a definition of more sustainable product life for EmmaMalena garments through an actionable concept for increased circularity that is innovative and unique. This will be accomplished by establishing a design proposal that will include new ways their garments can be redistributed, produced, or re-worked (or a combination thereof) to increase its life cycle. This can be divided into the following objectives:

- The identification of a target user that will dispose of (or choose to repurpose) the item in a circular way
- The identification of a target user that will receive the pre-used item (in its original or a re-worked shape)
- Selection and identification of appropriate product/s from EmmaMalena's product range to adapt or contextualize into a circular system.
- Synergizing the drives and needs of the target user/s into an actionable concept plan that EmmaMalena can materialize into a product or service.

1.4 Demarcations

Due to the scope of this Master Thesis, the concept went through two creation and evaluation phases. It is up to EmmaMalena to choose whether to launch the concept or further develop it.

Although changes in EmmaMalena's production could constitute part of a final concept, the main focus remained on the users and their ability and motivations to pursue a circular path over simply enabling the opportunity through improved manufacturing.

As this thesis focuses on the impact of textiles, non-textile products such as jewelry were excluded from the ideation phase. However, non-textile products were still considered as means to support increased circulation of clothes.

1.5 Research Questions

In order to fulfill the objective, this Master Thesis aimed to address a number of questions:

- How can EmmaMalena be a brand that adapts ahead of the curve in the change following the EU's goal of full circularity by 2050?
- Where do EmmaMalena garments go once their initial purpose is served today?
- How can more garments find a new owner once they no longer serve the original owners?
- How can the steps required to maintain clothing be successfully encouraged?
- Once an EmmaMalena garment is beyond repair, how can the material successfully be implemented in a succeeding life cycle as something else?

1.6 Process

The design process contained five steps, as described in more detail below.

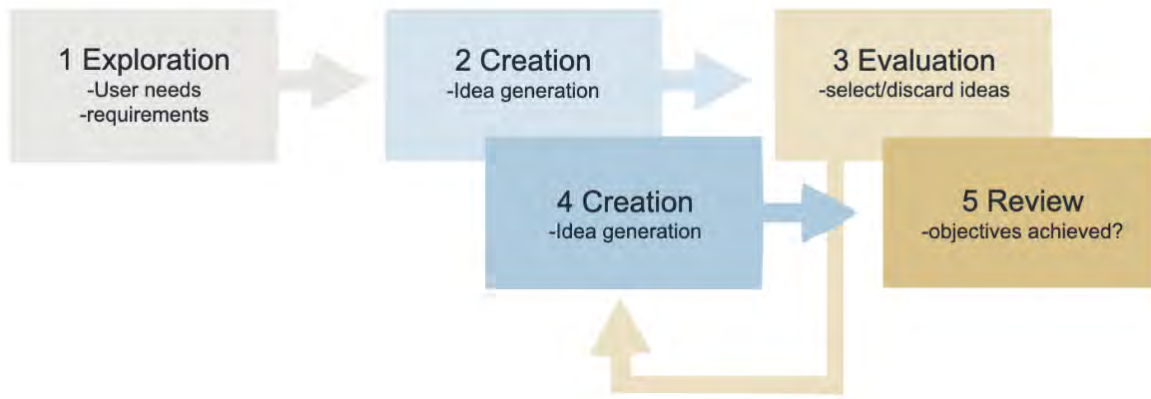


Fig 1.1: Five steps design model model

1.6.1 Exploration

Three main methods were used to identify user needs and requirements:

- Use2Use: a design toolkit consisting of five packs which stimulates design for circular use from a user point of view (Use2Use, 2020).
- Octalysis: an analysis method to ideate and value the impact of motivational drives. This can be used to develop systems that incentivize and encourage desired behavior among a user group (Chou, Y. 2015).
- A user requirement study drawn from situational analysis, interviews, surveys and literature studies.

To initiate the exploration stage, key relevant insights and models from the *Use2Use thinking pack* were explored and discussed in a group with EmmaMalena representatives to agree on what aspects of the user journey have the most room for improvement in regards to circularity.

One issue addressed during the exploration phase was “Where do EmmaMalena garments go once their initial purpose is served today?” A survey was conducted in order to resolve this, enabling anyone participating in the design process to get an overview of the current methods of re-assigning or disposing garments.

Utilizing the *Octalysis* system, eight different categories of motivations (meaning, accomplishment, creativity, ownership, social influence, scarcity, unpredictability, and avoidance) were mapped in relation to EmmaMalena’s existing personas.

With the help of the *Use2Use circular journeys exploration pack*, necessary activities and decisions during three use phases (obtainment, use, and clearance) for consumers of EmmaMalena products were established. The existing motivations prevalent for each persona to take these specific actions were mapped according to the Octalysis.

Users representing EmmaMalenas customer personas were surveyed in regards to their obtainment, use and clearance of garments, as well as everyday life habits. Further, A potential user group was compiled and interviewed in regards to their behavior and

motivations when taking key decisions during their use cycle of a garment. The survey and interview served to more accurately design systems adapted specifically for existing and potential EmmaMalena customers to act circularly.

1.6.2 Creation 1

In this phase, a number of ideas were generated through brainstorming, visualizing, and discussion of potential ideas, employing the needs and requirements established in the previous step.

The solutions materialized during this phase were expected to provide answers to the following questions:

1. How can more garments find a new owner once it no longer serves the original owner? Clothes can be outgrown, and the original owner can change their taste or want to change. Addressing this question yields solutions that allow great mileage of EmmaMalena products without putting too much demand on the user (in means of activities such as maintaining or repurposing the item); and exposes low-hanging fruits which are easy to implement while still delivering results.
2. How can the steps required to maintain and mend clothing be successfully encouraged? Encouraging proper care generates solutions that are largely in line with EmmaMalena's brand identity of long-lasting, quality clothing. This, in turn, gives nuance to the issue of how EmmaMalena can position itself as a brand in the emerging circular market.
3. Once an EmmaMalena garment is beyond repair, how can the material successfully be implemented in a succeeding life cycle as something else? Circular sourcing of materials will be necessary for the EU's goal of full circularity. Creating solutions to answer this will unlock the ability for new EmmaMalena products to re-enter the market in a completely circular manner early, giving the company an edge.

Use2Use and Octalysis remained as the core design foundation. Drawing on the *Use2Use circular designs ideation pack*, a great quantity and range of ideas to stimulate the previously established actions and decisions were generated. Octalysis ensured that the solutions generated were rooted in user motivation as well as highlighted what type of motivational solutions would yield the best result in different phases.

The Use2Use Multiple Use-Cycle Path was applied to help participants in the design process to empathize with users. This helped the participants to address specific needs and concerns in relation to circular use design challenges.

1.6.3 Evaluation

After conceptualizing ideas, they were structured and selected in accordance with their relevance, expected impact and value for EmmaMalena. For this purpose, the *Use2Use Circular Designs Evaluation Pack* was used, providing a template to evaluate solutions in regard to three stakeholders: the user, the organization (EmmaMalena), and the benefit of the environment.

Insights from the user study aided in evaluating the user as a stakeholder. The benefits for EmmaMalena were established through discussion with company representatives.

1.6.4 Creation 2

In the second creation phase the concept plan entered its second iteration loop. The chosen ideas were explored further. Weaknesses or issues that have arisen during the evaluation phase were targeted, and solutions proposed. Idea compatibility was explored, and ways to combine and enhance them investigated.

1.6.5 Review

The concept was evaluated in regard to whether project objectives had been achieved. The aim of the design case was addressed and compared to the estimated impact of the concept plan. Necessary steps to implement the solution or essential points for EmmaMalena to consider if they desire to implement a third iteration internally in the company were detailed.

2. Theory

2.1 Circular Economy

Since the industrial revolution, industrialized cultures have relied on a linear economy as the primary consumption model. (European Parliament, 2022) In a linear economy, raw materials are sourced, extracted, processed, consumed, and discarded in what is sometimes referred to as a take-make-waste cycle (EllenMacArthur Foundation, 2021) or cradle to grave (Stiftelsen Svensk Industridesign, 2018) model (fig 2.1).

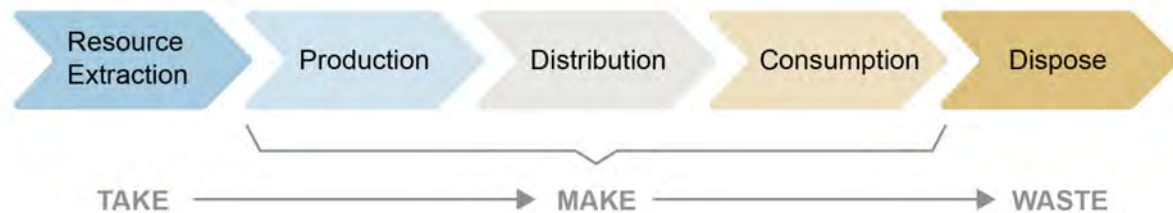


Fig 2.1: Linear “cradle to grave” model, adapted from Wautelet, 2018

A circular economy differs from a linear one. The circular economy describes a system of production, consumption, and uses where materials and products are utilized with minimal waste. A circular economy model closes the two ends through sourcing premade materials or entire modular segments upon initial production, maximizes utility during its life cycle, and products are meaningfully repurposed if possible before the material is recycled to be used in the life cycle of new products.

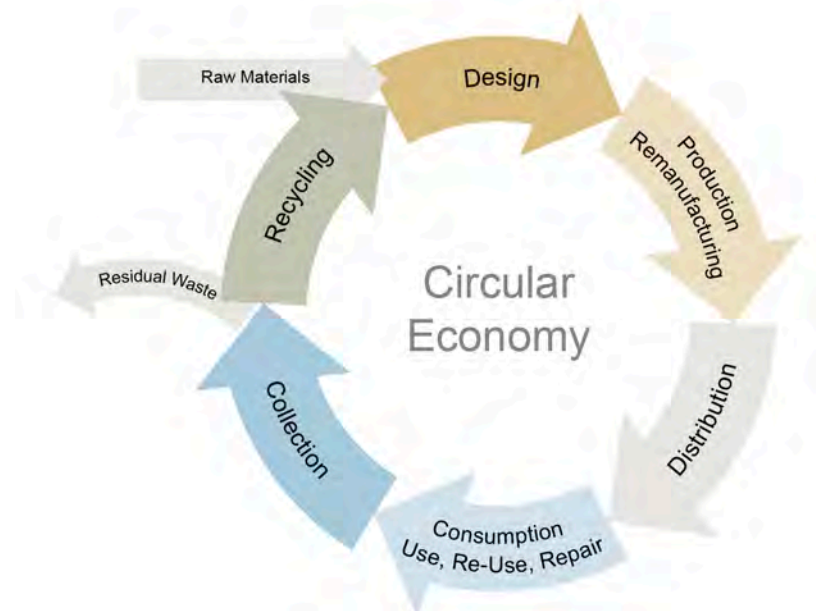


Fig 2.2: Model of Circular Economy, Adapted from European Training Centre in Paris, 2017

To expatiate on the circular economy, it can be described as having one technical and one biological cycle. (Ellen MacArthur Foundation, 2020) This is illustrated in fig 2.3. The technical cycle concerns finite and manmade materials such as equipment, metals, and

polymers. Maintaining and reusing products are the most effective way to preserve their value. For example, a microwave oven is more valuable as an oven than as remanufactured components, and components are more valuable than broken-down material. The biological cycle describes renewables such as food, wood, and cotton. Some biological materials, such as food, cannot be reused. Instead, it can be returned to the soil, where it provides nutrients.

Moreover, there are materials that can be circulated through both circles. A good example is cotton clothing, which has the potential to be circled several times. It can be handed over to someone else, repaired, transformed into a new garment, and finally end up as cotton in the biological circle. Materials with blends, such as polycotton (the amalgamation of polyester and cotton), combine them and in turn stunt the possibility of the biological component decomposing. (Ellen MacArthur Foundation, 2020).

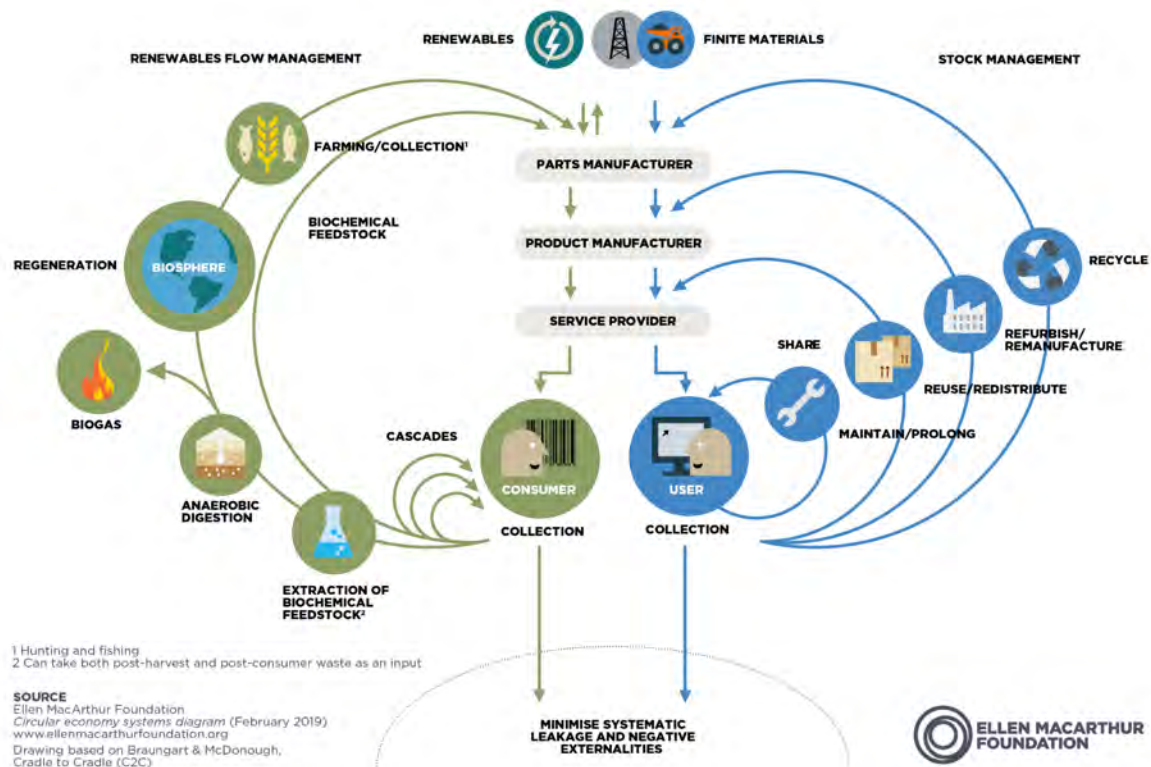


Fig 2.3: Biological and technical cycles of circularity, Ellen MacArthur Foundation, 2020

The average European consumes about 14 tonnes of raw material and produces about 5 tonnes of waste annually. (European Parliament, 2021). Much of this waste could be reused, repurposed, or recycled. In their 2020 European Green Deal, the European Commission presented a circular economy action plan with a specific focus on seven particularly resource-intensive sectors; Textiles, Electronics, Food/water/nutrients, Packaging, Batteries/Vehicles, Construction/Buildings, and Waste Management and Shipment.

2.2 Circular Economy of Textiles

The textile industry entails a system of millions of producers and billions of consumers on a global scale. (Manshoven et al., 2019) Like most other industries, it adheres to the norms of the linear economy.

The system of production and consumption of textiles is highly globalized, with millions of producers and billions of consumers spread across the world in highly linear value chains

involving raw material extraction, production, transportation, consumption, and after-use disposal.

Recycled and reused textile fibers can be divided into pre-or post- consumer materials. Pre-consumer material includes virgin fibers from any manufacturing stage that have not been used in a product. (International Organization for Standardization [ISO], 2016) This includes virgin materials used for their intended purpose, but other examples of this would be deadstock fabric or waste trimmings from cutting out the patterns of a garment. Post-consumer fibers refer to utilizing fibers that have been recycled. For example, the cotton fibers of a worn shirt can be broken down and used in new material. If scrap material from the distribution chain is processed the same way, it is considered post-consumer even if it has not reached the end-user. (ISO, 2016)

2.3 Usage of Garments

Another important aspect of the life of a garment is how and if it is used during the period when they are owned. Olov Hoverfält, principal consultant Strategy and Business Design, concludes that many people have very little insight into how their garments are used. (Dönsberg. 2022). In the report “Why I’ve tracked every single piece of clothing I’ve worn for three years,” he describes the insights gained from keeping a daily log of the clothing used between January 2018 and December 2020, calculating the cost per use of his garments. (Hoverfält, 2021)

He concluded that some items were used more than he thought, and others were used less.

Hoverfält has, in particular, analyzed cost per wear for items which are worn to obsolescence. Using his shirts as an example, he noted that the durability of his expensive shirts was not higher than his cheaper ones, yielding a higher cost per wear for premium shirts. Shoes, on the other hand, were concluded to yield a lower cost per wear when investing in a premium pair over cheaper ones. (fig 2.4)

His main takeaway from the study is that people believe they use many of their clothes more than they do and that the ideal way to cultivate one's wardrobe in regards to the climate and cost per use alike would be to have a wardrobe with only favorite garments. (Dönsberg. 2022).

