UTOPIAH: A SUSTAINABLE POP-UP HABERDASHERY

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Introduction

Problem Contextualization

In a scenario where the fashion industry is grappling with escalating environmental concerns and actively committing to adopting sustainable alternatives, a significant gap in the market becomes apparent—the absence of temporary haberdasheries. Traditional haberdasheries, tethered to fixed locations, face challenges in aligning with the ever-changing preferences of consumers who are increasingly inclined towards sustainability and experiential retail. The introduction of a temporary model in haberdashery not only addresses these challenges but also introduces a dynamic and ephemeral retail experience that aligns with the ethos of circular textiles.

Within the dynamic landscape of the textile and fashion industry, an innovative concept emerges, promising to redefine how we conceive haberdashery: temporary sustainable haberdashery. This revolutionary model amalgamates traditional haberdashery practices with the flexibility and dynamism of temporary retail, heralding a paradigm shift in the approach to fashion and emphasizing the crucial importance of sustainability and circular principles in the textile industry context. The current lack of temporary haberdasheries constitutes a gap in the textile market, and Utopiah positions itself as a catalyst for exploring uncharted territories aimed at innovating the textile world.

This necessity not only responds to a growing environmental and social awareness but also underscores the need to adopt new business models that can reconcile the textile industry with a broader and responsible sustainability footprint. The textile industry is known for its significant environmental impact, posing challenges related to waste management, intensive resource utilization, and polluting production processes.

The adoption of temporary sustainable haberdashery, therefore, represents not only a response to market demands but also a viable alternative to traditional haberdasheries that market "conventional" fabrics. Temporary sustainable haberdashery, inherently guided by circular principles, aims to redesign not only how we conceive haberdasheries and fabric stores but also to rewrite the role of the textile industry within the environmental context.

Integrating sustainability into the very heart of textile production becomes imperative, wherein the responsible use of resources, prudent waste

management, and the adoption of eco-friendly and circular production processes become fundamental pillars of this innovative model.

Aims and Purpose of the Thesis

This thesis aims to conduct an in-depth analysis, intending to introduce and explore the innovative concept of temporary sustainable haberdashery within the context of the textile and fashion industry. This comprehensive exploration encompasses various key objectives, as outlined below, with the aim of developing a profound and scientific understanding of how temporary sustainable haberdashery can constitute a meaningful response to the emerging challenges and opportunities in the sector.

A primary area of study concerns the deepening of the fundamental principles of the circular economy. This involves a comprehensive definition of the circular economy concept and a critical analysis of the traditional linear business model, with particular attention to its impacts on the textile and fashion industry.

A second area of investigation pertains to the environmental impact of the fashion industry. Through an in-depth inquiry, the thesis aims to highlight the significant ecological footprint associated with the textile industry, emphasizing the urgency of sustainable practices to mitigate environmental damage and offering potential solutions through the model of temporary sustainable haberdashery.

A third focus of study concentrates on the evolution of sustainability in the fashion system. This involves an analysis of the current state of the industry, exploring how fashion brands position themselves in adopting eco-conscious approaches and identifying associated challenges and opportunities.

Additional objectives include the exploration of sustainable design principles in the context of haberdashery, focusing on the use of ecological materials and circular construction methodologies. The analysis further extends to sustainable production processes, emphasizing innovation and the integration of advanced technologies in sustainable fashion.

A key phase of the research is dedicated to defining the eco-sustainable design of the haberdashery business. This includes the development of a clear definition of the entrepreneurial project, outlining objectives, mission, and vision, as well as the specific products and services that temporary sustainable haberdashery aims to offer.

Another area of investigation concerns the exploration of sustainable design principles in the fashion system. This involves a deep dive into ecological materials, circular-oriented design, and drawing inspiration from circular concepts, as applied to haberdashery.

The research then extends to the development of sustainable partnerships, focusing on collaboration with suppliers, manufacturers, and active involvement of the local community. This aspect underscores the importance of a systemic and integrated vision in the context of temporary sustainable haberdashery.

The implementation phase of the project is another research focus, exploring the stages of research and development, the pilot phase, and the scalability of the project. Additionally, the thesis establishes robust monitoring and evaluation systems, with particular attention to potential modifications during the construction phase.

Finally, the research dedicates attention to sustainable communication and marketing strategies. This includes the development of communication strategies, encompassing brand building, compelling storytelling, and consumer engagement. The exploration of distribution channels and sustainable marketing strategies is an additional step, with a particular emphasis on responsible e-commerce and partnerships with eco-friendly retailers.

Introduction of the Eco-Sustainable Business Project

The primary focus of this in-depth exploration is the conception of an eco-sustainable entrepreneurial project within the context of temporary haberdashery. It represents a venture that transcends the constraints imposed by traditional models, fully embracing the fundamental principles of circular design. Its identity takes shape through the promotion of sustainable partnerships and the realization of a mission intrinsically linked to active engagement and tangible benefits for local communities. This eco-sustainable project emerges as innovative, seeking to redefine the very concept of haberdashery, propelling the company into uncharted territory where sustainability and social involvement emerge as foundational pillars.

The conceptual core of this entrepreneurial proposal is grounded in circular design, an approach that prioritizes durability, repairability, and recyclability of products. This philosophy aims not only to reduce environmental impact but also integrates into the broader context of the circular economy, wherein materials retain their value over time through cycles of use and reuse.

Furthermore, the project embraces the concept of sustainable partnerships, recognizing that sustainability cannot be achieved in isolation. Collaboration with suppliers, manufacturers, and other stakeholders becomes crucial to creating a sustainable and harmonious ecosystem.

The mission of active engagement and benefit for local communities is a distinctive element of this project. It is not merely about marketing sustainable fabrics and haberdashery items but contributing positively to the social fabric of the communities in which the company operates. This involves adopting ethical practices, enhancing local skills, and promoting initiatives for the community's well-being.

In conclusion, the presentation of this eco-sustainable business project represents a bold step toward significant innovation in the haberdashery sector, aiming to renew the conception of the very place itself.

Structure of the Thesis

The structured exploration of Utopiah pop-up aims not only to contribute to academic discourse but also to pave the way for the practical implementation of sustainable haberdashery temporary stores. It unfolds across five interconnected chapters, each contributing a vital piece to the puzzle:

Chapter 1: Theoretical Foundations This chapter extensively explores the foundational concepts of the circular economy, analyzing the criticality of the traditional business model and scrutinizing the environmental impact of the fashion industry. It dives deep into the evolutionary trajectory of sustainability within the fashion system and assesses the positioning of fashion brands in adopting sustainable practices.

Chapter 2: Sustainability of Fashion Products Diving into the intricacies of sustainable design, this chapter elucidates principles such as the use of ecological materials and circular construction methodologies. It extends its exploration to sustainable production processes, shedding light on innovative technologies that minimize environmental impact.

Chapter 3: Eco-Sustainable Business Design This pivotal chapter defines the business project in explicit terms, outlining its objectives, mission, and vision, as well as the specific products and services it aims to offer. It explores the principles of sustainable design within the fashion system, focusing on environmentally friendly materials, circularity-oriented design, and the cultivation of sustainable partnerships.

Chapter 4: Project Implementation Unpacking the stages of project implementation, this chapter navigates through research and development, the pilot phase, and scalability considerations. It also establishes robust monitoring and evaluation systems with a focus on adaptations during the construction phase.

Chapter 5: Communication and Marketing This chapter strategically formulates sustainable communication strategies, encompassing brand building, storytelling, and consumer involvement. It further explores sustainable distribution channels and marketing strategies, with an emphasis on sustainable e-commerce and partnerships with environmentally friendly retailers.

Chapter 1: Theoretical foundations

1.1 Key concepts of the circular economy

Definition and basic principles

Before discussing the circular economy, it is necessary to define the term sustainable development, which is connected to it. The first, considered among the most accurate and comprehensive, comes from the Ellen MacArthur Foundation: "It is a generic term to define an economy designed to regenerate itself. In a circular economy, material flows are of two types: biological ones, capable of being reintegrated into the biosphere, and technical ones, destined to be revalued without entering the biosphere." Sustainable development, on the other hand, is explained as

"[...] the process of change whereby the exploitation of resources, the direction of investments, the orientation of technological development, and institutional changes are made consistent with future needs as well as present ones."[1]

The term "sustainability" - erroneously attributed to the Earth Summit, the first global conference of Heads of State on the environment, held in Rio de Janeiro in 1992 and based on the Brundtland Commission Report (also known as Our Common Future), published in 1987 by the World Commission on Environment - first appeared in Germany, coined in 1713 by Hans Carl von Carlowitz, the director of the royal mining office in the Kingdom of Saxony, in his work *Sylvicultura oeconomica*, referring to the problem of wood scarcity. In his writing, he proposed the need to gather as much wood as would naturally regrow, using the term "*nachhaltend*" to describe forestry practices later adopted in Germany. Later, the word became Nachhaltige Entwicklung, translated as "sustainable development" in Italian. Later, during the Industrial Revolution, the Essay on the Principle of Population and Its Effects on the Future Improvement of Society by the English economist and demographer Thomas Robert Malthus argued that poverty and hunger would result from the excess offspring in families, which constitute the workforce of the family. The Speenhamland system - a cash subsidy provided by local institutions to alleviate the effects of rural poverty, calculated based on the price of bread and the number of children per household - contributed to solidifying Malthus's belief that the British government's decision was state paternalism since, in his opinion, it favored the formation of large

[1] (WCED, Our Common Future, 1987).

families, exacerbating the problem of resource exploitation and encouraging worker inertia. He understood that the natural resources needed to produce subsistence goods are fixed and limited, and that capital invested in cultivation does not bring an equal increase in productivity. This means that agricultural production is subject to the law of diminishing returns, whereby doubling the amount invested in a fund does not result in a doubling of agricultural production. Therefore, agricultural output per unit of labor tends to decrease as the population increases. The next century gave rise to Principles of Political Economy (1848) by John Stuart Mill, where he argued that the logical conclusions of unlimited population growth are the destruction of the environment and the reduction of the quality of life. He ultimately asserted that even a steady state would be preferable to infinite economic growth. However, both Malthus and Mill, in their considerations, did not take into account technological development and the growth of knowledge, which would become crucial topics in the debate on population growth from the end of World War II to the 1970s, described as the golden period of capitalism. The birth of intensive farming, the Green Revolution, computerized logistics, global trade fueled by oil, and many other inventions led to surpassing the astronomical figure of seven billion inhabitants on planet Earth, with a system virtually capable of feeding every inhabitant. The end of the 20th century brought forth "Jobs for Tomorrow – The Potential for Substituting Manpower for Energy," by economist and sociologist Geneviève Reday-Mulvey in collaboration with architect Walter R. Stahel. It was the first text proposing a new economic model that differs from the linear one: the "circular" economy. In the early 1980s, ecological movements had gained a significant position in public opinion, making environmental issues a crucial theme for governments and international organizations as well. "Building a Sustainable Society," written in 1982 by Lester R. Brown, the founder and director of the World Watch Institute, reflected this evolving context. In this writing, the author suggested to the American people how to avoid certain, premature, and ignoble death. Precautions were provided to avert natural catastrophes: Surveillance of the seas, transition to renewable energy sources, family planning, promotion of reforestation, advancement of sustainable transport solutions, and a transformation in the values of Western society. With Our Common Future in 1987, more commonly known as the Brundtland Report, the foundations for the subsequent evolutionary phase of international environmental law were outlined in Stockholm. This new phase is characterized by the signing of predominantly sectoral treaties, based on the prevention of damage and the management of

transboundary pollution issues. A path that continues today with the Sustainable Development Goals agenda. Five business models to create circular value have been identified to date: *Circular Inputs, Product Use Extension*, and *Resource Recovery* are more focused on production, while *Sharing Platforms* and *Product as a Service* concentrate on the consumption target and the relationship between product and consumer.

- ***The Circular Inputs*** model is implemented when an organization manages to replace a "linear" resource in its supply chain with a "circular" alternative. These elements, such as renewable resources, are designed to eliminate resource wastage, including toxic and disposable materials, and form the foundation for all other models. In more advanced examples, waste streams are transformed into material flows:

  - Renewable resources: can be used repeatedly, for example, rain desalination, wind and solar energy, etc.

  - Renewable bio-based materials: Materials like bioplastics and microbial agrochemical solutions, derived from chemistry based on living organisms, such as biogas.

  - Renewable man-made materials: materials created through inorganic chemistry that can be recycled indefinitely without significant loss of quality or physical properties.

  In the initial phase of the Circular Inputs approach, the focus is on progressively reducing the use of linear resources and waste. The second phase, on the other hand, introduces a new way of conceiving waste, considering it as part of a complete shift in production systems. Crucial for the adoption of this model has been, on one hand, the increased attention to climate change, which has facilitated considerable financial support for projects in the renewable energy sector, leading to the development of more cost-effective, reliable, and advanced technologies. On the other hand, environmental damage caused by materials such as microplastics and the scarcity of alternative resources have spurred most sectors to encourage research and development activity for green solutions, with large companies patenting and commercializing new circular materials.

- ***The Product Use Extension*** model focuses on maximizing the use of a product. To achieve this, companies must start from the beginning, beginning with product design and responsible resource selection to avoid unnecessary life cycles and keep products in use for the longest possible period. With the Product Use Extension business model, companies optimize the utilization of

a product in its original form and for its intended purpose. This extension is implemented either during or after the product's initial use. Instead of being discarded, sent to landfills, or, at best, recycled, the item undergoes repair, reconditioning, or updating to prolong its usability. Alternatively, it may find a second purpose in a market for pre-owned products. This business model encompasses various activities, including repair, refurbishment, upgrading, trading, and reselling, some of which can be considered standalone business models. A notable advantage of the Product Use Extension is that it doesn't necessitate a complete overhaul of a company's existing business model but rather an expansion of business capabilities or market channels. Encouraging individuals to extend the use of their owned products enables companies to create extra touch points with their customer base. This results in enhanced customer centricity, the cultivation of brand loyalty, and the facilitation of obtaining additional product feedback. The primary organizational challenge in adopting this business model, particularly for relatively low-value products, revolves around the selection of the right format and scope for establishing an internal exploratory venture. Initially, these decisions may not seem significantly impactful, but the implementation of a Product Use Extension model often entails acquiring new capabilities, potential alterations to product design, and adjustments to financial models to counter concerns related to reduced one-time product sales.

- ***Resource Recovery*** assumes the task of bringing materials back into the production cycle when a product reaches the end of its use, thus closing the product cycle from the point of view of supply, use and supply. The most widely adopted business model is now Resource Recovery. It directs attention to the concluding phases of the value chain—specifically, the retrieval of materials and resources from products that have reached the end of their functional life in their current application. The optimal scenario involves utilizing the recovered resource in a manner that preserves its maximum value for an extended duration. Within this context, it is imperative for companies to consider the "hierarchy of waste" while discerning strategies to derive value from products at the end of their use. Striving for the pinnacle, businesses must set their sights on closed-loop solutions, recognizing their optimal nature, even if they prove intricate and not consistently technically feasible. Resorting to solutions that diminish material quality should only be contemplated as a final recourse. The processes of collection and separation

remain expensive, and the current infrastructure associated with waste is frequently inadequate to meet the quantity or quality demands of buyers. However, with advancements in technology, decreasing costs, the proliferation of data, and the advent of innovative solutions automating previously labour-intensive tasks, organizations will increasingly explore the recovery and enhanced value extraction from growing volumes of wasted resources. Resource Recovery models are poised for broader acceptance, driven by factors like resource scarcities and regulatory shifts, such as Extended Producer Responsibility (EPR) levies mandating companies to manage the treatment and disposal of their products. Additionally, mounting consumer pressure to address waste concerns will further contribute to the adoption of these models.

- ***Sharing Platforms*** is the business model for optimizing the rates of use of products and resources that takes place through the practice of shared ownership, facilitated by access and use typically enabled by digital technologies. this fourth business model in the circular economy is intricately tied to the broader sharing economy. Functioning as a connecting hub, this model facilitates the interaction between product owners and individuals or organizations seeking to utilize them. Instead of allowing products to remain inactive, this platform enhances their productivity through options like co-access or co-ownership. By enabling multiple customers to use the same resources, the Sharing Platform reduces the demand for new manufacturing. Moreover, it permits consumption growth without the necessity of creating entirely new products. Users enjoy heightened flexibility and availability, gaining access to a myriad of products across various price points and locations, as opposed to being confined to a more limited selection available from a centralized location. Enabling the rental, sharing, swapping, lending, gifting, or bartering of resources, the Sharing Platform business model operates by connecting idle resource capacity with demand. The platform owner, while not directly providing products, generates revenue by facilitating the matching process between supply and demand. Companies profit by imposing a percentage fee on all transactions occurring within the platform. The utility of sharing platforms extends beyond individual consumers; companies can utilize them as a cost-effective means to introduce products to the market without the overhead of physical stores. By relying on users to handle the movement of goods instead of managing transportation internally,

a decentralized synthesis of the Sharing Platform and Product as a Service models emerges.

- in ***Product as a Service*** model, companies not only offer physical products but also provide services to support a product's entire lifecycle, encompassing design, use, maintenance, reuse, remanufacture, and recycling. This process unfolds through close collaboration with the customer, transforming them into more of a "user" of the service rather than merely a "consumer" of a product. Strategic planning for PaaS (Product as a Service) companies necessitates a comprehensive consideration of the entire product lifecycle. As the provider assumes ownership of the products and bears the responsibility for lifecycle management costs, ensuring robust product performance becomes paramount. To avoid issues like rapid quality degradation, short lifespan, low utilization rates, and insufficient recycling/return, products must be meticulously designed for optimal use, maintenance, reuse, remanufacture, and recycling. Quality degradation not only diminishes the "next-user" value but also erodes the embedded value in materials and components. A brief lifecycle indicates the product's swift decline or falling out of fashion, prematurely curtailing the revenue stream. A low utilization rate hampers the provider's ability to charge for the product's full potential usage time. Additionally, low recycling/return translates to the provider forfeiting any residual value the product might retain at the end of its life.

  A distinguishing feature of the PaaS model lies in its effective alignment of the provider's and the customer's goals for the product. Notably, one of the most appealing advantages for providers in the PaaS model is its impact on customer engagement. The ongoing customer interactions inherent in this model, in contrast to the singular transaction of purchasing for ownership, often result in heightened customer loyalty and retention. This, in turn, translates to more opportunities to generate revenue through additional sales and services.

From line to circle, step by step

The theories that guided the initial phase of capitalist expansion are rooted in the ideas developed by John M. Keynes in his work "The General Theory of Employment, Interest, and Money" (1936). At the core of Keynesian theories lies the objective of achieving full employment and stimulating aggregate demand

through public expenditure intervention. This intervention aims not only to catalyse the growth of public consumption but also to incentivize private investments, thereby contributing to the overall economic sustenance. At the foundation of this model is the generalization of the management system experimented within the early 20th century at Ford automotive plants in the USA. This system involved the standardization of labor through the introduction of the assembly line, leveraging economies of scale to achieve higher revenues with increased production. It also embraced a policy of relatively higher wages to stimulate adequate demand for the produced goods. In addition to these elements, the diffusion of the welfare state has been observed in many countries—a universalistic system of social protection promising to care for the citizen, significantly contributing to the construction of a sense of substantive citizenship in Western countries. Meanwhile, previously elitist phenomena such as fashion and "conspicuous consumption" have become accessible to the middle class. It is in this context that the term "consumerism" is defined, denoting a socioeconomic phenomenon based on the indiscriminate purchase of consumer goods.

> *"Our incredibly productive economy requires us to elevate consumerism to a lifestyle, to transform the use and purchase of goods into a ritual, and to ensure that our personal and spiritual fulfillment is sought through consumerism. We need an increasing number of goods to be consumed, destroyed, and replaced at an ever-accelerating pace. We require individuals to engage in ever more intricate and consequently more expensive forms of consumerism, including but not limited to eating, drinking, dressing, traveling, and living. Household electrical tools and the entire do-it-yourself product line serve as excellent examples of costly consumption."*[2]

Already from the early 1960s, however, the devastating effects of uncontrolled development, driven primarily by the pursuit of wealth, began to emerge. Critiques of this development model and its environmental impacts started to surface. Foremost among these was Rachel Carson's seminal work "Silent Spring" (1962), evolving over time into a cornerstone of environmentalism. In this essay, the American biologist reflects on the disappearance of certain bird species from fields in spring, informing the public about the detrimental effects that DDT and pesticides could have on humans, animals, and the entire

[2] *Price Competition, 1955. Victor Lebow*

ecosystem. These insights, combined with a series of anti-authoritarian protest movements advocating values such as peace and equality, gave rise to a range of social and economic experiments, including communes, early research on renewable energies, ecovillages, anti-nuclear movements, and militant environmentalism. Starting from 1961 in Kalundborg, Denmark, the Symbiosis program was established, representing the first industrial system operating according to the principles of industrial symbiosis. Citizens, businesses, and local authorities aimed to develop a complex network of material and energy exchanges. This network included the sharing of by-products, production waste, and energy residues, with the goal of optimizing the efficiency of individual production processes and significantly minimizing environmental impact. The symbiosis, from which the project takes its name, allowed for an integration of industrial activities in such a way that waste from one phase of the production chain transformed into a valuable resource for other project participants. The research community's attention to the intricate interconnections between economic growth and the environmental system acted as a catalyst, triggering a change even at the political level, finding expression in the first United Nations Conference on the Human Environment held in 1972 in Stockholm. The conference, named after the city where it took place, marked a significant turning point in the development of international environmental policies. Negotiations between developed and developing countries at the time culminated in the approval of a non-binding declaration of principles, becoming the reference model for international environmental agreements thereafter. During these years, Europe was compelled to adopt economic austerity measures as Middle Eastern oil-producing countries, in response to the conflict between Israel, Egypt, and Syria, raised prices and reduced exports by 25% as a countermeasure against Israel and its supporting countries. Recognizing the energy vulnerability, concrete efforts began to explore sustainable alternatives for the future. In 1981, economist and sociologist Geneviève Reday-Mulvey, in collaboration with architect Walter R. Stahel, published the text titled "Jobs for Tomorrow – The Potential for Substituting Manpower for Energy." This work represents the pioneering manifesto of a new economic paradigm, known as "circular" economy, which radically departs from the traditional linear model. In a linear economy, the concepts of "value added," limited to the production phase of goods from their creation to the point of sale, "depreciation value" associated with goods after sale, and "waste" at the end of the individual usage period constitute the paradigmatic assumptions of an industrial linear economy. In such an economic context,

responsibility for goods ceases at the entry of the production unit, and waste, representing everything beyond that limit, becomes a problem and a burden for other entities. A "circular" economy would demonstrate lower resource consumption in a more efficient manner. Its production would be characterized by the presence of more compact, decentralized units with a higher level of skilled labor input. Additionally, this would lead to a reduction in the transport volumes of material goods, with an increasing reliance on the transport of immaterial goods. According to the analysis of Stahel and Reday-Mulvey, an economy focused on providing services rather than products could revolutionize the structure of the industrial system. This transformation could involve the creation of manufacturing companies specializing in the large-scale production of standardized global components, accompanied by local enterprises specialized in assembly, disassembly, and re-production of goods. The two authors draw inspiration from natural processes, such as the water cycle, conceiving a self-sustainable production system where businesses take responsibility for what they produce even after the sale. In the same years, Orio Giarini, an economist from Trieste and a member of the Club of Rome – a circle aimed at investigating and implementing alternative solutions to manage global changes – in "Dialogue on Wealth and Well-being" (1981), explores the opportunities offered by the service economy. He states that value can be defined as the sum of what humanity is capable of producing and what it actually produces, including negative impacts, as highlighted by the destructive effects of human activities on the environment. Furthermore, this production can manifest both within and outside the monetary system. From this perspective, the possibility of developing a new discipline focused on optimizing value emerges, with specific attention to the utilization and, consequently, the life cycle of products and services. Additional criticisms arise from Giarini's reflection on classical economic theories. In particular, he distinguishes himself as the first to question the validity of Gross National Product (GNP), later transformed into Gross Domestic Product (GDP), as an indicator of economic and social progress. GNP is considered by the economist as a measure of monetary flow that does not necessarily reflect the real growth of wealth and well-being. Another observation concerns the planning process in development policies, as he proposes the inversion of the procedure: suggesting starting with the assessment of the inertias and life cycles of all current economic factors, decisions, and their interactions. In 1982, Giarini and Stahel decided to establish the Product-Life Institute, based in Geneva, which continues to develop strategies to increase material productivity within the context of the "society of

services." In this context, five strategies are outlined to guide circular economic models in the future. These include transforming the product into a service rather than a sellable entity, extending the manufacturer's responsibility for the good during the usage and post-usage period, ownership sharing (e.g., in the case of cars or washing machines), regeneration (replacing only obsolete or damaged components of a product), and designing products focused on durability, regeneration, and recycling. The product's lifespan, referred to as "product-life," represents the period during which products and goods are used, influencing the frequency of their replacement and, consequently, the use of natural resources for their manufacturing and the amount of waste generated. Reducing the lifespan of a product stimulates the demand for substitute goods, especially in developed economies where individuals have the ability to purchase new goods. In contrast, extending the lifespan of a product optimizes the use of resources in its production, reducing the need for resources and energy, as well as the amount of waste generated. This approach not only contributes to creating well-being and greater wealth but also promotes the transition to a sustainable society. The Brundtland Commission's report ("Our Common Future") in 1987 proposed the fundamental idea of establishing a current type of development that preserves the environment, avoiding compromising the ability of future generations to meet their needs and benefit from natural resources. In 1989, at the conclusion of the 1980s, Orio Giarini and Walter Stahel made a significant contribution to the theme with the essay titled "The Limits to Certainty," arguing that commonly recognized growth limits, such as the scarcity of certain raw materials, actually define the boundaries of a specific economic model: the linear one. During a conference at the United Nations University in Tokyo the following year, the evident persistent interferences in the dynamic balances of fundamental cycles emerged, mainly derived from the economic and production system, that is, industrial activities. It was understood that the industry constitutes an element of the biosphere's metabolism, giving rise to the concept of "industrial metabolism" referring to processes that take energy and matter from natural sources, later releasing transformed residues into the surrounding environment. Everything transformed within human activities is subsequently returned to the environment. Although material flows through society, the global ecosystem is limited since the Earth is a closed system concerning matter. The amount of material taken from the environment is equal to that returned, except for materials temporarily accumulated in goods like buildings, cars, and infrastructure.

