

Monitor for Circular Fashion

REPORT 2022



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SDA Bocconi
SCHOOL OF MANAGEMENT

SUSTAINABILITY LAB
MONITOR FOR CIRCULAR FASHION

Powered by
enel x

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Who we are

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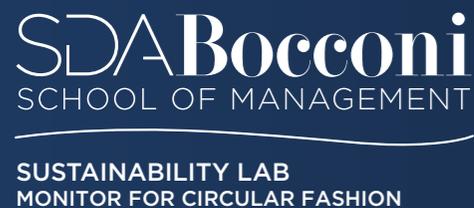


Who we are

The SDA Bocconi School of Management Sustainability Lab Monitor for Circular Fashion is a:

- 1) multi-year research project
- 2) multistakeholder community

The Monitor for Circular Fashion, powered by Enel X, aims at disseminating the best practices of circular fashion and promote technical, managerial and scientific skills especially those that contribute to the transition towards circular business models.



Partner companies

Ingredient brands

- Albini Group
- Candiani Denim
- Manteco
- RadiciGroup
- Vibram
- Vitale Barberis Canonico

Vendors, Brands & Retailers

- Holding Moda
- Kering
- Oscalito
- OVS
- Save The Duck
- Vivienne Westwood

Service Providers

- Dedagroup Stealth
- PLM Impianti
- Temera
- UL Solutions

KPIs Committee

- Bip
- PwC

Technical Partner

- Visualmade



1.1 Monitor for Circular Fashion 2022

The Monitor for Circular Fashion, part of the SDA Bocconi School of Management Sustainability Lab, is a multistakeholder scientific and technological community comprising of leading companies in the Italian fashion industry and players in its supply chain. The Monitor for Circular Fashion, powered by Enel X,

includes several activities (see Figure 1), and disseminates the best practices of circular fashion, promotes technical, managerial and scientific skills, especially those that contribute to the transition towards circular business models.

www.sdabocconi.it/circularfashion

Figure 1
Activities of the Monitor for Circular Fashion 2022.

EDUCATIONAL SESSIONS	RESEARCH	CIRCULAR ECONOMY REPORT*	PILOT PROJECTS	CIRCULAR FASHION MANIFESTO
<ul style="list-style-type: none"> Training and brainstorming Methodological sessions on circular fashion business models Networking 	<ul style="list-style-type: none"> SDA Bocconi survey to identify the industry-specific KPIs SDA Bocconi in-depth one to one interviews 	<ul style="list-style-type: none"> Corporate and Energy site Circular assessment Highlights the main gaps and creation of a tailored solution roadmap to improve circularity levels * Individual report prepared by Enel X 	<ul style="list-style-type: none"> Teamwork along the supply chain to design a "circular product" Guidelines and technical support in the application of the circular principles to design the "circular product" offer 	<ul style="list-style-type: none"> Commitment to the UNECE Call to Action "Sustainability Pledge" on transparency and traceability Participation to multi-stakeholder initiatives

Who we are

SDA BOCCONI SCHOOL OF MANAGEMENT

SDA Bocconi School of Management has been a leading institution in management training for more than 50 years. The school's mission is to help individuals, companies and institutions grow by promoting managerial culture, knowledge and innovation. SDA Bocconi is among the leading

Business Schools in Europe and is among the few to have gained the triple accreditation - EQUIS, AMBA and AACSB - which puts it in the elite of Business Schools worldwide. #4 European B-School Financial Times Rankings 2022.

SDA Bocconi Sustainability Lab is a multidisciplinary think tank aiming at developing and spreading relevant and

innovative research to support enterprises and financial institutions, policy makers and non-profit organizations in their path towards sustainability.

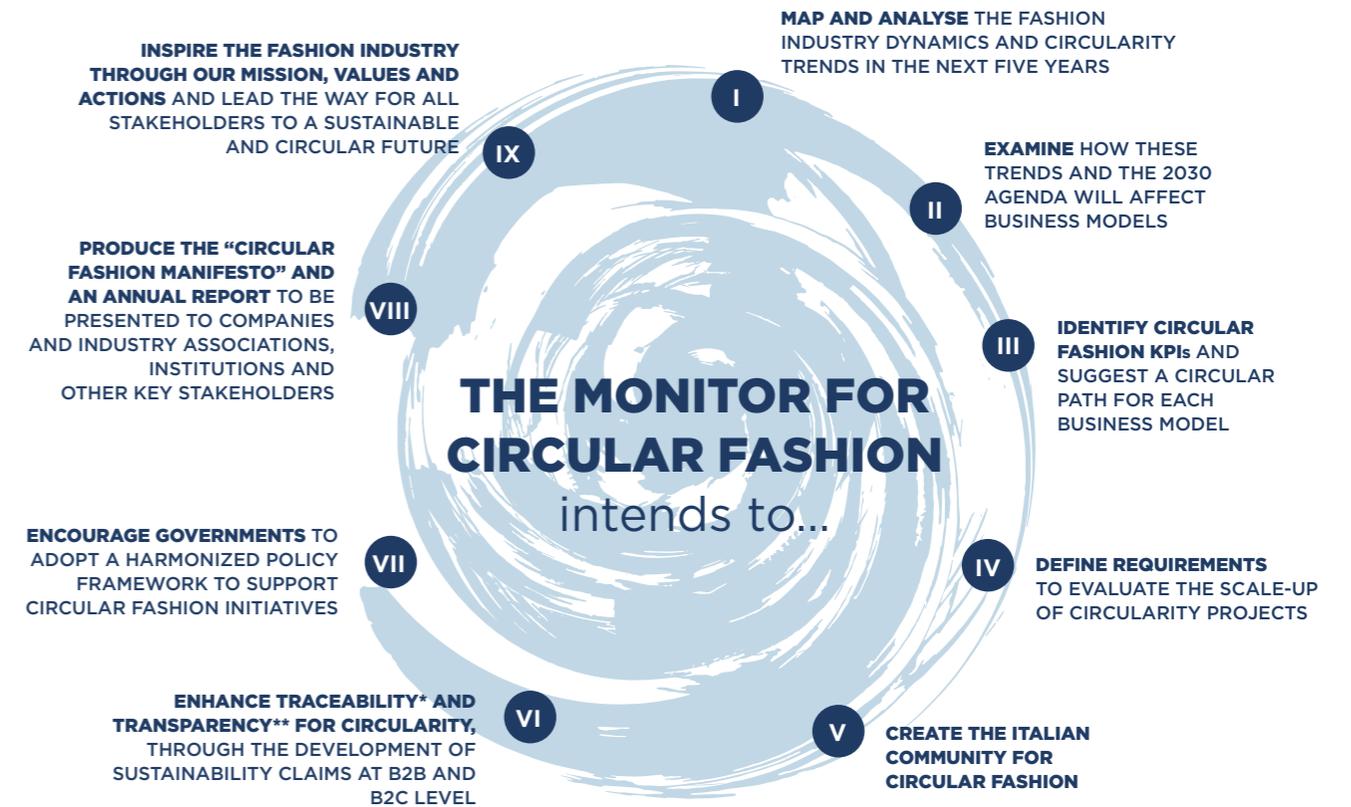


POWERED BY ENEL X

Enel X Global Retail is the Enel Group's global business line active in the areas of energy supply and efficiency. As a global leader in the development of innovative solutions to support the energy transition, Enel X Global Retail provides consumers, businesses and

cities with a modular and integrated offer built around customer needs, promoting electrification and digitalization as drivers for creating new value. Enel X Global Retail's ecosystem of solutions includes assets for the optimization and self-production of energy, premium solutions for energy efficiency, and competitive and flexible

energy offers, with the end goal of helping customers develop their own energy roadmaps.



*Traceability is understood as "the ability to trace the history, application or location of an object" in a supply chain. (Source: ISO 9001: 2015, "Quality Management Systems Requirements"). It is the ability to "identify and trace the history, application, location and distribution of products, parts and materials to ensure the reliability of sustainability claims in the areas of human rights, labour (including health and safety), the environment and anti-corruption" (United Nations Global Compact Office, 2014, "A Guide to Traceability A Practical Approach to Advance Sustainability in Global Supply Chains") and "the process by which enterprises track materials and products and the conditions in which they were produced through the supply chain" (OECD, 2018, "Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector").

**Transparency relates directly to relevant information been made available to all elements of the value chain in a standardized way, which allows common understanding, accessibility, clarity, and comparison (European Commission, 2017, "A Background Analysis on Transparency and Traceability in the Garment Value Chain").

Partner companies



Founded in 1876 in Albino (Bergamo, Italy), the **Albini Group** is the largest European manufacturer of shirting fabrics and has always been a family-run business.

Today, having reached its 146th year of activity, is led by the fifth generation of the family with Stefano, Fabio and Andrea Albini, whose actions guarantee a long-term business vision and a strong ethical commitment.

The fabrics designed and weaved by Albini Group are the result of a strong attention to R&D, focused on sustainable innovation. Thanks to its vertical integrated supply chain, Albini Group has the opportunity to innovate and to raise the standard at every step, in order to experiment new models for implementing low-impact and circular industrial processes.



Holding Moda is a hub of Made in Italy manufacturing excellence operating in the luxury fashion sector and is promoted by Holding Industriale Spa (Hind), headquartered in Turin and Milan. Founded in 2011, Hind invests in the capital of small and medium-sized businesses with the aim of fostering growth, internationalization and generational turnover processes. The project involves the best fashion production realities acquisition and their enhancement through a management and development strategy which encourages technical, productive, commercial and financial coordination, maximizing synergies between companies. The companies of the Group can count on the savoir faire of highly qualified workers who make it possible to create high fashion garments in different product categories ranging from jersey, leather, softs, denim, outerwear, leather goods and sneakers.

The "HPlanet" sustainability department was created internally across the three ESG areas and linked to the business pillars of Sustainability, Made in Italy, Innovation and Culture, in order to support the business growth and to add value to human resources, the social and environmental ecosystem and supply chain.



Candiani SpA is an Italian family-owned and operated denim mill founded in 1938, located between Milan and the Alps in a nature reserve, the Ticino Park. Now in its fourth generation, Candiani is an internationally renowned vertically integrated operation. They supply some of the world's best-known fashion brands, creating the fabrics that gave birth to the premium denim industry. Their company values of Made in Italy, Sustainability, and Innovation are woven into every fabric giving it inimitable quality and uniqueness. Their vision for the denim of the future is a product that is both regenerated and regenerative. Candiani's goal is to make 100% compostable denim with a positive impact at every stage of its life cycle, from the first to the last step. Candiani has 500+ employees between their headquarters in Robecchetto con Induno, the Candiani Denim Store, Candiani Custom, Coreva Design retail spaces in Milan, and Denim Design Center in Los Angeles, California.



A global luxury group, **Kering** manages the development of a series of renowned Houses in Fashion, Leather Goods and Jewelry: Gucci, Saint Laurent, Bottega Veneta, Balenciaga, Alexander McQueen, Brioni, Boucheron, Pomellato, DoDo, Qeelin, as well as Kering Eyewear. By placing creativity at the heart of its strategy, Kering enables its Houses to set new limits in terms of their creative expression while crafting tomorrow's Luxury in a sustainable and responsible way. We capture these beliefs in our signature: "Empowering Imagination". In 2021, Kering had over 42,000 employees and revenue of €17.6 billion.



Manteco S.p.A. is a leading textile company for sustainability and high-quality fabrics since 1943. It is fully committed to circular fashion and has developed numerous projects in order to achieve it: a zero-waste system to recover all the scraps coming from production phases, a sustainable design philosophy to create recyclable fabrics, projects to take back and recycle the offcuts produced during garment making or unsold knits. Manteco S.p.A. is adhering to the principles of the UN Agenda 2030 for sustainable development through its roadmap to sustainability MantEco for Planet@ and applies science-based LCA studies on its recycled wool fabrics.



Dedagroup Stealth helps Fashion and Luxury companies grow and develop local and global markets. Over the last 30 years, its expertise and attitude have won it an enviable stable of iconic clients. As a leader in its market, Dedagroup Stealth aims to generate positive change for people and our planet, releasing technology solutions supporting sustainable business models and circular fashion. Dedagroup Stealth is a Deda company, one of the most crucial players in the "Made in Italy" Information Technology industry.



Oscalito has been producing quality underwear and knitwear for men and women since 1936, using an ethically responsible and sustainable production process. Oscalito commitment to social and environmental sustainability is seen in seven main key aspects: all their products are 1) 100% Made in Italy; 2) made of natural (or of natural origin) fibers; 3) made with raw materials with environmental or health protection certifications (OEKO TEX, GOTS); 4) the output of a short supply chain, using only Italian or European suppliers of raw materials; 5) high quality items; 6) produced with respect for workers; 7) made using renewable energy and sustainable packaging.



OVS S.p.A. is Italy's leading clothes retailer for men, women and children. The company is the undisputed leader on the Italian market for kids clothes, where it can boast a double-digit market share. OVS is about contemporary, essential Italian style at excellent value for money and with a good deal of attention to sustainability in the choice of materials and production processes.



PLM Impianti is a leading company in the design and production of machinery and automation applied to inspection, cutting, handling and packing in the textile, automotive, denim, technical and non-woven sectors. Since 1960, the company has contributed to the productivity and sustainability of their customers through solutions designed specifically to optimize and rationalize processes, increase the first-choice product and reduce consumption, costs and waste. Sustainability is a core value in the day to day ongoings of the company, in the production processes and at the basis of their machinery.