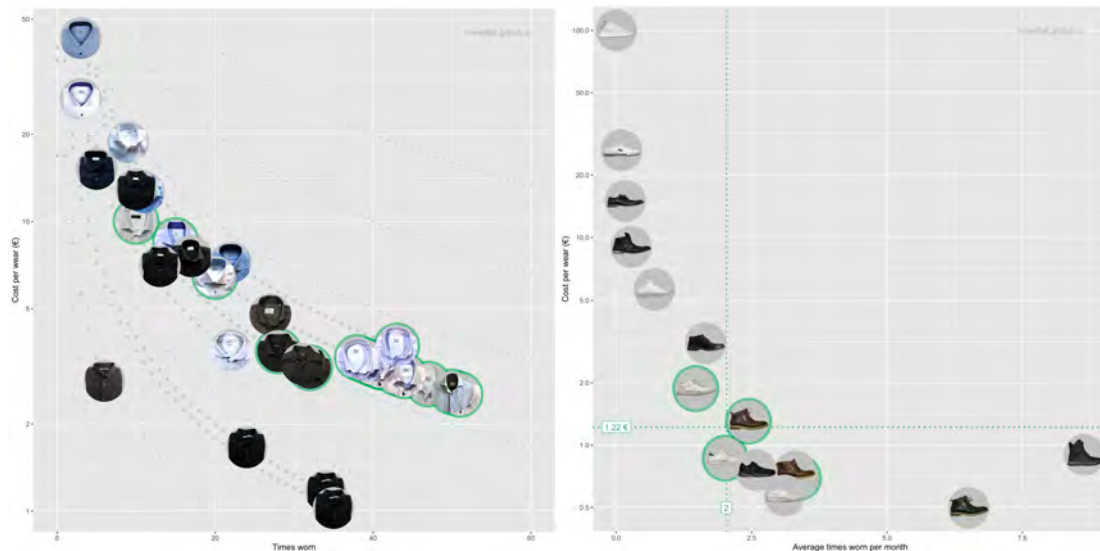


Fig 2.4: Chart comparing cost per wear and utility of shirt and socks. Items marked in green are worn to obsolescence, exposing their cost-utility at the end of their life cycle. (Hoverfält, 2021)

2.4 Fashion Industry

Production of clothes has rapidly increased in the 21st century. Between 2000 and 2014, the production of clothes doubled. People bought 60% more garments per capita at the end of the period while keeping them half as long. (Remy et al., 2016)

Fashion production stands for 10% of humanity's carbon emission, thus comes with a huge environmental cost. (European Parliament, 2020). If the means of production and patterns of consumption develop according to contemporary trends, the industry is expected to constitute 26% of carbon emissions by 2050. (Geneva Environment Network, 2021)

The fashion industry has gone through a major change during the Covid-19 pandemic. McKinsey & Company reports a 20% decline in revenue between 2019-2020. (Amed et al., 2021) The authors conclude that as the industry recovers, fashion companies greatly benefit from implementing sustainability as part of their business. Sustainability and ethics are increasingly impacting the decisions of consumers of fashion, including transparency in material sourcing, production, and fair treatment of workers.

2.4 Tool to support Circular Design - Use2Use

Selvefors et al. (2019) argues that there has been a lack of focus on the users' role when designing for circularity. To counteract this, they have developed Use2Use, a design system consisting of five tools called "packs" to empower users to circulate products between each other.

2.4.1 Use2Use Tool Packs

The five tools of Use2Use are the Thinking Activation Pack, Circular Journey Activation Pack, Multiple Use-Cycles Exploration Pack, Circular Designs Ideation Pack, and Circular Designs Evaluation Pack. The five tools can be used individually or together when designing or improving a product or service. They contain design guidelines, such as models, and

interactive units, such as user journey charting pieces. The tools and models used in this thesis are described below.

Use2Use promotes a system where tight product exchange loops are utilized over solutions that require effortful resource recovery. It further highlights the opportunities of extending use by the current user through encouraging repair, alterations, and new areas of use for an item that the user no longer employs for its original purpose.

For many items and services, the provider (such as a company selling a product) has little control over how the user will apply, maintain and clear the product. Rooted in the users' needs and consumption processes, Use2Use highlights how design can empower, encourage, and enable the user to be aware of and increasingly make the most sustainable choice through design. It also addresses challenges that might obstruct the possibility for the item to successfully be transferred to a new user. For example, products may depreciate with time or use, items could be kept in storage due to emotional value, or the original users face anxiety associated with the exchange process. This may result in the product getting stuck in *disuse limbo*, a state where products are kept in storage instead of fulfilling someone's need.

2.4.2 Use Cycle

A use cycle is described as consisting of three core phases; obtainment, use, and clearance (fig 2.5). Clearance, which in this model connects back to “use,” is a key diversion from a linear consumption model, which assumes disposal upon ceased perceived utility. In contrast, clearance entails ridding of products out of the perspective of a new user gaining access or ownership of the previously used product, in full or relevant parts of it. However, obtainment and use are also greatly impacted by the circular structure, placing particular emphasis on alternative ways of obtaining products over purchasing a new item made from raw material, as well as proper care and increased utilization during the use phase. To successfully close the



Fig 2.5: Use Cycle, Use2Use

loop, the involved users may have to take actions that are undesirable, confusing, or cumbersome in any of the three stages. Through awareness in the design process, these pain points can be reduced or, in a best-case scenario, be turned into something motivating.

2.4.3 Consumption Cycle Model

The circular model exemplified in fig. 2.5 can be expanded in further detail into the consumption cycle model, detailed in fig 2.6. This breaks down the multiple consumption paths, which extend beyond purchasing, owning, and selling. It is divided into two main categories; owned products (represented in dark green in figure 2.6) and accessed products (represented in light green in figure 2.6). Owned products can be received, traded, or purchased. It can be resigned within the same category through giving, trading, selling, or bringing back. Accessed products are gained through co-use, borrowing, renting, subscribing, or leasing. At the end of use, the co-use or contract can be ended, the product returned, or the user can offer access to someone else. A product does not have to stay within its category throughout its lifetime. For example, a user may purchase a sweater second-hand (buying), use and manage it (owned products), and then decide to lend it out (offering access).



Fig 2.6: Consumption Cycle Model, Use2Use

2.4.4 Multiple Use-Cycles Model

Another key model represented in the Use2Use design system is the multiple use-cycles model (fig 2.7). Upon acquisition of a new product, the first “gaining” phase of a use cycle, as described in fig 2.7, is initiated. In order to maximize the utility of a given product, one could either design for increasing and improving the use during each cycle, increase the number of cycles, or a combination of both.

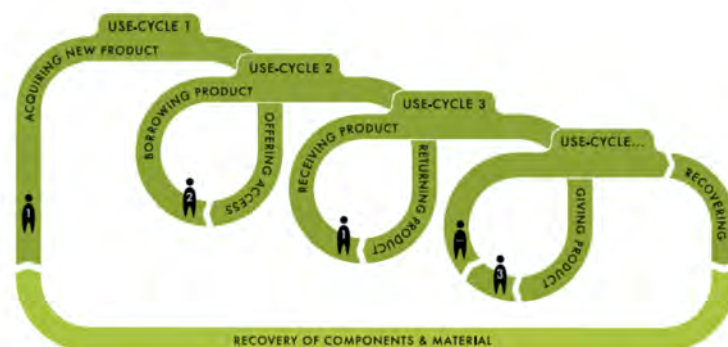


Fig 2.7: Multiple Use-Cycles Model

2.4.5 Wide and Tight Loops

Circularity can further concern wide or tight loops, as described in fig 2.8. The tighter the loop, the fewer resources are required for transitioning a given product into the following use cycle. For example, borrowing an item from a neighbor requires no finite resources and would be considered a tight loop. Selling the items to someone who disassembles them and provides the parts intact would constitute a loss of the resources put in assembly and, in some cases, reduce the longevity of the components compared to if used in their original state (Ellen MacArthur Foundation, 2020), thus it is considered a wider loop. Completely recycling the material and replacing virgin material for a new product is still considered circular, but as it is one of the widest loops possible in a circular system, it may not be the most efficient or sustainable choice.

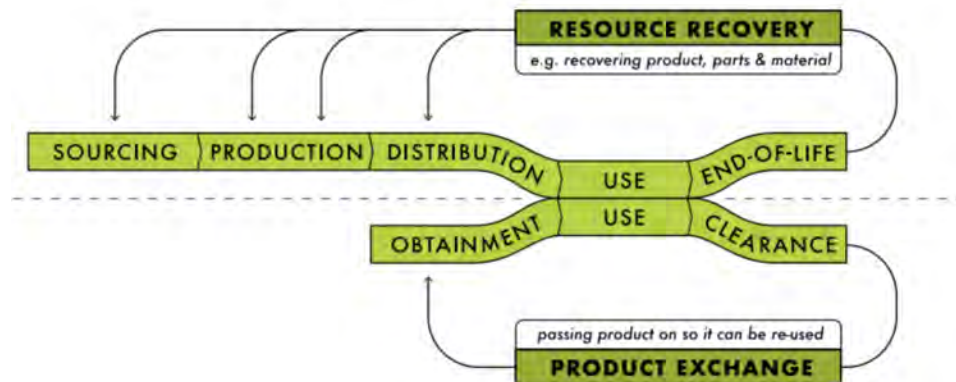


Fig 2.8: Degrees of wide and tight loops

2.4.6 Use2Use Thinking Activation Pack

The Thinking Activation Pack is a set of 19 cards that intends to establish a knowledge foundation of circularity from a user perspective, presenting terminology as well as visual models describing the key challenges and opportunities when designing for increased circularity. This enables a clear overview of the different paths that designers and decision-makers can take in order to increase the sustainability of their products, which in turn makes it easier to adapt it to their market and business model. The cards are divided into the subcategories “background,” “the role of users,” “circular consumption processes,” and “design opportunities.”

2.4.7 Use2Use Circular Journeys Exploration Pack

The Circular Journeys Exploration Pack is a set of journey charting pieces that enables a clear overview of each step a given user needs to take in order for a product to successfully provide value for users in the circular consumption model. It allows for charting user activities, decisions, and experiences in order to identify user needs, challenges, and ideas to best design for increased circularity. The pieces can be arranged to represent a consumption cycle in full or key parts of it.

2.4.8 Use2Use Circular Designs Evaluation Pack

The Circular Designs Evaluation pack is an assessment tool to evaluate up to 3 different concepts in regard to three categories: user utility, business model compatibility, and positive environmental impact. Each category explores the potential and implementation needs for each idea. These are rated and/or elaborated on to finally be charted on an XY-axis to

visualize effort vs. utility. By using this tool, a cohesive foundation for making decisions on which idea or ideas to pursue is established.

2.5 Tool to support Motivational Design - Octalysis

Most people have well-established habits and behaviors, including ways of consuming, maintaining, and disposing of products, which can be challenging to change (DiSalvo, 2017). In order to design solutions that accurately increase the likelihood of the user successfully performing the activities and decisions required in the three phases (obtainment, use, and clearance), the Octalysis method is utilized. Octalysis is a system that draws from the game industry, which is rapidly developing methods to encourage and stimulate users to put great effort and time into behaviors that may not be perceived as having an obvious purpose in real life. (Chou, 2015). At the time of writing this report, non-game applications such as Facebook, TikTok, and LinkedIn are increasingly adopting methods from games in order to retain user attention and engagement (Hutchinson, 2020; Williams, 2019), but the same techniques can also be used in completely non-digital and non-gamelike contexts (Chou, 2015).

The Octalysis examines eight different categories of motivational core drives which can be designed around in order to get users to do desired actions (Fig 2.9.). Desired actions can be viewed as the activities and decisions established as necessary in the Use2Use design toolkit. These motivational drives can be applied during different phases of the user journey, thus making it an appropriate tool to ideate around the Use2Use phases of obtainment, use, and clearance.

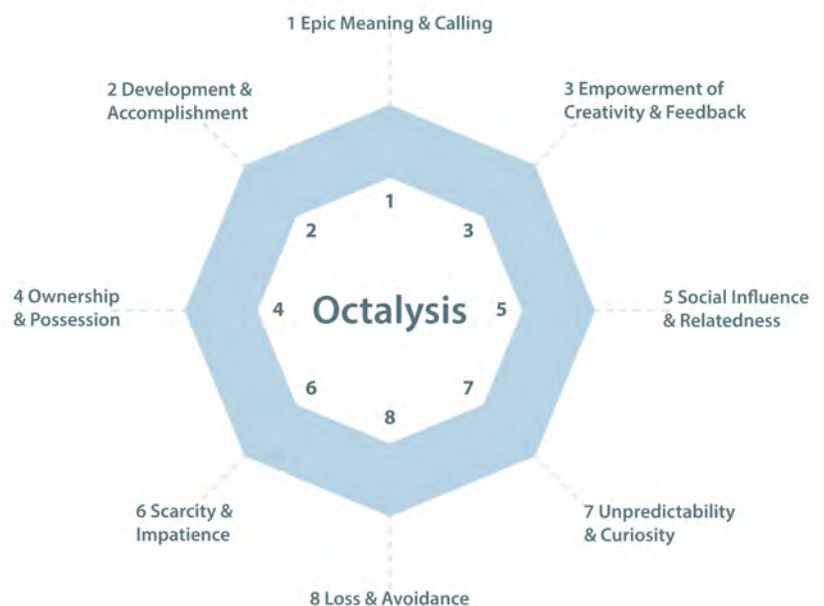


Fig 2.9: Octalysis eight motivational core drives.

2.5.1 The Core Drives

The eight Octalysis core drives concern the following motivational categories (Chou, 2015) :

2.5.1.1 Epic Meaning and Calling

This drive describes how the user feels part of something greater than themselves, for example, through an environmental, political, or sports organization. It could also be achieved by placing the user in a storytelling setting (common in contexts such as games and education). This is a powerful drive that motivates people to commit to effortful actions for little compensation, such as the users maintaining credible sourcing on Wikipedia. It is also what drives people to carry out challenging and sometimes dangerous actions, such as volunteering to provide humanitarian needs in war zones.

2.5.1.2 Development and Accomplishment

This drive concerns the user's urge to make progress, overcome challenges and develop new skills. It can be activated using techniques such as points, badges, and leaderboards, but it is essential that the user themselves experience that they have accomplished something to qualify for them, or they will not be perceived as meaningful or motivating.

2.5.1.3 Empowerment of Creativity and Feedback

Empowerment of Creativity and Feedback covers the action loop of trying things out, testing different combinations, and seeing the result. This is an empowering motivational drive when the user receives feedback that they can respond to. Common creative activities are painting and playing music, but it may also concern everyday decisions such as adding spices to a meal or solving advanced areas such as technical problems.

2.5.1.4 Ownership and Possession

When a user feels like they own something, they have an innate drive to improve and increase their possessions. This is the key drive behind accumulating wealth and material possessions in a user's day-to-day life, but it can also manifest in more abstract forms. Users often feel ownership over their sense of identity, which engages them in activities such as cultivating and documenting their life on social media. A user also feels more ownership over digital accounts, such as social media or games, the more time they spend customizing them. Collection-oriented hobbies, such as stamps or trading cards, are largely engaged with due to this drive.

2.5.1.5 Social Influence and Relatedness

The social influence drive describes the human drive for community, companionship, and competition. Many activities, such as playing family board games, are done in order to spend more time socializing. Seeing someone else achieve desirable outcomes can be very motivating to a user, especially if there is a real or perceived social connection between both parties. The relatedness aspect of this drive concerns things that remind us of ourselves, our community, childhood, or other elements of nostalgia. This encourages people to choose food, clothing, activities, and so forth that remind them of the group of people they most strongly resonate with.

2.5.1.6 Scarcity and Impatience

The drive of scarcity and impatience describes the user's desire to have something that is rare or hard to acquire. Examples of this are limited-time offers or memberships open to a narrowly defined group of people. This can either motivate people to do the actions needed to qualify, or it can make them do the desired actions because they already qualify and feel special. This drive is often utilized in mobile games by forcing the user to take a few hours' breaks before continuing. It is also prevalent in supermarket deals, where a maximum amount of a discounted item can be purchased per household, making the user feel like they have to take the opportunity and get as many as they are allowed, rather than reflecting on how much they need.

2.5.1.7 Unpredictability and Curiosity

This is the drive dealing with excitement. When not knowing what will happen or emerge next, the user's brain is constantly activated. It is responsible for the excitement a user can feel when watching a movie, and it is also why many people get upset if they are told about the ending in advance, as the anticipation ceases. Many people are engaged with this core drive frequently, interacting with their social media feed and repeatedly getting novel content

as it refreshes. This is also the same drive that makes people addicted to gambling behaviors, as being in the suspension of unpredictability is rewarding even as the outcome ends at a loss.

2.5.1.8 Loss and Avoidance

Whenever a user does something to avoid a negative consequence, it falls under the loss and avoidance drive. This could be doing something to avoid losing the results of previous work, but also it can make it difficult to quit certain behaviors, which would force the user to acknowledge that previous effort has been in vain. Whenever applied in regards to something the user has built a connection to, it is a very powerful drive.

2.5.2 Extrinsic and Intrinsic Core Drives

The Octalysis can be divided between the left and right sides, which correspond with extrinsic and intrinsic motivation, respectively. (Fig 2.10.)

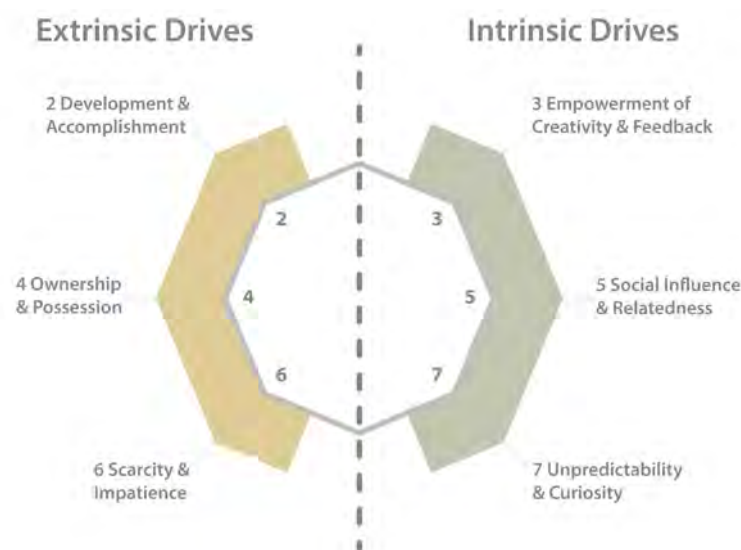


Fig 2.10: Extrinsic and Intrinsic motivation

Extrinsic motivators concern the user's desire to gain something, such as reaching a milestone, gaining possessions, or a sense of unattainability. These are the core drives 2 (Development and Accomplishment), 4 (Ownership and Possession), and 6 (Scarcity and Impatience)

Intrinsic motivators cover activities that are rewarding in themselves with no ultimate goal. These are core drives 3 (Empowerment of Creativity and Feedback), 5 (Social Influence and Relatedness), and 7 (Unpredictability and Curiosity).