Therefore, every return of material from the human sphere to the natural environment, such as waste and emissions, is ecologically relevant. Similarly, every intervention on the environment, such as resource extraction or agricultural practices, conditions ecological balances. In the context of the linear production system, known as "from cradle to grave," people are identified as consumers, although actual consumption is limited: goods are designed with the intention of being discarded when no longer useful. In the United States, over 90% of materials extracted for the production of durable goods quickly become waste. Sometimes, the product itself has a short lifespan; in other cases, it is more convenient to buy a new version than seek repairs for the previous model. Additionally, many appliances are designed with a principle of "planned obsolescence," encouraging the customer to dispose of them quickly to purchase the latest model. However, what ends up in waste represents only a small part of the problem. The finished good itself contains, on average, only 5% of the raw materials used in the production and distribution process. In order to obtain a universally applicable product, large industries develop formulas aimed at ensuring effectiveness in any condition, even in the worst circumstances. Although this ensures a broad market, it also indicates an industry approach to the natural world based on the belief that nature is considered an adversary. To sum up, the linear economy adopts an approach known as "take, use, dispose." This is characterized by a linear consumption of resources, including the intensive extraction of raw materials with negative environmental impacts. The stages of production, use, and disposal are separate and not interconnected, with an innovation focus often geared towards creating new goods. This model relies on the overproduction of waste, where products are designed to deteriorate quickly or become obsolete. This encourages consumers to purchase new ones, generating value through production and sales. The difference between the two models lies in how resources are managed and used within the economic context. Compared to the traditional model, the circular economy aims to develop systems where materials are used more efficiently and sustainably. This goal is achieved by promoting closed-loop systems and reducing resource consumption through recycling, reuse, and sharing practices. In this way, waste production is reduced, and sustainable material management is encouraged, maintaining the economic value of goods for the longest possible period. Innovation is focused on technologies and business models that promote circularity, such as eco-friendly design and advanced recycling. The objective is to limit environmental impact through sustainable resource management and waste reduction. The circular

economy also promotes more sustainable consumption models, such as renting, reusing, and sharing, reducing the need to purchase new goods.

Criticality of the traditional business model

The traditional model highlights a series of critical issues with significant negative impacts on both the environment and the long-term economy. This paradigm, based on the production, use, and disposal of goods, presents several problems:

• Resource Waste: In the context of the traditional model, resources are frequently used inefficiently. Intensive extraction of raw materials, large-scale production, and high energy consumption contribute to the exploitation and depletion of natural resources. The material inflow into the global system is immense: according to the Circularity Gap Report by Circle Economy, almost 100.6 billion tonnes of raw materials entered the system in 2020, more than tripling the quantity extracted in 1970 (27 billion tonnes). According to the OECD, global consumption of raw materials is expected to nearly double by 2060 due to the expansion of the global economy and increased living standards, exerting double the environmental pressure compared to what we are already imposing today. This will have a tremendous impact on emissions, which will increase from the current 90 gigatonnes to 167 gigatonnes.[3]

• Waste Generation: The linear structure generates a significant amount of waste, with many products becoming obsolete or damaged after a short period of use. This leads to increasing environmental pressure associated with waste management and disposal. It is estimated that 2 billion tonnes of municipal solid waste (MSW) are generated globally each year, averaging 0.74 kilograms of waste per capita per day (with variability from 4.54 for richer countries to 0.11 for less developed ones). According to the World Bank's What a Waste report, these figures could increase to 1.42 kilograms of waste per capita by 2025, totaling over 2.2 billion tonnes per year. In 2019, the United States generated 292.4 million tonnes of urban waste, which is expected to increase to over 320 million tonnes by 2025, 30 million in Italy, 50 in Germany, and 242 in China.

• Planned Obsolescence: Some products are designed to have a limited lifespan or to become quickly obsolete, promoting the practice of planned obsolescence. This phenomenon encourages consumers to regularly replace their goods, fueling a pattern of excessive consumption. Since 2010, the volume of Waste Electrical and Electronic Equipment (WEEE) generated globally has been

[3] Bompan, Emanuele. Che cosa è l'economia circolare: Nuova edizione aggiornata e ampliata (pp.68-69) Edizioni Ambiente.

constantly increasing. According to Globalwaste data, around 53.6 million tonnes were produced by the end of 2019, with an increase of 44.4 million tonnes in just five years. Of these 53.6 million tonnes, only 17.4% were collected and recycled properly.

• Environmental Impacts: Large-scale production and natural resource extraction generate significant environmental impacts, including air and water pollution, deforestation, and loss of biodiversity. These impacts compromise ecosystem health and the well-being of local communities. According to the FAO, the impacts of food waste are immense: from an energy perspective, it contributes annually to the emission of 3.3 billion tonnes of CO2, ten times that of the UK. In terms of water, the equivalent of 250 cubic kilometers of water is wasted, a figure comparable to the annual flow of the Volga River.[4]

• Dependence on Linear Economic Growth: The traditional model is closely tied to linear economic growth, which exerts constant pressure on natural resources and can lead to unsustainable exploitation, with long-term consequences for economic and environmental stability.

• High Disposal Costs: Waste management from the traditional model incurs high costs for society, including those related to collection, disposal, and public health impacts. These costs are often not included in product prices, creating an inequitable distribution of burdens.

• Lack of Resilience: The traditional model often exhibits a lack of resilience due to its dependence on a global supply chain and linear processes. Events such as supply chain disruptions can have significant impacts on the continuity of economic activities.

• Minimization of Residual Value: In the traditional model, the conclusion of a product's lifecycle often coincides with its disposal as waste. This results in a failure to exploit the residual value of the materials present in products.

The growing awareness of these issues is prompting numerous businesses to explore alternatives that contribute to a more sustainable and resilient economy. In the report "*Growth within: a circular economy vision for a competitive Europe*," the transition from a linear to a circular model is highlighted as offering significant prospects, with an expected 11% growth in the European GDP by 2030. This represents a considerable increase of 7% compared to the growth projected by the linear model. Such a transition would result in an estimated saving of €1.8 trillion annually by 2030, emphasizing the economic efficiency derived from a

[4] Bompan, Emanuele. Op.cit. (pp.75)

circular approach. Simultaneously, a 48% reduction in carbon emissions is anticipated, with the potential to increase up to 84% by 2050. This demonstrates the positive environmental impact of adopting circular practices, contributing significantly to global efforts to mitigate climate change. Furthermore, the transition to a circular economy would lead to an increase in disposable income for families, recording a significant rise of 18%. This suggests that not only can the circular approach bring overall economic benefits, but it can also improve income distribution, contributing to family well-being.

1.2 The environmental impact of the fashion industry

In the early 21st century, the fashion industry has experienced a remarkable expansion, currently reaching a valuation surpassing 2.5 trillion dollars and providing employment for over 75 million individuals globally. Over the period from 2000 to 2014, the production of clothing witnessed a twofold increase, accompanied by a notable surge in consumer activity, with individuals, on average, acquiring 60%[5] more garments than they did 15 years prior. The fashion industry stands out for its significant contribution to greenhouse gas emissions, estimated to range between 2% and 8% of the global total, thinks that cotton farming is responsible for 24% of insecticides and 11% of pesticides despite using only 3% of the world's arable land.[6] There is an urgent need to substantially decrease emissions. Producing materials with reduced carbon emissions could result in an annual greenhouse gas (GHG) emissions reduction of 205 million tonnes by implementing various measures. This projection is based on achieving approximately 20% energy efficiency improvements in polyester production, utilizing advancements in machinery technology. Additionally, a potential 40% reduction in fertilizer and pesticide usage in cotton cultivation is anticipated, attributed to enhanced farming practices like targeted spreading. On the other hand, if the industry continues along its present trajectory, it will not achieve the necessary 50% reduction in greenhouse gas emissions by 2030, as mandated to limit global warming to 1.5 degrees.

Furthermore, the fashion production industry has a significant water footprint, consuming over 20% of the water resources allocated for industrial purposes, second only to agriculture. This environmental impact is notably exacerbated by

[5] (*UN Alliance Aims to Put Fashion on Path to Sustainability | UNECE*, 2018)
[6] (*UN Alliance Aims to Put Fashion on Path to Sustainability | UNECE*, 2018)

the presence of chemicals and the dyeing and tanning processes, contributing to the pollution of water sources. Not to be overlooked is the fact that over 70% of fabrics used in the fashion industry are petroleum derivatives, predominantly polyester, with an annual production of 80 million tonnes. Out of this enormous quantity, only 1% is recycled, while the rest ends up in landfills, with an estimated degradation time of a thousand years. Moreover, 85% of textiles end up in landfills or are incinerated when most of these materials could be reused. Additionally, clothing is the primary source of microplastics in the oceans, contributing to 35% of this pollution, with an estimated more than 92 million tonnes of waste clothing and textiles a year, according to the Nature Reviews report. These tiny plastic fiber particles not only contaminate marine environments but have also been found inside our bodies. According to the NIST report, more than 50 billion clothes are worn for only a year and then thrown away. Considering that more than 60 million tons of clothes are bought every year (the NIST report predicts 100 million in 2030).

In the present day, the dominant linear value chain heavily relies on virgin materials sourced from non-renewable origins. This encompasses the use of fertilizers for cotton cultivation,[7] oil for synthetic fiber manufacturing, various chemicals for dye production, and so forth. Cotton and other fiber crops, including hemp and linen, collectively constitute 28% of the global market. Cotton farming is a significant source of employment; however, the frequent misuse and overuse of chemicals in production pose implications for human and ecosystem health. Farmers are already adapting to the impacts of climate change, facing subsequent socio-political and economic challenges. Investments in organic and regenerative programs should be established in full financial partnership with farmers, facilitating a just transition and securing preferred feedstocks. Coupled with the increasing trend of treating clothing as disposable, these factors have given rise to waste challenges throughout the entire value chain. The initial consideration should be given to the material mix. The selection of materials significantly impacts the overall ecological footprint of clothing, spanning from cultivation (involving land, fertilizer, and water use) to processing (incurring energy, chemical, and water consumption) to use (resulting in microplastic pollution) and, finally, affecting recyclability at the end of its life cycle. For instance, the production of conventional cotton entails substantial inputs. To craft

[7] *Fashion CEO Agenda 2023 - Global Fashion Agenda.*

a single T-shirt and pair of jeans, an astonishing 20,000 liters of water are required. Additionally, the processing stage demands considerable energy, and the spinning and rinsing of fibers can also be both chemical and water-intensive, with water pollution emerging as a growing concern. Another facet of waste pertains to product disposability. The absence of a comprehensive infrastructure for collection and recycling results in an excessive amount of clothing ending up in landfills. Globally, a mere 20% of clothing undergoes reuse or recycling. The fashion industry, encompassing the creation and sale of clothing and accessories, demands significant resources. These industry dynamics have sparked a growing interest in circular solutions. The rapid growth in the MMCF (Man-Made Cellulosic Fibers) market has prompted over 530 brands to commit to company policies that avoid or eliminate sourcing from ancient and endangered forests. Brands are also investing in ecosystem conservation, adopting certified feedstocks, and encouraging the scaling of next-generation innovative feedstocks. Despite challenges such as high costs, complex blends, and infrastructure constraints slowing the uptake of recycled and next-generation MMCFs, producers and fashion brands have collectively signalled demand for 550,000 tonnes.[8] However, these endeavours constitute relatively minor components of the value chain. The crux of the matter is that achieving a closed loop will necessitate a considerably greater effort. A positive news is given by the Pulse of the Fashion Industry Report of 2019 there was a 4% increase in general sustainability efforts across the entire garment industry since the previous year's report.[9]

1.3 Sustainability in the fashion system

Currently, global circularity is at 7.2%, a decrease from 9.1% in 2018, indicating that 90% of materials are either wasted, lost, or left untapped for reuse. By 2030, adopting circular business models alone could raise the average number of uses per clothing item from 25 to 45, creating a value pool of USD 700 billion.[10] This presents significant economic opportunities and enhances long-term industry resilience. Each year, around 30% of manufactured clothing remains unsold, and another 30% is sold at a discount. If we scale up existing textile-to-textile recycling

[8] Op. cit, *Fashion CEO Agenda 2023 - Global Fashion Agenda*.
[9] *Pulse of the Fashion Industry 2019-Global Fashion Agenda*.

[10] Op. cit, *Fashion CEO Agenda 2023 - Global Fashion Agenda*

technologies, we could potentially achieve about 75% of products from recycled materials, leading to improved profit margins and substantial job creation. However, currently, less than 1% of textile waste is recycled into new textiles, resulting in an annual loss of over USD 100 billion worth of materials.[11] Also, Reducing production and manufacturing waste could result in a saving of 24 million tonnes of greenhouse gas (GHG) emissions. This estimate considers a 1-2 percentage point improvement in waste generation during the transition from fiber to textiles and in cutting waste during garment manufacturing, achieved through enhanced design practices and modern cutting techniques.[12] In 2015, 10 key technologies were identified as central to the circular economy. Since then, the list has expanded to 27. Some of these technologies have significantly matured. The Internet of Things (IoT), for instance, has become the new standard for devices to connect, interact, and exchange data—capabilities crucial for enabling new circular models such as Product Use Extension and Sharing Platforms. These technologies fall into three broad categories of ongoing advancements and breakthroughs in the use of science and engineering: digital, physical, and biological. All of them are currently used in various applications, but not all are deployed at the same rate or scale. Generally, companies have embraced digital innovations more widely than physical or biological technologies. As a proof point, 59% of the 1500 circular companies analysed over the last five years through The Circulars award initiative have implemented digital technologies, compared to deployment rates of 28% for physical and 13% for biological technologies, respectively. The significant gap in adoption is correlated with technology maturity and is reflected in substantial differences in investments. In the United States and Europe, investments in the digital industry are about double that in biotech. Thanks to such investments, digital technologies are becoming more affordable and are rapidly scaling. Between 2004 and 2014, for instance, the cost of Iot sensors dropped by more than half. These price reductions have led to the ubiquity of electronic devices, such as laptops, tablets, smartphones, and other consumer electronics products, in many regions. Moreover, these devices rely on a virtual world that is less dependent on physical resources to generate and maintain value. Consequently, companies have found it relatively easier to implement or retrofit digital technologies into existing

[11] *Fashion on Climate - Global Fashion Agenda*.

[12] Op. cit. *Fashion CEO Agenda 2023 - Global Fashion Agenda*

processes and operations. The 27 technologies have been used in diverse applications throughout the circular value chain.

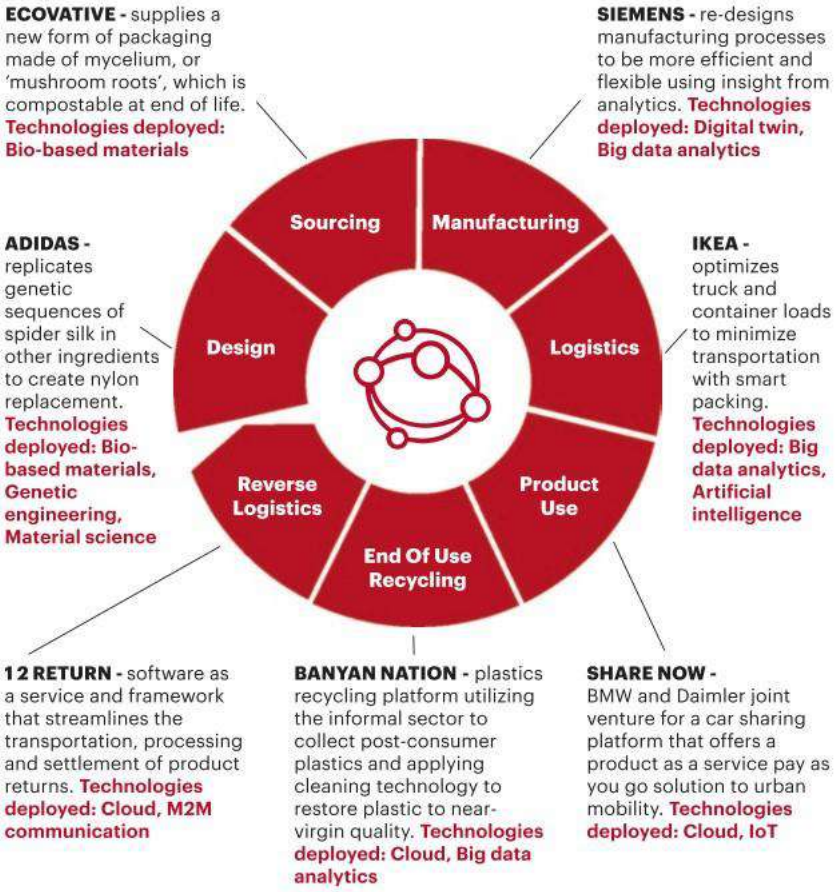


Figure 1 W. Spindler, P. Lacy, J. Long. The circular economy handbook: realizing the circular advantage, 2020. Palgrave Macmillan (pp.53)

Circular business models, including fashion rentals, re-commerce, repair, and refurbishment, could contribute to a reduction of approximately 143 million tonnes of greenhouse gas (GHG) emissions by 2030. Consumers play a crucial role in unlocking this potential for emission reduction. The analysis indicates that, to align with the 1.5-degree pathway, by 2030, one in five garments should be traded through circular business models. Shifting consumer behavior in the use phase, such as reducing washing and drying, could result in an additional 186 million tonnes of emissions reduction. This entails actions like skipping one in six washing loads, washing half of loads at temperatures below 30 degrees[13], and substituting every sixth dryer usage with open-air drying. Brands and retailers need to adapt their offerings, incorporating better care instructions and sustainable material choices. Moreover, increased recycling and collection efforts have the potential to drive annual emissions abatement of approximately 18 million tonnes. These measures aim to decrease incineration and landfill, steering

[13] Op.cit. *Fashion CEO Agenda 2023 - Global Fashion Agenda*

the industry towards a closed-loop recycling (CLR) operating model. Achieving accelerated abatement requires advancements in chemical textile-to-textile recycling, the development of sorting and textile blend identification technologies, and higher incentives for brands to enable CLR, with consumers actively supporting this adoption. Currently, the predominant driver for circular models is re-commerce, constituting approximately 7% of the market. Nevertheless, over the next decade, segments within resale, including consignment shops, managed marketplaces, and peer-to-peer platforms, could experience a compound annual growth rate (CAGR) exceeding 10%. This growth is expected due to the increasing demand from Gen Z and Millennial consumers who appreciate the eclectic offerings, value proposition, and sustainability of these models. According to the accelerated abatement analysis, re-commerce is projected to account for 12% of the market by 2030. The analysis evidences that re-commerce models can prolong the average product lifespan by 1.7 times. Repair models offer a more conservative 1.35x extension, assuming professional repairs. Finally, refurbishment holds the potential to double the lifetime extension, reflecting potential collaborations between brands and manufacturers in the realm of upcycling. To expedite emissions abatement, brands will need to re-envision and recalibrate their business models.

1.4 fashion brands towards sustainability

Eileen Fisher, since 2009, the year she introduced her first eco-friendly initiative, "Green Eileen," has undertaken the mission of transforming her brand into ones of the most environmentally and socially conscious in the business. Her commitment to recycling clothing, sourcing sustainable fabrics, and combating unfair labor conditions has established a new eco-aware blueprint, positively reshaping the industry. This dedication earned her the Positive Change Award at 2019 year's CFDA Fashion Awards.Eileen Fisher, who established her eponymous label in 1984, stands out as one of the few high-end designers who embraced environmentally conscious manufacturing practices long before it became a trendy cause. As part of the brand's 2009 "Green Eileen" eco-friendly initiative, the company initiated the acceptance of previously worn Eileen Fisher clothing. The brand would then clean or repair these garments for resale at a discounted price. This program aim to reduce the brand's waste of reusable textiles, a significant issue that many fashion brands are only now beginning to address. According to Vogue, the "Green Eileen" campaign not only alleviated the amount of fashion waste but also generated over £3 million in revenue in

2018. Following the success of "Green Eileen," the company launched another eco-friendly and socially conscious program called "Vision 2020."
Ecoalf is a Spanish brand that today has about 430 multi-brand stores in the world, born from the idea of its founder Javier Goyeneche, to recover the waste abandoned in the Mediterranean and used to obtain quality yarn from use for the production of ecological garments. In 2020 the brand collected over 300 tonnels of waste from the seabed. Not only abandoned plastic, but also waste such as tyres, coffee, wool, nylon etc. which once collected, are transported to specialised establishments where they are processed into microgranules that will become then, a strong and quality yarn. Today it is recognised by B CORP in the top 5% of the best in the world.

Freitag, born in Zurich from two brothers who felt the need for a functional bag that was waterproof, durable, and environmentally friendly. Thus, these bags are made entirely from recycled materials such as old truck and car tarps, bicycle inner tubes, airbags, seatbelts, and much more. The beauty lies in the fact that each bag is unique due to the use of materials with different colors and writings. Boasting an annual production of 300,000 items and the recycling of 300 tons of tarpaulins per year, Freitag remains a trailblazer in the realm of sustainable fashion. In 2011, the brand introduced F-abric, a 100% biodegradable fabric crafted from hemp, linen, and Modal – a fiber derived from cellulose extracted from beech wood shavings. The entire process of converting natural fibers into the end product is carried out in an ecologically sound manner. Indeed, all stages of F-abric production occur within a radius of no more than 2,500 kilometers from Freitag's headquarters in Zurich, Switzerland. Commencing with fibers cultivated on European soil, the yarn is manufactured by a Lombard producer, the fabric is woven in Italy, and the garments are assembled in Poland.
Moreover, by opting to omit the bleaching phase during processing, Freitag has succeeded in producing a fabric that aligns fully with the requirements for products suitable for newborns, as stipulated by the Oeko-Tex standard – an internationally recognized system for monitoring and certifying raw materials.

Introduced in 2013 by ***Patagonia***, the renowned American company specializing in sports and outdoor activities clothing and accessories, the Worn Wear program carries the slogan "If It’s Broke, Fix It." Its primary objective is to instill a caring attitude towards garments among customers. The initiative encourages proper washing, timely repairs, and, ultimately, recycling at the end of a garment's useful

life. The core message emphasizes that "repairing is a radical act." In alignment with this philosophy, Patagonia established the Worn Wear repair center in Reno, Nevada, where approximately 45,000 items undergo repairs annually. Additionally, local retailers in various countries worldwide contribute to the repair efforts.

Since 2016, the Worn Wear Tour, initially launched in the United States and later expanded to Europe, serves as an additional endeavor to promote garment repair. The tour provides free repair services at each stop, complemented by free online tutorials and multilingual guides for local garment repair. These resources aim to facilitate the repair process, eliminating the need to ship items to designated repair centers.

Beyond reducing the environmental impact of its products, the Worn Wear program serves as a valuable source of information about garment issues for Patagonia. This feedback loop informs designers, contributing to continuous improvements in product quality. The program's global mission revolves around two primary objectives: first, to create and sell fewer unnecessary clothing items, and second, to ensure that garments, backpacks, and accessories remain in circulation for as long as possible.

H&M, the renowned Swedish low-cost fashion giant, initiated a global clothing collection program in its stores in 2013, offering customers discount vouchers for future purchases within the brand. This initiative mirrors similar models, such as Marks & Spencer's Shwopping project and the non-governmental organization Oxfam in the United Kingdom, encouraging customers to return used clothing to M&S stores, with proceeds directed towards poverty alleviation programs. To manage the end-of-life phase of the collected garments, H&M collaborated with I:CO, a company specializing in "reverse logistics" for clothing, responsible for manual sorting for reuse, resale as high-quality second-hand garments (rewear), recycling, and, in less favorable cases, the incineration of fabrics for energy production. I:CO's main sorting and processing facility, headquartered in Germany and employing 600 people, is the largest in the industry, with facilities also present in India and the United States. According to the company's estimates, the most efficient cycle is rewearing, covering 40-60% of the overall output. The subsequent cycle is reuse (10%), where fabrics unsuitable for wearing are transformed into other products, such as rags, with limited upcycling of fibers into textile yarns. Approximately 30% of unused fabrics are utilized for the production of items like cushioning materials and insulation in the automotive

industry. When all three options are exhausted, fabrics are directed to energy production in waste-to-energy facilities, representing approximately 1-3% of the collected clothing, according to I:CO estimates. H&M's long-term goal is to develop solutions for the reuse and recycling of all textile fibers for new purposes and to incorporate yarns from recycled fabrics into their products. Profits exceeding from the collection program are directed to the H&M Conscious Foundation, contributing to funding innovations in reverse product capacity and other areas related to the textile lifecycle. The primary sources of revenue for I:CO stem from the resale of clothing items.

Nike, a multinational footwear and apparel company, has achieved notable successes in material innovation through its Nike Grind materials. These materials serve as inputs for the creation of new footwear, apparel, and surfaces in sports facilities. By utilising a collection of "waste" materials, including recycled athletic footwear and surplus manufacturing scraps, the company has successfully developed new high-performance products. Approximately 73% of all Nike shoes and apparel now incorporate some recycled material, contributing to a sustainable approach. Furthermore, Nike diverts 98.2% of its manufacturing waste from landfills. One noteworthy innovation is Nike's Flyleather material, which consists of at least 50% recycled natural leather fiber derived from leather scraps. Despite being recycled, Flyleather maintains a similar look, feel, and even smell to virgin leather. Additionally, the material enables a more efficient cutting process, resulting in less waste compared to traditional leather production. Impressively, Flyknit yarn, a key component of Nike's products, incorporates 100% recycled polyester fibers, further showcasing the company's commitment to sustainable practices.