RadiciGroup, a leading chemical multinational group, works everyday to make circularity its business model. The Group optimizes the use of materials while fine-tuning processes, reducing waste, promoting recyclability from the earliest product design phases. RadiciGroup supports recycling whenever it is the best environmental solution. It is always looking for low-impact solutions in terms of natural resources and energy, such as making green power the first choice. RadiciGroup relies on certified management systems for Safety, Environment and Energy to keep companies in line with the highest sustainability standards.



Save The Duck, the 100% animal free B Corp certified outerwear brand, takes care of the environment and all its inhabitants, promoting a transparent business model that is attentive to the responsible management of resources. Sustainability is a path that has no point of arrival, it requires commitment and dedication. Save The Duck works to ensure that the future of the next generations is not compromised by its work in the present.



Temera is the leading company providing IoT solutions dedicated to Fashion, Luxury & Retail industry. Temera gives a 'digital voice' to products through the use of unique identifiers, providing an end-to-end traceability through the value chain. Standing out as innovator and visionary, Temera represents a center of excellence in delivering digital transformation projects that bring high impact in terms of transparency and sustainability storytelling.



A global leader in applied safety science, **UL Solutions** transforms safety, security and sustainability challenges into opportunities for customers in more than 100 countries. UL Solutions delivers testing, inspection and certification services, together with software products and advisory offerings, that support our customers' product innovation and business growth. With wide expertise in the fashion and luxury industry, we help companies access their destination markets and navigate complex regulatory landscapes and supply chains to support their authentic path toward sustainability. We help deliver safer, more sustainable and high-quality products consumers can trust.



Vibram Group manufactures and licenses the production of high performance rubber soles for footwear. Vibram aims to make the best soles in the world and is working towards minimizing its environmental and social impact without compromising its quality. Vibram The Sustainable Way strategy focuses on Vibram Values: People, Quality, Durability, Innovation, Inspiration, Test and No Waste. The company measures progress and sets goals in all impact areas in order to grow responsibly and continually decrease its impact on the planet with the ambition of inspiring all stakeholders to continuous improvement.



Vitale Barberis Canonico has been creating prestigious 'Made in Italy' textiles for the clothing industry in the historical factory in Pratrivero, in the heart of Piedmont, for more than 350 years, operating in a harmonious way with the environment and the surroundings. Vitale Barberis Canonico is the largest global exporter with more than 400 employees, 40 agents throughout the world and two state-of-the-art factories in the Biella region of Italy. Heritage, Innovation and Sustainability are the key words of the company philosophy. The company annually publishes its Sustainability Report to trace the results achieved and to set challenging goals.



Vivienne Westwood Srl is part of one of the last independent global fashion houses that design, develop, manufacture, and sell luxury goods. In the last ten years, the Italian business unit had to rethink the production paradigm of the sector, to align it with a model sensitive to environmental and social issues. Social, environmental and circularity goals drive the company in the selection of raw materials, of manufacturing suppliers and motivate Vivienne Westwood to implement innovative processes until downstream. The company is willing to progressively map and trace the entire supply chain, monitoring the lifecycle of the products manufactured, mitigating the environmental and social risks.

KPIs Committee



Bip is an international consulting company born in 2003 in Italy, and now based in 12 countries, with 20 offices (London, Rio de Janeiro, New York, Abu Dhabi, etc.) and more than 4,700 employees globally. Bip supports large and medium companies to adopt sustainable and circular transformation principles into their own organization and processes, improving corporate, energy & environmental, social and financial sustainability. Bip supports its clients, on the fashion and luxury sector, with actions aimed at implementing sustainable approaches to supply and production by measuring the consequent level of sustainability achieved.



PwC purpose is “solve important problems and build trust in society” and perhaps nowhere do we have greater opportunities to fulfill this purpose than in helping our clients address sustainability issues. PwC looks at sustainability as a key element for the development of services and guides organizations on a virtuous path for themselves and society, tracing sustainable paths, together.
#responsiblejourney

Technical partner



Visualmade, corporate communication agency, develops complex identity and information systems to meet specific communication needs, on paper, in the web, and in architectural spaces. During the last 15 years Visualmade has been developing more and more communication strategies and systems, focusing on sustainability as a corporate value.

1.2 Acknowledgements

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The Monitor for Circular Fashion Report 2022 has been written by Francesca Romana Rinaldi, Director of the Monitor for Circular Fashion, part of the **SDA Bocconi Sustainability Lab** with the support of Liuba Napoli in drafting the eco-design section of the report (2.4 and 4.1.2) and Claudia di Bernardino in drafting the policy & legislation and sustainability claims sections of the report (2.1, 2.3 and 4.1.1). We would like to also thank Lidia Durbiano for the support in drafting the section dedicated to technological innovation and Digital Product Passport (5.1), Viviana Mercuri for the support in drafting the section dedicated to small businesses (5.2), Francesca Boni for the support in drafting the watching for greenwashing section (4.3) and for the first editing of the report. Special thanks to **Enel X** team for drafting box 1 dedicated to the Corporate and the Energy KPIs, the **Temera** team, partner in the implementation of all pilot projects through the t! Journey platform, the **Bip** team for drafting box 2 dedicated to Eco-Design Principles for Packaging Matrix, the **PwC** team for drafting box 3 with the results of the survey to final end-users.

This Report is the result of great community collaboration. We would like to extend our gratitude to Francesco Perrini, Director of the SDA Bocconi Sustainability Lab for hosting the Monitor for Circular Fashion and Paola Cillo, Director Claudio Dematté Research Division SDA Bocconi School of Management;

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Lastly, our acknowledgements to Maria Teresa Pisani from UNECE.

The **Circular Fashion Manifesto** has been presented to the United Nations Economic Commission for Europe (UNECE). It is SDA Bocconi Sustainability Lab's response to the UNECE's "Sustainability Pledge", which comprises a dedicated toolbox of policy recommendations, implementation guidelines, standards plus a Call to Action. The UNECE invites all the players in the garment and footwear industry to implement this toolbox and take practical action for **traceability and transparency** for improved sustainability, in line with the **2030 Agenda for Sustainable Development**.

1.3 Circular Fashion Manifesto

BEST PRACTICES UPDATE

The Circular Fashion Manifesto (Figure 2) is answering the UNECE "Sustainability Pledge" inviting all actors in the garment and footwear industry to take action for traceability and transparency in order to accelerate the sustainability and circularity of value chains in this industry, in line with the United Nations 2030 Agenda for Sustainable Development. The initiative aims to establish a mechanism to support the uptake of measures in the UNECE Recommendation No. 46 as well as relevant UN/CEFACT standards, and to support the monitoring of their implementation.



THE PLEDGE

The companies participating in "The Monitor for Circular Fashion" commit to:

- **gather information** required to positively boost progress towards sustainability and more importantly reduce their negative impact on our planet;
- **enhance circularity** and sustainability of value chains through transparency and traceability;
- **implement circular business processes** along their value chains;
- **adopt common indicators** to measure progress on circularity in their value chains and report the results;
- **encourage high quality waste management**;
- **promote and implement corporate social responsibility** for pursuing long-term benefits to all stakeholders;
- **raise public awareness** and educate all relevant stakeholders on the positive impacts of sustainable and circular production and consumption;
- **exchange experiences and cooperate** with other multi-stakeholder circular initiatives.

OBJECTIVES OF THE PILOT PROJECTS

- 1 ESTABLISHING TEAMWORK BETWEEN INGREDIENT BRANDS, VENDORS, BRANDS & RETAILERS AND SERVICE PROVIDERS
- 2 BUILDING RELIABLE SUSTAINABILITY CLAIMS TO FIGHT GREENWASHING
- 3 IMPLEMENTING AND TESTING INDUSTRY-SPECIFIC KPIS INTO A REAL LIFE PRODUCT, REFERRING TO THE CIRCULAR FASHION ACTIVITIES
- 4 IMPLEMENTING THE ECO-DESIGN PRINCIPLES INTO A REAL LIFE PRODUCT

SIGNATORIES

- ALBINI GROUP
- CANDIANI DENIM
- DEDAGROUP STEALTH
- HOLDING MODA
- KERING
- MANTECO
- PLM IMPIANTI
- OSCALITO
- OVS
- RADICIGROUP
- SAVE THE DUCK
- TEMERA
- UL SOLUTIONS
- VIBRAM
- VITALE BARBERIS CANONICO
- VIVIENNE WESTWOOD SRL

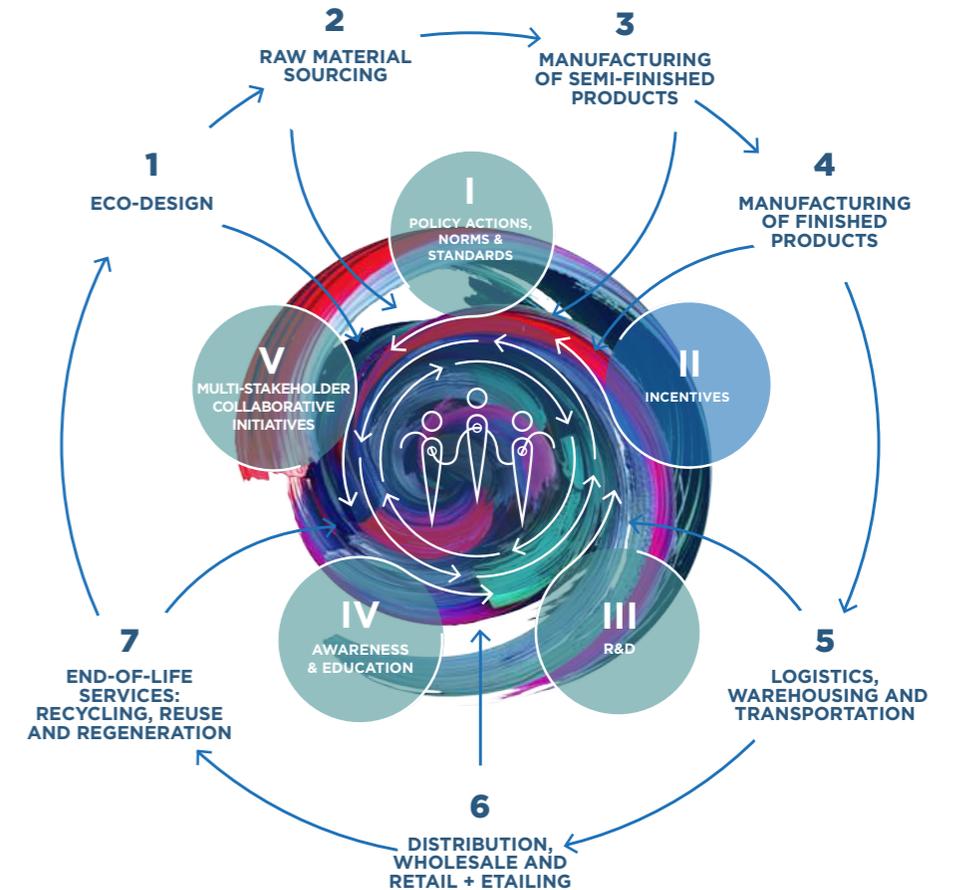


Figure 2
The Monitor for Circular Fashion Manifesto 2022.

KEY FACTS

 16 SIGNATORIES	 60,900 TOTAL N. OF EMPLOYEES REPRESENTED (2021, APPROX.)	 21 BN € TOTAL REVENUES (2021, APPROX.)
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The KPIs identification has been supported by the KPIs Committee of the Monitor for Circular Fashion composed by Bip and PwC.

Fashion Industry research, policy and regulatory developments

Moving forward

- 2.1 New policy and legislation to move towards circularity
- 2.2 The need of a Transition Pathway for the Textiles Ecosystem to co-create a twin (and just) transition
- 2.3 Sustainability claims in upcoming legislations
- 2.4 The existing Proposal for Eco-design



Moving forward

The European Commission's Strategy for Sustainable and Circular Textiles measures include:

- **mandatory EU Extended Producer Responsibility (EPR) scheme**
- **eco-design requirements for textile products**
- **actions to tackle microfibre pollution and greenwashing**
- **a new Digital Product Passport**

The wide-ranging strategy aims to make textiles more durable, repairable, reusable and recyclable; to tackle fast fashion, textile waste and the destruction of unsold textiles; and to ensure that production respects human rights.

In its Transition Pathway for the Textiles Ecosystem, the European Commission defines four main key issues to be discussed with a co-creation approach for the twin (and just) transition in the fashion industry:



Key issue 1:
Boosting new circular business models and the EU production and consumption of sustainable and circular textiles



Key issue 2:
Creating the shift to sustainability: refashioning our consumption patterns



Key issue 3:
Facilitating textile waste prevention, waste management and secondary materials



Key issue 4:
Investing in innovation for new and advanced materials and processes

Starting from key issues 1 and 2, the Monitor for Circular Fashion 2022 has been structured around two main research areas:

1. **How to make a good sustainability claim?**
2. **Which are the key eco-design principles and how can they be implemented?**

2.1 New policy and legislation to move towards circularity

The policy and regulatory framework in the fashion industry is changing: with the adoption of the new Circular Economy Action Plan¹ in 2020, the European Commission committed to accelerate the green transition with the development of an integrated product policy and recommended implementing measures along the product life cycle to address resource-intensive sectors such as textiles.