Distinguishing between these drives when designing motivators is important for several reasons. Different categories of users are motivated by different things, so it is essential to know whether extrinsic or intrinsic motivators are appropriate in a given situation. Overall, extrinsic solutions are easy to design for, as offering someone a substantial reward makes it tempting for the user to perform the desired action. However, it relies on a constant stream of these externally rewarding experiences, and once it is no longer provided, the motivation plummets. Intrinsic motivators have a higher degree of complexity in design and implementation, but once it is established, the user finds themselves in a loop of internal rewards which needs less costly or effortful maintenance.

2.5.3 White Hat and Black Hat Core Drives

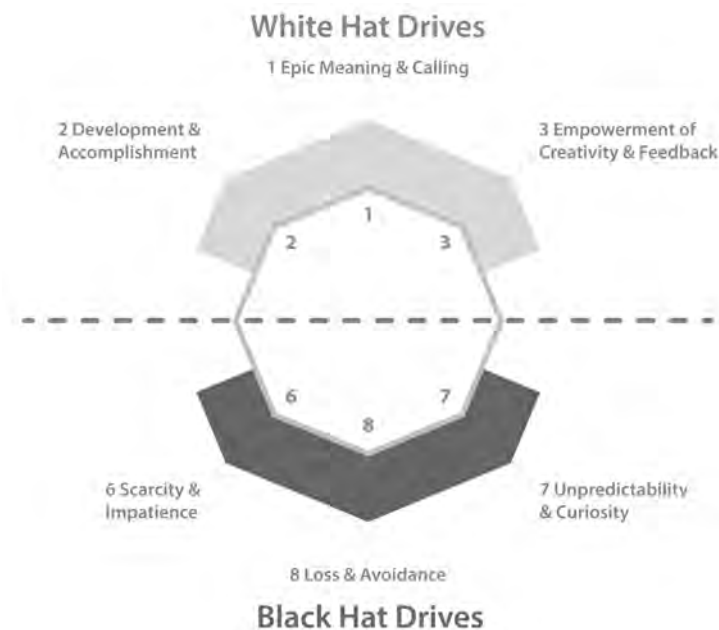


Fig 2.11: White Hat and Black Hat Motivation

The motivational core drives can also be viewed through the lens of white hat (positive emotion) motivation and black hat (negative emotion) motivation. (Fig 2.11)

White hat drives (1. Epic Meaning and Calling, 2. Development and Accomplishment, 3. Empowerment of Creativity and Feedback) make the user feel successful, creative, and meaningful, which is largely a very uplifting experience that has the user enjoy interacting with a service. However, these drives have a low degree of instilling urgency in themselves, and it can be challenging to have a user perform the desired actions according to the preferred behavioral journey.

Using black hat motivators in a situation or service doesn't mean it makes the user experience bad or inefficient. However, it has to be utilized strategically and to an appropriate degree. The three black hat core drives (6 Scarcity and Impatience, 7 Unpredictability and Curiosity, and 8 Loss and Avoidance) are stressors. The element of stress can push the user to perform an action they would otherwise procrastinate or deprioritize. If used to a high degree, it puts the user in a state of anxiety, and if overutilized, it burns the user out, which can end in drop-out.

2.5.5 User Motivation Profiles

When designing for a target group, their individual motivators are important to study according to available behavioral data, performing user studies, and doing interviews. Different groups of people gravitate to different behavior, and knowing the motivations behind the users of an existing service will help categorize appropriate core drives to target when designing for behavior change.

This project will focus on EmmaMalena customers as users.

3. Research on EmmaMalena's Users' Consumption of Garments

In 2004, two friends, Emma and Malena, were offered to open a small shop in a fisherman's cottage at Kåringön to create and sell sweaters based on an old pattern from the island. (EmmaMalena, 2022) The shop was the start of their company with the business idea to sell sustainable garments with quality and design made to last. The business grew into a range of clothes for adults and children. At the time of writing this report they had their own shops and sold via resellers in Sweden, Germany, and Switzerland. The stock included both patterns and designs that have existed on the west coast for generations and original designs drawing on the nature and culture of the Swedish west coast archipelago. In EmmaMalena's endeavor to have an environmentally friendly business model, they have collaborated in this thesis to explore the possibility of expanding their garments' circular life.

3.1 Method and Results

In this chapter, results from data collection about EmmaMalena's users, their shopping behavior, and attitudes to recycling garments are presented.

3.1.1 Field Studies

3.1.1.1 EmmaMalena Stores

In order to get accustomed to the structure, customs, existing flow of garments, culture, and the overall context in which EmmaMalena exists as a brand today, recurring visits to the EmmaMalena office were made. This provided insight into how they currently handle their production, stock, and sales-associated activities such as events and marketing.



Fig 3.1: EmmaMalena store during regular opening hours

In addition, the Gothenburg store was visited to analyze how EmmaMalena stock was presented and sold in person. Attention was brought to how the layout, marketing, pricing,

interior design, and customers impacted the overall brand experience. It was visited three times:

- During regular opening hours.
- During a sale event where surplus, samples, and other discounted items were sold in an outdoor market-style setting next to the store.
- During an exclusive invitation influencer event.

Some of EmmaMalena's supply is Nordic EcoLabeled, the official ecolabel of nordic countries. It includes strict environmental requirements in all phases of a product's life cycle, including chemical use. (Nordic Ecolabelling, 2022). EmmaMalena uses recycled silver in their jewelry. The jewelry adheres to the EU's Registration, Evaluation, Authorisation, and Restriction of Chemicals.



Fig 3.2: Outdoor market-style sales event outside the Gothenburg store

EmmaMalena's flagship store at the Kärtingö location was closed during the research phase of this project. Kärtingö has a total of 65 year-round inhabitants, making their sales there seasonal. Therefore, the flagship store and its surroundings were assessed through information and photos provided by EmmaMalena online. Additional information was also retrieved through conversations with EmmaMalena representatives.

3.1.1.2 EmmaMalena Web Store

EmmaMalena's digital presence was evaluated, with particular emphasis on the web-store. Its structure, the information provided in regards to sustainability as well as the storytelling element was reviewed.

A page devoted to sustainability was available on the web-store page at its footer menu. It described the topic synergized with company brand values and storytelling, referring to an old-fashioned island lifestyle where things are made to last, and scrap fabric is utilized. It was also highlighted that some of EmmaMalena's designs have been worn on the island in the 1930s, suggesting that the design is less sensitive to trend shifts. Production factories were quoted to be located in Sweden, Portugal, and India, with particular emphasis on the

transportation distance being shorter due to the focus on European production. The page encouraged the reader to donate EmmaMalena garments no longer in use. It further mentions that EmmaMalena utilizes their fabric scraps, but it is not specified in what way. When asked, an EmmaMalena representative mentioned that garlands and scrunchie hair bands have been produced.

Another page available at the footer menu detailed routines, tips, and suggestions for clothing care and extending the life of the garment. It included sections for washing/drying, storing, repairing/preserving, and donating/selling. Two specific product suggestions were proposed with hyperlinks: Grumme Liquid Detergent for gently washing garments as well as Sellpy for re-selling used garments. The page included photos of EmmaMalena products.

3.1.1.3 EmmaMalena Social Media Presence

Social media is an important marketing channel for many industries; however, the fashion industry is one of the least performing ones (Cucu, 2022). TikTok has the highest engagement rate at 1.45%, followed by Instagram's 0.36%, Facebook's 0.07%, and Twitter's 0.04%.

EmmaMalena's official social media was investigated, in particular Instagram and Facebook. At the time of researching this project, EmmaMalena had an Instagram account, called *emmamalenaofficial* (fig 3.3), with 12.6 k followers. It was updated daily with posts featuring products or photos and videos related to the lifestyle aspect of the brand, such as K rring  buildings or seaweed. These usually generate around 20-90 likes and 0-2 comments. Posts featuring new releases, influencers, or people otherwise perceived as characteristic by the audience, holidays, special occasions, and giveaways yielded higher engagement in means of comments and likes. Instagram "stories" (fullscreen photos or videos which are available for 24 hours, which sometimes have interactive elements such as polls or the ability to respond to queries) were used to show off stock, production as well as interacting with and asking followers opinions and thoughts. A range of these was categorized according to topics using Instagram's "highlights" feature (collections presenting any "story" added even after the original 24 hours of availability has passed).

EmmaMalena also had an archive Instagram where they sell overstock, samples, and returns, called *arkivemmamalena*. There is no link to this Instagram from their webpage or main Instagram. This account had 1020 followers and no posts. According to EmmaMalena representative, a link is provided and pictures are uploaded during sales events only.

EmmaMalena's Facebook had 6,415 followers. It was updated a few times every month. The engagement was lower than on Instagram, with most posts yielding ten likes or less with no comments. Like on Instagram, likes and comments increased whenever particular releases, events, or people were featured. In addition to product and lifestyle images akin to those shared on Instagram, it was used to organize and promote events such as sample and



Fig 3.3: Mobile printscreen of EmmaMalena's Instagram account

clearance sales. It occasionally shared other's content corresponding with their brand images, such as photos or real estate listings.

3.1.1.4 Sale of Pre-owned EmmaMalena Garments on Third Party Platforms

The presence of pre-owned EmmaMalena's garments sold by individuals or third-party companies was investigated. This was done by searching for the brand name at three digital locations; the two major second-hand auction sites Sellpy and Tradera, as well as a community driven buy-and-sell group on Facebook. Due to a previous name change from Emma & Malena to EmmaMalena, there was a discrepancy in whether garments were tagged with the previous or contemporary brand name. Both were used as search terms.

The pricing of five random sample garments for adults, listed as used in good condition with a "buy it now option, was compared between Sellpy and its original pricing brand new from EmmaMalena (fig 3.4). Sellpy offered this clothing for between 20-39% of the retail price.

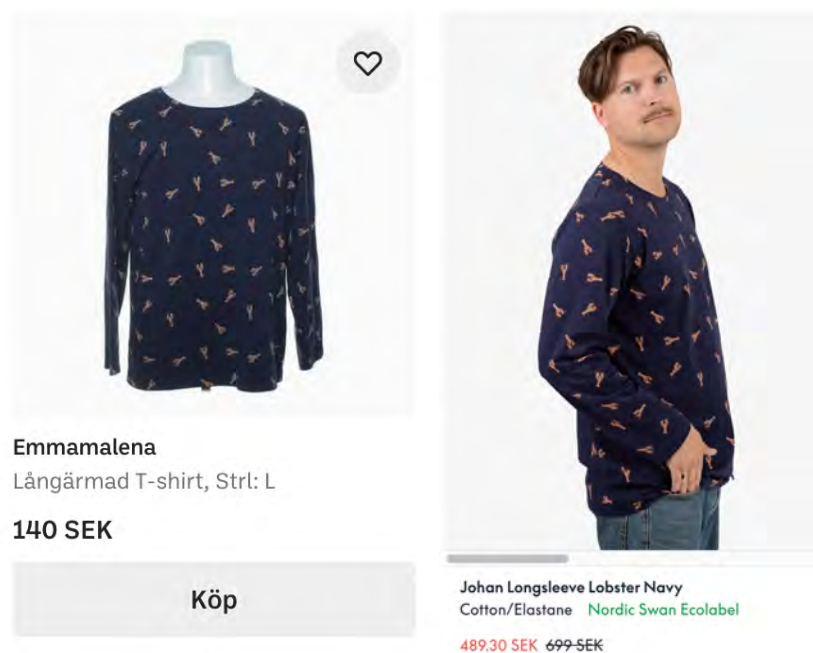


Fig 3.4: Screenshot of the same article of clothing for sale pre-used on Sellpy and first-hand in EmmaMalena's webshop.

A random sample of five children's garments fulfilling the same requirements was offered at between 27-80% of the retail price by Sellpy.

All completed auctions viewable on Tradera were reviewed to quantify how much was sold on auction. Approximately 22% of the listings were completed with a buyer. However, this number does not take into consideration that some listings occur as completed with no buyer more than once; thus, the actual percentage of sold items can be assumed to be slightly higher. Due to the nature of auctions, the pricing varied greatly, ranging from 1-30% of the retail price.

Circle of Clothes, a Swedish closed community group on Facebook with 49 000 members, was scanned for EmmaMalena garments to estimate user-to-user sales among people with a common interest. In the group, individual garments or threads containing several articles of clothing were photographed, uploaded and paid for, and shipped following communication in private messaging between the involved parties. Sampling five recent posts selling

EmmaMalena garments, 2 out of 5 were marked as sold. These were priced at 20% and 57% of their respective original retail price. The unsold articles were priced at 24%, 30%, and 43% of the retail price. All items were in good condition, gently used, or like new.

3.1.1.5 Sale of Pre-used Garments in Local Surroundings

The local surroundings and stores were explored in regards to stock, pricing, and target audience. In total, 19 stores were analyzed. 13 were visited in person, and six were evaluated digitally through the store's official webpage and social media accounts. Stores that sold clothing and provided vintage and/or second-hand items were charted on a map. (fig 3.5) Stores with a majority of their stock priced low to medium were marked in green, and businesses with medium to premium pricing were marked in orange. Some of the stores provided second-hand clothing and accessories only, and others offered a combination of pre-used and new. A few of the stores offered new or altered clothing from used textiles and garments. Stores of both pricing ranges offered some pre-owned clothes with minor flaws such as small stains, missing buttons, or torn seams.

One of the stores offered no pre-used garments but was still considered relevant due to its combination of clothing and vintage items. EmmaMalena's Gothenburg store was located within 100 meters of five other stores offering high-end vintage items and/or pre-owned garments.

In addition to the 19 stores charted above, a pop-up store selling pre-used baby clothes in central Gothenburg was visited (fig 3.6). The store was a pilot project scheduled to run for approximately one month by Lindex, a major Swedish clothing company, with the aim to increase circularity and sustainability. An accompanying press release from Lindex details that they aim to have their entire stock designed for longevity and/or circularity by 2025 (Hermansson, 2022)

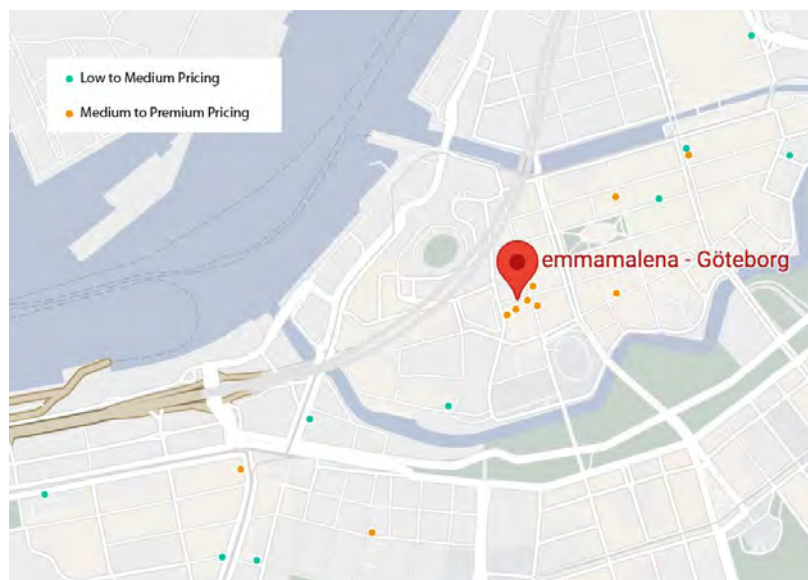


Fig 3.5: Location of EmmaMalena's Gothenburg store in proximity to second-hand stores



Fig 3.6: Lindex Second-hand baby pop-up shop

3.1.2 Data Collection 1

3.1.2.1 Emma Malena's Existing Personas

EmmaMalena has three pre-existing personas; Inger 65, Charlotte 48 and Malin 37. (See appendix A with descriptions of the personas that have been translated from Swedish.) In order to design and select a solution appropriate for the EmmaMalena user group, five questions were asked.

- What kind of users is the current target audience of EmmaMalena?
- How are they currently using and maintaining their clothes?
- What are their reasons for discarding or passing on clothes?
- Are they receptive to the prospect of acquiring pre-owned clothing?
- Who would be an appropriate user for a second life cycle?

These questions were explored and discussed with the original persona designer. The material available described the persona's positive associations with consumption, work, family, and passions. In particular, consumption was primarily described as being tied to vacation and a sense of idyllic lifestyle; however, there was no information about the riddance phase. Therefore, it was determined that their personality profiles would benefit from some expansion.

3.1.2.2 Survey

A survey (Appendix B) was sent out to people with similar characteristics to the company's existing personas in means of gender, location, age, hobbies, family constellation, and profession. A total of 30 people participated. 6 participants corresponded with "Ingrid," 14 with "Charlotte," and 9 with "Malin."

The questions aimed to explore their behavior in regards to use, maintenance and riddance of their clothing, as well as charting how they react under situations that may yield stress. Exploring the user behavior during stress was deemed important as critical decisions on how to handle broken, outgrown, or outdated garments may be taken at any emotional state of

the user. Acknowledging that a garment no longer serves its purpose could be perceived as a frustrating experience. These questions inquired about their day-to-day life, such as eagerness to utilize limited deals, perceived stress during social responsibilities, flexibility in regards to planning activities far ahead, and activities such as games, sports, and apps.