Chapter 2: Product sustainability in the fashion industry

2.1 Sustainable design

Eco-friendly materials

The concept of "eco-friendly material" denotes a category of materials designed, produced, and employed with the objective of minimizing negative impacts on the environment and human health. These materials are meticulously managed, considering the entire life cycle, from initial extraction or cultivation to the stages of reuse, recycling, or disposal. A fundamental aspect is represented by the sustainable origin of such materials, often derived from renewable or sustainable sources, such as wood from responsibly managed forests, natural fibers like organic cotton, or materials from recycling processes. The production of eco-friendly materials is committed to reducing greenhouse gas emissions by adopting low-carbon emission practices and utilizing renewable energy sources; another key feature is the attention to biodegradability or recyclability, ensuring that, at the end of their life cycle, materials can be disposed of in ways that minimize environmental impact. Durability is a crucial aspect, as resilient materials necessitate less frequent replacements, contributing to an overall reduction in the impact on production and disposal. The design of these materials aims to require fewer natural resources, such as water and energy, during production, while simultaneously avoiding excessive extraction of raw materials. Additionally, some eco-friendly materials can receive certifications from independent organizations, such as the FSC (Forest Stewardship Council) mark for wood sourced from sustainably managed forests, confirming compliance with specific environmental standards.

Egyptian Makò cotton

Renowned for its softness, durability, and strength, Egyptian makò cotton is sustainably cultivated in the Nile Valley regions. Its distinction lies in the length of its fibers, rendering it one of the finest cotton materials globally and surpassing other varieties in terms of strength and durability. The cultivation of Egyptian makò cotton prioritizes environmental sustainability, employing limited chemical usage and efficient irrigation methods. Beyond its ecological benefits, the production of Egyptian makò cotton contributes significantly to the local economy by generating employment opportunities and supporting farming communities. In line with the data from the Egyptian Ministry of Agriculture (2017), a noteworthy 90% of Egyptian cotton is cultivated by small-scale farmers on modest land

holdings. Impressively, 70% of these farmers adhere to traditional cultivation techniques, refraining from the use of pesticides or chemical fertilizers. it is deal for clothing, underwear and bed linen.

RENEWCELL FIBER

This textile is crafted from discarded garments and textile production remnants containing a high cellulose content, such as cotton or viscose. The process involves shredding, unbuttoning, gutting, discoloring, and transforming the materials into a slurry. Non-cellulosic contaminants are separated, and the slurry is dried to produce Circulose®, a branded "dissolving pulp" made entirely from recycled fabrics. The Circulose® sheets are then packaged in bales and reintegrated into the textile production chain as a biodegradable substitute of equal quality for virgin materials like cotton, oil, and wood.

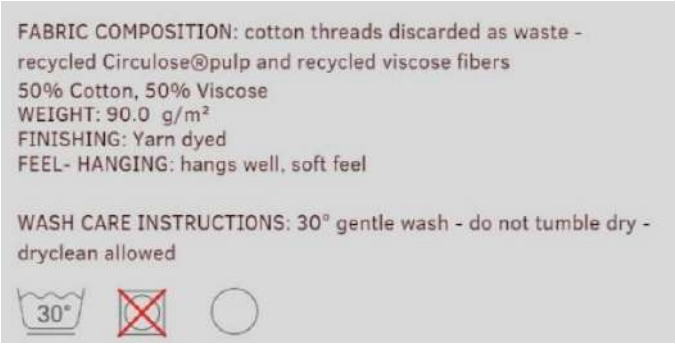


Figure 2 fabric data sheet

BIONIC YARN

Bionic Yarn is the first high-performance eco-yarn and represents the fourth-generation yarn structure in the history of textile production. Unlike previous innovations, aimed exclusively at functional improvement, Bionic Yarn is the first progress made also on the basis of environmental responsibility. Bionic Yarn, in fact, develops and produces top quality yarns and fabrics made with fibers derived from recycled plastic bottles recovered from the oceans and their coasts:

- ***DPX***

DPX is a dual staple fiber construction that intimately blends recycled PET with other synthetic or natural fibers to form a highly customizable yarn with soft texture. Applications: Apparel Bags & Luggage Footwear Interiors

Figure 3 fabric data sheet

- ***FLX***

FLX stands out as a continuous filament yarn, meticulously crafted by heating and spinning numerous RPET filaments together. This process results in a robust yarn, exhibiting a diverse range of performance and aesthetic properties. Designed to meet varied needs, FLX finds applications across different domains:

- Apparel: FLX contributes to the creation of resilient and versatile clothing items.
- Bags & Luggage: The durability and adaptability of FLX make it an ideal choice for crafting sturdy bags and luggage.
- Footwear: The unique properties of FLX enhance the performance and appearance of footwear.
- Interiors: FLX lends itself to interior applications, providing both functional and visually appealing solutions.

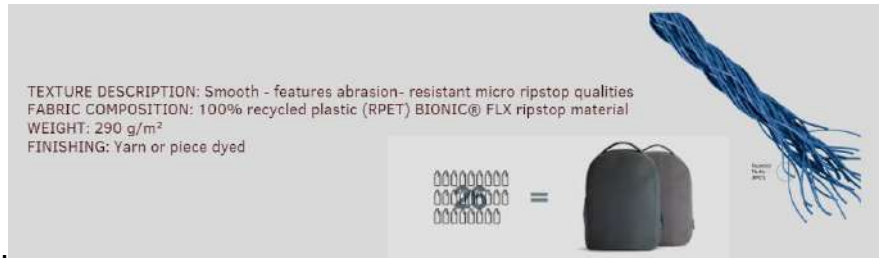


Figure 4 fabric data sheet

- ***HLX***

HLX, a patented performance yarn, is renowned for delivering an unparalleled combination of durability and refined quality. The unique structure of HLX yarn is designed to create a sophisticated surface texture through its helical cover, expertly submerging RPET under the surface.

The helical design of HLX goes beyond aesthetics—it also plays a pivotal role in enhancing abrasion resistance on natural fabrics. This distinctive feature ensures

that durability is elevated without compromising the overall aesthetic appeal. The versatile applications of HLX encompass:

- Apparel: HLX contributes to the creation of enduring and high-quality clothing.
- Bags & Luggage: The robustness of HLX makes it an excellent choice for crafting resilient bags and luggage.
- Footwear: HLX enhances both the durability and sophistication of footwear.
- Interiors: The unique properties of HLX extend to interior applications, providing a durable and refined touch.

Figure 5 fabric data sheet

TENCEL™ and TENCEL™ branded fibers

Contributing to environmental balance, TENCEL™ Lyocell and Modal fibers seamlessly integrate into nature's cycle. These fibers, originating from renewable wood through photosynthesis, form certified biobased materials. The manufacturing process follows environmentally responsible practices, ensuring the fibers meet compostable and biodegradable certifications. This allows them to fully revert back to nature.

Derived from nature, all standard TENCEL™ Lyocell and Modal fiber types hold certifications from TÜV Austria Belgium NV, affirming their biodegradability and compostability across industrial, home, soil, and marine conditions. TENCEL™ branded lyocell and modal fibers are meticulously produced through environmentally responsible processes, utilizing sustainably sourced natural raw material wood. These fibers find their place in the collections of numerous leading designers and renowned retailers.

Figure 6 Tencel benefits

TENCEL™ Lyocell fibers

Recognized for their commendable reputation, TENCEL™ Lyocell fibers undergo an environmentally responsible closed-loop production process. This innovative method transforms wood pulp into cellulosic fibers with exceptional resource efficiency and minimal environmental impact. The solvent-spinning process, integral to this closed loop, achieves a remarkable recovery rate of more than 99%, recycling process water and reusing the solvent. Consumers can confidently make fashion choices with the assurance that their selections do not contribute adversely to the environment. The fibers are exclusively made with TENCEL™, a fiber derived from wood pulp sourced meticulously from sustainably managed and certified forests. Highlighting its main features, the lyocell fabric exhibits excellent resistance, good breathability, and superior moisture absorption. Remarkably, the fabric maintains its resilience up to 40 °C without any issues. However, washing it at 60 °C may result in a slight shrinkage of about 5%. Beyond functionality, the lyocell fabric is characterized by its luxurious softness, smooth texture, and shiny appearance, creating a garment with a fluid and elegant drape.

Figure 7 fabric data sheet

TENCEL™Modal fibers

In the production of TENCEL™ Modal fibers, numerous innovations from Lenzing have been seamlessly integrated to ensure an environmentally sound process. Lenzing's commitment extends to safeguarding resources for future generations, achieved through the use of renewable energy and the recovery of process chemicals. Pioneering sustainability, TENCEL™ Modal is the world's first fiber derived entirely from beech wood sourced exclusively from forestry regulated by stringent standards and cultivated through sustainable methods. This fiber is crafted using Edelweiss processing technology, an innovation built on oxygen and Neutral CO2-based processes that significantly reduce energy and water consumption. The substances resulting from this process, being exploitable, are smartly repurposed and resold. On a tactile level, Modal presents itself as soft and elastic, akin to a microfiber. However, it maintains a delicate touch on the skin, avoiding discomfort and irritation, making it a preferred choice for consumers seeking both comfort and environmental responsibility.

Figure 8 fabric data sheet

HEMP

Hemp fabric emerges as a distinctive textile crafted from fibers derived from the stalks of the Cannabis sativa plant. This plant has long stood as a recognized source of extraordinarily tensile and durable textile fibers spanning millennia. However, the recent acknowledgment of the psychoactive qualities of Cannabis sativa has presented challenges for farmers aiming to cultivate this immensely

beneficial crop. Post- processing into fabric, hemp exhibits a texture akin to cotton, with a subtle resemblance to canvas. Notably, hemp fabric stands out by resisting shrinkage and displaying a high resistance to pilling. The fibers extracted from this plant contribute to the fabric's unique qualities of being both soft and exceptionally durable. In a noteworthy comparison, while a typical cotton T-shirt endures for a maximum of 10 years, a hemp T-shirt may extend its lifespan to double or triple that time. Additionally, hemp fabric requires 50% less water for production compared to traditional cotton. According to some estimates, hemp fabric's strength surpasses that of cotton fabric, potentially making it three times stronger.

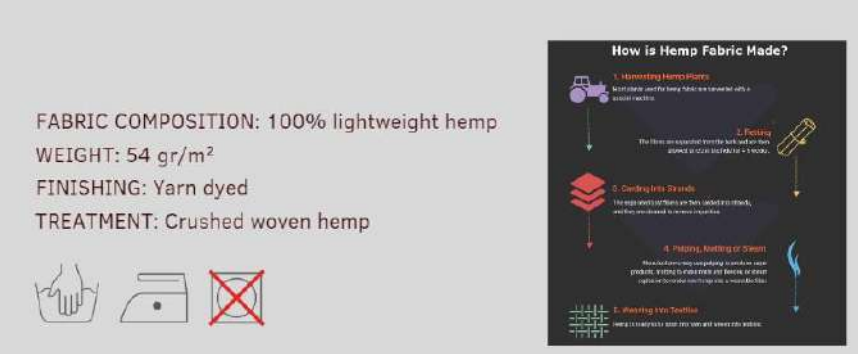


Figure 9 fabric data sheet

APPLESKIN

Using the skins and cores discarded by these companies, the laboratory has managed to create an alternative to leather of animal origin. The result is a material with a vegetable cellulose base characterized by a variety of textures, thicknesses and colors. Appleskin is a versatile, highly performing and 100% cruelty free leatherette. While the use of a natural raw material derived from production waste is commendable, Appleskin uses only a minimal part of it, while the rest of the composition is synthetic: 38% polyurethane, 26% apple waste, 20% polyester, 16% cotton.

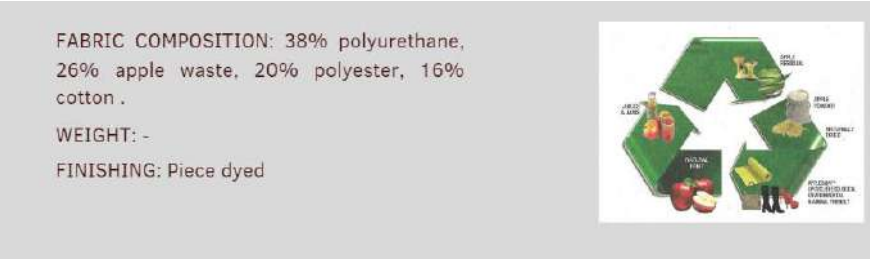


Figure 10 fabric data sheet

MUSKIN

Muskin stands as a revolutionary vegan leather, crafted from subtropical mushrooms known as Phellinus Ellipsoideus. Fashion brands leverage Muskin to champion cruelty-free fashion. Visually and to the touch, Muskin resembles suede, offering a soft and pleasant texture, even in direct contact with the skin. This vegan leather doubles as a thermal insulator, exhibiting the ability to absorb moisture and promptly release it. This unique feature limits bacterial proliferation. Muskin boasts breathability, water-repellency, and non-toxicity, attributes derived from a production model free of harmful chemicals to the environment and human health. For enhanced mechanical strength, it is advisable to laminate or couple Muskin with other backing materials, be it fabrics or paper. It's important to note that Muskin may exhibit a non-uniform surface, adding to its uniqueness. Each piece encapsulates a distinct product from our Earth, contributing to the innovative and sustainable ethos of Muskin.

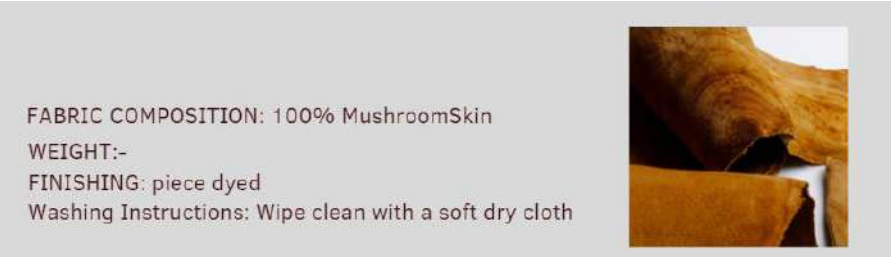


Figure 11 fabric data sheet

MYLO

Beneath the Earth's surface, mycelium intricately twists and branches, eventually giving rise to its fruits: mushrooms. The mycelium employed in producing Mylo is cultivated from mulch, maturing within a few weeks into a resource akin to those needed for raising livestock. Described as "substantial, elastic, and soft," Mylo remarkably mimics animal skin while prioritizing a low environmental impact and maintaining 100% cruelty-free credentials. Beyond its role as a sustainable leather alternative, Mylo also presents a powerful thermal insulator, potentially supplanting traditional plastic insulators like foams. This characteristic makes it particularly well-suited for insulating houses with wooden walls, as mycelium seamlessly adheres to the wooden surface. Within a span of just under a month, the mycelium roots undergo a drying process, culminating in the creation of an authentic, airtight, and fireproof panel. This transformative use of mycelium not only revolutionizes sustainable materials but also serves as an ideal solution for eco-friendly insulation in construction contexts.

Figure 12 fabric data sheet

REISHI™ - Sylvania

Tested by Vartest, a globally esteemed leather testing house, Reishi™ attains the strength and durability equivalent to cowhide. Notably, it can be cultivated into any desired shape or form, offering a reduction in waste during fabrication and expediting the speed to market. Highlighting its properties, Reishi™ boasts exceptional durability, withstanding wear admirably. Its supple nature allows it to bend and fold gracefully, enhancing its versatility. Distinguishing itself from traditional leather, Reishi™ features a faster production cycle—within a mere six weeks, the mycelium grows, stabilizes, and is ready for use. Beyond practicality, Reishi™ is sensuous, eliciting a positive reaction from the skin. Its strength is derived from a woven structure reminiscent of the tight, triple-helix of collagen, underlining its robust and enduring qualities. This innovative material not only competes with but surpasses traditional leather, offering an eco-friendly and efficient alternative in terms of both production and performance.

Figure 13 fabric data sheet

MICROSILK

Silk fibers produced by spiders boast extraordinary properties such as high tensile strength, elasticity, durability, and softness. Microsilk™ innovatively harnesses these qualities by incorporating spider silk DNA into a yeast that ferments on corn sugar, supplemented with water. This process allows Microsilk™ to be manufactured with a significantly lower environmental impact

compared to traditional textile manufacturing methods. Importantly, Microsilk™ holds the potential to biodegrade at the end of its useful life, aligning with sustainability goals and offering a responsible alternative to conventional textiles. This breakthrough not only mirrors the exceptional properties of spider silk but also introduces an eco-friendlier avenue in textile production.

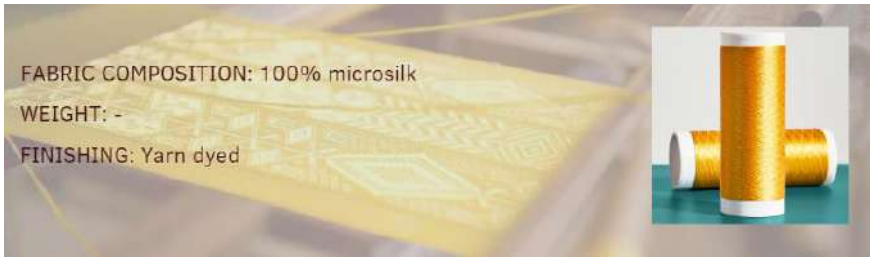


Figure 14 fabric data sheet

BIOSTEEL

Offering a nature-identical alternative, BioSteel is a 100% biodegradable silk substitute. Crafted from fully recyclable AMSilk fibers, this revolutionary material is produced through biotechnology, ensuring it is entirely petroleum-free. The inherent sustainability of these fibers extends to their full biodegradability, thriving in both aerobic and marine conditions without leaving any micro-plastic residue. Resonating with the luxurious feel of natural silk, BioSteel fibers deliver a smooth and soft sensation on the skin. They additionally exhibit moisture management properties, enhancing overall comfort. The production process of AMSilk fibers adheres to cruelty-free practices, earning them a certified vegan status. The silk polymers from AMSilk encapsulate a unique fusion of sustainability, performance, and biocompatibility. BioSteel's versatility extends to various formulations, including fibers, sprayable formulations, hydrogels, and silk powder. Accommodating diverse regulated environments, these products span technical, cosmetic, food, and medical-grade applications, underscoring the adaptability and expansive potential of BioSteel in a range of industries.

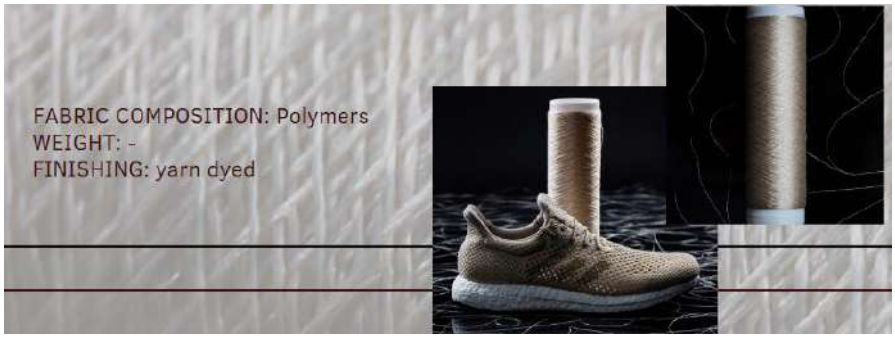


Figure 15 fabric data sheet

SOYBEAN PROTEIN FIBER

Soy fiber is a by-product of soy, deriving from food waste (husks and pods); following various processes, soy can be used as a resistant and soft fabric. Fabrics created with soy fiber are soft, extremely soft, shiny and pleasant to the touch, so they have been described as the new "vegetable cashmere". They also have antibacterial properties, are permeable to air, low flammable, breathable, solid to color and able to block UV radiation. Spun yarn: by Apparel Bags & Luggage Footwear Interiors

Figure 16 fabric data sheet

VITA SUEDE

Crafted from ECONYL® regenerated Nylon, Vita Suede emerges as a sustainable techno-fabric, distinctively known for its matte appearance and warm, natural, suede-like hand feel. This fabric captivates with its fascinating, soft, compact, and breathable qualities, positioning it as an ideal choice for creating trendy activewear. Its versatility extends beyond the gym, making it equally suitable for sportswear reminiscent of the '80s. Designed for a range of applications, VITA Suede finds its place in sports, fitness, athleisure, apparel, and footwear. Whether worn during intense workouts or as a stylish fashion statement, this fabric seamlessly combines sustainability, comfort, and aesthetic appeal. VITA Suede embodies a harmonious blend of eco-consciousness and style, making it a standout choice in the realm of modern, sustainable fashion.

Figure 17 fabric data sheet

VEGEA- WineLeather

Produced and distributed by the eponymous company, VEGEA stands as a vegan-coated fabric. The name is a thoughtful amalgamation of "VEG" (Vegan) and "GEA" (Mother Earth), consciously chosen to represent the next generation of alternative materials, deviating from entirely oil-based and animal-derived options. Distinguished by a substantial content of vegetal/recycled raw materials, including vegetal oils and natural fibers from agroindustry, VEGEA finds its primary applications in diverse fields. From fashion and furniture to packaging and automotive & transportation, VEGEA's versatile nature aligns seamlessly with the evolving demands of sustainable practices across various industries. This fabric not only symbolizes a commitment to veganism but also reflects a broader dedication to environmental consciousness and innovation.

Figure 18 fabric data sheet

EcoCocon

Demonstrating success in passive house applications, EcoCocon panels boast a composition of 98% natural renewable materials, ensuring a pollutant-free indoor air quality. The system's design prioritizes breathability, enabling the release of excess moisture. Simultaneously, the absence of thermal bridges establishes an airtight environment, effectively eliminating drafts and the potential for mold growth.

The incorporation of natural materials actively contributes to fostering a healthy indoor microclimate, sustaining consistent temperatures—warm during winter and cool in summer. Recognized for its groundbreaking innovation, EcoCocon secured the fourth position in the inaugural global product innovation challenge presented by the Cradle-to-Cradle Product Innovation Institute. Adding to its accolades, it received a 2019 Innovation Award for its utilization of locally available and renewable materials.

Constructed from load-bearing straw panels acquired through a meticulous drying process, this economical and eco-friendly solution excels in providing

exceptional insulation and modularity for construction purposes. The EcoCocon system stands as a testament to sustainable innovation, combining efficiency, eco-friendliness, and recognition for its noteworthy contributions to the construction industry.

Figure 19 composition explanation

Circular design: tiny house, motorhomes and temporary container

Given their distinctive features such as prefabrication, minimum land consumption and potential for recycling of components and materials, mobile homes have the potential to serve as a cornerstone for transformative initiatives. In our country, mobile homes are classified as mobile equipment, along with tents, caravans, campers and trailers. Designed primarily for outdoor accommodation such as campsites and holiday villages, tiny houses or compact houses, represent a housing trend that promotes a minimalist and sustainable lifestyle; and motorhomes offer a complete solution to travel and live on the move, a phenomenon increasingly frequent due to new professional figures such as "digital nomads". These structures embody characteristics that align with sustainable practices:

MotorHomes

- Structure:

- Vehicle on Chassis: A motorhome is built on an automotive chassis, often on a van, camper van, modified truck, or bus.

- Variable Design: There are various types of motorhomes, including more compact camper vans, traditional mobile homes, and luxurious Class A or Class C campers.

- Accommodation:

- Residential Comfort: Motorhomes offer home-like comfort with kitchens, bathrooms, sleeping areas, and living spaces.
- Wide Variation: Depending on size and model, they can include features such as showers, full kitchens, double beds, and even lounge areas.

- Mobility:

- Driveability: They can be driven, providing a complete travel experience without the need for external accommodations.
- Mobile Base Camps: They allow exploration of different destinations without the need to change accommodation.

- Self-Sufficiency:

- Energy Self-Sufficiency: Many motorhomes are equipped with solar power systems and generators, offering partial or complete self-sufficiency during travel.
- Water Supply: Some motorhomes are equipped with water tanks to provide toilet and kitchen facilities.

- Usage Destinations:

- Campsites and Recreational Areas: They are often used in campsites, recreational areas, and national parks.
- Long-Distance Travel: They are ideal for long-distance travel, allowing occupants to bring their home with them.

CrippaConcept (manufacturer of mobile homes and lodge tents): Wonderland model: Measuring 10.20x4.00 meters, it is a maxi caravan, but the interior spaces break all the rules by offering a kitchen/living area, bedrooms, bathroom, and a spacious veranda. The world's first green mobile home is made entirely from recycled, natural, and recyclable materials, respecting the environment and seamlessly blending into the landscape without soil consumption. The CrippaConcept project is suitable for situations that require the temporary and reversible nature of structures, such as campgrounds.

Figure 20 https://www.crippaconcept.com/freed-home-mobilhome/

Figure 21 https://www.crippaconcept.com/wonderland/

***Haaks*: mod. Opperland 4m x 2,28m x 2,52m**

Figure 22 https://youtu.be/k6tKi_tGCRE

***CoMak Tiny Homes*: mod. The Mountain 24,38 x 27,43 m**

- Steel framing beams - lightweight and durable, heavy towing vehicle not required
- Hemp wool insulation
- Continuous external insulation - reduces heat transfer, vapor, and air barrier
- covered porch
- Stable roof structure

Figure 23 https://www.comaktinyhomes.com/the-mountain-series

Tiny House

- Reduced Dimensions:

- Key Concept: The main feature of tiny houses is their compact size compared to traditional homes.

- Creative Solutions: Despite their size, they often feature creative solutions to maximize usable space.

- Structure and Design:

- Sustainable Materials: Many tiny houses are constructed using sustainable and recyclable materials.

- Customized Design: Many are tailor-made to reflect the needs and preferences of the inhabitants.

- Mobility:

- Tiny Houses on Wheels: Some tiny houses are built on trailers, making them mobile and transportable.

- Versatility: They can be installed on fixed foundations or used as mobile dwellings.

- Self-Sufficiency:

- Energy Systems: Many tiny houses integrate solar systems and rainwater harvesting solutions.

- Composting Toilets: They often utilize composting toilet solutions to reduce environmental impact.