On 30th March 2022 the European Union unveiled the Strategy for Sustainable and Circular Textiles² among a package of European Green Deal³ proposals aimed at making “sustainable products the norm”.

Measures include a mandatory EU extended producer responsibility (EPR) scheme, eco-design requirements for textile products, action to tackle microfibre pollution and greenwashing, and a new “digital product passport”.

The wide-ranging strategy aims at making textiles more durable, repairable, reusable and recyclable; to tackle fast fashion, textile waste and the de-

struction of unsold textiles; and to ensure that production respects human rights.

Many European initiatives are pushing for making responsible production and consumption the norm, strengthening consumers protection legislation against misleading information on the sustainability performance of products with the introduction of labelling requirements and rules on substantiating green claims.

There is an increasing legislative trend towards holding companies accountable for their own ESG practices as well as those of business partners within their supply chain.

Many companies already conduct due diligence relevant to ESG issues in respect of their business relationships and value chains in accordance with international principles and standards such as the United Nations principles on human rights⁴, the ILO principles⁵ and conventions, and the OECD Due Diligence on Multinational enterprises⁶. Additionally, businesses in some juris-

dictions are already subject to existing laws which place reporting obligations on businesses to disclose the actions they take in relation to human rights due diligence in their own business and supply chains. In fact, several countries such as California, Australia, UK, France, the Netherlands and recently Germany have adopted mandatory due diligence legislation.

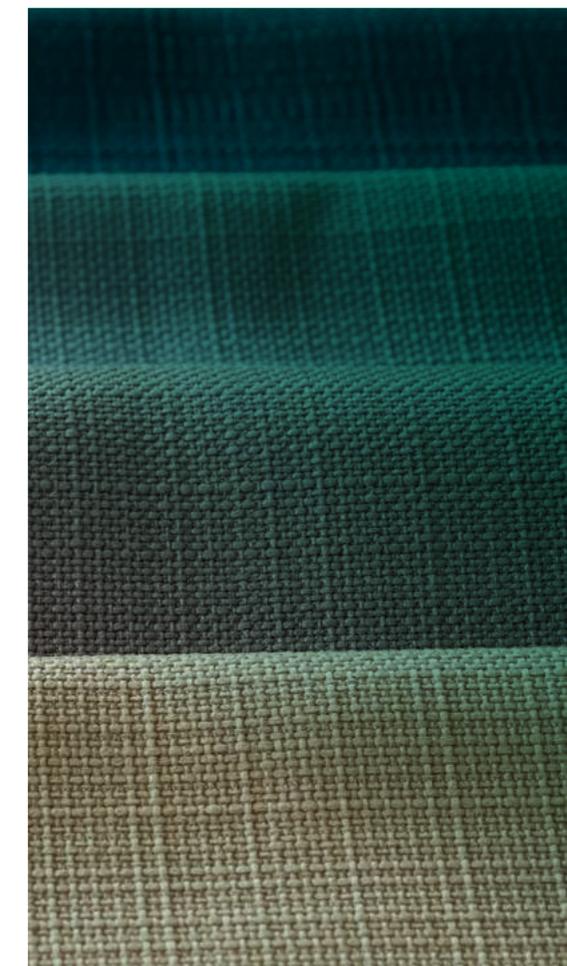
However, harmonised legislations are needed to create a level playing field. An important step in this direction was taken by the European Union when in February 2022, the European Commission released its proposal for the Corporate Sustainability Due Diligence Directive⁷, that will hold accountable companies for human rights violations and environmental harm caused throughout their value chains and operations.

The Corporate Sustainability Due Diligence Directive is closely interlinked with other existing and upcoming EU initiatives, in particular the Sustainable Finance Strategy⁸, drawn by the Union to attract investments towards more

sustainable activities. Two legal frameworks, the so-called Taxonomy and the Sustainable Finance Disclosure Regulation⁹, will set specific criteria for economic activities and financial products to be able to qualify as sustainable. These must be supported by appropriate due diligence. The Corporate Sustainability Due Diligence Directive will also complement existing and planned sectoral due diligence legislation, such as the Conflict Minerals Regulation¹⁰, the proposed Regulation on Deforestation-free Supply Chains¹¹ and the proposed Batteries Regulation¹², by expanding due diligence requirements to companies and activities that are not in scope of the above-mentioned acts.

In light of the above, it is clear that a legislative paradigm shift is taking place at European and national level towards circularity in the fashion industry. This paradigm shift must, however, be accompanied by a vision of change shared by all stakeholders and must also be supported by actions of consumers and businesses, in addition to the mandatory requirements of the new policies for the green transition.

Companies should start preparing for upcoming legislative changes, implementing risk analysis of their value chains and incorporating sustainability and circularity considerations into their corporate policies.



¹ European Commission (2020), “EU Circular Economy Action Plan”.

² European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”.

³ European Commission (2019), “European Green Deal”.

⁴ United Nations (2011), “Guiding principles on Business and Human Rights”.

⁵ International Labour Organization (1998), “ILO Declaration on Fundamental Principles and Rights at Work”.

⁶ OECD (2018), “OECD Due Diligence on Multinational enterprises”.

⁷ European Commission (2022), “Proposal for a Directive of The European Parliament and of The Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937”.

⁸ European Commission (2021), “Sustainable Finance Strategy”.

⁹ European Parliament (2019), “Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability related disclosures in the financial services sector”.

¹⁰ European Parliament (2017), “Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas”.

¹¹ European Commission (2021) “Proposal for a Regulation of The European Parliament and of The Council on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010”.

¹² European Commission (2020), “Proposal for a Regulation of The European Parliament and of The Council concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020”.

2.2 The need for a Transition Pathway for the Textiles Ecosystem to co-create a twin (and just) transition

In its European Green Deal Communication the European Commission called for a twin transition to environmental sustainability and digitalisation to ensure that Europe's companies are more resilient to future shocks with the need to transform the EU towards Net Zero Emissions (NZE) of greenhouse gases in 2050 and where **economic growth is decoupled from resource use**¹³ (Figure 3).

In May 2021 the Commission Communication "Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery"¹⁴ called for the co-creation of transition pathways for the EU's industrial ecosystems¹⁵.

The co-creation process for the transition pathway has been initiated by a Commission Staff Working Document "Scenarios towards co-creation of the transition pathway for a more resilient, sustainable and digital textiles ecosystem" published on 30 of March 2022¹⁶. Textile, clothing, footwear and leather (TCLF) stakeholders have been invited to provide their contributions to the scenarios for the Transition Pathway

The Textile Transition Pathway aims at identifying with key stakeholders what specific actions and commitments are needed to accompany the green and digital transitions.

via a targeted online consultation in the EU Survey.

The Staff Working Document of the European Commission highlights **four key issues** (see Table 1 at page 28-29).

Key issue 1: Boosting new circular business models and the EU production and consumption of sustainable and circular textiles

The aim is to stimulate the implementation of new circular business models, promoting quality, durability, longer use, repair, reuse and recycling in accordance with the eco-design principles.

Key issue 2: Creating the shift to sustainability: refashioning our consumption patterns

The aim is to stimulate the shift to sustainability addressing overconsumption of fashion.

Key issue 3: Facilitating textile waste prevention, waste management and secondary materials

The aim is to achieve the sustainable waste management of textile waste.

Key issue 4: Investing in innovation for new and advanced materials and processes

Investments are needed in research, innovation and digitalisation to lead innovation in new materials and processes and for the sustainable development of the ecosystem.



<https://ec.europa.eu/docsroom/documents/49360>

¹³ European Commission (2019), "European Green Deal Communication".

¹⁴ European Commission (2021), "Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery".

¹⁵ A transition pathway is an actionable plan for stakeholders of a given industrial ecosystem to follow to successfully achieve the green and digital transitions and for the ecosystem to become more resilient. The transition pathways are to be developed "in partnership with industry, public authorities, social partners and other stakeholders".

¹⁶ European Commission Staff Working Document (2022), "Scenarios towards co-creation of the transition pathway for a more resilient, sustainable and digital textiles ecosystem", March 2022 <https://ec.europa.eu/docsroom/documents/49360>

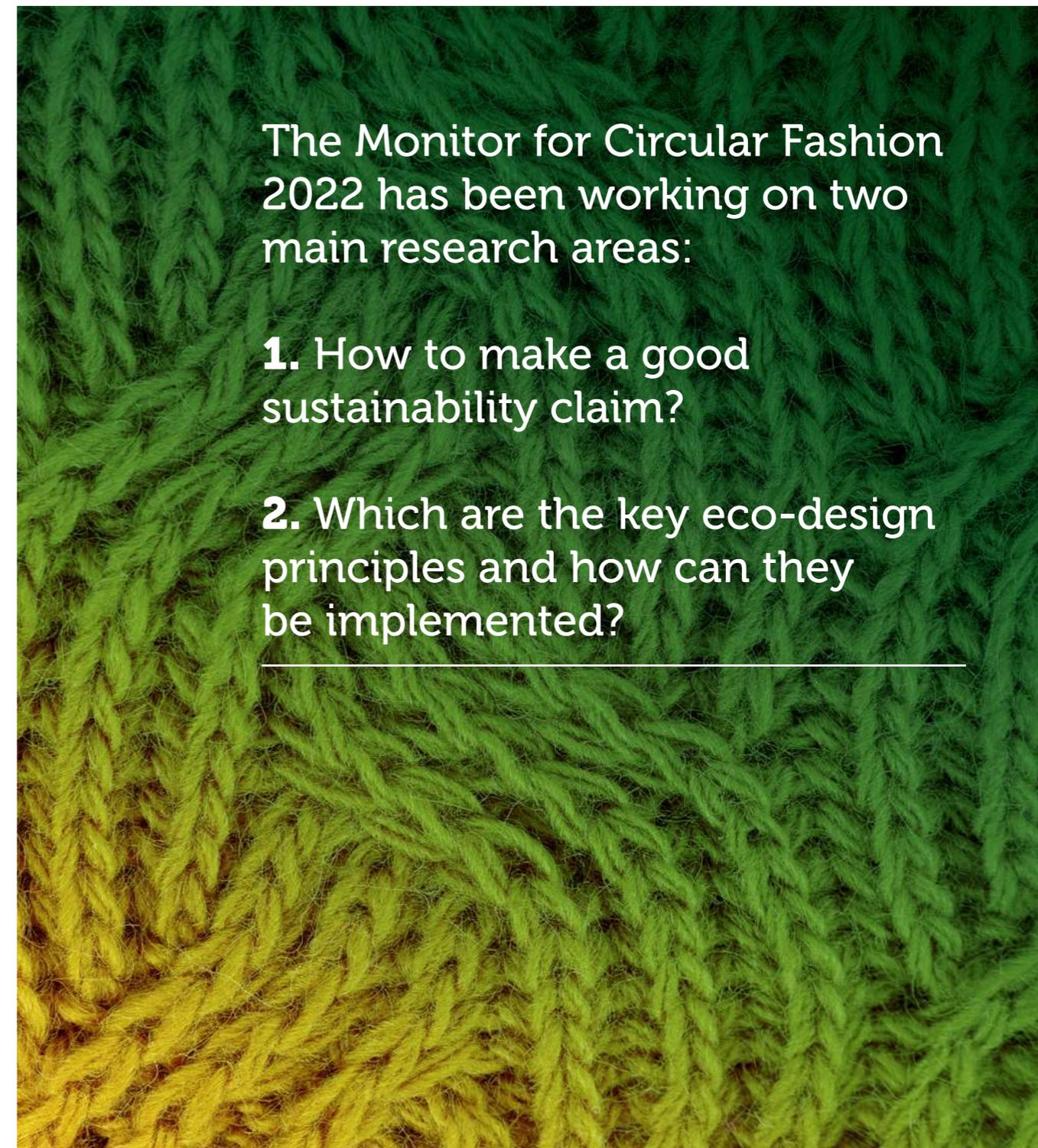


TABLE 1 - KEY ISSUES IDENTIFIED IN THE EUROPEAN COMMISSION'S STAFF WORKING DOCUMENT

KEY ISSUE 1 BOOSTING NEW CIRCULAR BUSINESS MODELS AND THE EU PRODUCTION AND CONSUMPTION OF SUSTAINABLE AND CIRCULAR TEXTILES¹	KEY ISSUE 2 CREATING THE SHIFT TO SUSTAINABILITY: REFASHIONING OUR CONSUMPTION PATTERNS	KEY ISSUE 3 FACILITATING TEXTILE WASTE PREVENTION, WASTE MANAGEMENT AND SECONDARY MATERIALS	KEY ISSUE 4 INVESTING IN INNOVATION FOR NEW AND ADVANCED MATERIALS AND PROCESSES
<p>The aim is to stimulate the implementation of new circular business models, promoting quality, durability, longer use, repair, reuse and recycling in accordance with the eco-design principles.</p>	<p>The aim is to stimulate the shift to sustainability addressing overconsumption of fashion.</p>	<p>The aim is to achieve the sustainable management of textile waste.</p>	<p>Investments are needed in research, innovation and digitalisation to lead innovation in new materials and processes for the sustainable development of the ecosystem.</p>