3.1.3 Data Collection 2

3.1.3.1 New Persona

According to Johan Davidson, chief economist of Svensk Handel, the Swedish second-hand market growth has surpassed the retail market growth since 2016. (Wande, 2021) While the annual retail market growth has ranged from 2-3% in recent years, the second-hand market growth has varied between 7-14%. Davidson quotes the demographic shift as a significant driving force in the market growth of second-hand items. Younger generations opt for pre-used more than older generations. The conclusion is that in addition to people representing EmmaMalena's current customer base, a new target audience and persona at a younger age was to be established to open up for customers in a generation more conditioned to utilizing pre-used garments.

3.1.3.2 Interviews

Eleven semi-structured interviews were held in order to properly chart the obtainment phase for the new persona. The objective was to get a nuanced insight into the associated tasks, emotions, and habits that play a part in the stages that precede obtainment, according to the Use2Use Circular Journeys Exploration model (described in 2.4.7): obtainment needs, obtainment opportunities, and obtainment offers. Some demarcations were established in order to more coherently synergize the result into a unified persona to be designed for. The people drafted for this interview ranged in age from their mid-twenties to mid-thirties. They were to have an established habit of using or purchasing pre-used garments, either at the time of the interview or previously. Due to EmmaMalena's brand heavily relying on the west coast archipelago associations and themes, all participants either lived near the Swedish west coast at the time of the interview or had resided there previously.

The interviews were held and recorded digitally using the virtual meeting software Zoom. All participants were assured public anonymity and that no identifiable data would be published. The recordings were then transcribed. One interview was omitted because the participant had no pre-owned garments nor had obtained them for other purposes. This resulted in a total sample of ten interviews. Recurring or notable insights from the interviews were highlighted. These sections were then cut out and placed on a board in relation to the various stages of the Use2Use Circular Journeys Exploration Tool. Each interviewee was highlighted with an individual color, in order to gain both collective and individual patterns

The base set of questions (Appendix C) primarily revolved around the participants' contemporary and past habits when it comes to acquiring clothing, both first and second-hand. It also explored adjacent activities such as window shopping, mending, and caring for clothes, as well as their emotional connection to certain items they own. Further, information about their age, gender, area of residence, and relationship to the ocean was collected.

The extent of pre-used garments in the sample group varied, with estimations of pre-used garments to the entire wardrobe ranging between 5% and 70%. Some participants opted for alternative ways of consumption altogether (renting and sewing). They were asked to describe their relationship to the ocean to expose design opportunities unique to

EmmaMalena.

All interviews were recorded and transcribed.

3.1.3.3 Compatibility with EmmaMalena's Customer Base

The average age of the participants was 29.2, and the mean age was 29. Nine out of ten participants were employed with titles associated with medium to high salaries. The remaining participant was a full-time engineering student. None of them lives with children, and half of them live with a partner.

In order to check if the interviewees are representative as EmmaMalena's customers, some specific questions were asked regarding their relationship with the ocean and the quality of clothes they like. 6 out of 10 expressed a very strong relationship with the ocean. This includes both a strong sense of nostalgia from growing up and is reflected in current activities where they visit the shore frequently. *"I do not feel completely at home if I do not live near the sea." "I kind of do not think you can really relax when you go inland" "(I've) always spent all summers by the sea." "I also think I romanticize the sea very much. That it is wild, uncontrollable, there is something deeper with it."* The remaining 4 participants expressed some connection to the ocean or a desire for it to be stronger *"I have been to either Halland or Bohuslän every summer since I was a child"*

Another important question was regarding the nature of garments. High quality, premium, and natural materials were recurrently expressed as desired qualities among the participants.

"I have firmly decided never to shop at fast-fashion chains again." "I usually do not buy any garments with materials known to hold on to sweat." "I am kind of obsessed with material. I do not like synthetic materials against my body (...) I want silk, wool, and other expensive things." EmmaMalena further has a lot of simple and classic designs in their supply, consistent with the participants' concerns about dressing discreetly and maturely.

It can be concluded that the participants overall have a solid connection to the ocean, which ties into both elements of nostalgia and lifestyle. Their income and preferences for high-quality, classic garments are also compatible with EmmaMalena's brand.

3.1.3.4 Number of Clothes Owned and Bought

The participants estimated how much clothing they owned (including jackets and items in storage due to fluctuations in seasons, taste, or available space). Most interviewees found it difficult to visualize a number and described it in means of space (such as "enough to fill three moving boxes" or "enough to fill half a wardrobe plus two boxes in storage"). This was later converted to how many single unit wardrobes it would fill. Due to the difference in size between furniture, storage boxes, and different garments, this would have to be considered a very rough estimation. Among the participants, it ranged from enough to fill one single wardrobe to six single wardrobes, with an average value of 2.75 wardrobes and a mean value of two wardrobes.

Two participants said their total amount of clothing was decreasing with time, and three participants said that it was increasing. The remaining five estimated the total amount to stay the same, either because they have opted for alternative ways of acquisition or because they got rid of as many as they acquired.

Estimates of new garments acquired ranged from 0 to 36 new articles of clothing purchased

ever year (excluding socks and underwear), with an average value of 13.9 items per year and a mean value of 11 items per year. Two participants responded that they buy 0 articles of clothing per year. These people had, at the time of the interview, recently committed to an alternate way of acquisition where they either rent or upcycle old clothing.

3.1.3.5 Actions When Acquiring a Garment

In order to summarize how the interviewees act when they acquire a garment, the Use2Use Circular Journey Model, as described in chapter 2.4.7, was used. In order to analyze the actions taken when a garment was acquired, the pieces representing any relevant step in the users' decision-making when opting to receive a garment were placed out. Based on the answers, it was determined that the act of acquiring a garment could start through three different actions:

- **Considering Obtainment Offers.** For example, a targeted advertisement could have the user consider an offer without much previous planning.
- **Exploring Obtainment Opportunities.** This process was quoted as an activity itself, where the user views window shopping clothing as spending time for oneself and relaxing.
- **Considering Obtainment Needs** were the first step for users who had a specific garment in mind they wished to complement their wardrobe with or replace.

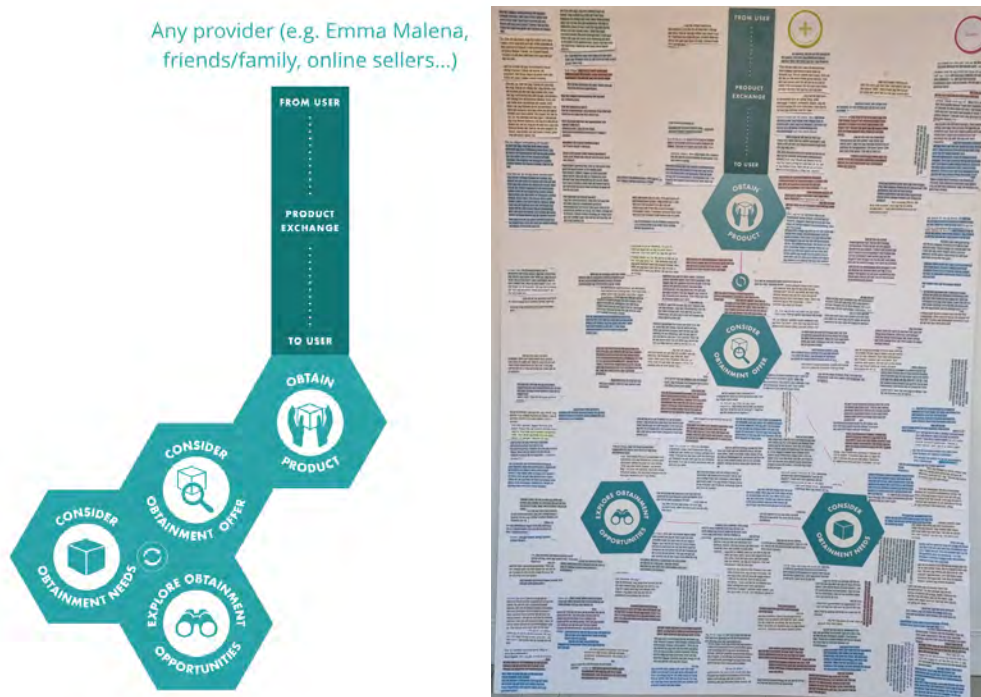


Figure 3.7: Actions When Acquiring a Garment using the Use2Use circular journey exploration tool. In the version to the right, interview results have been mapped according to their respective actions.

Segments of the interviews were mapped according to the different actions associated with the journey of acquisition. (Figure 3.7) Common, similar, or recurring themes were placed in groups. Key takeaways to consider when designing for acquisition of a garment were compiled in different categories.

3.1.3.5.1 Considering Obtainment Offers

Unique

Enjoys encountering unique garments second-hand. *"There is no one who has a skirt like that; it really is just me," "I like that it is unique," "You can find things that you may not find anywhere else." "the biggest reason why I shop second-hand is to find unique clothes."*

Destiny

Encountering items that particularly appeal in style and fit second-hand can instill a sense of destiny. *"It's more like a little treasure hunt" "It is that you find something that is "meant for you." And I know it's not really like that, but that's the feeling."*

Spontaneous Acting

Some participants act on offers on a whim as they can afford them without much impact on their budget. They perceive this behavior as problematic. Offers such as free shipping can increase this behavior. *"I kind of always buy up to the amount that shipping is free no matter what it is. My God. I know. I am ashamed. It's so wrong; why does it feel so right? "[I make] more spontaneous purchases when there is a sale. Sales and flea markets."*

Due to the tendency of low pricing for second-hand garments and/or them being available in one edition only, this spontaneous behavior could be magnified. *"Yes, definitely that you can buy more, so. It is quite special to be able to buy ten garments for SEK 600-700 as well. "*

Careful Acting

Other participants carefully refer back to their needs before acquiring a garment, putting much effort into considering their utility and compatibility with the current wardrobe.

3.1.3.5.2 Exploring Obtainment Opportunities

Shop Versus Online

There was a division between users who shop in person and online, some expressing they only do one of the two and others a combination of the two.

- Challenges when shopping pre-owned in person is the number of irrelevant articles or the amount of fast fashion.
- Challenges when shopping pre-owned online is the risk of bootlegs or undisclosed damage. Positive experiences included easy-to-find great deals and the ability to get answers to specific questions from responsive sellers.

Auctions

There was a division between users who participate in auctions, some expressing they prefer it over buy-it-now and others that they never participate in auctions.

- Users who like auctions quote an appreciation for the sense of having control over the pricing and the feeling of winning no matter the outcome *"If I have placed a bid of 1500 SEK on a skirt and I don't win. What a relief, I have saved 1500 SEK. But if I win, I would think, wow, I won the auction."*
- Users who dislike auctions quoted fear the pricing getting out of hand or the feeling of another person who wants the same thing "deserving" it,

Windows Shopping

Window shopping was used for spending time for oneself and relaxing. Sometimes pre-used garments are encountered when they are out looking for something else, such as houseware or sports equipment.

Remaking and Altering

Several participants expressed that they have a plan to fix up or create new items out of what they already have in their wardrobe, acquiring something that feels “new” without making a purchase.

3.1.3.5.3 Considering Obtainment Needs

Owning Unique Things

Enjoys owning unique things and getting compliments for things that stand out.

Wardrobe Staples They Want Indefinitely

Has staples in their wardrobe that they wish to replace with an identical or similar model once it can no longer serve its purpose.

Manageable Amount

Strives to own a manageable amount of clothing that does not take up too much space when moving. Some participants say they get rid of one garment for each one they acquire.

Things that Spark Joy

Subscribes to the ideal of “owning things that only sparks joy,” quoting the organizing consultant Marie Kondo.

Natural Fibers

Favors natural fibers such as cotton or wool over synthetics.

Non-iron

Dislikes daily maintenance such as ironing and wants things to be ready to wear in the morning.

Professional Style

Perceives a sense of them having “matured” into their current style. Wants the majority of their wardrobe to look presentable and professional. *"I have had to complement [the wardrobe] with things so I do not look like a teenager." "I usually think that psychologists should dress pretty discreetly."*

Rules for Not Buying

Two participants had established strict rules for themselves, such as not buying any garment for a limited time, opting for rental, or re-making what they already have.

Good Fit

Fit and cut are important. *"I often find garments that suit me better if they are a little older." "I can buy an expensive shirt from Filippa K if it fits exactly as I want it to fit." "It must fit well."*

Treating Oneself

Enjoys the sense of gifting/treating oneself

"A package is coming to me, and I want more than just these jeans. It's like I want extra gifts, extra stuff" "I buy one a week because it's fun to pick up a package. Because it feels great."

Actual Need

Users are challenging their perception of need. *"One can always question: What is a need? What is the limit for a need?" "I do not need anything. But I want it strongly." "If a garment can only be used with one other garment I have (...), then I can feel that it is not worth the space in the closet."*

3.2 Insights

3.2.1 Insights From Field Studies

At the time of concluding the field studies, the following insights were compiled.

3.2.1.1 EmmaMalena's Store Customers Have a Strong Sense of Brand Loyalty

It was concluded that life on Kärtingön is a core element of EmmaMalena's marketing, and that it represents vacation and leisure to many visitors. The visitors of EmmaMalena's flagship store at Kärtingön have a strong sense of brand loyalty due to designs and imagery specifically representing this lifestyle. Therefore, it could be assumed that the customers visiting this store have a trust for and willingness to participate in activities or prompts relating to EmmaMalena more than the average consumer. Status within the EmmaMalena brand, such as loyalty programs or VIP status, could be an efficient reward to motivate this customer group. As an extension, it could be assumed that they have strong feelings about the archipelago and coastal environment in general. If they were to be prompted to act for the good of the environment, it could be appropriate to feature how climate change and waste impact the local area.

One example of the strong relationship between the customers and EmmaMalena's visuals is that some customers have contacted EmmaMalena and requested them to re-release prints they previously have stocked.

3.2.1.2 EmmaMalena Have a Set of Specific Brand Values

As a lifestyle brand, EmmaMalena strongly promotes the idea of a coastal lifestyle and associated activities all year, with the main focus being summer leisure. The main theme is the Swedish west coast, in particular the island Kärtingön. With matching clothing for men, women, and children, family is another strong brand value. While open to customers of any gender and walks of life, mothers seemed to be particularly strong among the customer base. Quality and long-lastingness is another core value, "sustainable fashion from Kärtingön" being the webpage title tagline.

3.2.1.3 EmmaMalena's Sustainability Marketing Could be Further Developed

At the time of writing this report, EmmaMalena had landing pages describing sustainability and how to take care of garments. However, the pages were positioned in the footer of the webpage, which could make them difficult for users to find. Moreover, they did not provide examples of how EmmaMalena used their scrap material or how the garments could be donated. The "Care for your clothes" page included photos of EmmaMalena products; however, the pictures were not related to the suggestions proposed. There was a potential to make use of EmmaMalena's webstore and develop these landing pages further. EmmaMalena's existing environmental initiatives, such as Nordic EcoLabeled items and jewelry using recycled silver, could be utilized when designing for circularity.

3.2.1.4 EmmaMalena Social Media Could be Used to Launch New Concepts

In comparison with the fashion industry in general, EmmaMalena were using their social media in an efficient way and had created a brand loyal community. They had functionality for special sales of overstock or campaigns. It could be concluded that this channel had the potential to be further used for circularity and that other social media like TikTok could be added to their existing channels.

3.2.1.5 There was a Market for Pre-owned EmmaMalena Garments

Emma Malena's garments were sold on the second-hand market. Both children's and adult clothes were being traded. It could be concluded that there was a market for used EmmaMalena garments, even if it was not large at the time of the report.

The Lindex pop-up store, which was evaluated during the field study, demonstrated that large clothing companies were responding to a growing demand for recycled clothes.

3.2.1.6 The Gothenburg Store had a Good Position for Sale of Pre-used Garments

EmmaMalena's store in Gothenburg was close to several stores that offer first-class pre-used and vintage garments. Thus, it could be assumed that shoppers, who are willing to pay a premium price for used and durable clothing, would be receptive to local personal marketing campaigns if EmmaMalena were to provide products that have undergone previous cycles of use.

3.2.2 Insights From Survey with Representatives of the Existing Personas

At the time of writing this report EmmaMalena's existing personas were Inger 65, Charlotte 48, and Malin 37 (see appendix A). The following conclusions could be drawn from the survey with representatives of these personas:

3.2.2.1 It was Rare that They Acquired Clothing Second Hand

One main takeaway from the survey was that pre-used clothing were a rare occurrence in most personal wardrobes of the contemporary target personas, both in the form of hand-downs and purchases.

3.2.2.2 They Donated or Sold Used Garments

When it came to the riddance of garments, more than 60% of all participants said they donated to "Myrorna" or other similar charity shops. (fig 3.8) A notable insight was that >40% of the participants representing Malin said they sometimes sold their clothes, which none of the participants representing Charlotte or Inger did (fig 3.9). It could be assumed that this was more common for younger age groups.

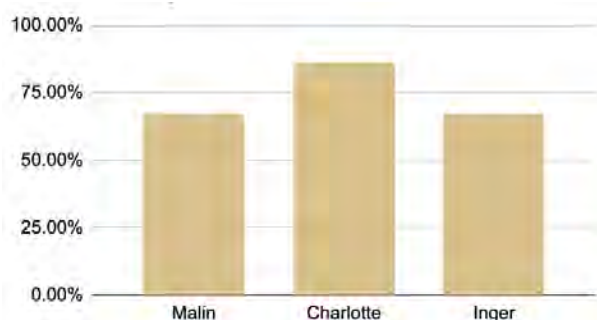


Fig 3.8: Donated to "Myrorna" or similar

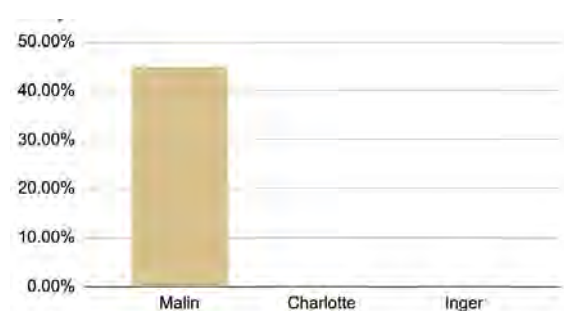


Fig 3.9: Sold clothes

3.2.2.3 A Primary Reason for Not Using Clothes was That They Did Not Fit Anymore

All three groups quoted clothing not fitting anymore as the main reason for no longer using a garment. Even if garments were of good quality and of timeless design, users still needed to stop wearing them due to them being the wrong size. In conclusion, it would be appropriate and should be possible to find new users for those garments.