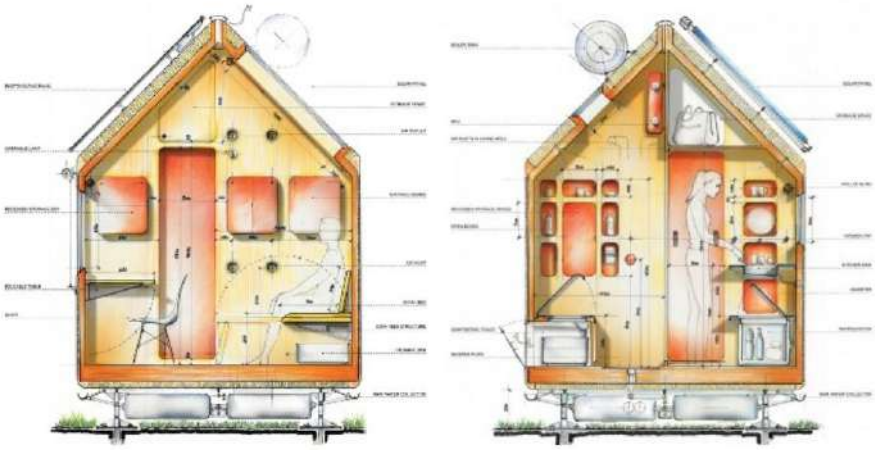
- Alternative Lifestyles:

- Minimalism: They embody the spirit of minimalism, encouraging a lifestyle with fewer material possessions.

- Environmental Sustainability: Many tiny houses emphasize environmental sustainability and mindful consumption.

***Vitra*: mod. Diogene by Renzo Piano 2,5x3 m**

Transportable with a truck and self-sufficient thanks to photovoltaic cells and rainwater tank, Diogene is a small shelter house that contains in only 6 sqm mini-kitchen, retractable table table, sofa bed, shower and toilet. All made of recyclable wood with external coating in aluminum foil, cheerful and colorful as the houses dreamed of by children, Diogene is made to withstand any climate. The project is by Renzo Piano and the prototype made by Vitra is on display in the garden of Vitra Campus. This housing unit costs about 20,000 euros and could be used as a nest for the weekend, guest room or as a housing module for collective situations.



***Bimify*: mod. Tiny sun**

This model can be built on frames ranging from 5.40 m to 8.40 m, with an overall height with a trailer of 4.20 m.

Is totally customizable.

Presents ready-to-use prefabricated models with TINYWORK and TINY CUT 720: MOBILE HAIRDRESSER

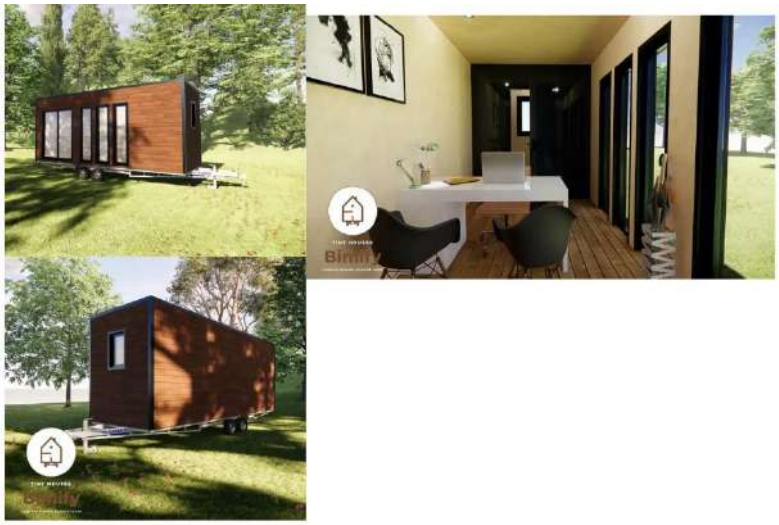


Figure 24 https://tinyhouse-bimify.fr/it/tiny-house-modeles/tinywork/

Figure 25 https://tinyhouse-bimify.fr/it/tiny-house-modeles/tiny-cut/

***InTenta*: mod. Tenzo**

Is a modular holiday home of 40 square meters on wheels that can comfortably accommodate up to six people. was born with three bedrooms and two bathrooms, is built off-site, reducing its impact on the environment. In addition, the house is built on wheels, so there is no need for a permanent foundation, further reducing its footprint.

Figure 26 https://in-tenta.com/portfolio-items/tenzo/?portfolioCats=25

Temporary containers

Also known as pop-up shops, represent a fresh approach to the use of maritime containers. The key concept is SUSTAINABILITY, translating into the ability to repurpose existing containers rather than constructing new ones, thereby avoiding unnecessary costs and labor. In the context of circular economy and environmental sustainability, we commit to extending the lifespan of maritime

containers typically utilized for cargo transport, traditionally lasting around 20 years. However, we believe that their utility should not be confined to that setting alone. Temporary containers enhance visibility efforts for the products they showcase, delivering a retail experience that fully aligns with experiential marketing standards.

Metalbox (2,59m x 2,30m x 2,43 m)

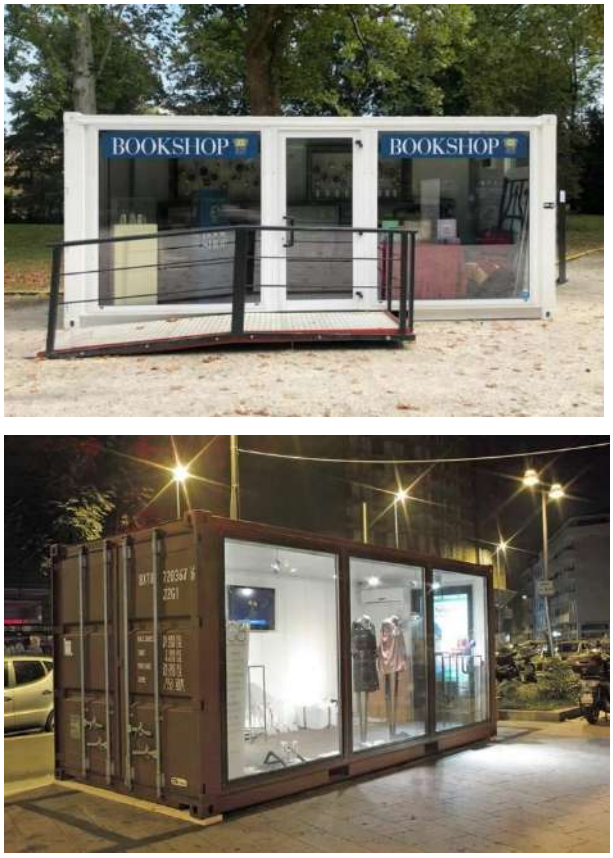


Figure 27 https://www.metalbox.it/container-pop-up-shop

2.2 Sustainable production

Processes with low environmental impact

In delineating a sustainable product, it becomes imperative to consider the mitigation of environmental impacts linked to its production. The EMAS Regulation defines the term "environmental impact" as "any alteration to the environment, whether adverse or beneficial, wholly or partially arising from the activities, products, or services of an organization." Crafting a product with a minimal environmental footprint necessitates ensuring, across its entire life cycle, from the extraction of raw materials to disposal, a reduced consumption of non-renewable natural resources. The curtailment of environmental impact can be accomplished by those overseeing the product's production, implementing enhancements in processes or production technologies, whether directly managed or influenced by their position within the production chain. For this reason, companies are embracing diverse sustainable production practices to diminish their environmental footprint. This involves incorporating solar energy and investing in innovative technologies aimed at minimizing waste during the production process. Moreover, there is a growing trend towards heightened transparency in the production chain. Also, they are sharing detailed information about their suppliers, the materials they employ, and the working practices they adhere to. By doing so, these businesses empower consumers to make well-informed and sustainable choices. A notable example is IKEA, which not only produces but also consumes renewable energy. As part of its commitment to achieving a net positive energy balance by 2020, IKEA acquired a wind farm in Illinois in April 2014. This initiative became fully operational in 2015, with the goal of generating energy equivalent to 130 percent of what all US IKEA stores collectively consume or 10 percent of its global operations. In addition to wind energy, IKEA has made substantial strides in harnessing solar power. Ninety percent of its US-based stores utilize solar energy generated from panels installed on the store roofs. This solar initiative enabled IKEA to meet 37 percent of its global energy needs with renewables in 2013. Importantly, renewable energy operates in a continuous cycle of regeneration, contributing further to IKEA's circular advantage.

In 2007, two engineering students at Rensselaer Polytechnic Institute made a groundbreaking discovery: they found a way to utilize fungi for the creation of sturdy, molded materials. Their goal was to leverage renewable resources to manufacture biodegradable plastics that could match the quality of their non-biodegradable

counterparts. Following several years of dedicated research and development, the company **Ecovative** emerged, specializing in the production of materials derived from mushrooms. This involves combining agricultural by-products such as corn stalks with mushroom mycelium, a natural, self-assembling glue that digests crop waste. Notably, the more these products are utilized, the greater the environmental benefits. Ecovative's innovative products provide eco-conscious, biodegradable, and home-compostable alternatives to traditional plastic foam packaging, insulation, and other synthetic materials. Although the company initially concentrated on the packaging industry, it has since broadened its focus to include two additional sectors: construction and furniture. The mushroom material proves to be both cost- and quality-competitive when compared to petrochemical-based plastics. This is particularly advantageous from an industrial standpoint, as the pricing for these inputs demonstrates less volatility than that associated with petro-based inputs. Furthermore, the overall energy consumption involved in the production of Ecovative's products is significantly lower than in petro-based production processes. One notable advantage is that fungi can thrive in a factory environment without the need for additional land, eliminating competition with food producers for land availability. Early in its development, this innovative material garnered recognition, winning the PICNIC Green Challenge in 2008, the world's largest prize for solutions addressing climate change. Today, Mushroom Packaging is being manufactured in North America through a strategic partnership with the Sealed Air Corporation, a company with a substantial $7 billion valuation. The global expansion of Mushroom Packaging took place in 2014,[14] marking a significant milestone in its journey towards sustainable and eco-friendly alternatives in the packaging industry.

CRAiLAR Technologies was established in 1998, it is focused on the production of renewable and environmentally responsible biomass resources utilizing flax, hemp, and other bast fibers. Employing an all-natural enzymatic process on flax fiber, CRAiLAR creates garments that rival cotton in softness and durability while mitigating the environmental risks associated with cotton cultivation. This approach not only contributes to sustainability but also yields cost savings. Studies indicate that the production of a single kilogram of finished cotton requires anywhere from 2,000 to 29,000 liters of water.[15] In contrast, CRAiLAR utilizes a mere 17 liters of water to produce one kilogram of its material, resulting in

[14] P. Lacy, J. Rutqvist. Waste to Wealth: The Circular Economy Advantage.Palgrave Macmillan,2015. Pp. 47
[15] P. Lacy, J. Rutqvist. Waste to Wealth: The Circular Economy Advantage.Palgrave Macmillan,2015. Pp 38

potential savings of up to 99 percent.[16] When factoring in the true cost of water, the efficacy of circular supplies becomes evident, offering substantial advantages over conventional sources, both economically and environmentally. In 2013 CRAiLAR Flax can count a clientele that includes some of the world's leading apparel brands like adidas, but also furniture's brands as IKEA. Nevertheless, the Intellectual Property and other assets of the company was acquired by Bast fibre in 2016. With the knowledges of Crailar, Bast Fibre Technology developed in 2022 Sero, who represents a fiber coming from regenerative agricultural practices, social responsibility, and environmental stewardship. It is crafted to meet the technical standards essential for commercial fabric production and thanks to its qualities as natural, strong, clean and bright, soft, absorbent, zero plastic, 100% compostable, it serve as a seamless replacement for synthetic fibers and empowers manufacturers to fashion everyday products with a circular, soil-to-soil lifecycle. From a socioeconomic perspective, regenerative agriculture with **sero fibers** demonstrates high land use efficiency and the holistic utilization of the entire plant minimizes waste offering a strategy that maximizes economic returns while diversifying income sources. In terms of biodiversity instead, regenerative agriculture with sero fibers fosters a robust and diverse microbiome. The retting process during bast fiber harvesting actively stimulates microbial activity, replenishes nutrients in the soil, and elevates soil organic carbon content. Additionally, the cultivation of Hemp stands out for its reduced need for fertilizer, irrigation, and pesticides compared to many conventional crops, furthermore, has been documented to sequester an impressive 9-15 tonnes of CO2 per hectare within a 100-day growth cycle.[17]

NatureWorks is a company at the forefront of circular supply solutions. Established through a collaboration between Cargill and PTT Global Chemical, NatureWorks presents commercially accessible biopolymers sourced entirely from renewable resources. Offering a compelling combination of cost-effectiveness and performance, NatureWorks' biopolymers present a competitive alternative to packaging materials and fibers derived from petroleum. This versatile product finds application in a variety of end products, ranging from packaging materials to plastic bottles.

[16] Op.cit.
[17] https://www.bastfibretech.com/sero

Oscalito, as an Italian company, is dedicated to minimizing its environmental footprint through the adoption of eco-friendly production processes. the commitment to ethical practices revolves around the principles of upcycling and regeneration, ensuring that all garments can be repurposed at the culmination of their life cycle. This ethos permeates every stage of their operations, spanning from fabric research and design to production decisions. For over 80 years, Oscalito has been unwavering in its dedication to selecting the finest Italian yarns and fabrics, showcasing the pinnacle of local craftsmanship excellence. Each Oscalito garment stands as a testament to the unparalleled mastery of sartorial tradition. its meticulous approach involves overseeing every step thanks to the RFID system, meticulously tracking the journey from spinning to packaging, culminating in the delivery to the customer's hands. Driven by a steadfast commitment, it strives daily to foster a fashion landscape that is increasingly responsible, conscious, and sustainable. The enterprise uses recycled and sustainable materials for the packaging and produces energy from renewable sources with 35% of its energetic autonomy.

Innovative technologies

The application of circular economy principles in the fashion industry is primarily embodied through two fundamental elements. The first entails a focus on products with extended lifespans or those crafted from recycled materials. The second involves enhancing and disseminating the adoption of technologies that facilitate sustainable production processes, with a particular emphasis on recycling.

Green machine

Developed by HKRITA with support from the H&M Foundation, The Green Machine represents a significant milestone in sustainable textile recycling. Launched in 2016 as part of the H&M Foundation's Recycling Revolution program in collaboration with The Hong Kong Research Institute of Textiles and Apparel Limited (HKRITA), this innovative machine aims to identify a commercially viable method for enhancing recycling processes.

The Green Machine distinguishes itself by employing only heat, water, pressure, and a biodegradable green chemical, with a remarkable recovery rate exceeding

97% for polyester fibers in just two hours.[18] During the process, cotton fibers are transformed into cellulose powder, and polyester is extracted and spun. Notably, this closed-loop system enables the recycling of the same water, heat, and biodegradable chemicals, eliminating waste production.

Key features of The Green Machine include:

- Utilization of heat, water, pressure, and a biodegradable green chemical.
- Time efficiency and cost-effectiveness.
- Modular design, adaptable to any factory or setup.
- Zero secondary pollution, thanks to the closed-loop system that reuses water, heat, and chemicals.
- Output of polyester fibers and cellulose powder.
- can handle about 1.5 tons of mixed fabrics per day

For H&M Foundation and HKRITA, the open-source nature of this approach is crucial for achieving maximum impact and transforming the fashion industry. The Green Machine's separation of blended textiles enables the recovery of PET fibers for re-spinning and converts cotton fibers into versatile cellulosic powder. This powder finds applications in various uses, including the production of cellulose composite fiber, cellulosic superabsorbent polymer for cotton farming (Absorboost), and PFC-free function durable water-repellent (DWR) surface finishes.[19] Ultimately, The Green Machine realizes the vision of "end-to-end recycling," where post-consumer textiles become the raw materials for the production cycle. With its commercial viability and ease of construction and operation, The Green Machine stands as a comprehensive solution for blended-textile recycling.

RFID system

RFID technology, acronym of Radio-Frequency Identification (RFID), is a system that allows you to identify and track objects, animals or people through the use of RFID tags. These tags are small devices that contain a microchip and an antenna, capable of communicating with an RFID reader through radio signals. The process relies on the use of radio waves to transfer data between the tag and the reader, eliminating the need for direct physical contact. To be precise it is composed by transponders, commonly known as tags, equipped with a chip containing data, an antenna managed by the controller, and a reader (or controller) that, through radio signals, reads the tag's identifier and can write to

[18] https://www.hkrita.com/en/our-innovation-tech/projects/green-machine-phase-2
[19] https://hmfoundation.com/project/recycling-revolution/

its memory, transmitting the signal to the host (PC) or cloud. RFID systems operate at various frequencies, including low frequency (LF), high frequency (HF), ultra-high frequency (UHF), and very high frequency (VHF):

- LF (125-135 KHz): Globally usable with limited reading distance, employed for theft prevention, keys, etc.
- HF (13.56 MHz): Standardized by ISO 14443 and ISO 15693; globally used with reduced reading distance (up to 1.20 meters), applied for books, pallets, access control, clothing, etc.
- UHF (868-915 MHz): Subject to local limits set by national authorities, applied for pallets, containers, etc.
- VHF (2.4 or 5.8 GHz): Used globally for active transponders, applied for access control, vehicles, etc.[20]

RFID tags, essentially memories with a radio device, can take various forms depending on the application: small for animal identification or, in healthcare settings, pilot projects even on humans, while for access control, they may resemble a credit card or a classic badge.

RFID antennas, managed by the controller, generate a magnetic field that activates the tag, initiating radio communication. The antennas, sometimes integrated into the controller, can be linearly or circularly polarized, depending on reading conditions and the RFID operational environment. The RFID controller, also known as a reader, is dedicated to the reading/identification and writing of RFID tags, transmitting the codes to higher-level systems (Middleware or ERP) through the antennas. The power of the controller, along with the type of connected antenna, determines one of the most crucial performance aspects: the tag's reading distance, categorized into four types - Proximity (10 cm up to a maximum of 20-25 cm), Vicinity (several tens of cm), Mid-Range (approximately 1 m), Long Range (several meters). In the realm of supply chain and logistics, this technology proves invaluable for product tracking, providing enhanced control and transparency regarding the origin of goods. This significance is amplified within the sphere of sustainable fashion, where the sourcing of ethical and sustainable materials stands as a pivotal concern for conscientious consumers aspiring to adopt a sustainable lifestyle. RFID emerges as a powerful tool allowing sustainable brands to showcase the ethical and responsible production of their products. By leveraging RFID technology, brands empower

[20] https://www.rfidglobal.it/tecnologia-rfid/

consumers to independently verify crucial information, enabling them to make well-informed decisions when making purchases aligned with their values. Moreover, the adoption of RFID contributes to the prevention of counterfeiting and product falsification, offering consumers a guarantee that their purchases are authentic and of superior quality.

Chapter 3: Sustainable Business Design

3.1 Definition of the Business Project

Objectives, mission e vision

In an era where sustainability and environmental responsibility have become global imperatives, this study aims to revolutionize the concept of haberdashery. This project focuses on the implementation of a hitherto unprecedented concept in the haberdashery landscape: a pop-up haberdashery based on circularity and the use of eco-friendly fabrics.

The pop-up store concept, being a genuine marketing strategy, relies on the limited temporal element, urging consumers not to miss a unique opportunity offered only for a brief period. These temporary shops are usually located in high pedestrian traffic areas such as city centers, shopping malls, and busy streets, aiming to reach the highest number of visitors possible. Emphasis is placed on the consumer experience, highlighted by the fact that individuals visit the store during its active period, confirming the experiential nature of the initiative.

This particular type of store, emblematic of a strategy aiming to generate value by actively engaging the consumer as the protagonist of a unique shopping experience, originated in the United States and the United Kingdom but is also spreading in Italy. The term "pop-up store" literally translates the English "pop up," meaning to "emerge" or "appear." The uniqueness of this category of retail points lies in its ephemeral nature; typically, they remain active for a short period, ranging from three days to three months.

The economic convenience of pop-up stores compared to traditional shops is evident. This is due to lower operating costs and less expensive materials compared to those required to set up a permanent retail space. The advantages associated with this formula are manifold. Firstly, it allows for direct contact with people, offering the opportunity to explore new consumer segments. This dynamic promotes the attraction of new potential customers and the retention of those already acquired, contributing to building a strong bond with the brand.

In a time when the urgency to address environmental issues translates into a growing demand for innovative solutions, this project aims to explore the pioneering ground of a new approach in the textile industry.

The implementation of a pop-up haberdashery, a concept hitherto unexplored in the haberdashery landscape, embraces the principles of circularity and the use of eco-friendly fabrics. Utopiah Pop-Up, the haberdashery in question, stands out for its bold mission to provide exclusively sustainable textile products, made using recycled and recyclable fabrics.

This research work will closely examine the operational dynamics of Utopiah Pop-Up, emphasizing its innovative collaboration with circular textile companies operating primarily in the B2B segment and specializing in the recycling and trimming of fabrics. This partnership represents an unprecedented opportunity to assess the impact of circular practices in the textile industry, laying the groundwork for a critical evaluation of scientific, social, and economic implications.

The main goal of Utopiah Pop-Up is to create a unique environment where customers can explore high-quality and innovative fabrics. The project also undertakes the ambitious task of evaluating and quantifying the impact of ethical and sustainable textile alternatives offered by the haberdashery, thus contributing to shaping a more conscientious and ecological consumer landscape.

The brand is based on five fundamental aspects:

- **Sustainability:** Through its commitment to sustainability and circularity, it plays a decisive role in actively promoting the use of recycled materials, not only providing an innovative solution to the growing issue of textile waste but also mitigating resource consumption. This approach based on material circularity not only constitutes an ecological strategy but also a significant contribution to environmental sustainability.
- **Ethics:** Collaboration with companies that share ethical values demonstrates social responsibility and commitment to human rights. This ethical approach is crucial not only to ensure the quality and integrity of products but also to shape a business model distinguished by fairness in working practices. A scientific approach to ethical collaboration not only supports social justice but also contributes to establishing new standards in the textile industry.
- **Transparency:** High transparency in Utopiah's operations, from sourcing to production, forms a scientific basis for building customer trust. This operational clarity not only responds to the growing consumer demand for knowledge about the origins of products but is also essential for accurate monitoring of sustainable practices. Transparency thus becomes a

fundamental element in building a trust-based relationship based on verifiable and accessible data.

- Education: Aspiring to be an educational resource for the community is a manifestation of scientific commitment to spreading awareness. By offering workshops and educational materials, the brand aims to guide its customers on an informative and enlightening journey about textile sustainability. This approach not only expands the educational scope of the brand but also solidifies its role as a catalyst for cultural change.
- **Innovation:** Utopiah's position as a pioneer in the pop-up model is a paradigmatic example of innovation in the industry. The choice of a dynamic and adaptable haberdashery experience for the modern consumer is a conscious response to the changing dynamics of the market. Innovation is not just an aesthetic aspect of the brand but a strategic response that, based on data and market analysis, anticipates and satisfies the needs of contemporary consumers.

The aspiration is to lead the way and ignite inspiration in the textile sector by revolutionizing the haberdashery experience through circular sustainability and the innovative pop-up model. It sets the following objectives:

- **Support Circular Textile Companies**: Facilitate a sustainable supply chain by treating batches of recycled and carefully selected materials to create new textile materials (fibers, yarns, fabrics) suitable for production in various sectors/applications, including clothing.
- **Introduce an Innovative Purchasing Model**: Demonstrate the effectiveness of an innovative purchasing model over time.
- **Be a Distinctive Reference for Consumers**: Be a distinctive point of reference for consumers seeking sustainable and quality textile products, distinguishing itself from the competition.
- **Forge Key Partnerships with Circular Textile Companies:** Ensure a steady flow of sustainable goods by establishing key partnerships with circular textile companies.
- **Remove Links from the Distribution Chain**: Move directly from the producer to the consumer, eliminating intermediaries.
- **Encourage Consumers to Make More Sustainable Choices**: Provide detailed information on the textile recycling process for increased environmental awareness.

In retrospect, the unwavering adherence to the 100% Made in Italy ethos serves

as a foundational element in the commitment to textile excellence and artisanal craftsmanship. This strategic decision not only underscores the dedication to unparalleled quality but also fosters a palpable sense of national pride, aligning the brand with the rich tradition of Italian textile artistry.

Within the framework of the retrospective analysis, a proactive stance on environmental stewardship emerges as a pivotal facet. The systematic promotion and utilization of recycled and recyclable fabrics epitomize the commitment to advancing sustainable practices within the textile industry. By seamlessly integrating eco-friendly materials into the product portfolio, a tangible contribution has been made to the global imperative of mitigating environmental impact through responsible resource utilization. An instrumental aspect of the sustainable sourcing strategy involves forging strategic alliances with circular textile companies. These partnerships not only fortify the environmental commitment but also establish a resilient supply chain, ensuring a consistent inflow of resources aligned with sustainability objectives. This approach stands as a testament to the efficacy of collaborative efforts in fostering sustainability within the fabric production ecosystem. A noteworthy achievement in the retrospective journey lies in the successful introduction of products crafted from circular materials. This strategic maneuver has not only positioned the brand as a trailblazer in the market but has also elevated the haberdashery into a vanguard role in promoting a circular economy. The favourable reception and acknowledgment from discerning, environmentally conscious consumers validate the success of this pioneering initiative. Integral to the reflective analysis is the nuanced equilibrium maintained between price considerations and sustainability imperatives. Demonstrating that eco-conscious practices need not be synonymous with exorbitant costs, the brand has successfully navigated the delicate balance between ethical considerations and economic accessibility. This paradigm shift challenges the traditional dichotomy between sustainability and affordability, establishing the brand as a beacon for those seeking products that seamlessly integrate both dimensions.