EC STRATEGY FOR SUSTAINABLE AND CIRCULAR TEXTILES¹⁷

<p>In the EU, the textiles and clothing sector can play a prominent role in the circular economy to accelerate the green transition, where economic growth is decoupled from resource use¹⁸.</p> <p>“The Commission will develop binding product-specific ecodesign requirements to increase textiles’ performance in terms of durability, reusability, reparability, fibre-to-fibre recyclability and mandatory recycled fibre content, to minimise and track the presence of substances of concern and to reduce the adverse impacts on climate and the environment.”¹⁹</p>	<p>The European Commission is willing to refashion consumption patterns under the motto #ReFashionNow, putting quality, durability, longer use, repair and reuse at the core.</p> <p>EU initiatives such as the European Bauhaus, the Sustainable Consumption Pledge²⁰, as well as the European Year of Youth will serve as a springboard for concrete #ReFashionNow actions.</p>	<p>Making producers responsible for the waste that their products create is essential to decouple textile waste generation from the growth of the sector.²¹</p> <p>Several EU Member States already have considered or are considering the introduction of EPR requirements for textiles, given the obligation under EU waste legislation to establish separate collection of textile waste by 1 January 2025.</p> <p>In this context, the Commission will propose harmonised EU extended producer responsibility rules for textiles with eco-modulation of fees, as part of the forthcoming revision of the Waste Framework Directive in 2023.”²²</p>	<p>Investments are still needed to “ensure the value of textiles is retained in the economy for as long as possible, reducing dependencies on virgin raw materials”.²³</p> <p>“By 2030 textile products placed on the EU market are long-lived and recyclable, to a great extent made of recycled fibres, free of hazardous substances and produced in respect of social rights and the environment... The circular textiles ecosystem is thriving, driven by sufficient capacities for innovative fibre-to-fibre recycling, while the incineration and landfilling of textiles is reduced to the minimum.”²⁴</p>
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SCAN THE QR CODE TO READ THE TABLE: QUANTIFYING KEY OPPORTUNITIES AND CHALLENGES OF CIRCULARITY IN FASHION

https://www.sdabocconi.it/upl/entities/file/papers/Report_Circular_Fashion_2022.pdf

¹⁷ European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”

¹⁸ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

¹⁹ European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”

²⁰ https://ec.europa.eu/info/policies/consumers/consumer-protection-policy/sustainable-consumption-pledge_en

²¹ “...under the Ecodesign for Sustainable Products Regulation, the Commission proposes a transparency obligation requiring large companies to publicly disclose the number of products they discard and destroy, including textiles, and their further treatment in terms of preparing for reuse, recycling, incineration or landfilling. Subject to receiving the empowerment under the proposed Regulation and a dedicated impact assessment, the Commission will also introduce bans on the destruction of unsold products, including as appropriate, unsold or returned textiles”.

²² European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”

²³ European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”

²⁴ European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”

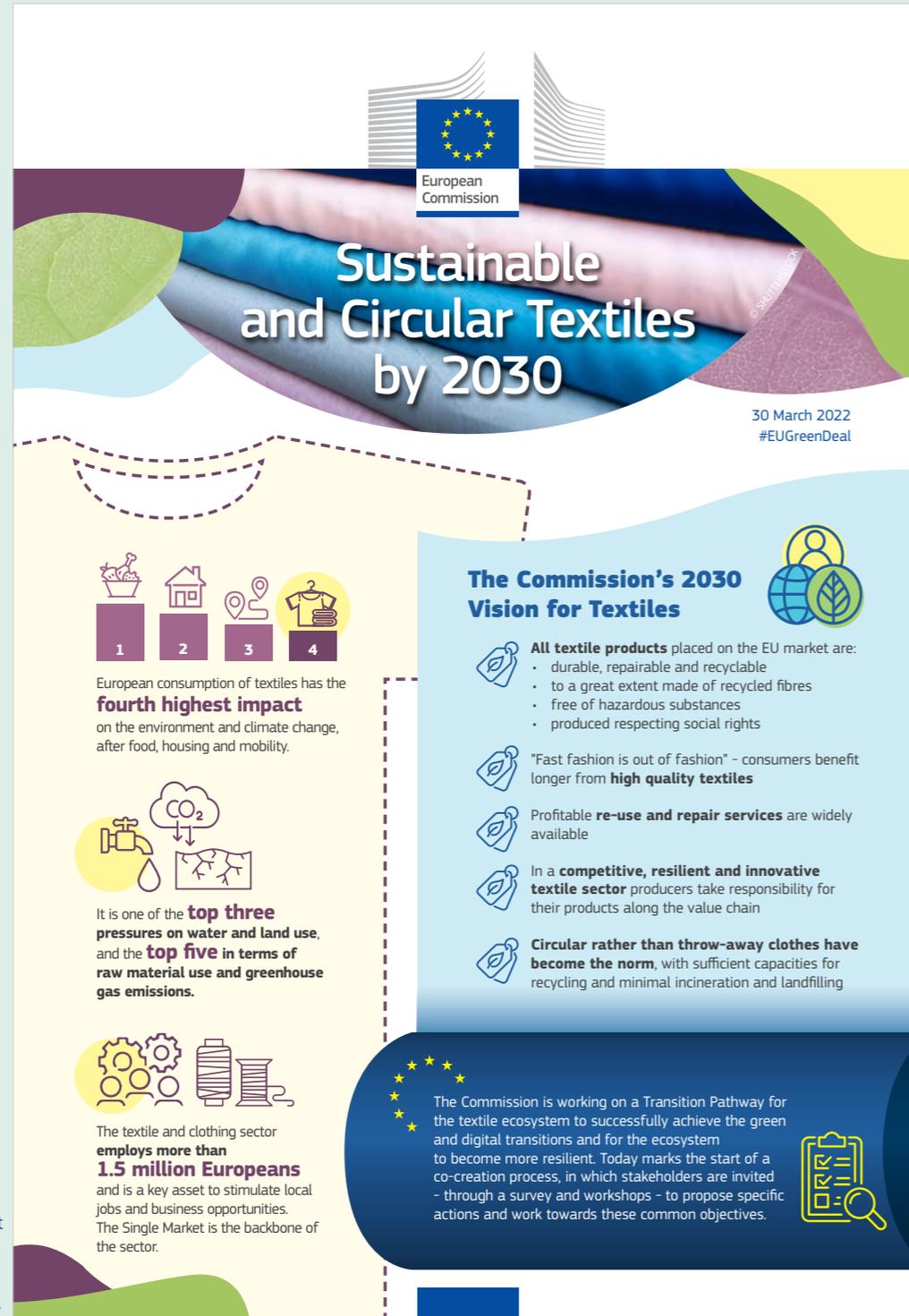


Figure 3 European Commission (2022), Factsheet on Textiles: "Sustainable and Circular Textiles by 2030"



2.3 Sustainability claims in upcoming legislations

There is a clear policy focus on the communication of sustainability claims in order to reduce confusion or claims which mislead consumers and enable them to make more informed and sustainable decisions.

EU legal initiatives have been put in place with the goal of providing clear, trustworthy, easy to understand and verifiable information empowering consumers and enterprises to pursue responsible consumption and production and allowing the building of trust among all relevant stakeholders.

The EU is in fact looking to build sustainability and circularity into the value chain to help achieve environmental targets.

At the end of March 2022 the EC adopted a package of proposals aimed at making “sustainable products the norm”. The Strategy for Sustainable and Circular Textiles²⁵ includes - among its measures - actions to tackle greenwashing and a new “digital product passport”.

The digital product passports are intended to make it easier to track products’ value chain journeys, and to make it easier to repair or recycle them. Tighter controls on greenwashing would include stricter rules on sustainability claims to protect consumers.

On March 30th the European Commission also adopted a proposal for a directive on Empowering the Consumers in Green Transition²⁶ that aims to make business-consumer relations fair and transparent and ultimately support the EU economy.

The directive strengthens consumer rights and contributes to a circular, clean and green EU economy by enabling consumers to make informed purchasing decisions and thus contribute to more sustainable consumption. The EU in fact believes that the circular economy has to be achieved through better consumer participation, in particular by providing consumers with better information on the durability and reparability of certain products prior to contracting, and by intensifying consumer protec-

tion against unfair trade practices that impede sustainable purchasing, such as: greenwashing practices (i.e., misleading environmental claims), premature obsolescence practices (i.e., premature failure of goods), and use of unreliable and non-transparent sustainability labels and information tools.

Another key policy that will impact the way information is communicated to consumers is the **Substantiating the Green Claims Initiative²⁷, expected in the upcoming months. This initiative will require companies to prove their environmental declarations against a standardised methodology. Doing so, according to the European Commission, will help preventing greenwashing.**

All these initiatives will jointly seek to establish a coherent policy framework to help the European Union make sustainable goods, services, and business models the norm and transform consumption patterns in a more sustainable and circular direction.

2.4 The existing Proposal for Eco-design

On the 30th of March 2022, the European Commission published the proposal for a regulation establishing a framework to set eco-design requirements for sustainable products and repealing Directive 2009/125/EC currently in force for energy-related products. The **Ecodesign for Sustainable Products Regulation** would define requirements for all products on the internal market to reduce the negative environmental impacts throughout the product’s life cycle along the entire value chain. This Proposal is part of a package of initiatives presented by the European Commission relating to sustainable products and fostering sustainable product choices.

The Proposal “lays down a framework for setting ecodesign requirements based on the sustainability and circularity aspects listed in the Circular Economy Action Plan²⁸, such as product durability, reusability, upgradability and reparability, the presence of sub-

stances of concern in products, product energy and resource efficiency, recycled content of products, product remanufacturing and high-quality recycling, and for reducing products’ carbon and environmental footprints. In doing so, it will contribute to achieving the EU’s overall climate, environmental and energy goals, while supporting economic growth, job creation and social inclusion. **By making materials last for longer, ensuring their value is retained for as long as possible and boosting the use of recycled content in products, it will promote decoupling of economic development from natural resource use and reduction of material dependencies...**²⁹.

The eco-design requirements relate to:

- (a)** product durability and reliability;
- (b)** product reusability;
- (c)** product upgradability, reparability, maintenance and refurbishment;
- (d)** the presence of substances of concern in products;

- (e)** product energy and resource efficiency;
- (f)** recycled content in products;
- (g)** product remanufacturing and recycling;
- (h)** products’ carbon and environmental footprints;
- (i)** products’ expected generation of waste materials.³⁰

The Proposal also:

- “includes the creation of a digital product passport to electronically register, process and share product-related information amongst supply chain businesses, authorities and consumers. This is expected to increase transparency, both for supply chain businesses and for the general public, and increase efficiencies in terms of information transfer.”³¹
- “provides for the setting of mandatory green public procurement criteria and creates a framework to prevent unsold consumer products from being destroyed.”³²

²⁵ European Commission (2022), “EU Strategy for Sustainable and Circular Textiles”.

²⁶ European Commission (2022), “Proposal for a Directive of The European Parliament and of The Council amending Directives 2005/29/EC and 2011/83/EU as regards empowering consumers for the green transition through better protection against unfair practices and better information”.

²⁷ European Commission (2022), “Initiative on Substantiating the Green Claims”.

²⁸ European Commission (2020), “Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions A new Circular Economy Action Plan For a cleaner and more competitive Europe”.

²⁹ European Commission (2022), “Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC”.

³⁰ European Commission (2022), “Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC”.

³¹ European Commission (2022), “Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC”.

³² European Commission (2022), “Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC”.

Methodology

Testing the KPIs

- 3.1 Testing the tailored KPIs for fashion
- 3.2 Updated results from the corporate and energy KPIs



Testing the KPIs

Testing the tailored KPIs for fashion

Thanks to the **collaboration with the Monitor for Circular Fashion companies** and the support of the eco-design task force and the KPIs Committee during 2022 the industry-specific KPIs have been implemented and tested onto a real life product, referring to the Circular Fashion Activities. In addition to the 40+ Industry specific KPIs identified in 2021, in 2022 eco-design and chemical management KPIs have been added and tested.

KPIs selection was made implementing the SMART + CCC criteria.
The KPIs have been used to substantiate the sustainability claims chosen for each pilot project with the careful verification operated during several rounds by the Monitor for Circular Fashion Legal Advisor, the overall SDA Bocconi research team, the Sustainability claim task force and the KPIs Committee.

JANUARY 2022	DESK RESEARCH	Who: SDA Bocconi team
	FIELD ANALYSIS	Semi-structured interviews and pilot projects implementing the industry-specific KPIs and building the sustainability claims Who: SDA Bocconi team
		Survey on consumers' attitudes towards sustainability claims and factors influencing the perception of greenwashing in fashion Who: PwC & SDA Bocconi teams
		Survey and semi-structured interviews on role played by collaboration between small businesses and large companies in the scale up of circularity innovations Who: SDA Bocconi team
SEPTEMBER 2022		Survey on eco-design principles for packaging Who: Bip & SDA Bocconi teams
	RESULTS ANALYSIS AND VALIDATION	Who: SDA Bocconi team & KPIs Committee

Updated results from the corporate and energy KPIs

The "Circular Economy Report" is an Enel X service³³, based on a methodology validated by the external certification body Rina and CESI and accredited by Accredia, that is able to identify the current level of circularity of a company and to propose a roadmap of innovative solutions to boost it. The methodology, based on over 70 KPIs, is divided into two levels of analysis: Corporate and Energy Site.

³³ Enel X has produced 11 Circular Economy Reports, of which 8 completed in 2021 and 3 in 2022, to generate the aggregated data analysis on Corporate and Energy KPIs.