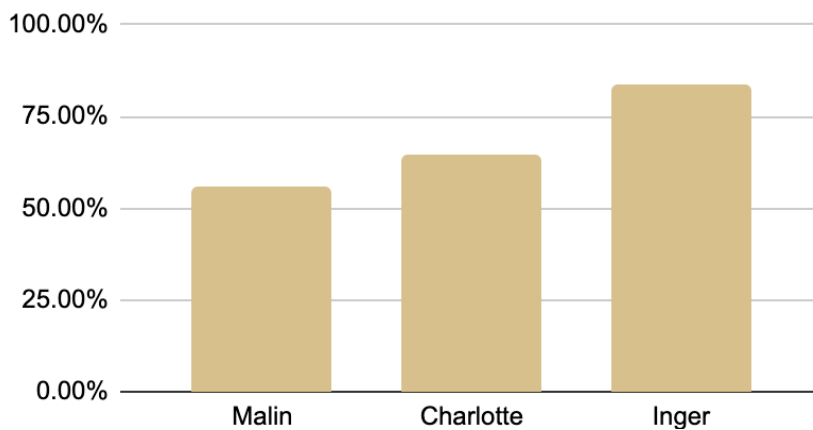


Fig 3.10: Quoted “it no longer fits” as a main reason for no longer using clothes.

3.2.2.4 Both the Oldest and Youngest Persona were Willing to Learn and Use New Apps

When introduced to a new mobile app, Inger and Malin responded that they were curious to test the new app, whereas Charlotte perceived it as cumbersome (fig 3.11). Inger was also the one most likely to play mobile games. It could be assumed that Inger had more free time to spend, and Malin was from a generation where mobile phones have been a natural part of everyday life for the majority of her life. Therefore, both these groups could be a good fit for new digital concepts.

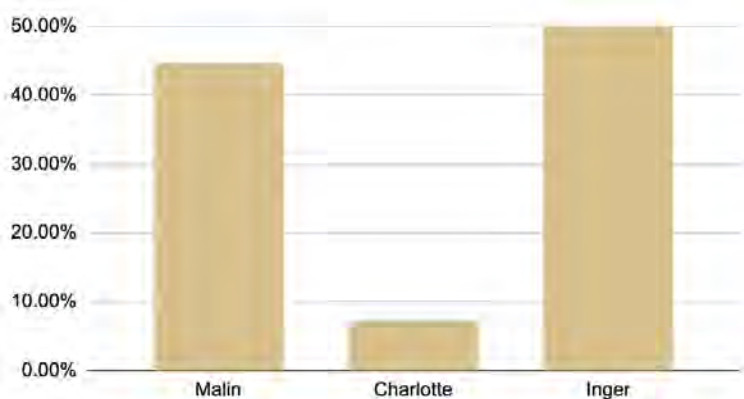


Fig 3.11: Reacted with “Fun; I want to learn more” when introduced to a new app.

3.2.3 Insights From Interviews with Representatives of the New Persona

Based on the qualitative interviews detailed in chapter 3.4, a new persona was developed as the post-riddance receptor for pre-used garments no longer serving the original user. The following conclusions could be drawn in regards to it.

3.2.3.1 A Third of Her Wardrobe was Second-Hand Clothes

The amount of second-hand in the participants' wardrobe ranged from 5 to 70%. The average amount was 33.3%, and the mean value was 30%. Based on this information, it could be concluded that people with experience shopping or receiving second-hand garments were not foreign to let it constitute a sizable portion of their wardrobe.

3.2.3.2 She Liked to Own Unique Garments

Several participants expressed positive feelings about owning things others didn't, and having more control in determining their own style. This was quoted as primary reasons for thrifting and making their own clothes. Getting compliments for something that stood out was a positive experience. One participant said they sourced more clothes second-hand when they lived in a town where it was less common to build your identity around it. Both male and female participants said that they wore clothing designed for the opposite gender.

3.2.3.3 She was Aware of Her Wardrobe and Didn't Buy too Many Newly Manufactured Clothes

A clear majority expressed a strong awareness of how their consumption impacted the environment, the workers' conditions, and/or their own budget. This was particularly prevalent among the people who lived according to no-buy challenges or boycotted specific brands due to their practices, but also among people who sourced most of their new clothing second-hand, quoting it to constitute up to 90% of what they acquired at the time of the interview. Other participants expressed a great deal of shame when talking about buying many products first-hand, referring to it as "wrong."

While there was no clear trend on total wardrobe size increasing or decreasing, most participants purchased several articles of clothing every year. While not represented by a majority, there was an interest in alternative ways of consumption among the target group.

3.2.3.4 She Wanted to Buy and Wear Clothes of Natural Material

A major reason for choosing pre-owned clothing was to access garments made from natural materials for a lower price. Some participants also expressed that they have justified expensive purchases in the past due to the material being natural and durable, specifically wool and leather. Dislikes of synthetic materials include reduced durability, holding on to sweat, the sensory experience of wearing it, and static electricity.

3.2.3.5 People Her Age were About to be First-Time Parents

The interviewees were younger than EmmaMalena's contemporary target audiences. They did not have children, but one factor to consider is that the interviewees' mean age (29 years) were younger than the average age for first-time parents in Sweden, which at the time of writing this report were 30,1 years for women and 32,1 years for men (Statistikmyndigheten SCB, 2022). Therefore, it could be assumed that the market segment these people represent would have parents among them in the near future. As a family-oriented brand, EmmaMalena could benefit from establishing this target group as customers early on.

3.2.3.6 She was Open to Different Ways of Getting Hold of Pre-Used Garments

The source of pre-owned items ranged vastly, with participants receiving them as gifts, purchases, rental, online, in-person, in bargain thrift stores, and cultivated vintage shops. Selling pre-used garments to this target audience could be assumed to be a viable market strategy, but there is also a possibility to utilize other services or campaigns promoting renting or remakes of pre-used articles for a niche audience.

3.2.3.7 She Had a Plan for Clothes She Will Not Use

Upon obtaining something the receiver realized they would not use they would, if possible, return the product to the seller. If not, they sold the product by utilizing an external service or altering it into something more usable. Sometimes they stored the product for envisioned

future events, such as a masquerade. Moreover, the conditions under which an item was acquired could create an emotional value for the user, such as a memory of the day it was purchased or the person it was received from.

3.3 Conclusions

3.3.1 Revalue of Garment

In order for a garment no longer actively used to be useful again, the owner needs to revalue it. Assuming the textile is not damaged beyond any usability, this can result in six favorable outcomes from a circularity perspective:

1. The user decides to resume use and re-implements the garment as something to wear on a regular basis.
2. The user decides to lend the garment to someone who resumes active use.
3. The user decides to give or sell the garment to a person, business, or organization that ensures that it will be used by one or several new users.
4. The user decides to repair or alter the garment in a way that results in it being worn with a higher frequency.
5. The user decides to repurpose the garment into a different textile item, such as a chair cover, tote bag, or pillow.
6. The user decides to give or sell the garment to a person, business, or organization that repurposes the garment into something else, such as a different textile item or as material components for different products, such as insulation or filters.

The most favorable option depends on the state and desirability of the garment being evaluated. Use2Use promotes tight loops, where as little material, effort, and resources as possible are wasted (described in 2.4.5). Option 1-3 (resuming use, lending, or giving the item as-is) would provide the tightest loop. However, minor alterations and repairs (option 4) can sometimes pose the most efficient solution if it removes the need for transport, package, and re-distribution. Clothes with tears, stains, or low demand due to factors such as trend sensitivity may lend themselves more efficiently for options 4-6 (altering or repurposing).

3.3.2 Target Groups

Through ideating around pre-existing information, survey results, and discussions with the original designer, the three existing personas could be expanded with information on how they use and get rid of EmmaMalena garments and how they are likely to react to new concepts. These personas will be used for ideating around the concept of collecting EmmaMalena garments stuck in disuse limbo. Moreover, with the help of the interviews, a new persona, Jasmine, was made to represent an intended buyer of second-hand EmmaMalena garments. Below is a summary of each persona. (See appendix A for the comprehensive description).

Inger 65 years



Inger loves her life as a retiree. Her personal economy is better than ever, and she can treat herself and her family. A few years ago, she met Kjell. Thanks to him, they have a nice house in a small fishing village. The brand EmmaMalena fits Inger perfectly. No other brand represents the archipelago and the people spending their summers there are so spot-on. Both Kjell and Inger have a bunch of grandchildren they spoil with EmmaMalena shrimp- and mackerel patterned clothing.

Charlotte 48 years



Charlotte has a high position in a Stockholm-based company and she is often traveling to represent it. Charlotte lives with her husband Karl and their children, both in their early teens, in a Lidingö villa. She is an active person and is the instructor of an exercise group she has initiated. She owns a summerhouse on Kärningö island close to where the EmmaMalena boutique is located. This is where she buys her entire summer wardrobe. She likes the coastal pattern and also the abstract ones that she can use all year round.

Malin 37 years



Malin is a teacher. She is very sociable and lives together with her husband Peter and their children, Vera (5 years) and Malte (9 years) in Skövde. During summertime, they take as many sailing trips as possible. She visited the small boutique where EmmaMalena started and has since then continued to shop the brand.

Jasmine 29 years



Jasmine lives in central Gothenburg with her boyfriend Alex. She has completed her studies and her professional life and adulthood have begun. She is tired of packing and unpacking all her things into boxes and idealizes the concept of less quantity and more quality. She is inspired by the Kon Marie method that each of her items should "spark joy." As a child, she spent the summers going by boat on the Swedish west coast.

	Inger	Charlotte	Malin	Jasmine
Personality	Social curious, caring generous, spontaneous	Structured, assertive, career-driven, social	Social, sporty, curious, adventure.	Intellectual, environment, feminism, human rights
Purchasing power	High	High	Medium	Medium
Shopping Behavior	Quality, Unusual things, show friends, in-store	Quality, in-store, sometimes online	Fun clothes conscious, shop a lot online.	Unique, conscious, quality, unisex, online and in-store
Second hand	Rarely	No	Some	1/3 of her wardrobe
Open for New Concepts	Yes curious and has time	No, too busy	Yes, easy to learn new things	Yes, easy to learn new things
Clearance	Donates	Donates	Donates, sometime sells	Sell or give to friends

3.3.3 Design Guidelines and Criteria

When evaluating the solutions for EmmaMalena there are some criteria that need to be taken into consideration. The concept needs to provide value and motivate the customer to take action. It needs to provide revenue, branding value, or market shares for EmmaMalena at the same time as it is possible to implement and expand the circular life of the garment in as tight a loop as possible. Below is a list of guidelines that should be used when creating a concept for EmmaMalena:

1. The concept should be preferable to storage or common donation bins.

The concept should include an option for EmmaMalena garments stuck in disuse limbo, which is preferable to storing them or donating them in common donation bins. It should change the existing personas habits for clothing that no longer fits or that the user does not want to use anymore. Each persona's individual motivational profile should be taken into consideration to succeed.

2. The concept should include information about the circular life of a garment

The concept should Communicate the importance for the environment to re-use garments, why tight loops are good, and how EmmaMalena, together with the customers, could lead the way for a better future.

3. The concept should make it attractive to choose used garments

The concept should include a sense of uniqueness; it should be provided to the persona in a way that fits her motivational profile and in a place where she is likely to find it.

4. The concept should ensure quality

The concept should strengthen EmmaMalena's existing profile as a high-quality luxury brand and meet the buying persona's expectations of garments in good condition and natural, long-lasting material.

5. The concept should strengthen EmmaMalena's brand

The concept should be able to be used as a competitive advantage for EmmaMalena and attract environmentally conscious consumers. It should leverage EmmaMalena's brand identity of being environmentally friendly and, in turn, its coastal and nature profile.

4 Ideation and Concept Generation

4.1 Concept Development

This chapter outlines several methods and steps used to create a concept.

4.1.1 Ongoing Ideation

At the beginning of the project, a document was created to write down ideas and potential areas for improvement. As concepts spontaneously emerged during research, field studies, or conversation, they were written down. In order to obtain a large number of ideas, all ideas were noted without first scrutinizing them according to viability.

4.1.2 Octalysis Mapping

In order to find a solution that will motivate EmmaMalena's target personas to take new actions, the Octalysis Tool described in chapter 2.5.1 was used.

By utilizing the detailed values and activities described for each persona, they were categorized in the Octalysis diagram according to the eight core drives:

- 1 Epic Meaning and Calling
- 2 Development and Accomplishment
- 3 Empowerment of Creativity and Feedback
- 4 Ownership and Possession
- 5 Social Influence and Relatedness
- 6 Scarcity and Impatience
- 7 Unpredictability and Curiosity
- 8 Loss and Avoidance

4.1.2.1 Motivational Profiles for Existing Personas

The insights derived from EmmaMalena's existing personas as well as the survey were mapped according to the Octalysis method in figures 4.1, 4.2, and 4.3. The periphery of the Octalysis graph constitutes the motivational profile for each respective persona. Relevant extracts from the persona description as well as survey insights are listed under each motivational category in order to highlight how these drives manifest and accentuate specific design opportunities.

These motivational profiles made up the foundation for the ideation brainstorming session in order to find the best concepts.

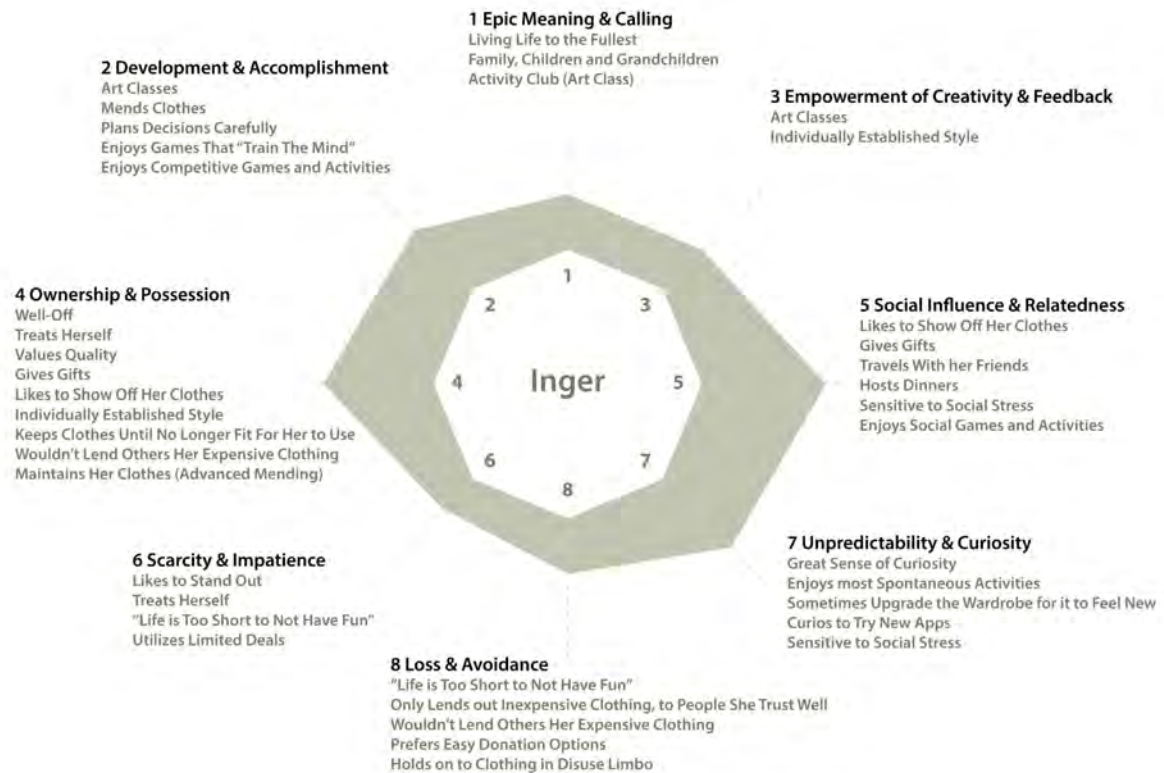


Fig 4.1: Motivational Profile Inger

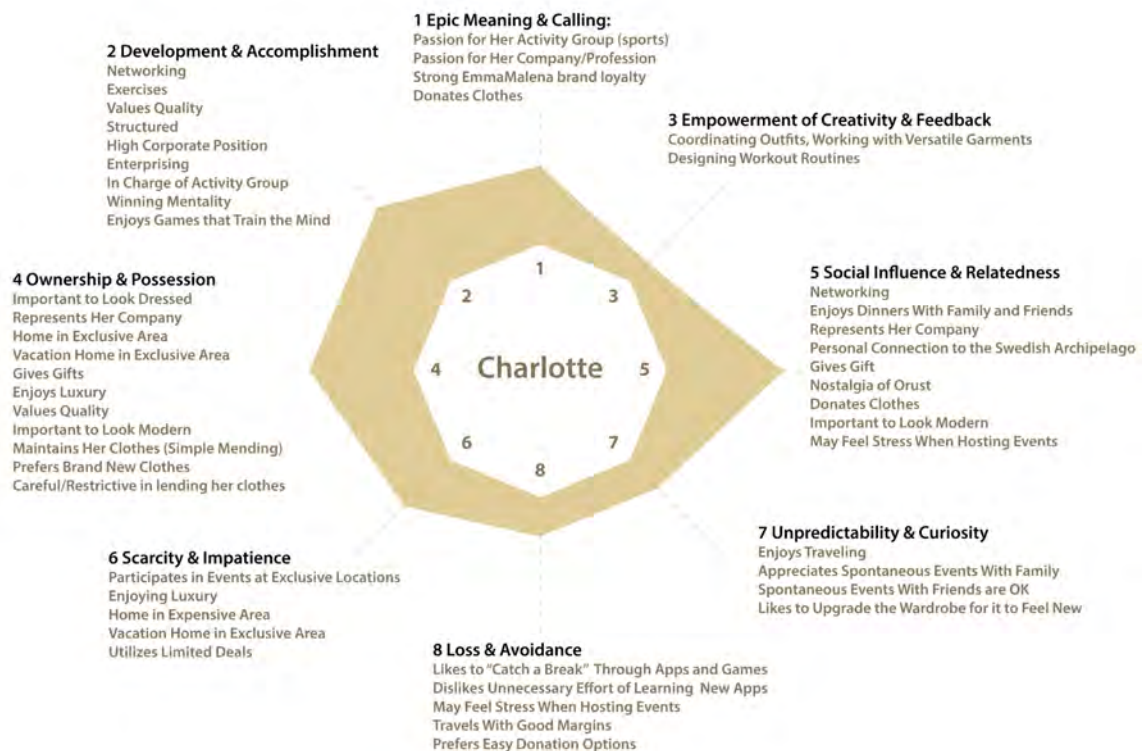


Fig 4.2: Motivational Profile Charlotte



Fig 4.3: Motivational Profile Malin

4.1.2.2 Motivational Profile for the New Persona

The Octalysis profile for the new persona, Jasmine, was charted with the objective of finding a concept where she is motivated to acquire pre-used EmmaMalena garments.