The Utopiah pop-up emerges not solely as a retail destination but as a comprehensive and sustainable experience, deeply entrenched in circular practices and a commitment to offering clientele conscientious choices in the realm of textiles and mercery: In alignment with its fundamental dedication to circularity and the utilization of eco-sustainable textiles, the haberdashery pop-up is strategically positioned as a collaborative center with circular textile enterprises specializing in the recycling and reduction of fabric waste. This strategic collaboration ensures that the offerings align with the principles of sustainability and responsible resource utilization. The product catalog encompasses a diverse range of eco-friendly fabrics available for retail, each meticulously selected to meet the highest standards of sustainability. Furthermore, pride is taken in presenting exclusive and limited capsule collections specifically tailored for local sustainable events, aligning the product offerings with the ethos of environmentally conscious initiatives within the community. A pivotal aspect of the commitment to sustainability is evident in the promotional initiatives systematically introduced. Sustainable promotions and discounts are implemented, fostering conscientious consumer behavior and nurturing a culture of mindful consumption. Acknowledging the necessity for hypoallergenic fabrics in children's wear, a specialized assortment of sustainable hypoallergenic fabrics is offered, designed to meet the unique requirements of the youngest clientele. Collaboration is at the core of the enterprise, with active engagement with local designers to co-create and present distinctive collections. This collaborative approach not only enhances the diversity of the product range but also fortifies connections with the creative community. Introducing an innovative textile subscription program, monthly subscription packages are provided that deliver sustainable fabrics directly to patrons' residences. This initiative aims to stimulate creativity and promote do-it-yourself endeavors, fostering a sense of empowerment and sustainable craftsmanship among the clientele. The commitment to the do-it-yourself philosophy is further demonstrated through Kit DIY offerings, equipping customers with the tools and materials to embark on their creative textile projects. These kits are thoughtfully curated to accommodate various skill levels, making sustainable crafting accessible to all. For individuals seeking a personalized touch, services extend to crafting customized items, ensuring that the clientele can embrace sustainable fashion in a manner that aligns with their unique preferences and style. Furthermore, the catalog features

niche products and haberdashery merchandise, providing a carefully selected assortment that caters to the diverse needs and preferences of discerning clientele.

Within the domain of sustainable haberdashery, Utopiah emerges as a notable entity, presenting a repertoire of services meticulously devised to augment the experiential facets for its clientele.

Promotions: Utopiah's promotional strategies are underpinned by a methodical approach, featuring a discerning curation of offerings intricately aligned with the central tenets of sustainability. This strategic alignment not only stimulates a conscientious approach to consumption but also ensures the accessibility of sustainable textile choices through judiciously formulated promotions.

Customer Care: At the nucleus of Utopiah's service paradigm resides a dedicated cadre of customer care professionals committed to delivering exemplary assistance. This commitment extends beyond mere product inquiries, encompassing comprehensive guidance through the diverse array of sustainable offerings. Such meticulous attention to customer care ensures a positive and knowledge-intensive shopping experience, thereby exemplifying the pop-up's unwavering commitment to customer satisfaction.

Online Presence and E-commerce: Within the digital landscape, the haberdashery seamlessly extends its purview through an intricately structured online presence and a seamlessly integrated e-commerce platform. This digital extension facilitates patrons in the exploration and interaction with the pop-up's eco-sustainable textiles from the confines of their domiciles. Notably, the virtual platform mirrors the ethical and sustainable values inherent in the physical instantiation of Utopiah, thus proffering a consistent and ecologically conscious retail environment to patrons who opt for virtual engagement.

Possibility of Pre-Order: Utopiah is pleased to introduce the concept of pre-ordering, affording patrons the opportunity to secure their preferred eco-sustainable textile items in advance. This service not only guarantees the availability of desired products but also streamlines a bespoke and efficient shopping experience. The provision of pre-ordering, therefore, serves as a testament to its dedication to accommodating the preferences and requirements of its discerning clientele. In summation, it stands as an exemplar of sustainability within the haberdashery domain, offering a suite of services that transcend mere transactional engagements. From strategically devised promotions to meticulous customer care, a robust online presence, and the strategic integration of pre-

ordering mechanisms, Utopiah epitomizes a commitment to endowing its patrons with a comprehensive and sustainable engagement throughout their pursuit of conscientious textile choices.

3.2 Principles of sustainable design in the fashion system

Eco-friendly materials and production processes

The structure of the pop-up haberdashery, in harmony with the principles of circularity and sustainability, stands as an exemplary instance of the integration of ecological commitment in every aspect of its conception and functionality. The realization of the pop-up store is the result of a meticulous selection of eco-friendly materials, permeated by choices based on scientific and sustainable criteria. The core of the structure is constituted by the repurposing of a shipping container, a choice that not only ensures structural robustness but also symbolizes the ongoing commitment to promoting a circular vision in all its manifestations.

Regarding thermal insulation, a fundamental aspect of building sustainability, the structure extensively employs cellulose fiber, a thermal insulating material primarily obtained from natural materials such as recycled paper or wood, thus embodying an ecological and sustainable choice. Cellulose fiber stands out for its natural origin, being primarily composed of cellulose, the main structural component of plant cell walls. Its production occurs through the recycling of paper or wood from sustainably managed sources.

Among the key characteristics of cellulose fiber as a thermal insulator, its high thermal resistance is noteworthy, effectively contributing to reducing heat transmission through the building surfaces. Furthermore, cellulose fiber exhibits good thermal inertia, allowing it to absorb, store, and release heat over time, thereby stabilizing the internal temperature. Available in various forms, such as panels, flakes, or spray, it can be treated with additives to become moisture-resistant, preventing issues like mold formation. Its fire resistance, often achieved through treatments with flame-retardant substances, adds an additional layer of safety to thermal insulation.

Internal support elements, crucial for ensuring the stability of the haberdashery, are crafted from recycled aluminum. This choice not only highlights attention to reducing environmental impact associated with virgin aluminum extraction but actively promotes circular economy and the reuse of pre-existing materials.

The surfaces of the walls, curtains, furnishings, and decorations are carefully crafted using fabrics from sustainable sources such as organic cotton, linen, hemp, and recycled textiles. This meticulous selection contributes to creating a visually appealing space that is simultaneously respectful of the environment.
To ensure sustainable energy supply, **flexible solar panels** have been installed, transforming solar energy into a renewable source for daily activities within the pop-up store. This solution reflects commitment to sustainable energy sources and reducing carbon footprint.
Light structural elements and packaging are made using recycled cardboard, seamlessly integrating into the philosophy of the circular economy and contributing to the creation of a structure that combines lightness and sustainability.
Finally, a portion of the furnishings is constructed using recycled materials, such as repurposed pallets, embodying the commitment to promoting creative reuse of existing resources, with the goal of minimizing overall environmental impact.
In summary, the pop-up store structure not only presents itself as an aesthetically appealing retail space but also serves as a tangible example of how sustainability can seamlessly integrate into every aspect of its conception and functionality.

In the context of the sustainable production processes adopted by the haberdashery, there is a distinct preference for the local production of materials and the structure, aimed at significantly reducing the environmental impact associated with transportation. This approach involves a discerning selection of local suppliers, thereby contributing to minimizing the carbon footprint arising from the transportation of necessary materials.
Another cornerstone of the sustainable processes is represented by the active waste collection and recycling system implemented during the pop-up event. This system is designed to promote material circularity, reducing waste and maximizing the efficient use of resources. Conscious waste management contributes to mitigating the overall environmental impact of the event.
In the pursuit of sustainable production, any prints or decorations used during the event are exclusively crafted with low-solvent-emission inks. This choice ensures a sustainable approach to decoration, minimizing the emission of volatile organic compounds (VOCs) and reducing the environmental impact associated with the use of more traditional solvents.
The design of the structure itself is conceived to facilitate assembly and disassembly, thereby reducing the environmental impact associated with these

phases. This feature not only optimizes logistical efficiency but also allows greater flexibility in adapting the structure to different contexts, contributing to long-term sustainability.

A crucial aspect involves the training provided to staff and participants on the importance of recycling and sustainable behaviors during the event. This educational program aims to promote conscious material management, encouraging sustainable and responsible practices among all involved parties.

Lastly, the decision to purchase materials exclusively from suppliers committed to sustainable practices consolidates the ethical approach of the initiative. This responsible procurement criterion not only reflects a commitment to sustainability but also contributes to supporting and strengthening the overall sustainable supply chain.

Design oriented to circularity

In the context of the structural realization of a pop-up haberdashery oriented towards circularity and the use of eco-friendly fabrics, the exploration and selection of various design approaches have constituted a crucial step in identifying the structural design most congruent with principles of environmental sustainability and circularity.

One of the paradigms explored was that of the Modular and Sustainable Tiny House. This design, characterized by modularity and ease of assembly and disassembly, places particular emphasis on the careful selection of materials sourced from recycled and sustainable origins. Elements such as cellulose fiber panels and materials derived from recycling processes have been included to provide eco-friendly solutions in the realm of thermal insulation.

The assessment extended to considering a Geodesic Structure, appreciated for its stability and flexibility. This design necessitates the use of lightweight and recyclable materials, such as recycled aluminum tubes or composite materials, ensuring high structural efficiency and easy adaptability to the specific needs of the temporary event.

An additional approach was dedicated to the examination of Adapted Shipping Containers, which, through adaptation, offer a robust and easily transportable structure. The consideration of windows and openings to maximize natural lighting, thereby reducing dependence on artificial lighting sources, was a distinctive feature.

Certified Wood Modular Structures were examined for their intrinsic sustainability, thanks to the choice of FSC-certified wood. The integration of flexible design elements, allowing expansion or reduction of the structure according to needs, added a level of versatility to the overall project.

The assessment also included the option of incorporating a Green Roof or Hanging Garden, aimed at improving thermal insulation and promoting CO2 absorption, with a careful selection of local and resistant plants to enhance biodiversity in line with sustainability principles.

A cutting-edge approach included the design of a Transparent Structure with Integrated Solar Panels, characterized by glass walls or advanced transparent materials. The integration of transparent solar panels allows harnessing solar energy without compromising the presence of natural light inside the structure, a key innovation for energy efficiency.

The analysis also involved the approach of Bioclimatic Design, aimed at leveraging local climatic conditions to reduce dependence on artificial heating or cooling systems. The use of passive elements, such as natural ventilation, contributed to improving internal comfort.

Finally, the assessment included the option of using Prefabricated Structures in Recycled Steel, with particular attention to the implementation of design elements facilitating disassembly for recycling at the end of the structure's life cycle.

The integration of these circularity-oriented designs into the pop-up haberdashery not only results in a significant reduction of environmental impact but also emerges as a catalyst for inspiration to instill ecological awareness in visitors and event participants. This approach strongly emphasizes the importance of sustainability in the design and implementation of temporary structures, reflecting a tangible commitment to a more ecologically responsible future.

After a careful process of research and consideration, Utopiah has decided to resort to the reuse of an existing naval container, otherwise destined for disposal, for the structural design of its temporary store.

The use of converted naval containers as temporary retail points represents an innovative solution in the context of the retail sector, leveraging a modular, durable, and easily transportable structure for the creation of temporary commercial spaces. This practice, commonly referred to as "container retail" or "pop-up container store," has gained prominence for various reasons.

Firstly, the structural versatility of naval containers provides a solid and modular base that can be easily adapted to meet the specific needs of the temporary store. This flexibility allows for the design of creative and captivating layouts.
The intrinsic mobility of containers, initially designed for maritime transport, allows for rapid movement from one location to another. This feature is particularly advantageous for retailers wishing to adapt to events, fairs, or seasonal locations.
From an ecological standpoint, the recycling of naval containers represents a sustainable approach to temporary construction, reducing the need for traditional building materials and contributing to minimizing environmental impact.
Economically, the conversion of containers can be more cost-effective than the construction of traditional structures, as the basic structure is already available, thereby reducing construction costs and the time required for setup.

The unique customer experience is guaranteed by the distinctive nature of temporary stores created with containers, offering a memorable and unique shopping experience. Innovative design can capture the interest and curiosity of customers, effectively contributing to brand promotion.
Furthermore, containers can be easily customized to reflect the brand's identity. Elements such as graphics, lighting, and design can be integrated to create a space that reflects the aesthetics and values of the brand.
The rapid implementation is another advantage, as the conversion of containers into temporary stores can be completed in shorter time frames compared to traditional construction, allowing retailers to respond promptly to new market opportunities or specific events.
The trend of pop-up retail, characterized by the temporary presence of stores, is steadily growing. The use of containers for such initiatives aligns perfectly with this trend, allowing retailers to test new markets or store concepts without investing in a permanent structure.
To ensure movements in line with Utopiah's ethics, low-impact environmental vehicles have been considered. Ongoing developments in battery technology are significantly expanding the range of electric trucks, particularly those introduced by Scania. The Swedish company, a leader in the heavy trailer sector, has introduced battery-powered trucks available as rigid trucks and trailer tractors, equipped with new transmissions, enhanced batteries, and faster and more powerful charging capabilities. These vehicles offer a range of 370 km with a load of 40 tonnes and 260 km with a maximum load of 64 tonnes GTW, with electric machine options ranging from 270 to 450 kW of continuous power. Additionally,

electric machines can be integrated with various PTO options to power a wide range of applications.

Battery packs are assembled internally at Scania, designed and built specifically for the conditions of heavy commercial vehicles, including high annual mileage and lifespan. Scania's latest electric truck has a range of up to 400 km, with a full charge time of 85 minutes at 375 kW.

Figure 28 https://www.scania.com/it/it/home/soluzioni-elettriche-scania.html

Figure 29 mood board of the project

Figure 30 3D intern render of the project, left side

Figure 31 3D intern render of the project, right side

Figure 32 external view of the 3D project

Figure 33 complete view of the 3d project, including Scania electric truck

3.3 Development of sustainable partnerships

Collaboration with suppliers and producers

Utopiah stands out for its strategy of direct collaboration with circular textile companies exclusively operating in the B2B (Business-to-Business) sector. Such an approach not only contributes to enhancing the sustainability of the supply chain but also solidifies the brand's position as a key player in supporting the circular industry. The Partnership Development Plan for the Pop-Up Haberdashery represents a strategic framework aimed at establishing robust collaborations with companies operating in the circular textile sector, with the primary goal of ensuring a steady supply of eco-friendly fabrics. The ultimate objective is to diversify the offering within the structure of the pop-up haberdashery.

In the initial phase, an analysis of Circular Textile Companies is outlined, aiming to identify and analyze businesses capable of sharing the vision and values of the pop-up haberdashery. This analysis goes beyond mere identification and includes an evaluation of their intrinsic ability to provide innovative and sustainable fabrics. Another point of investigation is the careful examination of the production practices adopted, with particular attention to existing environmental certifications.

Subsequently, an Ideal Partnership Profile is developed, where fundamental criteria for the ideal collaboration are defined. This definition encompasses qualitative and sustainable standards, as well as key requirements related to deliveries, supply volumes, and pricing structures within a sustainability context.

The articulation of a Partnership Proposal constitutes a subsequent step, in which the presentation of the pop-up haberdashery, its strategic vision, and the collaboration plan are formalized. The proposal is designed to highlight tangible benefits arising from the partnership, with particular reference to reciprocal marketing aspects.

Following this, there is a crucial phase of Meetings and Negotiations with potential counterparts in the circular textile sector. During these occasions, operational and logistical details are addressed, simultaneously negotiating partnership conditions, including supply volumes, prices, and contractual terms.

To ensure the lasting effectiveness of established partnerships, the Development of Monitoring Systems is undertaken, through the implementation of devices

aimed at evaluating fabric quality and delivery times. Concurrently, key performance metrics are established to assess the overall performance of the collaboration.

The integration of new partnerships within the pre-existing Supply Chain of the pop-up haberdashery will be a crucial step, requiring tests of operational fluidity and appropriate adjustments.

Communication and Marketing emerge as tools of paramount importance for the dissemination of the new partnership through the communication channels of the pop-up haberdashery. The narrative focuses on the aspects of sustainability and collaboration, aiming to capture the attention of a conscious clientele.

The process is characterized by Continuous Feedback and Optimization, including the collection of feedback from both involved parties and the implementation of continuous improvements. In parallel, opportunities for joint innovation are explored, and the development of new products is promoted.

The Necessary Resources for the implementation of this Plan include an estimated time period of 6 to 12 months to complete the entire process, financial resources allocated to cover meetings, negotiations, and the development of marketing materials, as well as a dedicated team for partnership management.

Expected outcomes materialize in solidified partnerships with at least two circular textile companies, a growing availability of sustainable fabrics within the haberdashery, and a differentiation of the offering resulting in the attraction of conscious customers and an increase in sales. The prosperity of the pop-up haberdashery is inherently tied to the strength and stability of collaborations with circular textile partners, underscoring the joint commitment to sustainability principles.

Community Engagement

Utopiah's distinctive approach to community engagement encompasses a meticulous focus on local dynamics, a commitment to reducing environmental impact, and an active promotion of circularity and recycling throughout its temporary events. This multifaceted strategy extends beyond mere business operations, reflecting the brand's dedication to holistic sustainability and community integration.

At the core of Utopiah's strategy is an emphasis on local production, strategically designed not only to bolster the local economy but also to serve as a powerful tool in curbing carbon emissions linked to long-distance transportation. This approach aligns seamlessly with broader sustainability goals, advocating for the

reduction of emissions throughout the production and distribution phases while concurrently nurturing stronger bonds with the local community.

The relentless dedication to environmental sustainability finds expression through a myriad of initiatives, one of these are the Benefit Events. These thoughtfully organized occasions earmark a percentage of sales towards impactful environmental causes, underscoring the mercery's unwavering commitment to making a tangible difference in issues integral to its mission.

In parallel, the Mercery Pop-up transcends its role as a retail space, transforming into an educational hub through its "Sustainable Workshops." These engaging sessions adopt a scientific and didactic approach, delving into the dissemination of sustainable practices, creative recycling techniques, and the hands-on creation of do-it-yourself clothing items. The experienced staff serves as mentors, guiding participants through the intricate dynamics of circular fabric and the art of using and reusing recycled materials. This not only imparts knowledge but also provides a tangible platform for attendees to actively incorporate key sustainability principles into their lives. Moreover, Utopiah's commitment to sustainability extends to the event's operational aspects. The implementation of an advanced waste collection and recycling system serves as a testament to the brand's holistic approach. Beyond the promotion of material circularity, this system stands as an effective means to minimize waste generated during the event. The adopted recycling system goes beyond mere collection, encompassing meticulous processes of trimming and reusing textile materials. Through these innovative practices, the store strives not only to reduce its environmental footprint but also to maximize the utilization of each material, contributing significantly to more efficient and responsible textile resource management.

Chapter 4: Project Implementation

4.1 Steps of implementation

Research and development

The Pop-Up Haberdashery emerges as a pioneer in the haberdashery sector, adopting an innovative and scientifically oriented approach to implement sustainable practices. The clear definition of SMART objectives forms the strategic core guiding its evolution, distinctly setting it apart from conventional haberdasheries. The distinctive peculiarity of this initiative lies in its pioneering adoption of partnerships with circular textile companies, marking a significant departure from industry conventions.

In terms of objective precision, the Pop-Up Haberdashery aspires to develop, within the next quarter, a comprehensive range of products exclusively crafted from recycled and recyclable fabrics, through targeted collaborations with circular textile partners. The clear definition of the characteristics of the fabrics used and the recycling methods adopted constitutes the fundamental basis for creating authentically unique products.

The measurability of objectives focuses on the ambitious goal of increasing sales of low environmental impact products by 20% by the end of the current year. This increase will be subject to continuous monitoring through sales tracking systems and systematic collection of customer feedback, allowing for a quantitative evaluation of the success of the adopted strategy and providing an in-depth analysis of consumer preferences.

The feasibility of these objectives is underscored by the prospect of expanding the partnership network with at least two new circular textile companies within the next six months. This strategic expansion aims to ensure a continuous supply of sustainable fabrics, concurrently with the diversification of the product offering.

A relevant objective involves the implementation of an environmental awareness program through events organized within the pop-up store. This initiative will actively engage the local community, highlighting the Pop-Up Haberdashery's commitment to ethical and sustainable practices in the fashion industry. Integrating aspects of social responsibility and building customer connections, this objective will contribute to solidifying the relevance of the haberdashery in the current context.

The temporal constraint is based on the implementation and promotion of a customer loyalty program centered on sustainability, set within the next three

months. The ultimate goal is to increase sales of sustainable products by 15% by the end of the current year. This targeted timeframe emphasizes the urgency of consolidating customer loyalty through sustainability-focused initiatives.

Figure 34 SMART objects

The SWOT analysis for the Circular Pop-Up Haberdashery with Recycled Fabrics reveals a series of key elements influencing the success and sustainability of this innovative business model.

In terms of strengths, the Innovation of the Business Model stands out, leveraging the opportunity of being the first circular pop-up haberdashery. This provides an initial competitive advantage, capturing consumers' attention and creating a perception of novelty and progress. Environmental Sustainability, arising from the circular approach and the use of recycled fabrics, emerges as a strong point, addressing the growing demand for eco-friendly products. Collaborations with Circular Business Partners provide privileged access to sustainable materials, establishing a reliable and environmentally respectful supply chain. The Unique Customer Experience, stemming from the pop-up model, offers an engaging shopping environment, fostering direct interaction and generating a sense of urgency. The Flexibility and Operational Agility, characteristics of the temporary nature of the pop-up model, allow for rapid experimentation and adaptation to market trends.

However, there are also inherent weaknesses in the model. The Limited Duration of the Pop-Up Operation could impact the building of a long-term loyal customer base. Dependence on Circular Suppliers, if not carefully managed, could be a weakness, especially in the presence of limited sourcing options or supply chain instability. Limited Brand Awareness, stemming from the innovativeness of the

concept, could initially hinder customer attraction, requiring effective communication.

Opportunities for the Circular Pop-Up Haberdashery stem from the increased Awareness of Sustainability, providing an opportunity to position itself as a leader in the industry. Exploration of New Markets, made possible by the pop-up model, offers the chance to assess consumer response in different locations. Collaborations with Sustainable Influencers represent an effective channel to increase brand visibility and establish authenticity.

At the same time, Threats include the potential for Future Competition arising from the growth of the circular textile sector. Regulatory and Environmental Changes could influence the availability of circular fabrics or increase compliance costs. Price Sensitivity, linked to the perception that sustainable products are more expensive, could limit accessibility to price-sensitive consumers.

Recommended Strategies to address these dynamics include a significant investment in an Effective Communication Strategy to educate consumers about sustainability and the unique value proposition of the pop-up model. Diversification of the Offering is suggested to cater to a broader range of customers and increase business resilience. Customer Loyalty through targeted programs can convert pop-up customers into long-term clients, encouraging loyalty through special offers and future discounts. Market Monitoring and Continuous Updates will enable staying aligned with market trends, listening to customer feedback, and adapting marketing and product strategies quickly.

Figure 35 SWOT analysis

Porter's Five Forces model, a widely recognized strategic analysis framework, emerges as an invaluable instrument for meticulously assessing the intricate dynamics of competition within a designated industry. When meticulously applied to a pop-up haberdashery, which places a pronounced emphasis on circularity and the incorporation of recycled and recyclable fabrics facilitated through

circular textile business partnerships, the model assumes a profound role in discerning and comprehending the multifaceted competitive forces exerting influence on the business.

Within the realm of the Threat of Substitutes, the contextual dynamics encompass the pervasive risk of customer diversion towards alternative options. This may encompass patrons opting for budget-friendly products readily accessible in well-established local brick-and-mortar establishments or through online enterprises proffering a product portfolio akin to that of the pop-up haberdashery, albeit at comparable price points. Additionally, the looming prospect of substituting sustainable new fabrics with second-hand fabrics, which may lack the same level of environmental sustainability, imparts a nuanced and specific challenge. This multifaceted aspect underscores the imperative for strategic differentiation measures, strategically designed to preserve and cultivate a customer base steadfastly committed to sustainable consumption practices.

A meticulous examination of the Bargaining Power of Customers within this intricate context unveils the potential impact of strategic marketing techniques on customer perceptions, potentially leading to a reduction in their bargaining power. The accessibility of fabrics spanning diverse price ranges through online channels, coupled with the option for bulk purchases, further factors into the complex dynamics of customer negotiation power. Nonetheless, the constrained availability of alternatives rooted in circularity contributes to heightened customer loyalty, as fewer viable options align with a shared commitment to sustainability.

The nuanced exploration of the Bargaining Power of Suppliers introduces the contemplation that suppliers may contemplate independently entering the business landscape. This necessitates the formulation and implementation of a judicious and strategic management approach to safeguard the business's interests. In counterbalance, the establishment of robust partnerships with circular textile companies emerges as a potent strategy to effectively mitigate the bargaining power wielded by suppliers. This underscores the critical importance of cultivating enduring relationships with key suppliers to ensure a stable and reliable supply chain.

The complex dynamics encapsulated within the Threat of New Entrants entail a comprehensive recognition of the potential challenges posed by cutting-edge innovations seeking market penetration. The textile industry, demanding substantial investments and necessitating specialized partnerships, unveils the formidable barriers to entry. Diversification, both in terms of products and services, becomes paramount, acting as a persuasive catalyst for consumers to

recalibrate their purchasing habits. This, in turn, accentuates the imperative for substantial initial investments to establish a competitive foothold and navigate the complexities of the market effectively.

Analyzing Competitive Rivalry within this strategic landscape underscores that the sustainable pop-up haberdashery model, while yet to be embraced by direct competitors, encounters a form of indirect competition. These indirect competitors may strategically adopt price and quality competition strategies for the products they offer, thus necessitating a proactive and strategic approach to maintain a distinctive market position.

Figure 36 the five forces

By strategically navigating the influences of PESTEL, the business can solidify its commitment to sustainability and optimize its positioning in the market. To conduct a comprehensive PESTEL analysis for the Utopiah pop-up it's important to take in examination the political, economic, social, technological, environmental, and legal factors influencing the business landscape.

In the realm of Political Analysis, the pop-up haberdashery discerns notable opportunities stemming from potential government support for sustainable businesses, which may manifest through enticing tax incentives or financing programs. However, accompanying these opportunities are threats linked to regulatory changes in sustainability. Such changes could introduce new standards or certification requirements, thereby imposing additional compliance burdens.

The Economic Analysis presents the haberdashery with the opportunity to thrive amidst a growing demand for eco-friendly products, providing a chance to position itself as an industry leader. Nevertheless, this positive trajectory is met

with threats, notably higher initial costs for sustainable products, which could potentially impact profitability and financial viability.

Within the Social domain, the haberdashery identifies opportunities arising from an escalating environmental awareness and a burgeoning interest in products that actively reduce ecological impact. Conversely, the business faces threats rooted in the lack of sustainability awareness in certain market segments, potentially limiting the expansion of its customer base.