3.1 Testing the tailored KPIs for fashion

The main objective of the Monitor for Circular Fashion is the identification of tailored KPIs that fashion companies could adopt to assess their progress in sustainability, circularity, value chain traceability and transparency performance. In 2021 the identification of 40+ fashion industry-specific KPIs was based on primary and secondary data, gathered by the SDA Bocconi research team through desk research, an online survey and semi-structured interviews to the companies that are part of the community. Partner companies were

asked to suggest adoptable KPIs based on their knowledge of the fashion industry through surveys. The respondents were also interviewed with one-to-one semi-structured interviews on the information they provided through the questionnaires.

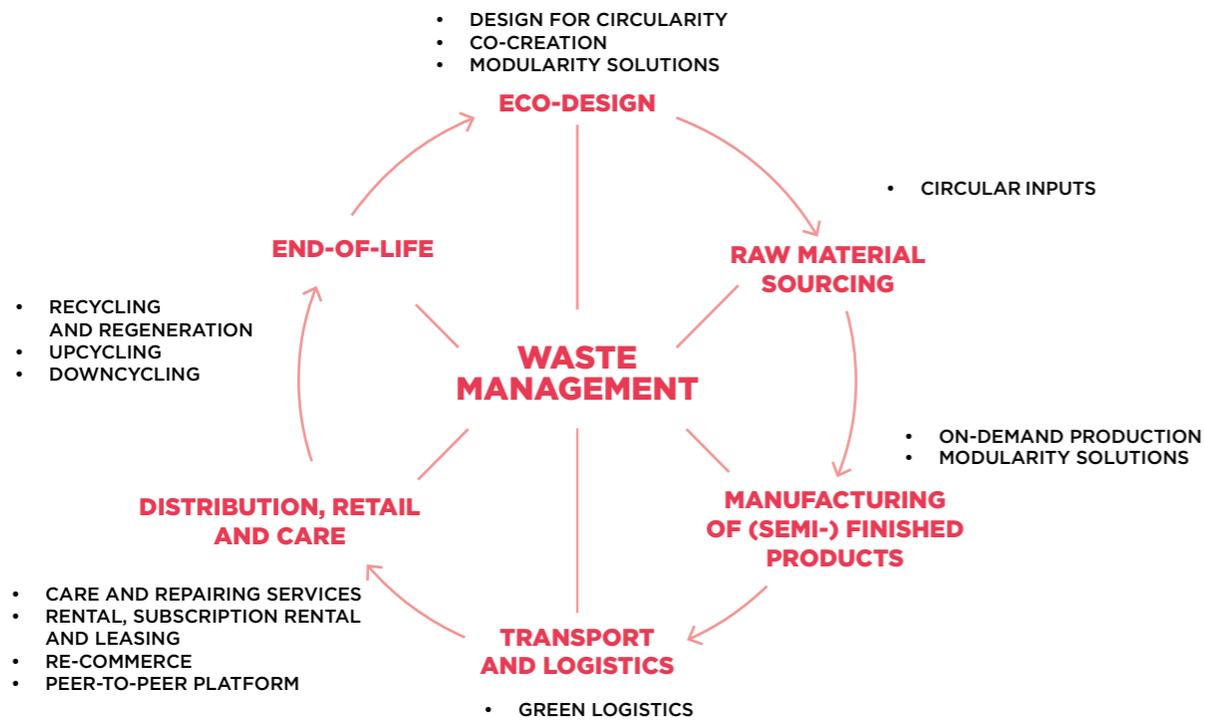
The responses from the surveys were analyzed via qualitative methods by the SDA Bocconi Sustainability Lab research team to map out a coherent framework of indicators based on shared definitions and measure units.

The KPIs Committee validated and further refined the KPIs list, suggesting some KPI guidelines for measurement. The Monitor partners discussed the identified performance indicators during a Plenary Meeting meant to include the perspective of brands, ingredient brands and service providers.

Finally, the KPIs Committee carried out a closing review with the Sustainability Lab research team.

In 2022 eco-design and chemical management KPIs have been added.

In 2022 the industry-specific KPIs have been implemented and tested onto a real life product, referring to the Circular Fashion Activities.



Source: adapted from Monitor for Circular Fashion Report 2021

Eco-design task force members:

SDA Bocconi Research Team: Francesca Romana Rinaldi

Innovation Advisor: Liuba Napoli

Partners: Giuseppe Picerno, Manteco; Dario Casalini, Maglificio Po Srl - Oscalito 1936; Simone Colombo & Camilla Mirone, OVS; Gaia Giussani & Omar Cadamuro, PwC Italy; Chiara Ferraris e Francesca Previtali, RadiciGroup; Silvia Mazzanti & Eleonora Cecchetti, Save The Duck; Silvia Lai, Angela Donati, Maria Josè Monteagudo Arrebola, UL Solutions; Lucia Bianchi Maiocchi, Vitale Barberis Canonico.

Sustainability claim task force members:

SDA Bocconi Research Team: Francesca Romana Rinaldi

Legal Advisor: Claudia di Bernardino

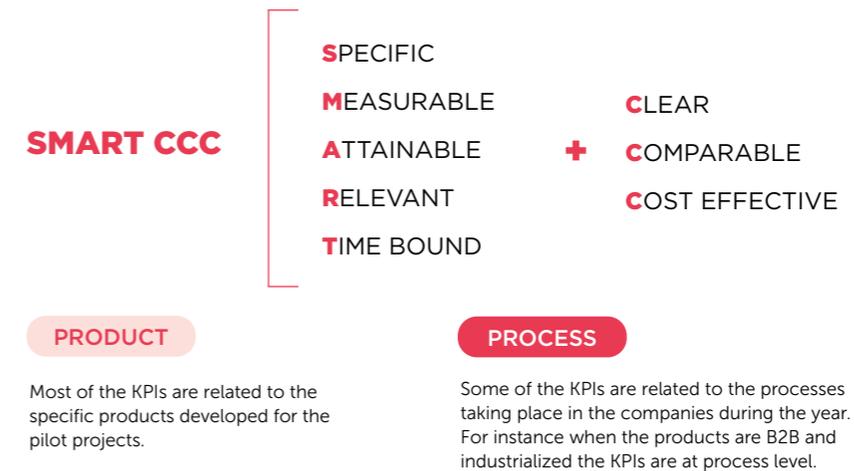
Partners: Veronica Bovo, Holding Moda; Dario Casalini, Maglificio Po Srl - Oscalito 1936; Gaia Giussani & Omar Cadamuro, PwC Italy; Silvia Mazzanti & Eleonora Cecchetti, Save The Duck; Silvia Lai, Angela Donati, Maria Josè Monteagudo Arrebola, UL Solutions; Marco Guazzoni & Jasmine Zanenga, Vibram.

KPIs Committee members:

Elvira Maniscalco & Francesca Pilla, Bip; Gaia Giussani & Omar Cadamuro, PwC Italy.

KPIs have been tested through 8 pilot projects. **KPIs selection for pilot projects was made by implementing the SMART + CCC criteria:** good KPIs need to be "specific", "measurable", "attainable", "relevant", "time-bound", "clear", "comparable", "cost effective". Some of the KPIs are "product" related, some are "process" related.

KPIs MAIN CHARACTERISTICS



In 2022 the KPIs have been used to substantiate the sustainability claims chosen for each pilot project with the careful verification operated during several rounds by the Monitor for Circular Fashion Legal Advisor, the overall SDA Bocconi research team, the Sustainability claim task force and the KPIs Committee.

Semi-structured interviews with partners have been carried out by SDA

Bocconi research team for the KPIs selection and drafting of sustainability claims.

Temera, Partner in the implementation of all pilot projects through the t!Journey platform, created the online experiences of the individual products. Through these customer journeys, Temera provided a digital voice to the items, sharing the traceability and transparency information, accessible

by scanning the QR codes available in chapter 4.

The methodology to identify and test the KPIs and to build reliable sustainability claims is summarized in Table 2 at page 40, presenting the overall methodology for the Monitor for Circular Fashion 2022. The complete methodology is also described in the annex.

TABLE 2: COMPLETE METHODOLOGY OF SDA BOCCONI RESEARCH - MONITOR FOR CIRCULAR FASHION 2022

JANUARY 2022	DESK RESEARCH	Who: SDA Bocconi team	Analysis of 30+ updated sources focusing on circular fashion
	FIELD ANALYSIS	Semi-structured interviews and pilot projects implementing the industry-specific KPIs and building the sustainability claims Who: SDA Bocconi team	<ol style="list-style-type: none"> 1. Brainstorming sessions with Eco-design and Sustainability claims task-forces and KPIs Committee 2. Testing the KPIs through pilot projects 3. Semi-structured interviews with partners
Survey on consumers' attitudes towards sustainability claims and factors influencing the perception of greenwashing in fashion Who: PwC & SDA Bocconi teams		<ol style="list-style-type: none"> 1. Drafting the survey 2. Testing the survey 3. Distributing the survey 4. Analyzing the results 	
Survey and semi-structured interviews on role played by collaboration between small businesses and large companies in the scale up of circularity innovations Who: SDA Bocconi team		<ol style="list-style-type: none"> 1. Drafting the guidelines for the interviews 2. Carrying out the interviews 3. Analyzing the results 	
Survey on eco-design principles for packaging Who: Bip & SDA Bocconi teams		<ol style="list-style-type: none"> 1. Drafting the survey 2. Testing the survey 3. Distributing the survey 4. Analyzing the results: Eco-Design Principles for Packaging Matrix 	
SEPTEMBER 2022	RESULTS ANALYSIS AND VALIDATION	Who: SDA Bocconi team & KPIs Committee	SDA Bocconi team and KPIs Committee review of KPIs implemented during pilot projects
			SDA Bocconi team, co-design and Sustainability claims task-forces review of KPIs implemented during pilot projects and verification of sustainability claims
			Plenary Meeting with Partners for collective discussion on: <ol style="list-style-type: none"> 1. Application of agreed criteria on KPIs selected for each pilot project 2. Application of agreed criteria on sustainability claims defined for each pilot project

3.2 Updated results from corporate and energy KPIs

The "Circular Economy Report" is an Enel X service, based on a methodology validated by the external certification body Rina and CESI and accredited by Accredia, that is able to identify the current level of circularity of a company and to propose a roadmap of innovative solutions to boost it.

The methodology, based on over 70 KPIs, is divided into two levels of analysis: Corporate and Energy Site.

The Corporate analysis aims to assess a company's strategic approach to sustainability and circular economy and how the underlying principles are implemented across organizational processes and in the daily business.

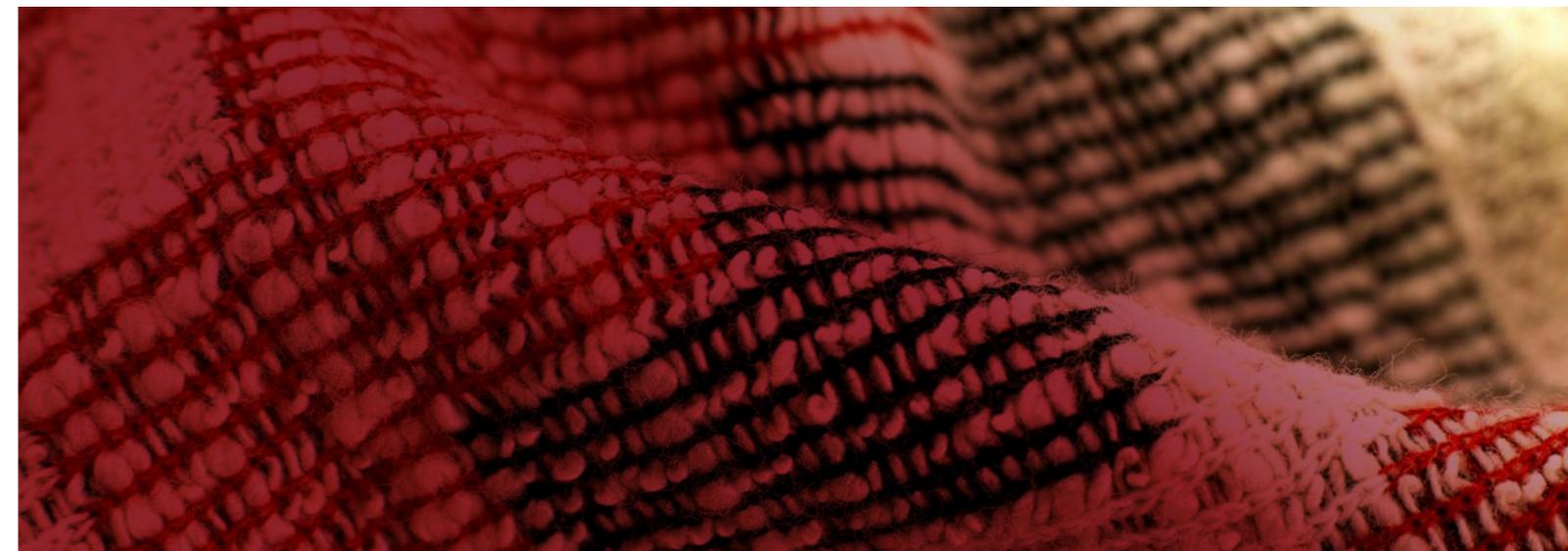
The areas of this level of analysis match with the key components of a value chain: design, procurement, production inputs, energy consumption, waste, logistics, sales, post consumption.