The profile is based on prevalent insights from the interviews as well as her persona description. Like in the previous Octalysis profiles, each category lists excerpts from these sources to direct the design efforts for each motivational drive.



Fig 4.4: Motivational Profile Jasmine

4.1.3 Ideation

4.1.3.1 Preparations

In order to get useful results from the ideation session, sheets with the four personas were prepared. One side of the sheet described the persona in a storytelling format, detailing the original persona description and the additional insight acquired from surveys. The other side contained the same information mapped according to the Octalysis core drive categories.

4.1.3.2 Demarcations

Before the session started, some demarcations were outlined to get a unified set of ideas to work with.

- It would focus on clothes being transferred to a new user rather than to inspire the user to keep on wearing them. EmmaMalena's has previously designed and promoted the long-lastingness and quality of their garments, and segments of their product line deal with classic cuts less sensitive to trend shifts. (EmmaMalena, 2022) Therefore, designing a system for user transfer was deemed to be the best way to enhance the garment's circularity.
- Another limitation was to exclude "donation bin" as a method of riddance, as this does not ensure that the garment is brought back to use but can result in untraceable discarding.
- Finally, a third demarcation was established right before the session started. The representatives were to agree on whether to focus on one or both of two categories of pre-owned clothing:
 - Traditional pieces of good quality, such as solid knits and plain button-up shirts of premium quality, which are to be passed on due to a change in size.
 - Statement pieces with a higher degree of trend sensitivity, such as T-shirts with colorful prints, which are to be passed on due to shifts in taste or trends.

These were expected to yield some different opportunities, challenges, and solutions. Further, their varying characteristics could impact EmmaMalena's brand image and who would be the potential receiver in the next use cycle. Provided this perspective, the representatives decided to ideate around both categories.



Fig 4.5: Brainstorming session on bringing disused EmmaMalena clothing back to use

4.1.3.3 Session 1: Bringing Clothing Back to Use

The first ideation session aimed to explore ways to encourage previous customers or receivers of EmmaMalena-garments to bring clothing stuck in storage back into use (represented by the personas Malin, Inger, and Charlotte). The brainstorming session was executed together with a group of six EmmaMalena representatives.

All participants were placed around a table detailing a specific section in a garments circular journey, in particular riddance according to the Use2Use Circular Journey Exploration Pack (described 2.4.7), beginning at “revalue product.” (Fig 4.5)

The users were represented by the three personas “Inger,” “Charlotte,” and “Malin.” Each EmmaMalena representative selected a sheet detailing one of the three specific personas which they were to ideate solutions for. These were first described to the group orally. The participants were then free to select whichever persona they felt most inclined to work with, with the limitation that each persona was only available on two individual sheets. This ensured that no customer type got overrepresented or underrepresented.

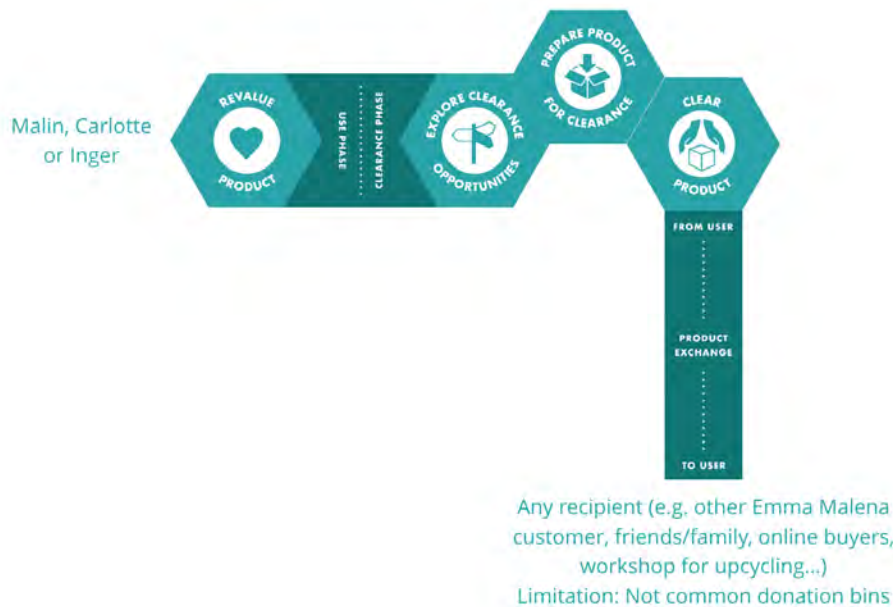


Fig 4.6: Riddance journey charted using the Use2Use Circular Journey Exploration Pack

4.1.3.3.1 Use2use Riddance Journey

Focusing on certain steps in the circular journey (represented by a hexagram tray), the participants were prompted to answer the question, “how can the user be encouraged to take the actions necessary to progress to the next step in this journey?” The participants were initially prompted to focus on the step “revalue product.” The original plan was to then guide the group to ideate around each upcoming step (exploring clearance opportunities, preparing product for clearance, and clearing product), but during the session, it became evident that many solutions naturally drew on these steps as a means to encourage the user to do the revaluation. Therefore, it was deemed more efficient to re-center the attention back to the evaluation step and harness the ideas that emerged spontaneously around the upcoming steps.

4.1.3.3.2 Rapid Ideation

Each proposal was written down on an individual post-it note. The primary method used was 5-minute long rapid ideations. Rapid ideation is a brainstorming technique where the participants are prompted to generate as many ideas as possible during a time limit. Between each rapid ideation session, all participants presented their concepts. If new ideas arose during this discussion, they were written down and added to the collection of concepts.

This method was used with no other guidelines than for the participant to focus on their assigned persona and to avoid critical thoughts such as “this requires too much work” or “this is not profitable.”

4.1.3.3.3 Dark Horse-Style Session

A five-minute dark horse-style session was conducted. The participants were encouraged to leave essential elements out and generate ideas that normally would be filtered out due to practical reasons such as profitability, laws, required effort, and available resources. These ideas may still have valuable sub-elements, or they can be re-designed in ways that make them a viable solution (such as being implemented on a limited scale or during different conditions).

4.1.3.3.4 Rapid Octalysis-Oriented Ideation

Finally, two rapid Octalysis (described in 2.5.1) ideation sessions helped the participants brainstorm within different categories of motivation. The first one revolved around black-hat motivation (focusing on ideas concerning the user's sense of scarcity, curiosity, and avoidance). The other concerned white-hat motivation (focusing on ideas concerning the user's higher purpose, sense of accomplishment, and creativity). The remaining two motivational core drives (ownership and social influence) were already represented in several ideas. Thus, a session covering these was considered redundant.

4.1.3.3 Session 2: Acquisition of a Pre-Used Garment

The second session examined the acquisition of a pre-used garment by a different user group (represented by the persona Jasmine). Like the previous session, the persona was described in a storytelling format on one side of a sheet and was complemented with an Octalysis representation on the other side. The acquisition journey was presented using the circular journey exploration tool. (Fig 3.7) Drawing from the insight retrieved from the interviews, the start of the journey could be any of three activities, depending on situational context. These were “consider obtainment offer”, “consider obtainment needs,” or “explore obtainment opportunities.” While ideating, the participants were encouraged to consider all of these three perspectives to generate ideas of a different character.

4.2 Results and Evaluation

4.2.1 Sorting

At the end of the brainstorming sessions, all ideas were retrieved from the post-it notes and compiled in a spreadsheet. The concepts defined in the ongoing ideation document were added to the same spreadsheet. In total, there were 297 ideas. All concepts were then sorted, and duplicates and unviable ideas were removed. 137 concepts were categorized into seven main groups; Events, Homepage, In-Store, Rewards, External Solutions, Garment Design, and Marketing. Some ideas were divided into different categories. For example, the idea “Hand in clothing in-store to receive a discount” was documented as “hand in clothing” under In-Store and “receive a discount” under Rewards. This enabled the solutions to be more modular, allowing for various combinations of different actions, campaigns, and rewards.

4.2.2 Sketching

Following the compilation, 39 concepts were selected according to perceived implementability, efficiency, compatibility with EmmaMalena's brand values, and compatibility with the target audiences. To make them more tangible, they were illustrated with sketches along with notes elaborating with more details on how they could be implemented.

4.2.3 Selection of Ideas

4.2.3.1 Initial Selection of Ideas

All sketches were sorted into eight main concepts and presented in slides (Appendix D):

1. EmmaMalena user recommendations for reusing/recycling
2. EmmaMalena enabling users to buy/sell
3. EmmaMalena exchange program
4. EmmaMalena extending garment life
5. EmmaMalena collecting used garments and
 6. Cooperating with resellers
 7. Selling them from their own store as EmmaMalena Vintage/Second Hand
 8. Converting them into different products

Each concept was evaluated according to three criteria; how much engagement is required from EmmaMalena, what would be the positive effect for the company, and what are the benefits for the environment (fig 4.7)

4.2.3.2 Concept Selection

A meeting together with an EmmaMalena representative was held where all 39 concepts were considered according to their respective categories. Combinations and variations of these were discussed. A final selection of ideas was grouped into three main concepts:

- Concept A - Patches, Screen Prints and Embroidery
- Concept B - Exchange Program for Children's Clothes
- Concept C - Emma Malena True Vintage and Premium Pre-owned Clothing

Return of Garments	Re-Use	Grade of Engagement	Positive Effect	Good for the Environment
1 EM user-recommendation for reusing/recycling			Strengthens the brand	
2 EM enabling users to buy/sell			Strengthens the brand	
3 EM exchange program			Brand, competitive advantage, additional sales	
4 EM extending garments life			Strengthens the brand	
5 EM collecting used garments and	6 Cooperating with resellers		Strengthens the brand commission income	
	7 Selling from their own store		Brand, revenue	
	8 Converting garments into new products		Brand, revenue	

Fig 4.7: Evaluation of concept categories

5 Concept Refinement and Selection on Final Concept

Following the categorization of sub-ideas into concepts A, B, and C, additional ideation and sketches were executed surrounding these ideas. The elaborated ideas were drawing from insights received during the selection discussion, as well as particular awareness of the needs and behavior of the personas.

5.1 Concept A - Patches, Screen Prints, and Embroidery

Concept A explored the opportunity to use EmmaMalena fabric, imagery, and branding to extend the life of pre-used or deadstock garments. This could either be applied to articles of clothing which were originally produced by EmmaMalena, or clothing from other brands sourced by and branded EmmaMalena through custom patching, screen prints, or embroidery details. To maximize the utility of this solution, the patching would serve the purpose of repairing holes or stains, thus extending the life of a garment that otherwise would be going through the riddance phase with a low chance of entering a new use cycle. However, it could also extend the lifetime of a plain garment in good condition by making the user perceive it as more unique or interesting than in its original state.

One major strength of this concept is the opportunity to close the loop between riddance and obtainment for clothing that is permanently damaged (staining, tears, etc.) if segments of EmmaMalena's product range of pre-used clothing prove to be suitable for the purpose. Leftover scraps from production or products returned due to production flaws could also be used if the returned products cannot be fixed or resold as-is.

This would require testing on how different EmmaMalena products hold up for the task of repairing, how they can be treated with processes such as dyeing, and how it needs to be prepared to suit the user's needs. For example, the persona Malin who had young children who could easily tear or stain their clothing while playing, would benefit from repair patching solutions. However, according to surveying, she was not likely to perform repairs on clothing herself. Therefore, processes such as prepping the patches for simple application methods like ironing-on or offering in-store repairs might be necessary for the idea to be successful.

The concept of custom prints or embroidery on pre-used but whole and clean clothing would be targeted towards the new customer group Jasmine, who had high demands on sustainability when deciding to make a purchase. Like the previously established target groups, she had a strong connection to the west coast archipelago but were less likely to own her own means of spending time there (such as vacation homes or boats). Therefore,



Fig 5.1: Used or scrap EmmaMalena fabric remade into patches to mend or enhance clothing

subjects such as sub-cultural themes relating to Gothenburg or collective activities at the shore could be explored. (fig. 5.2) Limited editions could be utilized to increase the desirability and exclusivity of these garments, and minor differences between the units in one edition embraced as uniqueness stemming as a result of the sustainable sourcing (for example, pre-used black shirts from different original brands with slightly different cuts could be sourced, printed and then released as one edition)

5.2 Concept B - Exchange Program for Children's Clothes

Children constituted a user group who frequently needed to replace their clothing, even if the garments were in good or acceptable condition. While handing down garments to relatives or friends of the child could be assumed to be practiced, the garment still risked getting stuck in disuse limbo awaiting the next user. During this time, it might decrease in desirability due to fashion trend shifts or decay during storage, such as accumulation of mold or odors. To reduce the time the garment spends in disuse limbo, EmmaMalena may provide or refer to an exchange program providing EmmaMalena children's clothing. (fig 5.3) This could be designed in three various ways, all proposed under the umbrella of Concept B.

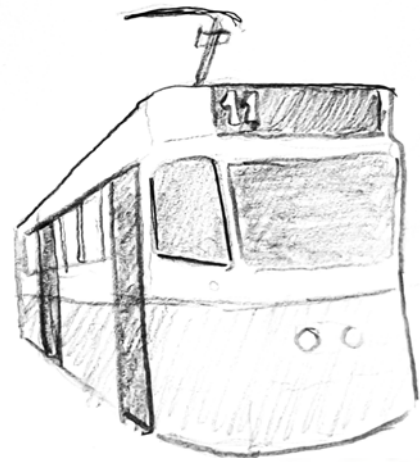


Fig 5.3: Clothing being exchanged as a child grows

1. A subscription service where the customer has the right to exchange EmmaMalena garments by handing in the clothing used by their child in return for EmmaMalena clothing that has already been used by another child. For as long as the customer pays the subscription fee, they have a right to do a set number of exchanges within a certain timeframe. The clothing is in circulation for as long as it is deemed presentable. This may require washing and repairs being done by EmmaMalena, or any external party providing the subscription service. There would also be a need for a system to estimate garment life expectancy since torn seams or other breakages may be a result of earlier use rather than damage caused by the most recent user.
2. A segment of EmmaMalena children's clothing which is marked with an "Exchange Program" label inside. This could be initiated with brand new clothing or pre-used clothing, which are collected for the purpose. The clothing is priced according to its current condition. Whenever the customer wants to exchange the clothing for something fitting their child's new size, they turn in the used garment. The condition of the garment is then evaluated, and the user receives a discount voucher for purchasing another item from an Exchange Program rack. The discount voucher depends on the condition of the garment. This will encourage customers to properly wash, maintain or possibly repair garments themselves to get a better deal, thus putting less of a workload on EmmaMalena to provide this service. However, a solution for stained, torn, or smelly clothes would still have to be in place.

3. The user purchases a package that includes a set number of exchanges. When a garment is returned, it is put into an exchange pool. The user then receives another garment from the exchange pool. Once all exchanges in the package are claimed, the user keeps the final garment. This solution strives to keep the clothing used by a limited number of users before “exiting” the pool system. This reduces the need for EmmaMalena to handle extensive wear and tear. However, this will not eliminate the need entirely. In a circularity perspective, some responsibility will be put on the user to evaluate and maintain the final product they keep in order for it to not end up in disuse limbo. The increase of use cycles does, however, provide more utility per garment compared to traditional sales. This solution would further require a custom plan for handling the smallest sizes, since they are less likely to be kept as the final product by the user.

5.3 Concept C - Emma Malena True Vintage and Premium Pre-owned Clothing

Long-lastingness was determined to be an important aspect of EmmaMalena’s brand identity (EmmaMalena, 2022). By selling their own pre-used clothing, EmmaMalena could fortify this claim and assert that their clothing retains value over the years.

This solution could be implemented on any scale, from a handful of items exclusive in the Gothenburg store, which is adjacent to other premium second-hand and vintage stores, to greater stocks provided on several in-person and digital platforms.

Onboarding Jasmine, who is younger than the persona EmmaMalena’s current youngest persona, Malin, could be seen as a step for EmmaMalena to enforce their status among the next generation of family mothers. Displaying the brand’s own used clothing for sale also communicates to the customers that there is a straightforward and responsible path for any article of clothing they purchase if they, for any reason, wish to let it go in the future. It could be assumed that this makes Jasmine more prone to consider EmmaMalena’s full stock, not only the pre-owned segment.