In the Technological sphere, the Ecological Haberdashery recognizes opportunities tied to the utilization of advanced technologies for material traceability and online sales management. However, accompanying these opportunities are threats associated with dependence on technological providers for online platform management and the implementation of traceability systems, introducing a vulnerability in operational continuity.

In the Environmental Analysis, the green haberdashery strategically positions itself to leverage opportunities linked to its environmental commitment, serving as a distinctive factor that can attract sustainability-conscious customers. Simultaneously, the business remains vigilant to threats originating from dependence on suppliers of ecological materials. Changes in the sustainable raw materials market may impact the availability and cost of essential inputs.

Finally, in the Legal domain, the Utopiah haberdashery identifies opportunities in compliance with environmental laws and the adoption of sustainable practices, contributing to an enhanced brand reputation. Conversely, potential threats arise in the form of legal restrictions or certification obligations imposed to ensure the sustainability of products, requiring meticulous adherence to evolving legal frameworks.

Utopiah’s pop-up haberdashery is designed to satisfy a wide range of consumers and professionals who share a common interest in textile sustainability and circular business practices. The average buyer of utopiah is typically young, between 20 and 45 years old, a conscious consumer and attentive to environmental sustainability. Our type customers are passionate about craft and diy, they find joy and satisfaction in sewing, crafting and diy projects; sustainable fashionistas, that is, those who follow sustainable fashion and look for high quality recycled fabrics for the creation of clothing and fashion accessories winking at the ethical provenance of fabrics, are attentive to recycling and all the practices that make their lives a little greener, such as buying vintage or second-hand items, engaged in upcycling in all its forms, not only in the fashion sector and interested in vintage and quality clothes rather than trendy and poor quality;

artisans and textile designers who prefer the investment of resources in ethical products and innovative materials for their craft projects and textile design, such as green leathers and fabrics for curtains and upholstery; green parents attentive to the use of shampoo and solid soaps rather than liquids in plastic containers, oriented to finding safe and eco-friendly fabrics for sewing projects dedicated to their children; but also design students and novice professionals who wish to explore the field of innovative and sustainable materials for their academic or professional projects; environmentalists and activists who concretely support eco-friendly business practices aimed at reducing environmental impact such as using websites and apps such as "too good to go" to avoid food waste; but also entrepreneurs and textile professionals who want to explore innovative and sustainable partnerships with our haberdashery, helping to promote innovation in the circular textile industry.

From a geographical perspective, the Pop-Up Haberdashery primarily directs its activities towards Europe, with a particular emphasis on Italy. This choice is not arbitrary but rather reflects a meticulous consideration of the dynamics of the textile market and the offerings of circular textile companies in these regions. The focus on major cities and inhabited centers with at least 60,000 residents indicates a strategy aimed at reaching a significant audience, capitalizing on opportunities presented by larger urban contexts. The decision to concentrate on the European market, especially in Italy, is motivated by the historical reputation and manufacturing tradition of excellence associated with "Made in Italy," a factor that adds value to the brand and positions it distinctively against competitors. Furthermore, the decision to focus on cities of significant size demonstrates an awareness of consumption dynamics and market trends prevalent in broader urban settings. The Pop-Up Haberdashery thus aligns itself in a context where the demand for sustainable products is often higher, allowing the brand to maximize its visibility and influence.

Regarding demographics, Utopiah primarily targets individuals aged between 25 and 45, encompassing various life stages. This strategic choice is based on a thorough analysis of consumption dynamics and behaviors within the target audience, enabling the haberdashery to adapt to the needs of a crucial age group. Its inclusive offering, catering to men and women of all nationalities, stands out as a distinctive element, embracing diversity and ensuring access to sustainable products for an international audience.

The clientele of the Pop-Up Haberdashery is characterized by a medium to high income, falling within the socioeconomically privileged bracket. This demographic

specificity results from a targeted positioning strategy aimed at meeting the expectations and preferences of a audience with above-average purchasing power. In this context, the Pop-Up Haberdashery presents itself as an exclusive resource, offering sustainable and high-quality products in line with the standards of a more discerning clientele. Utopiah's demographic approach reflects a deep understanding of its target audience. Attention to different life stages, cultural diversity, and socioeconomic aspects underscores the brand's commitment to providing a targeted shopping experience, centered on the specific needs of each customer.

From a psychographic perspective, Utopiah's clientele is characterized by an open-minded mindset, aligned with the "less is more" concept, and a keen appreciation for uniqueness. This specificity in approaching daily life underscores the brand's ability to cater to the needs of a sophisticated and minimalist-oriented audience, offering products that embody beauty in simplicity.

Buyers of the Pop-Up Haberdashery are inherently inclined towards eco-sustainability, embracing an eco-friendly lifestyle and assuming the role of trendsetters in the realm of sustainable fashion. The clientele identifies as "makers," passionate about creative activities, do-it-yourself endeavors, innovation, and tailoring. This creative dimension is fundamental to the identity of the Haberdashery's audience, forming a community of modern artisans and individuals who value craftsmanship and creativity.

The diversity of lifestyles within Utopiah Pop-Up's audience is notable, highlighting the brand's ability to attract a heterogeneous range of customers. From those choosing a minimalist lifestyle to dedicated environmentalists and creatively inclined craft enthusiasts, the Haberdashery presents itself as a converging space for individuals with varied interests and orientations.

In the realm of market segmentation, the behavioral dimension intricately delves into the nuanced engagement patterns of the brand's target audience. This encompasses a meticulous identification of distinct consumer categories, including new entrants, VIP, and returning customers, each exhibiting specific behavioral traits. Noteworthy within this framework are individuals characterized as Early Adopters, distinguished by their proactive adoption of sustainable habits and practices.

The focal point of this behavioral segmentation lies in catering to eco-conscious buyers who actively seek and appreciate dynamic purchasing experiences. This select group places a premium on sustainability, aligning their purchasing

decisions with environmentally responsible choices. Their inclination towards dynamic purchasing experiences signifies a desire for interactive and engaging transactions, marking a departure from traditional consumer behaviors.

Moreover, the brand strategically addresses the segment comprising individuals actively participating in local events, fairs, and markets. This demographic is characterized by a preference for community engagement and localized commerce, presenting unique opportunities for the brand to establish a meaningful presence within specific geographic contexts.

In a parallel vein, the brand extends its outreach to a segment actively involved in Sustainable Workshops and educational events. The inclusion of educational elements in the brand's engagement strategy underscores its dedication to not only providing products but also fostering awareness and understanding among consumers.

Related to the market segmentation, the following buyer personas were developed:

- **Sara, 35, Teacher. DIY Creations Enthusiast**

Sara is not just passionate about DIY projects; she’s a teacher of 24 children in the elementary school in Rome. Thanks to the children, Sara rediscovers her passion for craftsmanship. She's an innovator exploring diverse techniques like decoupage and upcycling. Her creativity knows no bounds, extending beyond traditional tailoring. Sara finds immense joy when commissioned to create unique, handmade products, showcasing her commitment to personalized craftsmanship.

Tailoring and Textile Design: Beyond traditional tailoring, Sara dedicates herself to the world of textile design. Her expertise extends to crafting not only clothing but also textile objects like upholstery and home accessories. This holistic approach reflects her versatile skill set and artistic vision.

-Environmental Sustainability:

Recycling Philosophy: At the core of Sara's creative endeavors is a strong commitment to recycling. She consciously chooses sustainable materials and actively engages in creative recycling practices, aiming to minimize the environmental impact of her artistic creations.

Innovative Materials: Sara's interest in innovative and sustainable materials sets her apart. Actively seeking brands offering eco-friendly fabrics for DIY projects, she is determined to infuse ecological elements into her creations, contributing to a more sustainable and environmentally friendly approach.

Unlimited Creativity: Every DIY project is a new challenge for Sara, met with boundless enthusiasm. Her inventive spirit knows no limits, constantly pushing the boundaries of creativity. Each project becomes a canvas for exploration, reflecting her passion for unlimited artistic expression.

Creative Goals: Sara's ambitions go beyond personal creativity; she aims to expand her expertise in the realm of DIY textile design. Actively seeking new ways to incorporate sustainable materials, she envisions contributing to the promotion of a more ecological lifestyle through the transformative power of creativity. Sara is not just an artist; she's a pioneer in sustainable DIY, inspiring others to embrace a more environmentally conscious approach to their creative pursuits.

- **Giulia, 50, Owner of a Tailor's Atelier**

Activities and Passion: Giulia is the proud owner of a distinguished tailoring atelier in Pisa, specializing in leather and sustainable fashion. Offering impeccable craftsmanship, the atelier caters to customers seeking tailored clothing with an ethical approach to fashion.

Family History and Innovation: Giulia inherited the atelier from her father, originally focusing on real leather. Guided by an ethical and ecological vision, Giulia has undergone a transformative journey, completely revamping the atelier's supply chain to incorporate sustainable materials. This shift ensures that customers receive a luxurious, innovative, and environmentally friendly product.

Sustainable Choices: Giulia is deeply committed to championing sustainable fashion through her atelier. The deliberate transition to sustainable materials underscores her profound environmental awareness and dedication to mitigating the fashion industry's negative impact on the planet.

Sustainable Fabrics: A hallmark of Giulia's atelier is the use of sustainable fabrics in crafting tailor-made garments. Actively seeking suppliers aligned with her ethical fashion principles, Giulia ensures that each piece reflects a commitment to sustainability.

-Environmental Sustainability

Eco-Conscious Practices: Giulia's atelier implements eco-conscious practices, from sourcing sustainable materials to minimizing waste in the production process. The goal is to create exquisite fashion while prioritizing the well-being of the planet.

Carbon Footprint Reduction: By choosing sustainable fabrics and adopting eco-friendly production methods, Giulia actively contributes to reducing the carbon footprint associated with traditional fashion practices. This emphasis on sustainability aligns with her commitment to environmental stewardship.
Future Objectives: Innovation Continues: Giulia's unwavering focus is on continuous innovation. Actively exploring new techniques and sustainable materials, she strives to enhance the quality and minimize the environmental impact of her creations. This dedication keeps the atelier at the forefront of sustainable fashion.
Conscious Customers: Giulia aspires to educate her customers on the significance of sustainable fashion. Beyond crafting exclusive clothing, she aims to cultivate a conscious clientele—individuals eager to support an ethical approach to fashion and contribute to positive environmental change through their fashion choices.

- **Elena, 30, Eco-Conscious Seamstress**

Professional Activity: Elena, an independent seamstress from Bologna, has made sustainability the cornerstone of her fashion and tailoring approach. Her professional focus revolves around crafting unique, bespoke garments exclusively using recycled fabrics and sustainable materials.
Professional Background: With a solid foundation in tailoring education, Elena opted for professional independence to pursue her vision of a more conscious fashion industry. Over the years, her extensive experience has refined her skills, establishing her as an authoritative figure in sustainable tailoring.
Environmental Sustainability:
Elena's deep commitment to environmental sustainability is evident in every stitch. The choice of recycled and sustainable fabrics is not just a preference but a central tenet of her business. Elena remains on the forefront, continuously exploring innovative ways to minimize the environmental impact of fashion through her creations.
-Professional Interests
Continuous Learning and Improvement: Elena remains actively engaged in staying abreast of the latest advancements in sustainable fashion, consistently seeking knowledge to improve her craft.
Circular Textile Partnerships: As part of her commitment to environmental responsibility, Elena actively seeks partnerships with circular textile companies.

This strategic approach expands the array of sustainable materials at her disposal, enabling her to offer clients increasingly eco-friendly choices.

Professional Goals:

Elena's aspirations extend beyond her current success. She aims to solidify her position as a reference figure in sustainable tailoring, setting new standards for eco-conscious craftsmanship. Actively pursuing partnerships with circular textile companies aligns with her goal of broadening the range of sustainable options available to her discerning clientele.

Industry Contribution:

Elena stands as an inspirational figure for those seeking sustainable alternatives in fashion. Her dedication to eco-conscious tailoring not only reflects in her creations but also contributes to pushing the boundaries of the industry. Elena's work demonstrates that fashion can be both chic and sustainable, inspiring positive change within the broader fashion landscape.

- **Francesca, 28, Fashion Designer**

Professional Activity: Francesca, a freelance fashion designer from Milan, has carved her niche in the realm of sustainable fashion design. Her primary focus revolves around crafting distinctive fashion collections distinguished by the use of eco-sustainable materials and recycled fabrics.

Professional Background: Having completed her training in fashion design, Francesca embarked on a freelance career to channel her passion for sustainable fashion. Her experience has shaped a unique approach that seamlessly blends creativity with environmental commitment. Notably, Francesca's influence extends beyond her design work—her tutorials on upcycling and starting sewing projects from scratch have garnered a substantial following on social platforms. This influential presence empowers her to guide followers toward a more conscious and sustainable approach to fashion.

Environmental Sustainability

Eco-Sustainable Materials: At the core of Francesca's fashion design is a commitment to eco-sustainability. Her creations feature carefully selected sustainable fabrics with a minimal environmental impact, reflecting her dedication to responsible design.

Professional Interests

Fashion Design Mastery: Francesca's passion lies in fashion design, where she employs her creativity to conceive original collections. Her meticulous

attention to choosing sustainable fabrics underscores her commitment to contributing positively to the environment.

Social Media Influence: Beyond her design work, Francesca leverages social media to share tutorials on upcycling and sewing. This outreach has established her as an influential figure, shaping the sustainable fashion narrative on digital platforms.

Professional Goals: Francesca envisions solidifying her position as a leading fashion designer in the realm of sustainable fashion. Actively seeking partnerships with shops and haberdasheries, she aims to source unique materials to enhance the distinctiveness of her creations. Her goal is not only to design fashion but to curate pieces that embody both style and sustainability.

Industry Contribution: Francesca stands as a beacon for the new generation of fashion designers committed to sustainability. Her creative prowess and unwavering dedication to eco-sustainable fashion serve as an inspiration not only for fashion enthusiasts but also for industry peers. Francesca's influence encourages a broader embrace of responsible practices, fostering positive change within the fashion industry.

- **Marco, 35, textile Interior Designer**

Professional Activity: Marco, is an interior designer with a specialized focus on fabrics, elevates spaces through the innovative integration of sustainable textiles. Coming from Berlin, his expertise lies in curating aesthetically pleasing and functionally sound environments where the choice of fabrics plays a pivotal role.

Professional Background:

Having completed his training in textile design at a prestigious institution, Marco boasts several years of experience in the industry. Over the course of his career, he has successfully managed interior design projects that push the boundaries of innovation by seamlessly incorporating sustainable fabrics. These projects contribute to the creation of unique and environmentally conscious spaces.

Environmental Sustainability:

Innovative Integration: Marco's commitment to environmental sustainability is evident in his approach to interior design. He skillfully integrates sustainable fabrics into his projects, dHis focus extends beyond aesthetic appeal, emphasizing the importance of selecting fabrics demonstrating that beauty and functionality can coexist with eco-conscious choices.

-Professional Goals:

Leadership in Sustainable Design: Marco aspires to maintain a leadership position in projects that harmonize textile design with sustainability. Actively seeking collaborations with circular textile companies that align with his vision, he aims to contribute to the creation of spaces that are both visually captivating and environmentally friendly.

Industry Contribution: Marco is recognized for his ability to translate the latest trends in fashion and textile design into iconic interior projects. His dedication to sustainability not only sets him apart but positions him as a leading professional in the field. By advocating for and implementing sustainable practices, Marco contributes to shaping the future of interior design with a conscientious and forward-thinking approach.

Identifying potential competitors for a pop-up haberdashery with partnerships with circular textile companies, specialized in the use and marketing of recycled and recyclable fabrics, requires a comprehensive analysis of the textile industry and businesses that may offer a similar proposition. Given the current absence of pop-up haberdasheries, it is crucial to examine both traditional haberdasheries and new sustainable initiatives within the textile sector. Potential competitors can be categorized as follows:

- Traditional Haberdasheries: This category includes local haberdasheries or haberdashery chains that may offer a wide range of fabrics, although not necessarily sourced from recycled or circular textile companies.
- Sustainable Apparel Stores: Specialized stores in sustainable apparel may offer similar products, although their primary focus may not specifically be on the sale of fabrics.
- Artisanal Workshops: Ateliers or artisanal workshops working with sustainable materials may provide customized solutions, although they may lack the distinctive pop-up aspect.
- E-commerce: Online platforms specializing in the sale of fabrics and sustainable fabrics from circular textile companies represent potential competition in the digital landscape.
- DIY Projects: Do-it-yourself initiatives or creative projects promoting the use of sustainable fabrics, while potentially lacking a pop-up structure, could influence the interested audience.

- Sustainable Textile Associations and Cooperatives: Groups or cooperatives directly collaborating with circular textile companies may present similar initiatives with a strong commitment to sustainability.
- Circular Fashion Brands: Fashion brands following a circular philosophy may offer textile products, although their primary focus might be on finished garments.
- Sustainable Fashion Events: Events or fairs focused on sustainable fashion involving the sale of recycled fabrics could pose competition in exhibition and sales contexts.

Figure 37 identification of competitors

Pilot stage

In the field of sustainable textile retail, the brand stands out for its strategic positioning in creating a consistent and memorable customer experience. Each P, in fact, is crucial to create a positive and sustainable brand image in the long term:

In delineating the "Product," it is essential to provide an accurate definition thereof, clearly identifying the peculiarities of the product or service, including its distinctive features and the advantages offered to the customer. In this context, Utopiah Pop-Up not only offers a wide range of textile articles, accessories, and craft materials but also distinguishes itself based on the origin and quality of the materials.

Each proposed product is the result of a meticulous selection, ensuring that every fabric, accessory, and sewing material comes exclusively from recycled and recyclable sources. This binding commitment to the use of sustainable materials

meets the needs of environmentally conscious consumers. Material sustainability is a fundamental pillar of Pop-Up's mission, not remaining an abstract concept but rather a tangible and intrinsic component of each item for sale. This responsible approach and attention to the entire life cycle of materials are made possible through exclusive partnerships with high-quality circular textile companies.

The exclusivity stemming from these partnerships is not limited to the sustainability of the products but extends to the creation of a unique offering in the market. The Pop-Up stands out as the only retail point able to boast the exclusive origin of its materials, providing consumers with an authentic and unparalleled shopping experience. The brand positions itself as a supplier of a wide range of textile products, including tailor-made accessories and materials for sewing, embroidery, and various crafts.

These offerings exclusively result from a carefully curated sustainable supply chain, with fabric composition predominantly sourced from recycled materials. This underscores the brand's commitment to environmentally respectful production practices. The distinctive character of these textile products is closely linked to the strategic alliances forged with esteemed circular textile companies renowned for their dedication to high-quality and sustainable methodologies.

In terms of "Price," there is a necessity to determine a strategy based on perceived value, production costs, and the desired market position. The pricing policy aims to reflect the ecological value of the offered products, placing particular emphasis on transparency and consistency between the proposed price and the sustainable production process. This policy not only demonstrates ethical commitment but also underscores the intent to make eco-friendly products more accessible to a wide range of consumers, facilitated by targeted use of "Green Deals" – strategically designed initiatives that include discounts and structured promotions to encourage the purchase of sustainable products, thereby promoting circularity. A tangible example of this commitment is represented by the introduction of a monthly 30% discount on all products observed on the last day of each month to minimize unsold inventory.

These initiatives not only contribute to stimulating the demand for eco-friendly products but also highlight the role of the haberdashery as an active promoter of responsible behaviours towards the environment.

Focalizing on the Place, pop-up locations are carefully chosen for their Instagrammable charm, embody a tangible commitment to providing a unique and memorable customer experience. In the context of the "Point of Sale,"

distribution requires meticulous planning on where and how the product or service will be made available, considering online, physical, or hybrid sales channels. The brand's reach then extends through a robust e-commerce platform, ensuring accessibility to a wider audience. An assertive presence on social media becomes a powerful tool for engaging the target audience, amplifying the brand's reach, and facilitating community building.

Figure 38 strategic locations

Moreover, the brand adopts a comprehensive and sophisticated promotional strategy that extends beyond conventional marketing paradigms. Various initiatives contribute to this strategy, including the implementation of giveaways, the dynamic dissemination of content through innovative platforms such as Instagram Reels and TikTok, and strategic partnerships with influencers who share a resonance with the brand's sustainability ethos. These initiatives constitute essential elements within the intricate tapestry of the promotional landscape.

Particularly noteworthy is the brand's strategic collaboration with green textiles companies, seamlessly incorporated into promotional campaigns. This integration serves to construct a cohesive narrative, effectively highlighting the brand's steadfast commitment to sustainability. By aligning with these circular companies, the brand not only reinforces its dedication to environmentally responsible practices but also positions itself as an active advocate for circular economy principles within the broader industry discourse. This approach to promotion not only enhances the brand's visibility but also reinforces its ethical

standing, contributing to a more profound and resonant engagement with its target audience.

Central to the brand's operational ethos is the caliber of its personnel. The team is systematically composed, meticulously selecting individuals who possess a unique combination of experiential knowledge and a fervent commitment to advancing sustainable products and circularity processes. This selection process is not merely about aligning with values; rather, it represents a strategic amalgamation of practical expertise and a genuine passion for sustainable practices. Customer engagement transcends mere transactional exchanges, the brand envisions customer interaction as an immersive experience, evolving into participatory initiatives that actively involve customers in the brand's overarching sustainability mission. Notably, on-site creative recycling endeavors are integral to this strategy, creating meaningful connections between the brand and its clientele through hands-on involvement in sustainable practices. In addition to experiential initiatives, the brand offers tailored consultations aimed at empowering customers in the optimal utilization of fabrics. Leveraging cutting-edge Computer-Aided Design (CAD) software, these consultations provide customers with an advanced understanding of fabric utilization. This goes beyond traditional retail interactions, fostering a profound sense of empowerment and engagement among customers. By imparting knowledge and equipping customers with tools for informed decision-making, the brand contributes to a heightened level of customer satisfaction and loyalty within the sustainable fashion landscape.

Central to the brand's success is the meticulous management of diverse processes, emphasizing operational efficiency to ensure that internal workflows are meticulously designed to meet customer needs promptly and effectively. The brand places transparency as a fundamental guiding principle in its operational processes. This commitment is facilitated by a sustainable supply chain meticulously monitored through the integration of an RFID system. This technology ensures real-time tracking, offering a detailed view of the product lifecycle, from sourcing to delivery. The integration of RFID technology underscores the brand's commitment to transparency, contributing to customer trust and confidence. Its dedication is further exemplified by its active involvement in the collection of plastic, fabrics, and clothing. This initiative directs collected materials towards strategic partnerships with specialized recycling companies, ensuring responsible disposal and subsequent reuse. The brand's active role in material collection represents a tangible commitment to sustainable practices and

reinforces its position as an environmentally responsible entity. Furthermore, Clothes collected from the store undergo a rigorous selection process, emphasizing the brand's commitment to circular economy principles. Materials in good condition are reintroduced for resale, promoting sustainability through the circular reuse of garments. This meticulous selection process not only aligns with environmental conservation goals but also actively contributes to the circular economy ethos, a cornerstone of the brand's operational philosophy. Moreover, the physical spaces housing the brand's pop-up store is not merely retail environments but thoughtful expressions of a sustainable design philosophy. These spaces are meticulously crafted, utilizing materials that have been given a second life, aligning with the principles of circularity. It goes beyond aesthetics, becoming an immersive manifestation of the brand's overarching principles and a testament to its dedication to minimizing environmental impact. Then, the emphasis on clear and comprehensive labelling extends beyond a mere declaration of sustainability. It takes on an educational dimension, aiming to inform and empower customers by providing detailed information about the ecological footprint, sourcing practices, and recyclability of each product. This approach positions the brand as a beacon of transparency and education in the realm of sustainable consumption.

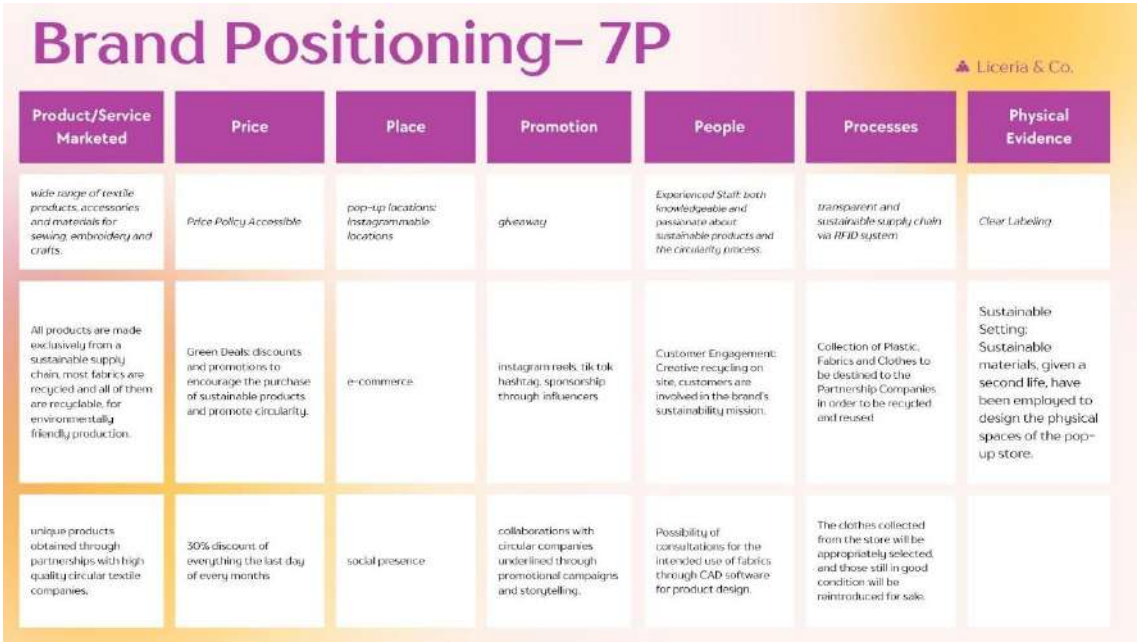


Figure 39 Brand Positioning- 7P

The value chain of a sustainable pop-up haberdashery is a complex and dynamic system encompassing various interconnected activities. Understanding and optimizing these primary activities are essential for achieving holistic sustainability and delivering value to customers. The value chain is structured

into inbound logistics, operations, outbound logistics, marketing and sales, and service:

- Inbound Logistics: This initial stage involves the management of partnerships, suppliers, technical aspects, and staffing. The haberdashery establishes strategic alliances with partners committed to sustainable practices. Suppliers adhere to eco-friendly sourcing methods, ensuring that raw materials align with the brand's sustainability ethos. Technical considerations involve implementing innovative technologies that enhance the efficiency and sustainability of the overall supply chain. Staff members are carefully selected for their expertise in sustainable practices, contributing to the haberdashery's commitment to environmental responsibility.
- Operations: The operations phase encompasses a diverse array of activities aimed at creating a sustainable and engaging customer experience. Local traders are integrated into the value chain, promoting regional economies and fostering a sense of community. A dedicated research center drives innovation by exploring new materials, techniques, and sustainable practices. Workshops and events serve as platforms for education, encouraging customers to adopt sustainable habits. The selection of strategic locations for pop-up stores ensures visibility and accessibility to the target audience, enhancing the overall impact of operations.
- Outbound Logistics: Flexibility is a key feature in the outbound logistics phase, allowing for customized client orders. The controlled service of stocking and distribution ensures that products reach customers efficiently while minimizing environmental impact. Continuous innovation in logistics processes further enhances sustainability, exploring eco-friendly packaging and transportation options.
- Marketing and Sales: The marketing and sales activities involve global and local collaborations with firms sharing similar sustainability values. Local retail firm partnerships contribute to the integration of sustainable products into the wider market. The haberdashery employs a fidelity card system and offers discounts to incentivize customer loyalty and promote sustainable consumption. Customer feedback mechanisms are in place to gather insights into product preferences and overall experiences, allowing for continuous improvement.