The Corporate analysis also provides an overview of the UN Sustainable Development Goals impacted by projects, initiatives or objectives carried on by the Company under analysis.

The Energy Site analysis represents a technical in-depth analysis of the energy performance of a specific building of the Company (e.g., headquarters, production site, warehouse, store, etc.).

The areas of this level of analysis evaluate energy sources and energy consuming systems, energy efficiency and energy management solutions in place, as well as services and solutions enabling a more circular energy and economy.

In order to measure the KPIs at the basis of the Corporate and Energy-Site analysis, two surveys containing qualitative and quantitative questions are submitted to the companies, aimed both at gathering information for the analysis and at defining and balancing the weights of the KPIs.



Grounding principles and data analysis

Eco-design, Sustainability claims and fashion industry analysis

- 4.1 Eco-design & sustainability claims principles
- 4.2 Field research results
- 4.3 Watching for greenwashing

4



Eco-design, Sustainability claims and fashion industry analysis

During the second year of activities, the Monitor for Circular Fashion integrated additional circular fashion KPIs and tested selected KPIs through **8 pilot projects**.

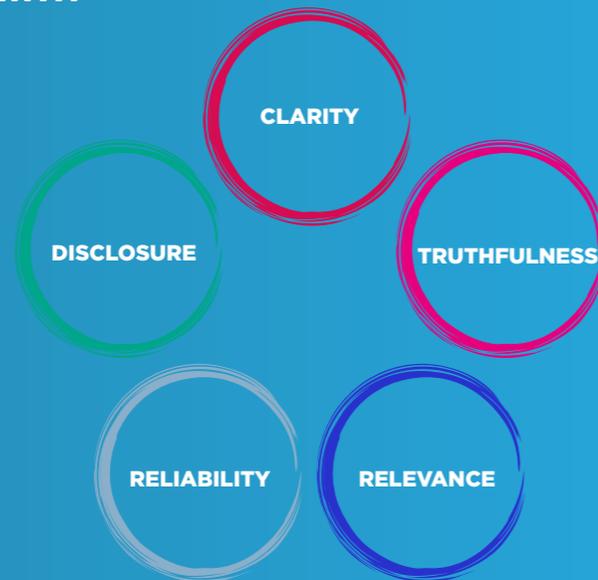
Circular Fashion Manifesto: best practices update

8 Pilot Projects:

- Think Leather
- Eco-designed jeans
- Trace me
- Repairing T-shirt
- What if bag
- Component shoe
- Anima
- M-Pocket

Starting from the UNECE Recommendation No. 46 “Enhancing traceability and transparency of sustainable value chains in the garment and footwear sector” and the related guidelines, the pilot projects tested industry-specific traceability, transparency, sustainability and circularity KPIs with a particular focus on the eco-design principles, and implemented the sustainability claim principles. Eco-Design Principles for Packaging Matrix and Circular Fashion Survey on New Generations are also presented in the chapter.

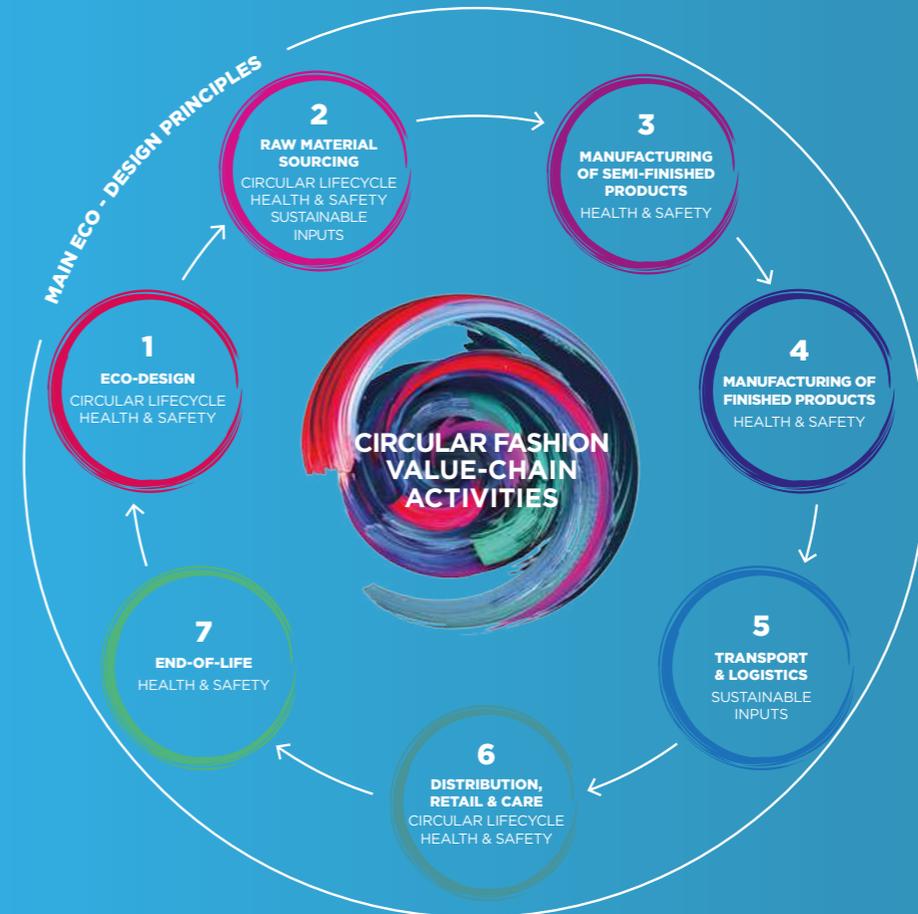
1. How to make a good sustainability claim?



Source: UNECE (2022, forthcoming)

2. Which are the key eco-design principles and how can they be implemented?

ECO-DESIGN FRAMEWORK		
CIRCULAR LIFECYCLE	HEALTH & SAFETY	SUSTAINABLE INPUTS
<ul style="list-style-type: none"> • durability • reusability • reparability • recyclability 	<ul style="list-style-type: none"> • safe chemical substances • minimized microfiber releases 	<ul style="list-style-type: none"> • renewable inputs • recyclable inputs • recycled inputs • resources reduction



4.1 Sustainability claims & Eco-design principles in fashion

As already mentioned, the Monitor for Circular Fashion 2022 has been structured around two main research areas:

1. How to make a good sustainability claim?
2. Which are the key eco-design principles and how can they be implemented?

The 40+ industry-specific KPIs identified in 2021 have been implemented and tested during the pilot projects (see figure 4) and the main findings are presented in this chapter.

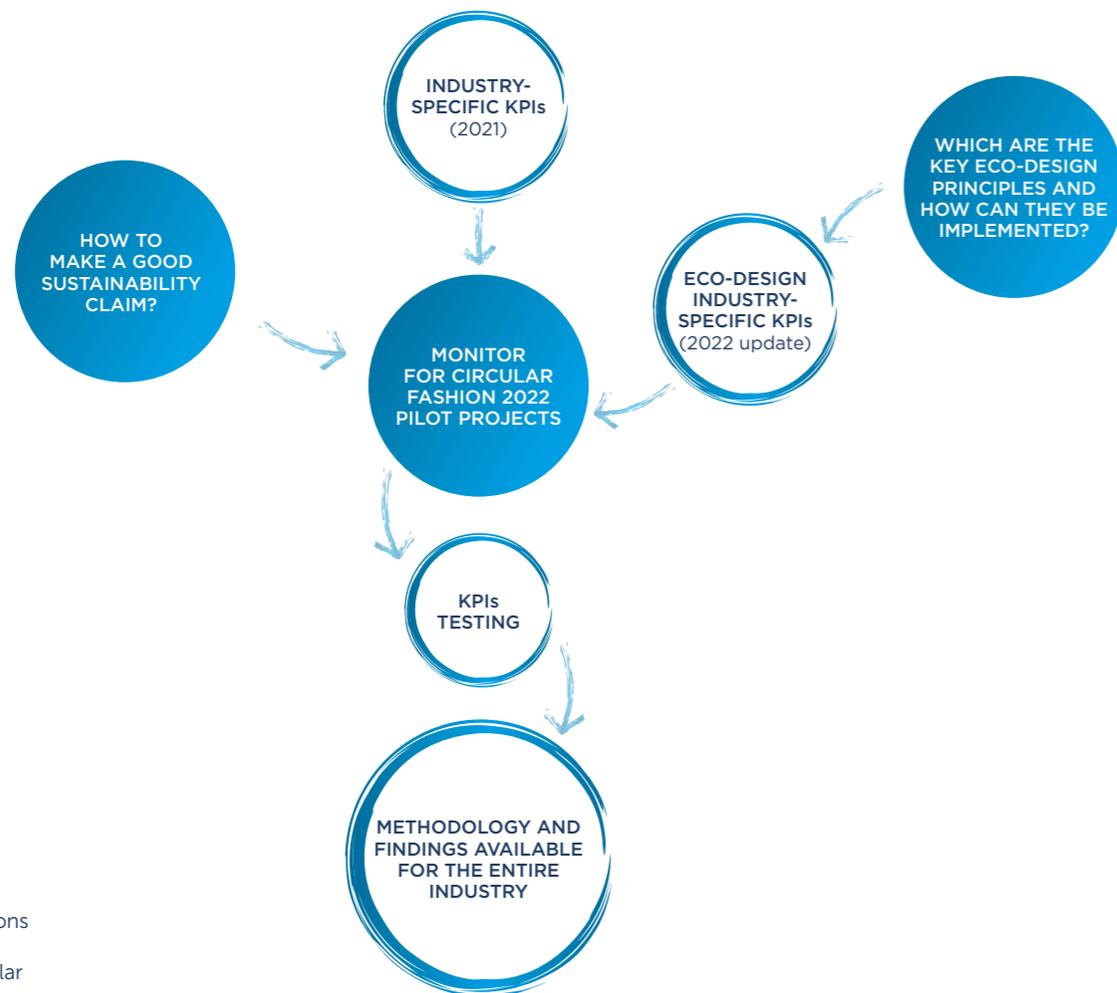


Figure 4: Main research questions guiding the work of the Monitor for Circular Fashion 2022

Implementing the principles to make a good and reliable sustainability claim to fight greenwashing was the key goal of the pilot projects, referring to the UNECE Policy Recommendation and Guidelines on Traceability and Transparency in Garment and Footwear.

Industry-specific eco-design KPIs have been identified during an explorative activity with the companies of the Monitor for Circular Fashion, in addition to the 40+ industry-specific KPIs identified in 2021.

Eco-design principles need to be considered in all activities of the Circular Fashion Value Chain in order to maximize the value retention, up to the end-of-life, when the resources become waste-resources.

“According to the Observatory conducted by PwC (ed. note: presented in box 3), an increasing number of final-users are reading up on sustainability issues by keeping informed through various sources, beyond the sustainability claims of companies. To date, unfortunately, there is no single standard to determine how sustainable a process or product is. The contribution made by the working group responds to the need for transparency and measurability of environmental impact required by final-users, and results in the definition of indicators (KPIs) on product and process incontrovertible and applicable to industrial realities.”

OMAR CADAMURO
Partner Consumer Markets, PwC Italia

“As a KPI committee, the most relevant factor was to ensure the correct application of the process KPIs. Thanks to the criteria agreed with UNECE, each measure was evaluated and corrected to guarantee the clearest application for a broader range of stakeholders and related value chain processes. Regarding the traceability and transparency of each piece of data, they are key drivers to lead a comparable, scalable and effective analysis.”

Bip

4.1.1 Sustainability claims principles: how to build reliable claims

The fashion industry faces an extensive diversity of claims about the sustainability characteristics of products in the labelling and its advertising. So it is essential to ensure that the information beyond the claims is true, useful and reliable.

The main objective of a claim is to enable consumers to take informed purchasing decisions and to choose the products that better meet their needs and expectations. The information on the characteristics of the products plays a fundamental role in making effective the ability of consumers to direct the market towards products with better environmental performance.

Consumers, especially Millennials and Gen Z, are expressing their interest in the impacts of products and are willing to pay more for sustainable products and services but unfortunately, they face a plethora of products claims and environmental labels. According to the European Commission³⁴ there are more than 200 environmental labels active in the EU, and more than 450 environmental labels active worldwide; there are also more than 80 widely used reporting initiatives and methods for carbon emissions only. This creates confusion about the meaning and reliability of claims made by companies and generates skepticism that busi-

nesses are overstating or misrepresenting the environmental benefits of products and their impacts on people and the environment. The result is a reduction of consumers' confidence in sustainability claims and the penalization of businesses who adhere to appropriate guidelines on truthful and non-deceptive claims.

The lack of coordination, credibility and comparability between sustainability claims represents a crucial issue to advance sustainable development.