Fig 5.4: Pre-used designs on display

If one establishes a method for gathering pre-owned EmmaMalena’s premium basics, such as solids and knits made of natural fibers in good and/or acceptable condition, the needs of the persona Jasmine could be met without much need for change in core production or maintenance. It would also close the circular loop from riddance to obtainment with very little waste or additional material, requiring only cleaning or minor mending (such as replacing buttons or fortifying seams). Considering Jasmine’s willingness to alter her clothes, another option is to sell products as-is for a lower price and evade this step.

While the personas Malin, Charlotte, and Ingrid are not currently habitual consumers of pre-owned clothing, their brand loyalty and positive associations to past collections could be used in combination with scarcity to encourage them to make a small change in this



behavior. For example, a previously popular pattern that is no longer produced or in stock could be gathered and released as a pre-owned-only collection.

Clothing is considered vintage if produced between 20-99 years ago. (Alves, 2022) Founded in 2004, any EmmaMalena garment produced during the company's first year will achieve official vintage status by 2024. If items from EmmaMalena's first few years can be gathered, they could be released under a "True Vintage" label upon reaching their respective 20-year mark. This could be utilized as a way of branding their own pre-used clothing as a premium item. Events celebrating EmmaMalena's anniversaries could also be used to promote these items.

5.4 Ideation of Branding Concept

Fig 5.5: True Vintage Label

During the discussion of the concepts with an EmmaMalena representative, imagery that could be implemented in certain circular products was discussed. This developed into an overarching sustainable sub-brand called "Tångcirkeln," meaning "The circle of seaweed." This was not just limited to new concepts for circular sustainability but also allowed collecting existing efforts under an umbrella. These efforts include EmmaMalena's focus on long-lastingness, designs less sensitive to sudden trend changes, and products made of leftover fabrics. A "circle" can also be interpreted as a group of people sharing a common interest. Because of this, Tångcirkeln can also be a loyalty program where customers who do circular actions are included.

5.5 Final Concept Evaluation

Seven EmmaMalena representatives participated in a presentation of the "Tångcirkeln" branding and the three selected concepts. During the presentation, pros, cons, and associated ideas and variations of the concepts were exchanged and discussed spontaneously.

The branding concept "Tångcirkeln" was immediately received positively, and it was decided to be the umbrella name for the final concept.

To conclude the session, the Use2Use Circular Evaluation Pack (described in 2.4.8) was used to determine which concept was to be developed further and implemented in the Tångcirkeln. (fig 5.6) Each sub-question under the different categories was graded between 1-5, where 1 signified the least favorable outcome and five the most favorable outcome. These were then compiled to a final 1-5 score for each category.

- Concept A - Patches, Screen Prints and Embroidery
- Concept B - Exchange Program for Children's Clothes
- Concept C - Emma Malena True Vintage and Premium Pre-owned Clothing

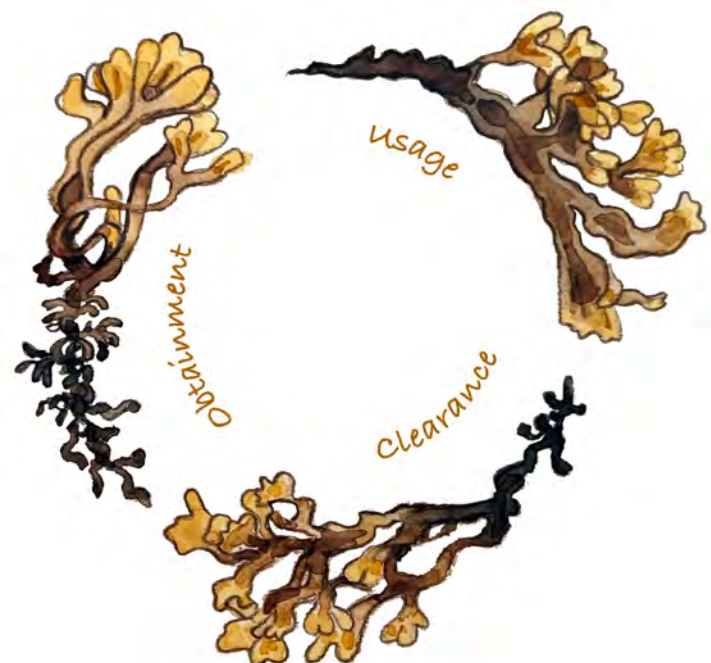


Figure 5.6: Illustration of Tångcirkeln



Fig 5.7: Concepts A, B, and C graded according to the Use2Use Circular Evaluation Pack

After grading the concept according to the parameters detailed in the Use2Use Circular Evaluation Pack (fig 5.7), Concept C was selected with a basis on the overall score, as well as high agreeability among the representatives.

6. Final Concept: Pilot Project for Sales of Pre-owned EmmaMalena Garments.

The final concept was a package of initiatives to allow for pre-owned EmmaMalena clothing to be collected and sold. This will be done by motivating people to return EmmaMalena garments stuck in disuse limbo. After samples of garments are collected, they will be sold as a circular product line. Including premium second-hand products in EmmaMalenas stock improves the chances of reaching customer groups with increasing demands on sustainability. Further, it could encourage existing customers with little previous experience of second-hand shopping to consider a pre-owned option.

The concept contained a new branding overarching theme and suggestions for EmmaMalena to market a circular collection. This allows for trying out a combination of different circular efforts under a common name long-term. It also aids in building a customer community around EmmaMalenas sustainability efforts.

6.1 New Branding Concept

The branding concept “Tångcirkeln,” described in chapter 5.4, is to be implemented in-store and online to symbolize and highlight EmmaMalena's sustainability efforts. Existing efforts, such as the sustainability- and care for your clothes page, fit in under this branding.

6.1.1 “Tångcirkeln” Symbol

An original graphic was rendered in watercolor to match the aesthetic of EmmaMalena's prints. Seaweed was gathered from a local west coast shore and arranged as a reference model. (fig 6.1)



Fig 6.1: Seaweed

The final result was a graphic that can be used both for aesthetics and to educate customers about circularity. The three segments of seaweed represent the three stages to be considered in circular use - Obtainment, Use, and Riddance.



Figure 6.2: "Tångcirkeln," The Circle of Seaweed

The watercolor graphics will work on web pages or on printed materials to illustrate EmmaMalena's circular collection. In order to protect the integrity of the symbol and branding, it should only be used on materials with circular components. For example, it could be printed on used T-shirts or on totes made from recycled cotton, but it should not be printed on items using virgin material if there is no clear and obvious plan to close the loop responsibly.

Three alternate versions were created to ease the use of it in various contexts as well as on various materials and platforms. (fig 6.3) One version includes the three stages Obtainment, Use, and Riddance. (Use referred to as usage for aesthetic reasons). Obtainment, which is the first stage of a use cycle, has the most developed root system of the three, symbolizing the beginning of a loop. This can be used by EmmaMalena to explain circular initiatives to customers in further detail.

Two less detailed graphics were rendered in vector format; one multi-color and one monochrome version. The multi-color allows for semi-detailed adaptations, such as screen prints with up to 3 colors. The monochrome version is best suited to represent Tångcirkeln in small formats, such as icons on the web page or labels in the garments.



Figure 6.3: Three variants of Tångcirkeln. From left to right: Tångcirkeln labeled according to the use cycle, three-color vector, and monochrome logotype.

6.1.2 Online Usage

6.1.2.1 Tångcirkeln Landing Page

A landing page titled Tångcirkeln - EmmaMalena for sustainability is to be launched. This should be accessed at the top of the EmmaMalena webpage or through its menu. This page gives the visitor the ability to easily navigate sustainability-related pages on EmmaMalena, including the sustainability page, “care for your clothes”-page, the EcoLabel collection, and pages with information about EmmaMalenas factories. These pages are to include a graphic of Tångcirkeln as a digital label.

A call to action will prompt the user to “Join the Circle of Seaweed,” directing the user to various actions they can do to become members of the circle. For the concept presented in this thesis, it should be donating an EmmaMalena garment back to the company or purchasing a pre-owned product. When expanding the concept in the future, it should entail other activities.

6.1.2.2 Improvements of Existing Pages

In addition to collecting the contemporary pages under one landing page, the following pages could be enhanced with a number of improvements:

Sustainability Page

1. Give specific instructions on how and where to donate used clothing. Let the user know there are benefits to giving them back to EmmaMalena, but give other suggestions for those who cannot access stores where they are collected.
2. Add pictures of examples of how EmmaMalena has used scrap materials.
3. Add a common goal that makes people feel like they can participate, such as “Tångcirkeln has circulated X garments, saving Y tonnes of co2”, where X is the true number of garments and Y is the estimated savings in co2. EmmaMalena could also incentivize the customers to participate in Tångcirkeln through fundraising for a common cause, described below in 6.1.5

Care for your clothes

1. Display photographs of the repairment suggestions, such as color contrasting stitching.

2. Add more specific links and suggestions for recommended products, such as efficient, environmental stain soap or washing bags to catch microplastics in the laundry machine. These products could also be sold by EmmaMalena directly.

Factory Information

1. Make it easier to access information on all the factories featured on the page.
2. Highlight how much recycled silver is used in EmmaMalena Jewelry.

6.1.3 In-Shop Usage

Tångcirkeln will be used on signage to highlight initiatives and products for increased circularity, such as collecting and selling pre-used garments. It can also be printed on pamphlets or signs promoting proper maintenance of clothes.

6.1.4 On-Garment Usage

Using Tångcirkeln on pre-used items of clothing could both signal sustainability as well as enhance the design and increase the perceived status of the garments. A label or stamp of the tångcirkeln symbol is to be added to clothing once it is included in a circular model of distribution through EmmaMalena. This labeling is to be done near wherever the general EmmaMalena brand label is placed, such as on the neck of shirts, to serve as a marker for its sustainability. (fig 6.4) However, if compatible with the original design of the circulated garment, it could be placed in a spot visibly when worn, such as the chest pocket (fig 6.5), through methods such as screen printing or embroidery.

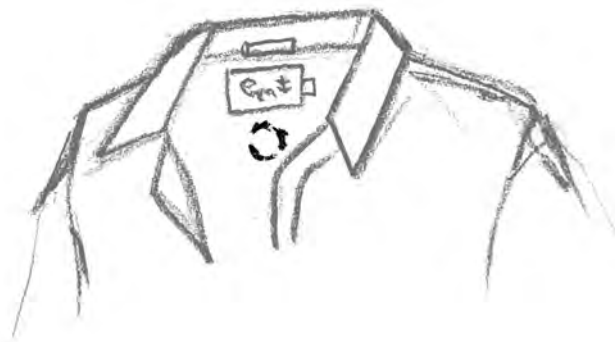


Fig 6.4: Symbol inside garment



Fig 6.5: Symbol on pocket

6.1.5 Increase Participation in Tångcirkeln

Common Cause Solution to

Providing efforts in a group for a higher cause is a powerful reward utilizing the Core Drives (described in 2.5.1), Core Drive 1 (Epic Meaning & Calling), and Core Drive 5 (Social Influence & Relatedness) and can bring together a Tångcirkeln community, increasing the target customers' willingness to participate in circular programs.

All personas that have been designed for (defined in 3.3.2) had a strong sense of social motivation. Inger, Charlotte, and Malin had a deep connection to their families as well as the

Swedish archipelago lifestyle. A cause that maintains the Swedish shores for their children to enjoy would be a motivator for them to take sustainable action. Jasmine valued sustainability and was increasingly putting demands on the environmental impacts of her purchases. Since the clothing industry has a great impact on the greenhouse effect, a solution that provides carbon sinks would be a thematically appropriate cause.

Naturskyddsföreningen has described eelgrass (fig 6.6), flowering vascular seagrass, as a particularly efficient carbon sink in Bohuslän, due to the area having fine-grained sediment and protection from waves. Eelgrass has proved more efficient at storing carbon than an equal area of mature spruce woods (Naturskyddsföreningen, 2021). Further, eelgrass plays a major role in keeping the water quality clear, is a breeding ground for a variety of local fish and is protecting shores from erosion. (Göteborgs Hamn, 2017) Due to exploitation of the oceans, eutrophication, and overfishing, the beds of eelgrass have decreased. There have been some initiatives to replace lost beds, which have been deemed successful but time-consuming due to every plant being planted individually by a diver. (Göteborgs Hamn, 2021)

The combination of eelgrass properties as a carbon sink and its impact on keeping the local shores clear and diverse makes participation in replanting initiatives a fitting cause for all persons. EmmaMalena could support the replantation through donations from corporate or customer level.



Fig 6.6: Eelgrass

6.2 Collecting Used Garments

A summer pilot collection project is to be initiated at Kärringön. For a limited time during the summer months, used EmmaMalena clothes will be retrieved in-store at both Kärringön and Gothenburg.

6.2.1 Logistics

6.2.1.1 Condition

This pilot intends to primarily collect used EmmaMalena garments for adults in good condition (no significant holes, strong odors, major stains, or discoloration.) It is up to EmmaMalena management to decide on any condition limitations for the clothes they sell later. Clothes with some degree of flaws (small stains, loose seams, missing parts, or minor discoloration) are being provided in other high-end second-hand stores and it is thus not necessary to be considered a deal-breaker. Clothes that were produced nearly 20 years ago should be considered even with visible signs of wear, as they can be sold as true vintage.

If EmmaMalena establishes a solution for basic mending tears and cleaning stains, the amount of clothes appropriate for resale, and subsequently the effects on circularity, will increase. It is desirable that a solution for restoring flawed garments is initiated and scaled up over time if the pilot project is successful.

There should be a clear action plan for the EmmaMalena garments that are handed in that do not meet the collection standards. For example, EmmaMalena could distribute clothes in decent condition to a well reputable charity shop and items in poor condition for fabric recycling.

6.2.1.2 Style Categories: Premium Basics and Statement Clothes

There are two main categories of EmmaMalena clothing collected for the pilot initiative to sell pre-owned attire in-store.

The first category, called Premium Basics, refers to clothing to be suitable for women to wear as professional attire in Sweden, including both men's and women's button-ups (fig 6.7), knits of natural material, and solid colors or discreet/traditional patterns such as fishermen style sweaters (fig 6.8).



Fig 6.7: Men and women's button-ups



Fig 6.8: Fishermen style sweaters.

There is also some demand for more unique pieces in means of patterns and colors, such as printed dresses (fig 6.9). These will be described as "Statement Clothes."



Fig 6.9: Printed dress

The demand for Statement Clothes is currently deemed smaller than Premium Basics. However, it is desirable to collect any item in good condition for future themed releases (see 6.3.2 Limited pre-owned editions) and in small quantities for in-store sales (see 6.3.1 In-Store Gothenburg Location)

6.2.1.3 Evaluation in-store

Kärringön is a suitable location to reach long-time and brand loyal customers that are likely to have previously purchased EmmaMalena garments that are stuck in disuse limbo. Kärringön has a total year-round population of 65 inhabitants. It can be assumed that a significant portion of the residents are people who stay there seasonally or as visitors. The people who visit the island seasonally or occasionally may not have access to their clothes that they do not use while they learn about EmmaMalena's efforts to collect disused clothing. Therefore, it is beneficial to collect the garments both at the Kärringön store for returning visitors and in Gothenburg, which may be more accessible for visitors who do not plan on returning for the season.

The customers can bring in EmmaMalena garments at any time during the participating store's opening hours during the collection phase of the pilot. The clerk in any participating store is to be taught how to evaluate whether a garment is in acceptable condition or not. Instructions on how to properly evaluate the garments are written down to be accessed at the cash register.

6.2.2 Rewards

To motivate the user to hand in garments, a selection of rewards should be available. Rewards can be divided into four categories according to the SAPS model (Linder et. al, 2010); Status, Access, Power, and Stuff. Linder et. al argues that status is the most efficient in means of desirability and low corporate cost, followed by access, power, and finally stuff. While providing stuff in the form of items or monetary benefits is not necessarily a bad reward, it can become costly for the company and is quickly forgotten about by the user.

Five actionable rewards for EmmaMalena to provide to users who hand in clothing stuck in disuse limbo are detailed below, along with their reward type according to the SAPS model as well as Octalysis motivational Core Drives (described in 2.5.1).

6.2.2.1 Membership in Tångcirkeln

Membership in a group is a status reward that utilizes Core Drive 5 (Social Influence & Relatedness) as well as Core Drive 6 (Scarcity & Impatience)

Once a user donates an item, they are part of “Tångcirkeln” This is initially primarily a title for status but can be expanded to include access to a range of rewards akin to premium products and special events, described below in 6.2.2.4 and 6.2.2.5. The members could also opt-in to have their names visible on a special section online for increased status.

6.2.2.2 Saving the Coast by Replenishing Eelgrass

If EmmaMalena offers to sponsor one of the existing initiatives to replenish eelgrass beds with a set amount of plants for each garment handed in, the users can feel part of something bigger according to their own personal values. It also reinforces the carbon savings of the action.

6.2.2.3 Discount coupons

While falling under the “Stuff” category in the SAPS model, considered a low-efficiency reward, discount coupons can still be expected to be an appealing reward considering the strong brand loyalty and appreciation for luxury material items among the current personas; Inger, Charlotte, and Malin. It is also relatively easy for EmmaMalena to implement without having to manage extensive logistics. Giving customers the option to replace what they no longer use in the wardrobe with something they like to use will reduce the sense of giving it away being a waste. To guard the integrity of Tångcirkeln, these coupons should be designed to encourage conscious shopping. For example, they could initially apply exclusively to purchase EmmaMalenas EcoLabel clothes and recycled silver jewelry. Once the sales of pre-owned EmmaMalena clothes are established, they should be shifted to apply to pre-owned clothing only.