- Service: Service activities play a crucial role in enhancing the overall customer experience. Promotions highlight the sustainability aspects of products, educating customers and fostering awareness. Customer care services are dedicated to addressing inquiries and ensuring satisfaction. The haberdashery maintains a robust online presence and e-commerce platform, providing customers with convenient access to sustainable products. The option for pre-order further aligns with the haberdashery's commitment to reducing waste and optimizing inventory management.

Support activities play a pivotal role in shaping the value chain of a sustainable pop-up haberdashery, contributing to the establishment of eco-conscious practices and ensuring the seamless integration of sustainable principles across various dimensions. These support activities encompass procurement, technology development, human resources management, infrastructure, and margin:

- Procurement: In the realm of procurement, the haberdashery is committed to sustainable sourcing practices. Scrap fabric collection forms a fundamental aspect, contributing to waste reduction and promoting the reuse of materials. The Production department adheres to circular principles, emphasizing the incorporation of locally traded and processed goods. Further processing needs are meticulously assessed, ensuring that all supplementary materials align with the brand's sustainability objectives. The packaging of products is optimized for minimal environmental impact, and distribution and delivery processes are carefully managed to reduce the carbon footprint.
- Technology Development: The haberdashery invests in cutting-edge technology to enhance various facets of its operations. The implementation of an RFID system facilitates real-time tracking within the supply chain, ensuring transparency and traceability. Render 3D technology is employed to provide customers with a virtual preview of products, enhancing the online shopping experience and reducing the need for physical prototypes. The continuous development of new payment methods aligns with the brand's commitment to innovation and convenience, catering to evolving customer preferences.
- Human Resources Management: Human resources management is pivotal to the success of sustainable practices within the haberdashery. Long-term partnerships are fostered with suppliers, reflecting the brand's commitment to stability and sustainable collaborations. Circular training

programs are implemented to ensure that the workforce is equipped with the necessary knowledge and skills to uphold a corporate culture aligned with sustainability objectives. This comprehensive approach to human resources management goes beyond traditional practices, actively contributing to the establishment of a workforce that is committed to environmental responsibility.

- Infrastructure: The infrastructure of the haberdashery is designed with sustainability at its core. Internal sustainability practices within the company are systematically integrated, incorporating energy-efficient systems, waste reduction initiatives, and eco-friendly building materials. Streamlining logistics is a key focus, optimizing the efficiency of sourcing, production, and distribution processes. This internal infrastructure contributes to the overall reduction of the haberdashery's environmental footprint and sets an example for sustainable practices within the industry.
- Margin: The margin, in the context of a sustainable pop-up haberdashery, extends beyond financial considerations to include the environmental impact of sewing accessories. The selection of sewing accessories is done with a focus on sustainability, emphasizing eco-friendly materials and production processes. This approach ensures that the margin not only reflects financial gains but also aligns with the haberdashery's commitment to promoting circular economy principles and reducing the ecological impact associated with sewing accessories.

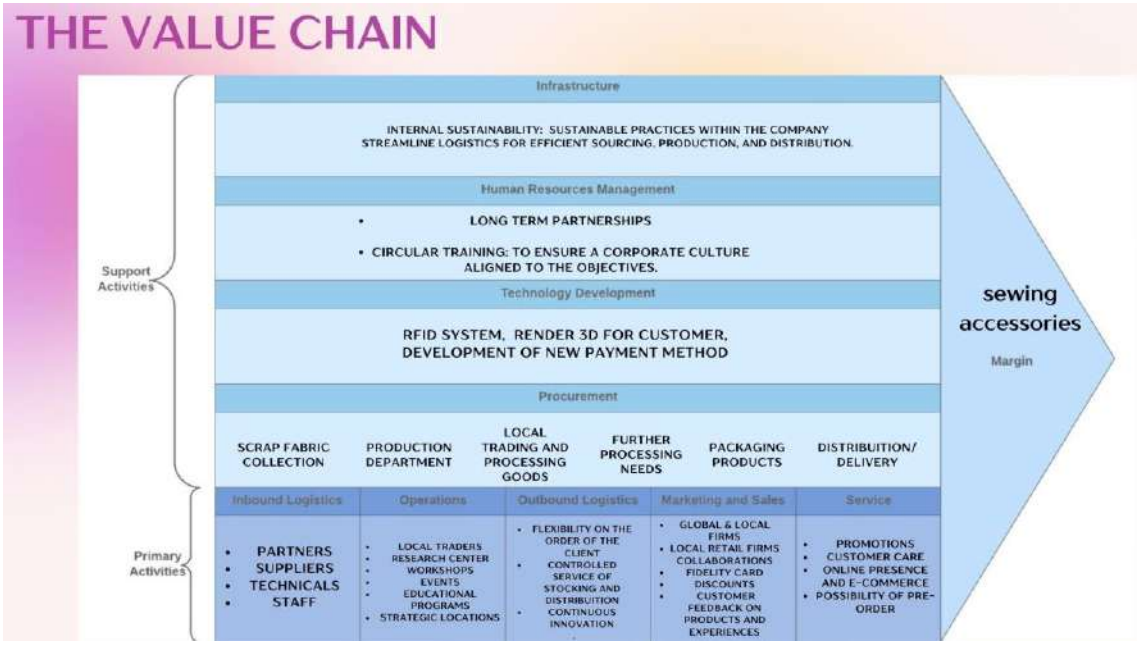


Figure 40 The value chain

The pop-up haberdashery, with its forward-thinking vision, implements a distinctive strategy based on exclusive collaborations with circular textile

companies. This innovative approach transforms the consumer experience, contributing to the formation of an engaged and aware society. For this to occur, it is necessary to establish a relationship of trust and transparency with the clientele. This initiative goes beyond mere commercial transactions, extending towards the creation of a community of individuals with shared values, focused on sustainability and environmental awareness. The community that emerges is animated by individuals who see not just a product but an opportunity to contribute to positive change in the fashion industry.

Central to this is the concept of Made in Italy, which represents not just a label but the tangible testament to a meticulously controlled production process that pays attention to details. The careful selection of fabrics from Italian circular textile companies results in a superior quality that characterizes the very essence of "Made in Italy." This transparent approach reinforces consumer trust, offering a clear perspective on the origin and quality of materials, thereby creating an inseparable link between sustainable textile production and the rich Italian manufacturing heritage. This adds value that transcends the individual product.

Finally, the construction of a brand identity is a key objective for the Pop-Up Haberdashery. The exclusive partnership with sustainable textile companies not only attests to a commitment to responsible business practices but also captures the attention of environmentally-conscious consumers. The use of eco-friendly fabrics becomes a distinctive appeal for those seeking cutting-edge sustainability in products. This innovative approach to brand identity construction solidifies the Pop-Up Haberdashery as an icon of sustainable fashion. This forward-thinking vision goes beyond providing products; it aims to create a community of conscious individuals who share a passion for sustainable fashion and environmental stewardship.

Scalability of the project

The GE/McKinsey Matrix is a strategic analysis tool that assesses the performance of various business units within an organization, so, it is possible to use it to analyze key aspects of your circular and eco-friendly fabric-based pop-up haberdashery:

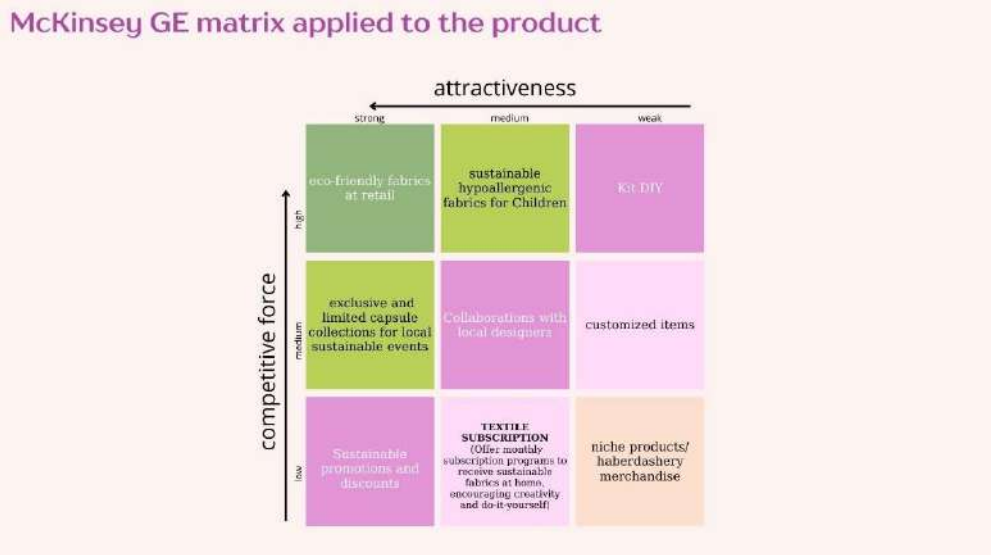


Figure 41 McKinsey GE matrix applied to the product

1. Retail Sale of Ecological Fabrics (Market Attractiveness: High, Competitive Strength: High):

In this segment, the haberdashery offers retail sales of ecological fabrics, representing a highly attractive market with a strong competitive position. The high demand for sustainable fabrics and the offering of high-quality products contribute to a position of strength.

2. Exclusive Capsule Collections for Local Sustainable Events (Market Attractiveness: High, Competitive Strength: Medium):

This segment focuses on exclusive capsule collections for local sustainable events. The high market attractiveness is supported by the demand for unique products for specific events, but the competitive strength is moderate, suggesting an opportunity to enhance differentiation.

3. Sustainable Promotions and Discounts (Market Attractiveness: High, Competitive Strength: Low):

Offering sustainable promotions and discounts represents an option with high market attractiveness but relatively low competitive strength. In this context, competitiveness can be improved through marketing strategies and uniqueness in promotions.

4. Sustainable Hypoallergenic Fabrics for Children (Market Attractiveness: Medium, Competitive Strength: High):

- This segment focuses on sustainable hypoallergenic fabrics for children, a market with medium attractiveness but a strong competitive position. The quality and sustainability of the fabrics offer a position of strength.

5. Collaborations with Local Designers (Market Attractiveness: Medium, Competitive Strength: Medium):

- Collaborations with local designers fall into a segment with both medium attractiveness and competitive strength. The key here is diversification and creating strategic partnerships.

6. Textile Subscription (Market Attractiveness: Medium, Competitive Strength: Low):

Offering monthly textile subscription programs for sustainable fabrics has medium market attractiveness but relatively low competitive strength. There is room to improve competitiveness through new initiatives and added value.

7. DIY Kits (Market Attractiveness: Weak, Competitive Strength: High):

DIY kits target a market with weak attractiveness but highly competitive strength. Here, the key is to capitalize on competitive strength through innovation and marketing strategies.

8. Customized Items (Market Attractiveness: Weak, Competitive Strength: Medium):

Customized items are in a segment with low market attractiveness but medium competitive strength. Exploring differentiation strategies could increase attractiveness.

9. Niche Products/Haberdashery (Market Attractiveness: Weak, Competitive Strength: Low):

This segment has low attractiveness and competitive strength. Exploring innovative strategies and a unique positioning could enhance performance.

In conclusion, this analysis highlights the different competitive positions and levels of attractiveness of the various segments of the pop-up haberdashery, providing a basis for developing targeted strategies and optimizing overall performance.

The macro-economic analysis of pricing involves the examination and assessment of broad economic factors that impact the pricing strategies of

businesses or industries. This type of analysis considers external, uncontrollable variables that can influence the overall pricing environment. Some key components of the macro-economic analysis of pricing include:
Market Trends: The upward trajectory in environmental consciousness is anticipated to fuel a surge in demand for sustainable products, thereby creating a conducive environment for adopting premium pricing strategies. Simultaneously, the competitive landscape, characterized by the presence of other sustainable haberdasheries and akin product offerings, necessitates a judicious approach to pricing decisions.

Production Costs and Materials: Incorporating eco-friendly fabrics and fostering collaborations with circular textile enterprises emerge as pivotal strategies with the potential to yield favorable long-term cost implications. However, the consideration of sustainable technologies may introduce initial investments, impacting the overall cost structure.

Innovation and Design: Innovation assumes a central role in differentiating products and justifying a higher pricing tier. By fostering exclusive collaborations with esteemed designers or brands, the haberdashery can enhance the perceived value of its offerings, providing a competitive edge.

Environmental Regulations: The viability of the pricing structure is intertwined with governmental initiatives supporting sustainable business practices. Conversely, adherence to stringent environmental regulations may necessitate investments in compliance measures, influencing overall costs.

Product Lifecycle: A focus on durability and repairability aligns with a quality-centric pricing strategy, appealing to consumers seeking longevity in their purchases. Additionally, incentivizing recycling through discounts or promotions creates a positive feedback loop, fostering customer trust and influencing the pricing approach.

Customer Affordability: Balancing sustainability with affordability emerges as a crucial consideration, aiming to capture a diverse customer base. Effective communication of the environmental benefits associated with the haberdashery's products serves as a potent tool to enhance perceived value and justify higher pricing.

Currency Fluctuations and Inflation: Global economic dynamics, particularly currency fluctuations and inflation, introduce a layer of complexity in managing production costs and material importation, necessitating vigilant monitoring and strategic adaptation.

Promotion Strategy: The implementation of sustainable offers and discounts forms an integral component of the haberdashery's promotional strategy. Crafting promotions that underscore sustainability serves not only as an incentive for consumer engagement but also aligns with the overarching ethos of the business.
In conclusion, the haberdashery's pricing strategy, intricately interwoven with sustainability, competitive dynamics, product quality, and perceived customer value, necessitates continuous vigilance and adaptability to secure success in the ever-evolving economic landscape.

4.2 Monitoring and evaluation systems

Adaptations during construction

Following the implementation of a market survey designed to gauge consumer habits and preferences regarding sustainability and ethical fashion, a questionnaire with multiple-choice responses was created and widely disseminated. The primary objective was to ascertain consumer interest in purchasing sustainable fabrics at the retail level.
The survey garnered a total of 55 responses, with a notable majority being from female participants. Despite the respondents not being directly associated with the textile industry, the findings indicate a growing emphasis on sustainability among consumers. It is noteworthy that the challenging accessibility of sustainable materials poses a significant obstacle, hindering the ease of purchasing these ethically sourced fabrics.
Moreover, the survey reveals that a substantial proportion of respondents express interest in scrutinizing product specifications directly on the product label. This underscores the importance consumers place on transparent information regarding the sustainability and ethical attributes of the fabrics they are considering for purchase.
Lastly, when considering the preferred method of purchase, whether online or in a physical store, the majority of customers appear indifferent. This neutrality

suggests that consumers are flexible in their approach to acquiring sustainable fabrics, emphasizing the importance of accessibility and convenience in their purchasing decisions.

In conclusion, the survey outcomes underscore a growing interest in sustainability, particularly in the context of fabric retail. The challenges associated with the limited availability of sustainable materials present opportunities for businesses to address this gap in the market. Additionally, the emphasis on transparent labeling and the flexibility in preferred purchase methods provide valuable insights for businesses aiming to align with consumer preferences in the sustainable haberdashery sector.

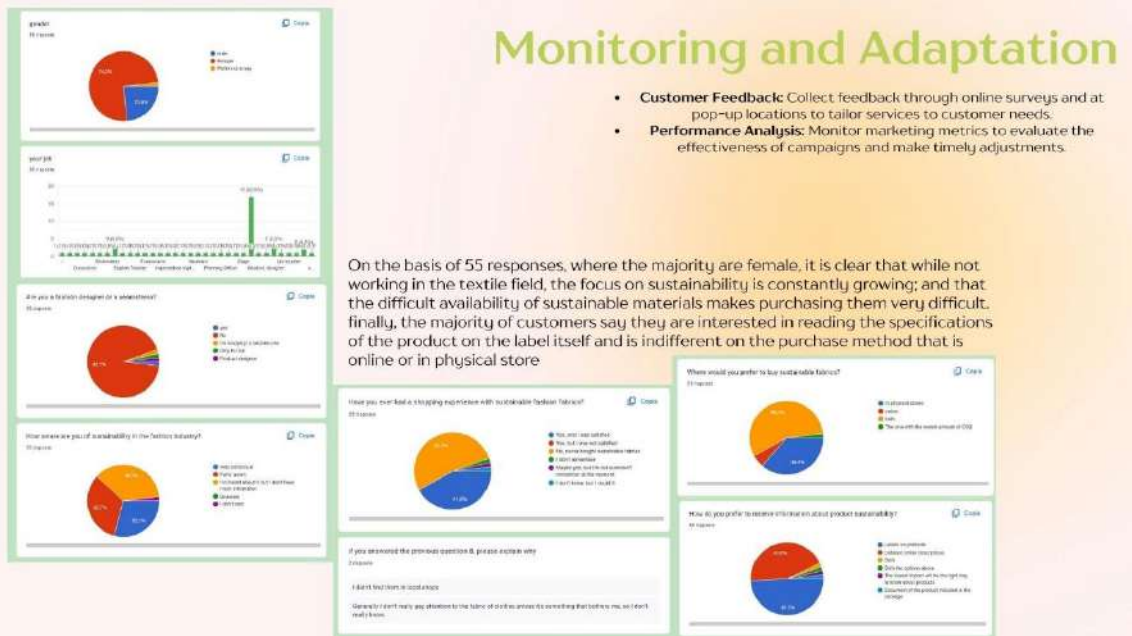


Figure 42 Monitoring and adapting

Chapter 5: Communication and Marketing

5.1 Sustainable communication strategies

Brand building and storytelling

The brand tone of voice for the pop-up haberdashery is designed to emanate a sense of love and joy in every communication, be it messages, newsletters, or campaigns. This tone aims to be warm, inviting, and positive, creating an atmosphere of enthusiasm around the concept of circularity and the use of eco-sustainable fabrics. The narrative style adopted is not only informative but also engaging, fostering a connection with the audience.

In portraying the entire process of crafting biodegradable fabrics, the tone of voice seeks to illuminate the journey of sustainability. The narration goes beyond mere product descriptions, delving into the intricacies of the creation process. This serves the dual purpose of unveiling the beauty of the fabrics and educating customers on the eco-friendly aspects, promoting awareness and understanding of sustainable practices.

The brand strives to build a community and lifestyle centered around the principles of circularity. Events, workshops, challenges, and tutorials are not just activities but gateways to forging a collective identity. Through these initiatives, the tone of voice communicates a sense of togetherness and shared values. It encourages customers to participate actively, fostering a sense of belonging to a community that values sustainability.

Overall, the tone of voice is carefully crafted to be both informative and emotionally resonant, aligning seamlessly with the brand's commitment to circularity, eco-sustainability, and the creation of a vibrant and engaged community.

The distinctive symbol of Utopiah is the result of a careful and meticulous design process aimed at representing not only sustainability values but also providing a unique identity to the haberdashery. The logo design is an impeccable fusion of elements that evoke the deep essence of eco-sustainability, with the potential to incorporate mercery elements that tell the story of sustainability through visual language.

Figure 43 logo of the brand

The chosen color palette, thoughtfully selected, consists of earthy and gummy tones that not only add an aesthetic touch but also solidify Utopiah's profound commitment to environmental awareness but in a playful way. The logo, beyond being a distinctive graphic sign, takes on the role of a visual ambassador for Utopiah's efforts in sustainable practices in the textile industry. It becomes an emblem that goes beyond its visual function, emerging as an icon that elegantly harmonizes aesthetics and environmental responsibility, positioning Utopiah at the forefront of sustainability in the textile sector.

The chosen slogan, "Create with joy, dress with sustainability," encapsulates Utopiah's core philosophy. It reflects the brand's belief in the joyful process of creation while emphasizing the importance of conscious choices in dressing sustainably. The juxtaposition of joy and sustainability conveys that the acts of creating and dressing can harmoniously coexist, underscoring that Utopiah's commitment to sustainability is not a compromise but an integral part of the joyful fashion experience.

The entire Utopiah project is infused with an ideal that transcends the common approach to fashion and haberdashery. The term "utopia" evokes the image of an ideal world characterized by harmony, sustainability, and awareness. In this context, Utopiah aims to create an environment where sustainability is not just a goal but a tangible and accessible reality.

The assertion "dress with sustainability" communicates the central role of the haberdashery in promoting environmental consciousness. This emphasizes that Utopiah is not merely a brand but an advocate for positive change in the textile

industry. The idea of offering "unique fabrics" emphasizes the brand's commitment to exclusivity and distinctiveness, assuring customers that their choices are not only sustainable but also one-of-a-kind.
The use of the term "create with joy" reinforces the idea that the brand's offerings go beyond mere sustainability; they actively contribute to a better ecological balance. This aligns with the broader mission of the brand to bring about positive change in the world.
In conclusion, Utopiah's positioning message revolves around a carefully designed logo that visually represents sustainability, a slogan harmonizing joy and conscious dressing, and a key message that transforms the pop-up haberdashery into a symbol of sustainability and a source of unique and impactful fabrics.

Consumer involvement and Marketing plan

The implementation of a sustainable communication strategy by Utopiah, a new entrant in the fashion industry, represents a fundamental step in attracting environmentally conscious and ethically responsible consumers. In an increasingly sustainability-focused business landscape, building a distinctive brand with eco-friendly values is crucial for the long-term success of the company.
To achieve strategic objectives, Utopiah has centered its strategy around a key question: what makes the brand unique and recognizable in the minds of consumers? Identifying this distinctiveness is of paramount importance, considering the wide array of offerings in the industry and the significance of authentically standing out to capture the attention of a sustainability-oriented audience.
Engaging consumers authentically has become a central goal for long-term success and the sustainability of the brand itself. This engagement goes beyond merely showcasing products, requiring a deeper and authentic connection with the target audience. For this reason, various strategies have been adopted to create a meaningful bond with consumers.

First and foremost, transparent communication has been identified as a key element. Providing detailed information about the production chain, materials used, and sustainable practices allows consumers to fully understand Utopiah's commitment to sustainability. This approach extends to the sharing of authentic

stories, highlighting the brand's efforts in the context of sustainability, creating an emotional and trustful bond with consumers.

Within Utopiah's strategy, consumer education emerges as a fundamental pillar to promote awareness and adoption of sustainable practices in fashion. The creation of targeted educational content represents a strategic commitment to providing consumers with a comprehensive understanding of the fashion industry's impact on the planet and society. This content is not only informative but also serves as an empowerment tool, enabling consumers to make informed and conscious decisions.

Figure 44 targeted educational programs

Utopiah's educational approach goes beyond disseminating general information; it extends to providing practical guides. These guides are designed to help consumers integrate sustainable choices into their daily lifestyles, especially when it comes to clothing decisions. By offering practical advice on making more eco-friendly fashion choices, Utopiah positions itself as a reliable ally for those wishing to adopt a sustainable lifestyle. Furthermore, the brand not only provides in-depth knowledge about sustainability in fashion but also offers practical tools to encourage behavioral change.

Active participation in environmental and social initiatives, inviting consumers to join volunteer days or charity events, emphasizes Utopiah's social commitment and contributes to creating a deeper connection with the community. Such initiatives not only strengthen the brand's image but also demonstrate a genuine willingness to make a difference.

Figure 45 events organized by Utopiah

Strategic use of social media has been implemented to dynamically engage the audience. Sharing sustainability updates and promoting ongoing initiatives through hashtags and social media challenges creates a participative dynamic, encouraging consumers to share their sustainable choices and feel part of a virtuous community. The relative hashtags could be related to Utopiah's journey #Utopiahontour, related to Utopiah fabrics #Utopiahonclothes, for the collection of waste material #Utopiahreloved #Utopiahrelaunch; Tik tok challenges specific hastags like #utopiahfabric and accuracy in choosing videos to republish on the official channel.