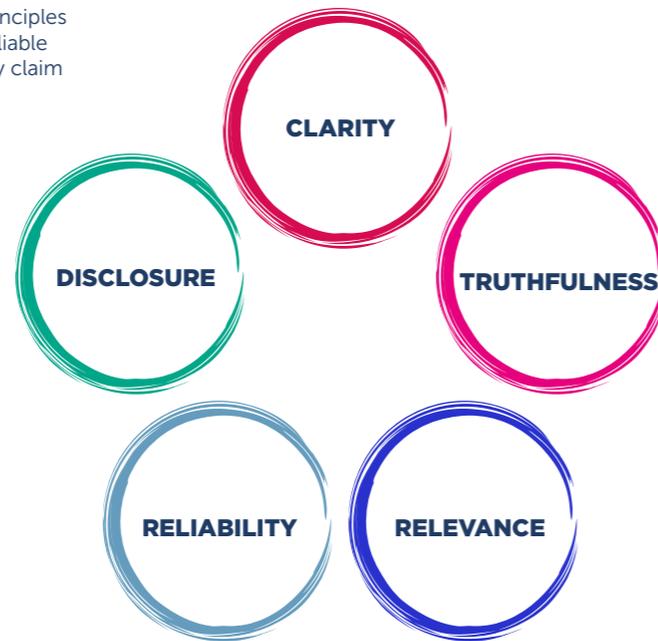
To achieve transparency for consumers, it is essential to ensure that the information about the characteristics and qualities of the products conveyed to end consumers through the claims is clear, useful and reliable.

There is minimum criteria that could be adopted for the justification of claims.

Sustainability claims should (Figure 5):

- make clear whether the claim covers the **whole product** or **only one of its components** or only to **one or more products**;
- make clear if the claim does not cover the product's entire life cycle, which **stage of the life cycle** the claim exactly covers; and
- determine the **audience for the claim**: consumer facing, including all public facing claims (**B2C**) or business to business (**B2B**).

Figure 5: Principles to build a reliable sustainability claim



Source: UNECE (2022, forthcoming)

Key recommendations on how to build reliable claims are presented below. They are based upon the analysis of international studies, European and national guidelines, and legislation.

To avoid misleading claims, claims should:

- 1. be clear and understandable;**
- 2. contain true information** but also even if factually true **they don't have to mislead consumers** by giving them a false impression on the sustainability aspects of a product, a process or an organization;
- 3. be relevant to the sustainability aspects of the product, process or business;**

4. be reliable. They need to be supported by evidence that demonstrates the content of the claim;

5. be disclosed to let the audience understand the evidence behind the claims. Claims can also go beyond simply informing the consumers on the sustainability aspects of products involving them in acting more sustainably during consumption and post consumption phases.

If a company wants to avoid greenwashing, it should rely on data, embrace credible third-party certification, and resist stretching the truth about the sustainability achievements they are making. In the end, it's vital that brands inform and educate consumers about what truly are the sustainability attributes of their product claims.

When well designed, sustainability claims can have a significant influence on consumers' purchasing behavior. Under these conditions, claims can in fact be a powerful tool to guide and shape consumer behavior towards more sustainable choices. Using a well designed claim will also be one of the most effective ways for businesses to demonstrate to consumers that they are meeting high environmental and social standards.



³⁴ See https://ec.europa.eu/environment/eussd/smgp/initiative_on_green_claims.htm

4.1.2 Eco-design principles

The ultimate goal of a circular approach is to keep products and materials in use at their highest value mak-

ing the lowest possible environmental impact throughout the life cycle.

The key principles³⁵ (Table 3) to be applied and implemented designing a circular fashion product are durability, reusability, reparability, recyclability, safety for the human health and the environ-

ment, sustainable inputs and effective use of resources.

The principles are clustered in 3 thematic macro categories: circular lifecycle, health & safety, sustainable inputs.

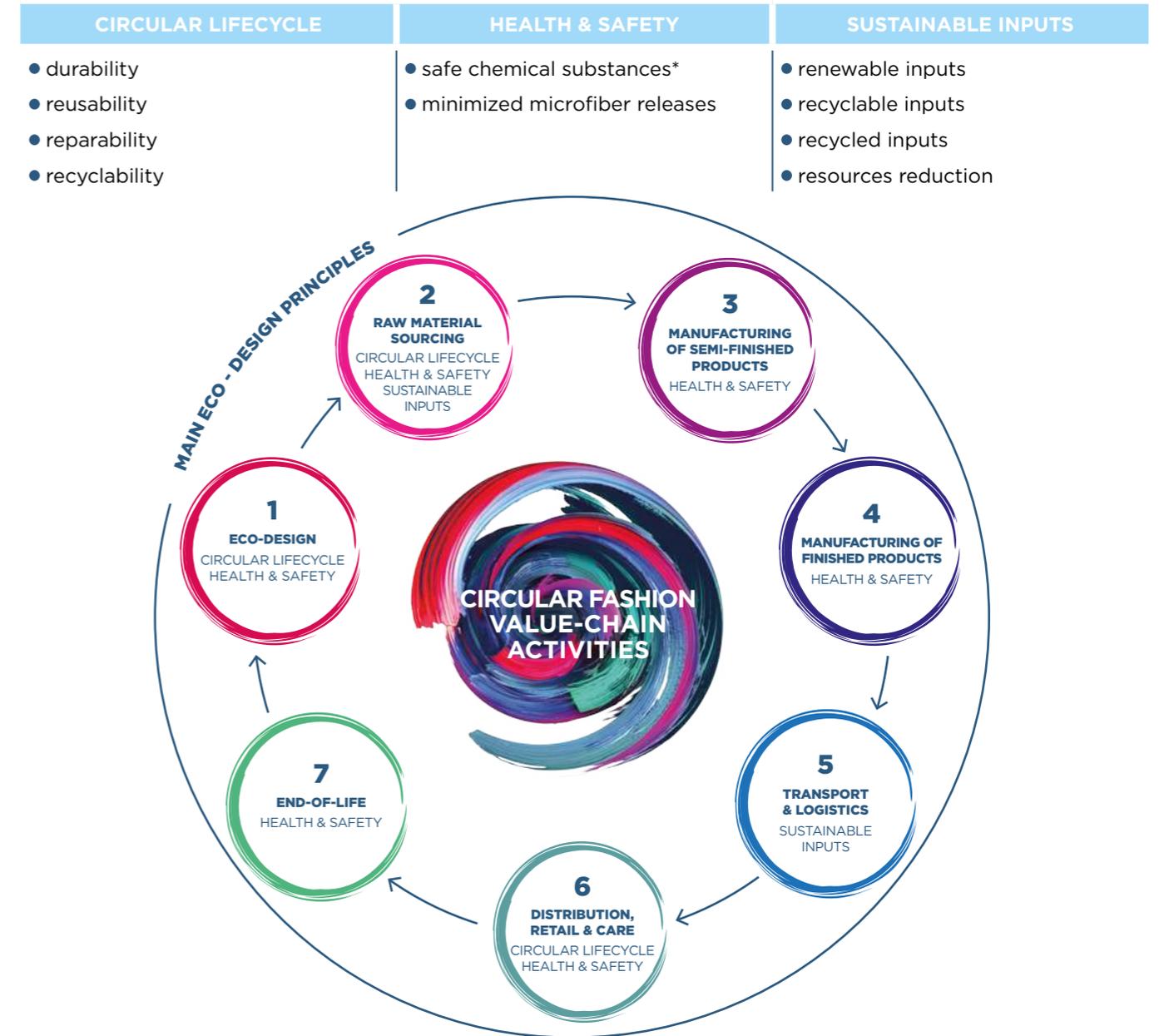
TABLE 3: ECO-DESIGN PRINCIPLES

MACROCATEGORIES	PRINCIPLES	DESCRIPTION
CIRCULAR LIFECYCLE	durability	Products are designed for longer use
	reusability	Products are designed for value retention and meaningful next uses
	reparability	Products are designed to facilitate repairing during use
	recyclability	Products are designed for material recovery and value retention
HEALTH & SAFETY	safe chemical substances	Products are designed ensuring the use of safe chemicals and phasing out substances of concern
	minimized microfiber releases	Products are designed to reduce wear and microfiber release
SUSTAINABLE INPUTS	renewable inputs	Inputs are selected prioritizing renewable raw materials and energy
	recyclable inputs	Inputs are selected prioritizing recyclable raw materials and water
	recycled inputs	Inputs are selected prioritizing recycled raw materials and water
	resources reduction	Inputs are selected making efficient use of raw materials, water and energy

³⁵ Adapted from: Ellen Macarthur Foundation (2017) "A new textiles economy: Redesigning fashion's future"; <https://archive.ellenmacarthurfoundation.org/explore/circular-design>; <https://www.epeaswitzerland.com/cradle-to-cradle>; ECOS (2021), "Durable, repairable and mainstream. How ecodesign can make our textiles circular" <https://ecostandard.org/wp-content/uploads/2021/04/ECOS-REPORT-HOW-ECODESIGN-CAN-MAKE-OUR-TEXTILES-CIRCULAR.pdf>; European Commission (2022), "Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC", https://environment.ec.europa.eu/publications/proposal-ecodesign-sustainable-products-regulation_en

The research activity on eco-design applied to the fashion value-chain led to the development of a framework to systematize the principles (Figure 6). For each circular fashion activity the main macrocategorie(s) and related eco-design principles to be implemented have been identified.

FIGURE 6: ECO-DESIGN FRAMEWORK FOR CIRCULAR FASHION



*For the "safe chemical substances" eco-design principle, UL Solutions contributed by sharing chemical management principles that have been used to define KPIs of pilot projects.

Source: SDA Bocconi Monitor for Circular Fashion Report 2022

When designing a new fashion product, aiming at sustainable innovation, the designer can leverage on design as a tool for positive impact, complementing the fundamental design principles with eco-design principles. Without compromising aesthetics and performance, a circular approach can be adopted to create products and materials that are kept in use at their highest value in a closed cycle.

When designing for durability the designer should keep in mind that **design products and systems not only for physical durability but also for emotional durability so that products are kept in use longer.**

The product should be developed to guarantee aesthetics, quality and performance for a convenient lifespan.

Products should be conceived to facilitate upgradability & adaptability and to intensify use. This means that the product is able to adapt to users' changing needs as time passes and it could be used multiple times, potentially by many different users.

To do so in the product development phase we should identify solutions to

facilitate maintenance, cleaning and repairing during the use.

Durability, reusability, reparability and recyclability are key features to ensure and maximize value retention, enabling the circular product lifecycle.

Designing products and systems for reusability means designing for value retention and meaningful next uses and integrating durable ingredients.

Reuse becomes very unlikely if garments are not made to last longer and certain weak points exist.

To support longevity, it is relevant to include multifunctionality in the product, to minimize weak points (such as seams, fasteners or accessories), prepare the product for reuse allowing adjustments and repair.

To design products and systems for reparability and upgradability the designer can leverage on modularity and easy disassembly, ensuring that essential parts of products are easily replaceable, repairable and upgradable.

To boost a circular value-chain the fashion industry is called to implement new

business models, which redistribute the products and enable repairing services.

When it's not possible to reuse or repair the products anymore, recyclability should be feasible. Only products for which there is an available, mature and large-scale recycling technology should be placed on the market.

In this case too, the implementation of business models that enable collection, sorting and recycling or remanufacturing is fundamental.

Recyclable products and systems are designed for material recovery and value retention, boosting monomateriality, ensuring the use of safe chemicals. The circularity in fashion relies on safety for human health and the environment.

The selection of safe chemicals for dyeing and finishing prevents toxic chemicals from circulating through the recycling process.

Phasing out substances of concern and microfiber release, promoting available safer alternatives, including alternative materials or designs is essential. For example, we can reduce wear and microfiber release through design, choice

of yarns and the way of spinning and weaving.

Effective chemical management and transparency regarding chemicals present in the products and used throughout the value chain are required and safety information should be disclosed also to consumers.

The last essential step for circular fashion is the effective use of resources and the transition to sustainable inputs achievable promoting sustainably and ethically sourced materials, stimulating demand for recycled and recyclable materials, aligning product design and recycling processes.

In box 2 we focus on Eco-design Principles applied to Circular Packaging.

The eco-design framework has been tested and validated through 8 pilot projects to develop circular products, leveraging on the field experience of the Monitor for Circular Fashion companies part of the community.

The implementation of the eco-design principles is key to effectively embed circularity in the products and processes to boost fashion value-chain innovation.

The eco-design approach is a holistic way of thinking based on a full integration between the criteria that should be implemented simultaneously to create circular products and systems.

The key principles are all interconnected.

To enable a circular lifecycle, it's fundamental to rely on health and safety and use of sustainable inputs.

“Activating sustainability with solid foundations is key in the fashion and luxury industries. With long-standing experience in this field, UL Solutions supports Italian brands and stakeholders within the Monitor for Circular Fashion initiative to help them manage their chemical use, reduce hazardous chemicals, test to improve eco-design, and qualify green claims to enhance transparency.”

MARIA JOSÈ MONTEAGUDO ARREBOLA
Environmental Program Manager, Retail and Consumer Products,
UL Solutions

4.2 Field research results

4.2.1. Industry-specific KPIs: testing during pilot projects

The following Pledge is a short version of the "Circular Fashion Manifesto: Best Practices Update 2022" available on the website www.sdabocconi.it/circularfashion, the commitment officially presented to UNECE by the companies of the Monitor for Circular Fashion. It answers to the UNECE "Sustainability Pledge" inviting all actors in the garment and footwear industry to take action for traceability and transparency in order to accelerate the sustainability and circularity of value chains, in line with the United Nations 2030 Agenda for Sustainable Development.