6.2.2.4 Premium Jewelry or Other Badge of Honor

When a user hands in an item, they may qualify to purchase a Tångcirkeln accessory. The item is priced in accordance with EmmaMalena's existing items. The reward is the status as a member of Tångcirkeln and access to buy it. This can make the user feel special, entitled to something exclusive, or part of something bigger. Jewelry, such as a necklace (figure 6.10) or pin, is something that the target audience likes to wear and can show off to

Fig 6.10: Tångcirkeln Necklace

friends. If complementary accessories are designed, such as rings and earrings, the user can be encouraged to donate more to complete a set.

6.2.2.5 Future Prospect: Special Events

Once Tångcirkeln is more established, access to events exclusive to the members can be held. This can include sustainable seafood, fundraising for eelgrass initiatives, and early access when launching collections.

6.2.3 Marketing

Promotional posters requesting the customers who have outgrown or grown tired of their clothing to hand them in will be put up in-store, on social media, and in any other appropriate places in Kärtingön. Different posters will communicate different aspects of the benefits and challenges of handing in the garments.

6.2.3.1 Poster 1 - Acceptance for Size Change

This poster features people of different sizes as well as an expecting mother. "We all change size. Don't let your dress remain unused. Hand in your old clothing and receive a discount for something from our Eco-Label that fits you just right, the way you are."

Poster 1 uses the motivational drives: 4 Ownership & Possession, 5 Social Influence & Relatedness.

6.2.3.2 Poster 2 - The Local Environment and Family Life

This poster highlights the importance of taking care of the environment for the sake of children. It also communicates how the local environment is in danger. These two elements tie into the target audience's higher sense of meaning as well as their social values, connecting them to environmentalism. In fig 6.11, this is exemplified by three generations wearing nautical patterns, the oldest of the three is wearing a pattern with only navy flora and fauna, and the youngest is wearing a pattern with just ocean litter. The negative feelings invoked by seeing a child wearing ocean litter like cigarette butts could shock the recipient into a sense of urgency to act for their values.

The poster should have a clear call to action, asking the recipient to hand in EmmaMalena clothes to a participating store as a circular initiative for reduced pollution.

Poster 2 uses the motivational drives: 1 Epic Meaning & Calling, 5 Social Influence & Relatedness, 8 Loss & Avoidance (described in 2.5.1)



Fig 6.11: Poster concept

6.2.3.3 Poster 3 - Tångcirkeln

This poster is placed in unexpected places and features the Tångcirkeln with a QR code along with a mysterious message that piques curiosity “A new era begins. Join the circle today.”

Poster 3 uses the Core Drive: 7 - Unpredictability & Curiosity (described in 2.5.1)

6.3 Selling Used Garments

6.3.1 First Step: In-Store Gothenburg Location

The Gothenburg EmmaMalena store will be used as the pilot location for selling the garments collected according to the methods described in chapter 9.2. Due to the Gothenburg EmmaMalena store’s proximity to five other businesses providing vintage and premium second-hand clothing, people who currently have an established habit of consuming pre-owned garments can be reached with local marketing initiatives

A designated spot in the Gothenburg store will stock pre-owned garments under the “Tångcirkeln” label (defined in 6.1.1). The scale of the stock is up to EmmaMalena

management and to the yield of collected clothes. The majority of the clothes should be Premium Basics (defined in 6.2.1.2) in order to accommodate the Jasmine persona (defined in 3.3.2). However, a small number of Statement Clothes (defined in 6.2.1.2) may be included as well, as the target persona does occasionally purchase clothes outside of Premium Basics.

A mannequin dressed in an outfit from EmmaMalenas pre-owned stock can bring attention from pedestrians with interest in second-hand shopping. Additional information can be put on a sign to introduce Tångcirkeln along with EmmaMalenas sustainability efforts. (described in 2.5.1)

Posters placed at local public bulletin boards could increase interest in the launch of pre-owned clothing. The posters should focus on the environmental benefits of pre-owned as well as the quality of EmmaMalena garments.

Including the initiative for replenishing eelgrass (defined in 6.1.4) by donating a portion of profits can make users who participate during the launch of tångcirkeln feel empowered and part of a greater environmental movement.

6.3.2: Second Step: Limited Pre-Owned Collections

The EmmaMalena customers represented by Inger, Charlotte, and Malin (defined in 3.3.2) are potential recipients of Statement Clothes (defined in 6.2.1.2). Since these personas do not have a habit of acquiring garments second-hand, some additional motivators should be combined with launching limited collections of pre-used Statement Clothes.

Interest can be increased by utilizing the Octalysis Core Drives (described in 2.5.1). Core Drive 6, Scarcity, and Impatience can be a way to increase demand for circulated prints that are no longer available in EmmaMalena's first-hand stock but still are remembered among the users. Releasing a limited collection of garments with a specific out-of-production pattern could encourage the personas Inger, Charlotte, and Malin to consider pre-owned clothing due to their relationship to the graphics printed on it.

This might have to require an extension of the effort to collect clothes in order to acquire a sample sizable enough to sell as a collection. If so, the collection efforts can be expanded to other cities or run over several summers.

In order to increase interest in pre-owned collections that are still produced and stock first-hand, limited editions of pre-owned Statement Clothes could be combined with a fundraiser for a common cause (described in 6.1.5). This would utilize Core Drive 1, Epic Meaning & Calling as well as Core Drive 5, Social Influence & Relatedness.

These collections could be released in-store, however, selling a number of them online would greatly increase the outreach of the campaign.

6.3.3 Long-Term sales: True Vintage Brand

A long-term way of increasing the appeal of older EmmaMalena garments is to brand them with a True Vintage Label once 20 years have passed since manufacture. Highlighting that a previously worn item qualifies as true vintage can increase the perceived status and exclusivity of a garment that has previously been worn. Established in 2004, EmmaMalena is to have its 20th anniversary two years after the writing of this report. If the collection efforts

in the pilot yield EmmaMalena garments produced nearly 20 years ago, these could be stored, branded with an EmmaMalena True Vintage label (fig 6.11), and released once they have passed 20 years since manufacture.

Launching a true Vintage label in relation to an anniversary celebration would draw on three Core Drives (described in 2.5.1); Core Drive 1, Epic Meaning & Calling due to the high brand loyalty in the customer base, Core Drive 5, Social Influence & Relatedness since it is combining the release of the collection with a celebration, and Core Drive, 6 Scarcity & Impatience due to its official status as a vintage.



Fig 6.11: True Vintage label

7. Discussion

In this chapter, the result of the project is discussed.

7.1 Fulfillment of Purpose and Objectives

The main aim of this report was to provide an answer to the question, “How can EmmaMalena be a spearhead brand in the change following the EU’s goal of full circularity by 2050?” Through a deep evaluation of the current needs, habits, and consumption patterns of both existing and potential customers, a pilot project for fully circular garments has been proposed as the answer.

The personas acquired from EmmaMalena were primarily designed for the consumption of new garments and focused on their ideal lifestyle and their purchasing habits during leisure. While this provided valuable insights in regards to their core values, it lacked some essential information needed to encourage them into circular action. Additional information on behavior and personality was retrieved through surveying a sample of people of similar age, gender, location, family situation, and profession. To get more detailed and accurate insights, in-depth interviews of customers on Källringön during vacation season could be concluded. These insights would aid in efficiently encouraging the users represented by the main personas to increase their circular behaviors. Another way to streamline and improve the efforts of this project would be to analyze the efficiency of the different marketing and incentives proposed in this report over time.

7.2 Design Case Insights

This segment provides answers and insights directly related to the research questions, identification of target users and products, and design guidelines. When applicable, it relates to the pilot project proposed in chapter 6.

7.2.1 Answers to Research Questions

In chapter 1.5, five design case research questions were detailed. Through this project, the following insights have been retrieved as answers:

How can EmmaMalena be a brand that adapts ahead of the curve in the change following the EU’s goal of full circularity by 2050?

By adapting to a target audience that is used to a circular approach to clothing, while simultaneously encouraging those in the customer base who are not, EmmaMalena can improve their market position among sustainable brands, while inspiring their existing customer base to transition into a more circular behavior.

Where do EmmaMalena garments go once their initial purpose is served today?

Surveying a sample of people of similar age, gender, location, family situation, and profession gave some insight into the reevaluation and riddance behaviors of the users according to the Use2Use Journey Exploration Pack (described in 2.4.7). For example, the oldest target audience had an established habit of repairing and mending clothing which extend their use, and the youngest target audience sometimes sold clothing they no longer used. Pre-used EmmaMalena clothing was found on several platforms. It was also common among the survey takers to donate clothing in bins.

How can more garments find a new owner once they no longer serve the original owners?

The survey participants communicated a willingness to donate clothing that no longer serves the purpose of being worn by them personally. The solution package includes plans to distribute this both to the established customer group as well as a new target audience.

How can the steps required to maintain clothing be successfully encouraged?

There was a low tendency to repair and maintain garments for the survey sample that represented EmmaMalenas personas Charlotte and Malin. However, several of the people interviewed for a younger, new potential EmmaMalena customer had an interest in performing repairs and alterations. Selling clothes with some flaws, as described in 6.2.1.1, could be a way to transfer clothing from the segment of contemporary customers with insufficient skill, time, or motivation to repair them to a group more motivated to mend or re-work them.

Once an EmmaMalena garment is beyond repair, how can the material successfully be implemented in a succeeding life cycle as something else?

The solution provided in this thesis focuses on clothing that is in decent condition. It is likely that the items re-sold under the pilot would have been successfully sold if donated to common charity shops. The pilot's circular strength is in that it encourages customers to bring in clothing stuck in disuse limbo, which might have stayed in storage for much longer without incentivizing hand-ins to EmmaMalena. It is also to be seen as the first step of a more extensive circular initiative. Once the sales of pre-used garments are established as part of EmmaMalenas stock, it can be scaled up by including mended clothes, re-fashioned garments, or other products that make use of the textiles of clothes deemed too worn for another life cycle as-is. A few suggestions for using the fabric from worn-out garments were proposed in chapter 5.1.

7.2.2 Identification of Users and Products Suitable for a Circular Strategy

This thesis had a number of objectives, defined in chapter 1.3. These aimed to improve the sustainable product life for EmmaMalena products. Insights and conclusions relating to these objectives are detailed below.

The identification of a target user that will dispose of (or choose to repurpose) the item in a circular way

All three of EmmaMalenas target personas represented customers with a high sense of brand loyalty. As long-time customers, there may be EmmaMalena garments purchased some time ago that are stuck in disuse limbo due to individual shifts in size, taste or trends. Because of this, all personas were reviewed as potential users to go through the revalue and riddance phases according to the Use2Use Circular Journey Exploration Pack (described in 2.4.7).

The identification of a target user that will receive the pre-used item (in its original or a re-worked shape)

The location of the EmmaMalena Gothenburg store has foot traffic that includes people with an established interest in premium second-hand clothing. A new persona, Jasmine, was created representing a younger target audience with the experience of acquiring pre-used clothes. This was determined to be the initial recipient for a circular EmmaMalena collection. In addition, the customers represented by EmmaMalenas pre-existing personas have been reviewed as recipients for long-term circular efforts.

Selection and identification of appropriate product/s from EmmaMalena's product range to adapt or contextualize into a circular system.

It was established through conversation with representatives of EmmaMalena that a pilot project for increased circularity should focus on a solution requiring little maintenance or manufacture in order to realize it with the means available for a company their size.

EmmaMalena garments in condition good enough for sale without much preparation (see 6.2.1.1) were selected. Adult sizes were picked as Jasmine, the persona representing the first recipients for a circular EmmaMalena collection does not live with children. For the first stage of sales, Premium Basics (see 6.2.1.2) is the preferred style. However, the circular concept package presented in chapter 6 includes recipients and methods for all styles produced by EmmaMalena at the time of the report. In order to ease the collection phase of the pilot project, all EmmaMalena adult-size clothing in acceptable condition should be included.

Synergizing the drives and needs of the target user/s into an actionable concept plan that EmmaMalena can materialize into a product or service.

A circular action plan was developed based on the Use2Use models and tools of circularity. Octalysis was utilized to increase motivation in the re-evaluation, riddance, and obtainment stages. All steps in this action plan might need some testing and iterations upon implementation. In order to acquire a sample big enough for launching a pilot sale, more stores or additional seasons might have to be added to the collection phase of the pilot. However, the solutions are scalable and can be executed with just a few garments, even though a greater quantity would increase the circular effects as well as strengthen the brand's position as sustainable.

7.3 Evaluation of Design Guidelines

This segment evaluates the design guidelines detailed in chapter 3.3.3

The concept should be preferable to storage or common donation bins.

The incentives described in 6.2.2 have been designed to specifically appeal to EmmaMalenas main personas, which are representing brand loyal customers likely to have several garments from the brand in their wardrobe or storage. The incentives are expected to make it more appealing to return disused EmmaMalena clothes in-store compared to a generic donation bin.

The concept should include information about the circular life of a garment

The overall branding concept Tångcirkeln (proposed in 6.1.) will be used to highlight the relevant steps and benefits of closing the circle according to EmmaMalena's efforts.

The concept should make it attractive to choose used garments

Ways to increase the perceived value and appealingness of pre-used clothes are described in chapters 6.3.2 and 6.3.3. Further, the pre-existing brand loyalty and initiatives such as a common cause detailed in chapter 6.1.5 are factors expected to appeal to EmmaMalenas personas.

The concept should ensure quality

The scale and method of the circular concept proposed in this report allow EmmaMalena to directly review the condition of any garments included. The selection process according to condition is described in chapter 6.2.1.1.

The concept should strengthen EmmaMalena's brand

Selling Pre-Owned EmmaMalena clothes as a premium product further increases the value of EmmaMalenas full stock, verifying the garments' longevity and long-term value. The proposed sub-brand *Tångcirkeln*, described in detail in chapter 6.1, has great potential to both highlight and increase EmmaMalenas pre-existing sustainable practices, as well as expand it to include increasingly sustainable efforts. Beyond increasing the visibility of any sustainable effort, it actively involves customers as part of the movement, which strengthens the customer-brand relationship.

8. Conclusion

Through researching pre-existing and potential future customers, a pilot project was designed for collecting and reselling pre-owned EmmaMalena garments as premium second hand products. The pilot is expected to enhance the brand value and market position of EmmaMalena in several aspects.

A sub-brand and customer program called *Tångcirkeln* (Circle of Seaweed) will represent EmmaMalenas sustainable efforts, but also work to highlight EmmaMalenas pre-existing environmental initiatives. The community around the brand will be strengthened through pursuing a sustainable goal, with particular focus on the future of the target group's children. Through rewards, limited editions and common goals, it invites all customers to participate, including those with little previous experience choosing circular ways of consumption.

The pilot project can be viewed as the first step for increased circularity within EmmaMalena. Once the pilot has run its course, one way to further increase circular efforts could be expanding the scope of the same design proposal by including more stores or ability to participate through their web page. Another way to increase brand circularity post-pilot is implementing more products or incentives. The design process of this report has yielded a great number of ideas that can be implemented in *Tångcirkeln* long-term. Implementing efforts under the same sub-brand allows for trial and error without the need to reconstruct the core framework of EmmaMalenas circular design efforts. For example, the product can be changed but the incentives stay in place, or vice versa.

EmmaMalena is a family-oriented brand, with all pre-existing personas being mothers. Through interviews with people slightly below the average age of first-time parents, it was established that sustainability is a key issue for the generation about to enter parenthood. Given that the selection of interviews required that the participant have some experience with acquiring pre-owned garments the sample might have more conscious tendencies than others their age. However, the sampling did not specify why, how or how much the users acquired pre-owned garments. Even so, several interviewees expressed making major changes in their ways of consuming clothing in order to live in line with their own ethics, or experiencing shame when they failed to do so. Further, sustainability is a core value of EmmaMalena and marketing towards an environmentally conscious segment of the emerging parental generation is an appropriate strategy to strengthen their status as a family brand for upcoming generations.

As there is no guarantee of the age of any clothes collected in the pilot, the True Vintage Label proposed in the sales-segment of the final concept might have to be a later effort. As of writing this report, the first EmmaMalena garments will reach vintage status in two years. The number of vintage items available for circulation will increase with time. To incentivize customers with disused nearly-vintage clothing in storage to bring it in, purchasing it back

from them could be an option. Storing items for a while to launch them as vintage later can increase the desirability, but it is important for EmmaMalena to not hold on to clothing that already is in high demand and unnecessarily lock them in disuse limbo. For the sake of the pilot, storing clothes two to three years away from official vintage status is a viable start. Subsequent sales will determine how the vintage status impacts desirability, and can work as a guide for EmmaMalena to determine for how many years they should hold on to garments for a True Vintage label.

Extra care should be considered when applying discount coupons as an incentive for collecting garments. Discounts could cause an increased desire among the participants to shop new clothes made from virgin materials. While this would increase EmmaMalena's revenue during the pilot, it can be counterintuitive in a circularity perspective long-term. Therefore, the coupon reward should be shifted to apply to pre-owned clothing only when possible, or be replaced with other incentives as the scale of EmmaMalena's sale of circulated clothes increases.

Another incentive that should be handled carefully is the language used when inviting customers to participate for a common cause. For example, if money is raised to plant eelgrass, their benefits as carbon sinks should not be presented as a way to compensate for emissions the customer has caused through phrases like "climate compensation". That could give the customer the sense of purchasing the right to not question linear consumption choices, instead of choosing circular ones.

With the European Union establishing a goal of full circularity by 2050, it will be necessary for retail companies to adapt. The shift is already evident in companies such as Lindex launching sales of pre-owned Lindex clothing. By selling clothing designed to last and offering classic designs that have been in demand for decades, EmmaMalena has great potential to enter the circular market. Further, the strong brand loyalty found among long-term customers offers a unique opportunity to motivate customers to change established habits. The pilot project is a way for EmmaMalena to adapt to the change early and, as a spearhead brand, successfully transition into the future patterns of consumption.

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