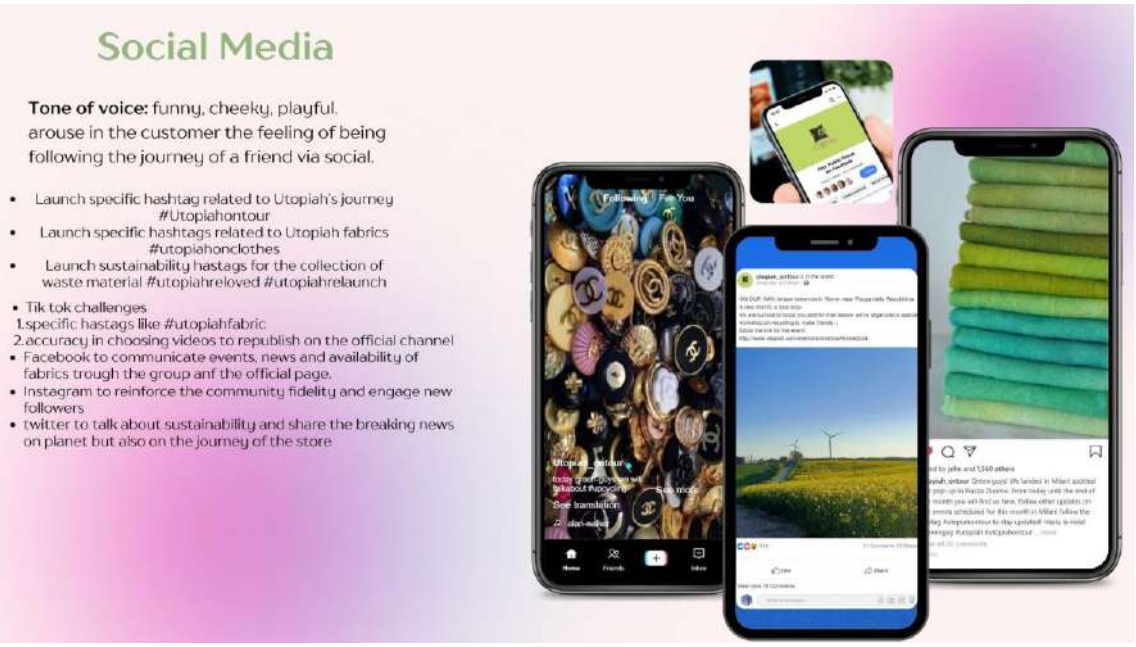


Figure 46 Social media

To incentivize sustainable behavior among consumers, Utopiah has introduced loyalty programs and rewards. Rewarding customers for their sustainable choices, such as recycling old garments, helps solidify the brand's identity as sustainable and encourages responsible consumption habits.

Influencers and sustainable designers play a crucial role in amplifying the impact of Utopiah's social media engagement strategy, with active profiles on Facebook, Twitter, Pinterest, and Instagram.

-Utopiah recognizes the power of influential figures in shaping perceptions and inspiring change. A strategic collaboration involves appointing a Brand Ambassador dedicated to sustainability. This individual, whether an influencer or a public figure, aligns seamlessly with Utopiah's values, acting as a charismatic advocate for sustainable fashion. The ambassador's role extends beyond mere endorsement; they become a voice for conscious choices, weaving Utopiah's narrative into their own, and embodying the brand's commitment to joyful creation and dressing with sustainability. This collaboration is not just about visibility; it's a shared journey towards a more sustainable future.

Figure 47 Utopiah's ambassadors

- In the realm of creative collaborations, Utopiah aims to go beyond conventional partnerships. By engaging with local designers, Utopiah creates exclusive capsule collections, showcasing the craftsmanship and creativity of the community. These collaborations are not just about fashion; they represent a fusion of artistic expression and sustainable ideals. Fabrics from the haberdashery serve as the canvas for these collaborations, each piece telling a

unique story of innovation and conscious design. By promoting and supporting local talent, Utopiah reinforces its commitment to community engagement and responsible fashion practices. These exclusive capsule collections become more than just garments; they are tangible expressions of Utopiah's ethos, making sustainability a tangible and accessible reality for consumers. These strategic collaborations are not mere business transactions for Utopiah. They are intentional alliances crafted to amplify the brand's commitment to sustainability, community, and creativity. Whether through the influential voice of a Brand Ambassador or the collaborative artistry of local designers, Utopiah's collaborations are an embodiment of its values, extending an invitation for individuals to be part of a larger, more sustainable narrative.

Figure 48 creative collaborations with local designers

On Facebook, Utopiah utilizes its channel to establish a deep connection with its community through constant updates, informative posts, and the sharing of cutting-edge content in the field of circular textiles. Users are invited to interact, leave comments, and actively participate in discussions on Utopiah's official page.

Twitter is the ideal platform for quick sharing of news, updates, and brief reflections by the brand. Tweets may include information about upcoming events, industry curiosities, and links to stimulating content. The platform is also leveraged to directly engage the community through responses and retweets.

Utopiah's Pinterest page is conceived as a visual board offering inspiration for sustainable fashion, DIY project tips, and thematic boards related to the circular

textile world. Here, users can visually explore the brand and save ideas that capture their attention.

Instagram, on the other hand, is the channel dedicated to visually sharing the world of Utopiah. The page features images of products, behind-the-scenes glimpses, and sustainability stories. Users are encouraged to interact through likes, comments, and direct messages, contributing to building an active and engaged community.

Each social media platform is managed with a unique approach, adapting content to meet the specific expectations and interaction modes of users on each, providing a dynamic space to share sustainability updates, promote ongoing initiatives, and actively engage the online community.

Collaboration with prominent figures in the industry, known for their commitment to sustainability, not only adds authenticity to the brand's message but also reaches a wider audience of consumers already sensitive to environmental and ethical issues. Introducing exclusive collections created in partnership with designers committed to sustainability not only enhances the brand's appeal but also conveys the message that sustainable fashion can be synonymous with style and creativity.

Creating social campaigns that encourage consumers to share their sustainable choices, using specific hashtags related to Utopiah's initiatives, creates a viral sharing effect, aided by interactive tools such as Q&A sessions.

Figure 49 engaging contents

Active feedback has been identified as an essential element. Seeking consumer opinions on the brand's sustainability and considering these opinions in business decisions related to sustainability helps build a relationship of trust and

transparency, demonstrating Utopiah's attention to the needs and values of its clientele.

Clarity on pricing and environmental impact has been adopted as a practice to demonstrate Utopiah's tangible commitment. Providing clear information on production costs and the environmental impact of products is crucial for communicating the added value of sustainability offered by the brand, contributing to creating a bond of trust with consumers.

The offering customization options useful to create an emotional connection between the consumer and the product, has been identified as a key element to build a deeper and authentic relationship. The ability to personalize products allows consumers to feel involved in the creative process and to own a unique piece that reflects their preferences.

Finally, providing exclusive information, such as offering consumers privileged access to new collections or discounts, has been implemented to reward loyalty and enhance the sense of belonging. This exclusivity not only stimulates customer interest but also creates a sense of belonging to a community that shares common values:

-Active feedback becomes a key component of the strategy, with surveys and direct feedback requests to the community to assess the effectiveness of sustainable initiatives. This feedback not only guides continuous improvement but is also used as a tool to demonstrate the genuine consideration of community opinions in sustainability-related business decisions.

-The loyalty program evolves to reward not only purchases but also customers' sustainable actions. This not only encourages sustainability but creates a deeper connection with the brand. Discounts and exclusive access are personalized to offer real added value to loyal members.

Figure 50 loyality programs

-Impact measurement becomes more sophisticated, with engagement monitoring on all platforms analyzed through more detailed metrics such as likes, comments, shares, and participation in challenges. Conversion tracking becomes more targeted, linking social media activities directly to actions on Utopiah's website. Sentiment analysis expands, involving artificial intelligence to assess not only the overall tone of online interactions but also the specific sentiment toward sustainable initiatives. Surveys and direct community feedback are more widely leveraged to make real-time changes, demonstrating a proactive response to customer needs.

This advanced communication plan reflects a comprehensive and integrated strategy designed to position Utopiah as a benchmark in sustainable fashion, engaging the community and demonstrating authentic commitment to transparency and responsibility.

In summary, Utopiah's integrated approach to engaging the consumer authentically is based on transparent communication, continuous education, social media interaction, reward programs, participatory events, active feedback, transparency, environmental and social initiatives, as well as personalization and exclusive access. This targeted strategy promotes the creation of a community around the brand's sustainable values, fostering both the loyalty of existing customers and the attraction of new consumers sensitive to environmental and ethical issues.

5.2 Distribution channels and marketing strategies

Sustainable e-commerce

The website design stands out for its intuitiveness and fluidity, offering users a seamless browsing experience. The graphics, characterized by warm and vibrant colors, are an immediate reflection of the brand's bold and innovative style. The choice of clean and readable fonts contributes to a clear and captivating presentation. entering the website appears the box led magnet that invites you to subscribe to the newsletter and, by subscribing you receive 20% discount on all items and free shipping on the first order on a minimum of 50€ shopping.

Figure 51 lead magnet

Subscribing the newsletter allows Utopiah to send the email marketing: is a form of digital marketing that involves sending promotional, informative, or commercial messages via email to a group of interested or subscribed individuals. This communication channel allows businesses to directly reach their customers, potential clients, or other interested recipients through their email addresses.

Email marketing campaigns can include a variety of content, such as special offers, promotions, product updates, informative newsletters, event invitations, and more. The main goal is to engage the recipient and encourage them to take a specific action, such as making a purchase, signing up for a service, attending an event, or sharing information with others.

The tools often provide features for audience segmentation, campaign automation, message personalization, monitoring performance metrics (such as open and click-through rates) and managing subscriptions and opt-outs. Email marketing is widely used by businesses of various sizes and industries to maintain and develop relationships with their target audience.

Figure 52 email marketing

Then, particular attention is dedicated to product display, with close-up photographs allowing customers to explore the fabric's texture and appreciate the material as a whole. The inclusion of a reference garment associated with each product provides clear context regarding the fabric's usage. This strategy aims to provide customers with an accurate and detailed understanding of the product they are considering.

Figure 53 page of fabric

Overall, the site structure is carefully designed to offer a visually appealing and informative experience, ensuring that customers can fully explore and understand the offered products.

Products:

• Categories: The site features various product categories, organized into collections and highlights. These categories offer an overview of the different

types of products available, allowing visitors to explore based on their preferences.

• Product Details: Each product has a dedicated section with in-depth details. This section provides specific information about the individual product, including materials, dimensions, and other relevant features. Product images are captured up close to enable customers to examine the fabric's texture and gain a detailed view.

• Recommended Products: Based on the viewed products, the site suggests recommended products. This section offers recommendations based on user preferences and interests, providing a personalized experience and facilitating the discovery of new items.

Graphics and Style:

• Intuitiveness and Fluidity: The site structure is designed with an intuitive and fluid approach to facilitate user navigation. The user interface is crafted to ensure a positive and smooth user experience.

• Clean and Vibrant Colors: The site's graphics feature clean and vibrant colors that reflect the brand's bold and innovative style. These colors contribute to creating a vibrant and captivating atmosphere.

Product Photography:

• Detailed Photography: Product images are taken up close to highlight the fabric's texture. Additionally, details about the fabric as a whole and how it is used in a reference garment are shown. This attention to detail allows customers to gain a precise understanding of the displayed products.

Text and Typography:

• Clean and Readable Fonts: The choice of clean and readable fonts ensures that the information on the site is clear and easily understandable for visitors. Readability is a priority to ensure an effortless browsing experience.

Shopping Cart:

• Order/Reservation: Interface for placing orders or reservations.

• Order Summary: Detailed overview of items in the cart, including quantities and prices.

• Shipping Method: Selection of available shipping options for the order.

• Payment Method: Choice of payment method to complete the transaction.

• Shipping: Information about the shipping process, including delivery times and available options.

Order Confirmation: Dedicated page for reviewing and confirming the order, including all details, from item information to payment and shipping methods.
The presence of these categories provides users with a comprehensive and transparent shopping experience, with the ability to view and customize orders, choose shipping options according to their needs, and select their preferred payment method. The structure aims to simplify the purchasing process, providing all necessary information clearly and effectively.
Account:
• Profile: Section dedicated to managing the user's personal information, including name, address, and preferences.
• Payment Methods: Space to add, modify, or delete payment methods associated with the user's account.
• Password: Area for editing the account password, ensuring security and control.
• Saved Addresses: Collects preferred or saved shipping addresses to streamline the purchasing process.
• Order History: Detailed view of past orders, including purchased products, date, and order status.
• Gift Cards: Management of gift cards associated with the account, including adding or checking the balance.
• Collection Fidelity Points: Tracking and display of loyalty points accumulated through purchases or collection-related activities.

The account structure aims to provide users with complete control over their personal information, payment methods, order history, and loyalty points. This organization allows easy account management while offering incentives through loyalty programs and gift cards.

Other Pages:
• Our Story: This site section provides insights into the brand's history and evolution. Users can explore the brand's journey, understand its core values, and appreciate its commitment to sustainability and innovation.
• Blog: In this section, users can access rich and informative editorial content. The blog is designed to share news, success stories, sustainable fashion tips, and updates on the circular textile industry.
• Support Desk: The support section provides users with a direct channel to get assistance and resolve any issues or questions. Here, they can find helpful resources, FAQs, and contacts for personalized assistance.

• Social Media: This category includes links to the brand's major social media channels, including Facebook, Twitter, Pinterest, and Instagram. Users are encouraged to follow the brand on these platforms to stay updated on the latest news, events, and interact with the online community.
• Our Partners: This section highlights the brand's collaborations and partnerships with circular textile companies and other stakeholders in sustainability. It provides details on synergies contributing to the brand's environmental goals.
• Join Us on the Journey (Events Section): This part of the site is dedicated to events and initiatives involving the brand. Users can discover planned activities, participate in virtual or physical events, and follow the brand along its sustainable journey.

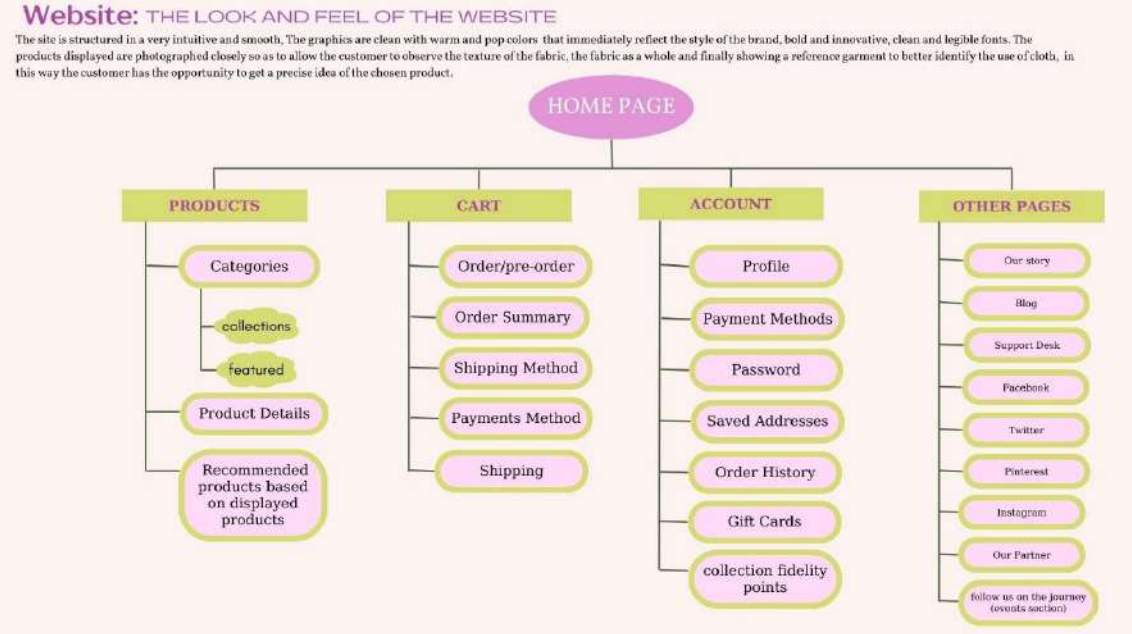


Figure 54 website's map

Partnerships with eco-friendly retailers

- The potential partner for the haberdashery pop-up, focusing on circularity and sustainable practices, is NAZENA. Recognizing core values of respect, recovery, eco design, and experimentation, NAZENA aligns seamlessly with the commitment to environmental consciousness.
  In exploring potential production processes, NAZENA brings expertise in thermoforming, die-cutting, and stamping techniques. These processes not only emphasize efficiency but also contribute to the sustainable approach by minimizing waste and maximizing the utility of materials.
  When it comes to customizations, NAZENA offers versatile options, including logo engraving, logo printing, and specialized processes for

water repellency. These customization choices not only provide a unique and personalized touch to the haberdashery products but also demonstrate a commitment to detail and quality.

In terms of standard materials, NAZENA utilizes a range of natural fibers such as cotton, wool, viscose, and silk, ensuring a connection with eco-friendly and biodegradable materials. Simultaneously, the incorporation of synthetic fibers like polyester, nylon, and elastomer offers a diverse selection to cater to various preferences and needs.

NAZENA's expertise extends to special materials, including leather, polylaminated materials, and membranes. This broadens the spectrum of choices for the haberdashery, allowing for innovative and unique designs that maintain a focus on sustainability.

Overall, NAZENA stands as a potential partner that not only shares the values of the haberdashery pop-up but also brings a wealth of production processes, customization options, and a diverse range of materials to contribute to a circular and eco-conscious fashion approach.

- The potential partner for the haberdashery pop-up, focusing on circularity and sustainable practices, is Pinori Filati. At the core of Pinori Filati's collaboration with Utopiah brand lies a commitment to research, quality, and identity, serving as the driving forces behind each collection and the cultural pillars of the company. Pinori Filati has strategically positioned itself in the market, harmonizing extensive experience and expertise with a steadfast dedication to evolving through technological innovation and consumer-centric approaches.

  Research and Quality as Foundations: Pinori Filati places paramount importance on research, delving into the realms of textile innovation to bring forth yarns that not only meet but exceed industry standards. The emphasis on quality is a cornerstone, ensuring that every strand of yarn developed aligns with the meticulous standards set by both Pinori Filati and Utopiah.

  Innovative Yarns for Diverse Applications: With a specialization in combed knitwear and weaving, encompassing jersey, shuttle, and needle loom techniques, Pinori Filati stands as a pivotal contributor to Utopiah's fabric offerings. The company's dedication to innovation extends beyond traditional boundaries, creating yarns that resonate with modern design sensibilities and sustainable practices.

Global Presence and Market Penetration: Pinori Filati's impact reverberates across the globe as the company engages with markets worldwide through a network of agents and head offices. This global outreach reflects a strategic approach to market penetration, ensuring that the innovative yarns designed and developed by Pinori Filati reach diverse industries and regions.

Technological Innovation as a Driving Force: The company's evolution is marked by a keen focus on technological innovation. Pinori Filati doesn't merely adapt; it actively seeks to be at the forefront of advancements in yarn development. This commitment aligns seamlessly with Utopiah's ethos of embracing innovation to create sustainable and cutting-edge fashion.

Consumer-Centric Approach: Pinori Filati's success is not only rooted in technological prowess but also in a genuine consideration for consumers. Understanding the evolving needs and preferences of the market, the company tailors its yarn development to align with contemporary consumer demands, thereby contributing to the success of Utopiah brand in meeting the expectations of conscious and discerning customers.

In essence, Pinori Filati emerges as a dynamic partner, contributing to the tapestry of Utopiah's sustainable and innovative fashion narrative through a fusion of research, quality, technological innovation, and a keen awareness of consumer dynamics.

- The potential partner for the haberdashery pop-up, focused on circularity and sustainable practices, is BESTE - BeRedo. Under the perfect translation as BEREDO-Beste, the brand offers a unique proposition to its customers and partners by providing a comprehensive solution for the collection and recovery of textile waste.

  BEREDO-Beste enables free collection of textile waste with options for choosing a designated point or collection at one's residence. This commitment aligns seamlessly with the pop-up's mission not only to be sustainable but to create a sustainable business model.

  With a meticulously selected production chain, BESTE - BeRedo follows a vertical production approach. The recycling categories include the regeneration of animal and noble fibers like wool and cashmere, cotton regeneration, and the recycling of natural pulverized fibers such as recycled paper and regenerated viscose.

The brand extends its commitment to sustainability by incorporating recycled materials, including synthetic pulverized fibers like regenerated nylon and recycled polyester. Additionally, there is a focus on regenerated silk and the innovative use of mixed materials termed "ROSSINO." This involves processing waste of mixed fibers, otherwise irrecoverable, into thermoacoustic panels utilized in the automotive industry for internal insulation and seat upholstery.

In essence, BESTE - BeRedo emerges as a potential partner that not only shares the values of the haberdashery pop-up but also brings a holistic solution to textile waste management, contributing to a circular and eco-conscious fashion landscape.

PROPOSAL FOR CIRCULAR MERCERY POP-UP PARTNERSHIP WITH BESTE COMPANY

Objectives: Utopiah's Circular Mercery Pop-Up proposes a collaborative partnership with BESTE to achieve the following objectives:

Sustainable Fabric Supply: Establish a consistent and reliable supply chain for high-quality, recycled, and upcycled textiles to enhance our pop-up mercery's sustainable offerings.

Joint Marketing Initiatives: Co-create and execute marketing campaigns that amplify our shared commitment to circular fashion and eco-friendly textiles, enhancing brand visibility.

Product Development: Explore and exploit opportunities for designing exclusive product lines using innovative recycled materials, showcasing the potential of circular fashion.

Waste Reduction: Collaborate on minimizing waste in the textile industry by efficiently utilizing fabric scraps and production remnants in our processes.

Benefits for Utopiah Pop-Up Mercery:

Diverse Eco-Friendly Offerings: Access to a diverse range of sustainable textiles, enriching our product offerings and attracting environmentally conscious customers.

Enhanced Brand Image: A partnership with BESTE reinforces our dedication to sustainability, elevating our brand image and fostering customer loyalty.

Innovative Product Lines: Co-create distinctive and exclusive product lines that exemplify the possibilities of circular fashion and eco-friendly design.

Benefits for BESTE-Beredo:

Market Exposure: Inclusion in Utopiah's marketing campaigns and events, providing valuable exposure to a broader audience.

Collaborative Innovation: Engage in collaborative product development, showcasing the innovative potential of recycled textiles.

Sustainable Practices Promotion: Highlight BESTE's commitment to sustainability through joint initiatives focused on waste reduction and circular fashion.

Collaborative Initiatives:

Exclusive Product Launch: Coordinate the launch of an exclusive line of products featuring BESTE's recycled textiles during a high-visibility event.

Educational Workshops: Organize workshops to educate customers about the benefits of circular textiles and sustainable fashion practices, fostering awareness.

Coordinated Marketing Campaigns: Plan joint marketing campaigns across digital and traditional channels to maximize visibility and reach a wider audience.

Conclusion

Summary of the main results

In addressing the escalating environmental concerns within the fashion industry and recognizing the market gap for sustainable alternatives, this thesis has meticulously examined and proposed an innovative solution—the introduction of temporary sustainable haberdasheries. The evolving landscape of the textile and fashion industry necessitates a paradigm shift in the approach to haberdashery, emphasizing sustainability and circular principles.

The exploration has delved into critical areas, starting with the contextualization of the problem. Traditional haberdasheries, anchored to fixed locations, struggle to align with the preferences of a consumer base increasingly inclined towards sustainability. The absence of temporary haberdasheries in the market is not merely a gap but an opportunity for Utopiah to pioneer a transformative model that responds to environmental awareness and changing consumer preferences.

The thesis's aims and purpose were comprehensive, focusing on deepening the understanding of circular economy principles, analyzing the environmental impact of the fashion industry, and exploring the evolution of sustainability within the fashion system. It also encompassed the investigation of sustainable design principles, the development of eco-sustainable business design, and the exploration of sustainable partnerships and communication strategies.

The introduction of the eco-sustainable business project represents a forward-thinking venture that transcends traditional models, embodying circular design principles and fostering sustainable partnerships. This project stands out not only for its commitment to reducing environmental impact but also for its dedication to active community engagement and positive contributions to local well-being.

The structured exploration of Utopiah pop-up, detailed across five interconnected chapters, not only contributes to academic discourse but also charts a course for practical implementation. From theoretical foundations to the sustainability of fashion products, eco-sustainable business design, project implementation, and communication strategies, each chapter is a crucial piece of the puzzle, forming a comprehensive guide for the establishment and success of sustainable haberdashery temporary stores. In conclusion, this thesis aims to redefine the

very concept of haberdashery, striving to portray it as a significant industry innovation.

Reflections on the Project's Effectiveness

The efficacy of this project lies in its meticulous response to environmental challenges within the fashion industry. Identifying the absence of temporary haberdasheries as a market gap, the project positions itself as a pioneering initiative, addressing the evolving preferences of consumers and the need for experiential commerce.

The introduction of the sustainable temporary haberdashery model represents a paradigm shift in the approach to fashion, seamlessly integrating traditional practices with the dynamism of temporary commerce. This innovative concept meets market demands, presenting a viable alternative to conventional haberdasheries and promoting a more sustainable presence in the textile industry.

The project's objectives are comprehensive, including an in-depth analysis of circular economy principles, an examination of the environmental impact of the fashion industry, and an exploration of the evolution of sustainability within the fashion system. Each objective contributes to a profound and scientific understanding of how sustainable temporary haberdashery can effectively address challenges and opportunities in the sector.

A key strength of the project is its focus on sustainable design principles, emphasizing the use of ecological materials, circular construction methodologies, and innovative technologies in fashion production. The commitment to redefining haberdasheries and fabric stores through circular-oriented design aligns with the broader goal of rewriting the role of the textile industry within the environmental context.

The conceptual core of the entrepreneurial project, based on circular design, aims to reduce environmental impact and seamlessly integrates with the circular economy, ensuring the longevity of materials through cycles of use and reuse. The emphasis on sustainable partnerships recognizes the necessary interconnection to achieve sustainability goals, involving collaboration with suppliers, manufacturers, and local communities.

Active engagement and benefits for local communities distinguish this project. It goes beyond the marketing of sustainable products, adopting ethical practices, enhancing local skills, and contributing positively to community well-being. The

project's dedication to social involvement aligns with the broader ethos of responsible business practices. In conclusion, the project demonstrates its effectiveness not only by addressing market gaps and responding to environmental and social awareness but also by presenting a transformative model that redefines the very concept of haberdashery. Utopiah pop-up emerges as a catalyst for significant innovations in the haberdashery sector, intertwining sustainability, circular principles, and active community engagement.