8 Pilot Projects:

- Think Leather
- Trace me
- What if bag
- Anima
- Eco-designed jeans
- Repairing T-shirt
- Component shoe
- M-Pocket

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SDA Bocconi
SCHOOL OF MANAGEMENT
SUSTAINABILITY LAB
MONITOR FOR CIRCULAR FASHION



Circular Fashion MANIFESTO

2022
BEST PRACTICES UPDATE

Find the Circular Fashion Manifesto and KPI guidelines for measurement available on the website: www.sdabocconi.it/circularfashion

Think Leather

Leather accessories made from leftovers

B2B

Leather leftovers, which would have ended up in disposal, turn into upcycling small leather goods (pen case, PC enclosure, tablet/document case) made with few components (leather, zips, thread, snaps buttons). These products have been manufactured by a social enterprise which fosters inclusive employment and creates empowerment possibilities for vulnerable people.



Discover more about this project at this [LINK](#)

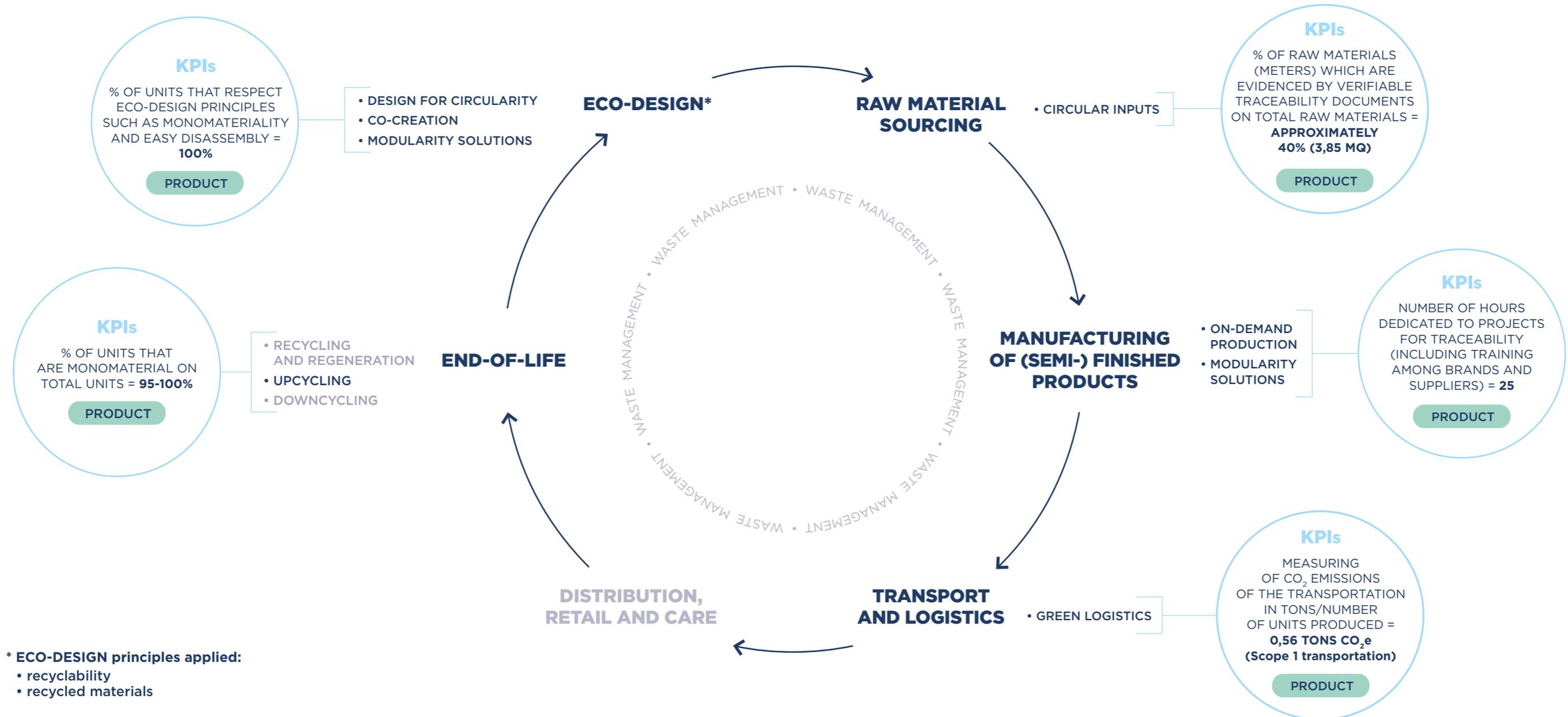
PARTNERS



“Holding Moda supports extraordinary projects that can be challenging for the organization whilst inspiring talent with open innovation, continuous training and principles of sustainability. Think Leather pilot project aims to combine environmental and social impact by adding values to each phase of the value chain, cooperating to achieve excellent results and share the relevance that sustainability, in its ESG dimensions, has in the fashion sector. The creation of this circular project goes beyond the eco-design and waste management principles of circular economy to become part of a community project that brings together individuals, companies and teams from different sectors to interconnect, exchange, influence one another in order to offer integrated contribution and solutions for transformative business.”

VERONICA BOVO
CSO Holding Moda

Think Leather: circular fashion activities and KPIs



Source: SDA Bocconi Monitor for Circular Fashion Report 2022

Eco-designed jeans

B2B

Integrated supply chain collaboration for light-washed denim jeans, made with 100% certified organic cotton, conceived using eco-design principles and tested for increased durability. Compared to conventionally designed jeans, this eco-designed pair utilizes -84% chemicals and -53% water while actively addressing hazards to worker health and safety.



Discover more about this project at this [LINK](#)

PARTNERS



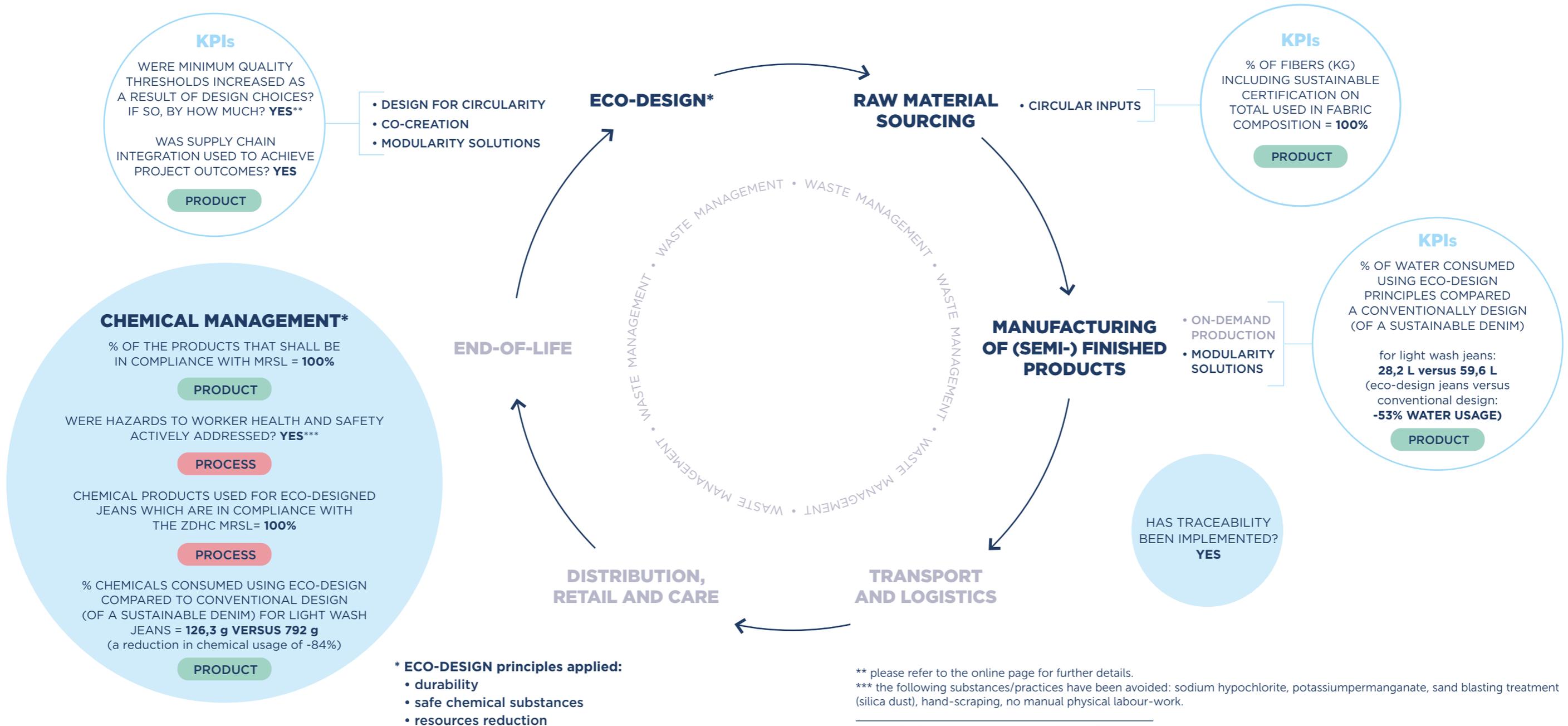
“No single stakeholder operating on its own can provide all of capabilities and factors needed to scale circularity; thus, it is key to create pre-competitive space dedicated to collaboration among companies to accelerate the implementation of eco-design principles and to achieve a deeper and consistent level of integration within supply chain.”

CHRISTIAN TUBITO
Director Kering Material Innovation Lab

“A lesson learned when developing our sustainability claim was that only having verified evidence in hand to back up our statement was not enough. Ultimately, we had to create several iterations of our claim until we developed one that was also clear, concise, accurate, and understandable. In other words, it is not a cut-and-dry process but requires thoroughness and the utmost attention to detail.”

DANIELLE ARZAGA
Sustainability Manager
Candiani Denim

Eco-designed jeans: circular fashion activities and KPIs



KPIs
WERE MINIMUM QUALITY THRESHOLDS INCREASED AS A RESULT OF DESIGN CHOICES? IF SO, BY HOW MUCH? **YES****
WAS SUPPLY CHAIN INTEGRATION USED TO ACHIEVE PROJECT OUTCOMES? **YES**
PRODUCT

- DESIGN FOR CIRCULARITY
- CO-CREATION
- MODULARITY SOLUTIONS

ECO-DESIGN*

RAW MATERIAL SOURCING

- CIRCULAR INPUTS

KPIs
% OF FIBERS (KG) INCLUDING SUSTAINABLE CERTIFICATION ON TOTAL USED IN FABRIC COMPOSITION = **100%**
PRODUCT

KPIs
% OF WATER CONSUMED USING ECO-DESIGN PRINCIPLES COMPARED A CONVENTIONALLY DESIGN (OF A SUSTAINABLE DENIM)
for light wash jeans: **28,2 L versus 59,6 L** (eco-design jeans versus conventional design: **-53% WATER USAGE**)
PRODUCT

MANUFACTURING OF (SEMI-) FINISHED PRODUCTS

- ON-DEMAND PRODUCTION
- MODULARITY SOLUTIONS

HAS TRACEABILITY BEEN IMPLEMENTED?
YES

END-OF-LIFE

DISTRIBUTION, RETAIL AND CARE

TRANSPORT AND LOGISTICS

- * **ECO-DESIGN principles applied:**
- durability
 - safe chemical substances
 - resources reduction

** please refer to the online page for further details.
*** the following substances/practices have been avoided: sodium hypochlorite, potassiumpermanganate, sand blasting treatment (silica dust), hand-scraping, no manual physical labour-work.

Source: SDA Bocconi Monitor for Circular Fashion Report 2022

Trace me

B2B

Shopper made with recovered fabric in traceable wool fibres, designed for recycling, manufactured in Italy through fully traceable production steps and assembled by an Italian social enterprise.



“The Trace me shopper, created in collaboration with the social enterprise Quid, unites some of the pillars of Vitale Barberis Canonico’s philosophy: transparency and traceability of the supply chain, circularity and reuse of textile by-products and 100% Made in Italy production.”

LUCIA BIANCHI MAIOCCHI
Sustainability Manager Vitale Barberis Canonico



Discover more about this project at this [LINK](#)

PARTNERS



Repairing T-shirt

B2C

T-shirt made of certified 100% organic cotton yarn and upcycled woven patches from waste, fully traceable from farm to shop. Designed to minimize environmental and social impacts and to last for a long time. Repair your t-shirt with the spare patch or return it to the shop for repairing or creative mending services.



Discover more about this project at this [LINK](#).

PARTNERS



C R U L E



“It has been a pleasure to cooperate with our suppliers in building up a totally traced product from field to shelf and also fun to follow designer’s oddity in adding durability contents by means of patches and creative mending post-sales services!”

DARIO CASALINI
CEO Maglificio Po srl - Oscalito 1936

“Collaborating in this project was a really positive experience, since we demonstrated that sharing knowledge and expertise between companies of the same sector can lead to great ideas and excellent results. We created a sustainable product that can be 100% traced and maintains the quality and durability that characterizes our fabrics.”

STEFANO ALBINI
President Albini Group

What if bag

B2C

The bag is designed and manufactured by RadiciGroup, OVS and Quid. It is made with one fabric, 100% recycled polyamide 6, certified by GRS. It can be recyclable thanks to the thermoplasticity of the material.



“The pilot project was a challenging experience because we had to build an entire new supply chain for an innovative product. The take-away from this experience is that it is urgent to build a positive cooperation between players with a common vision to scale up a circular system of production.”

SIMONE COLOMBO
Head of Corporate Sustainability
OVS Spa

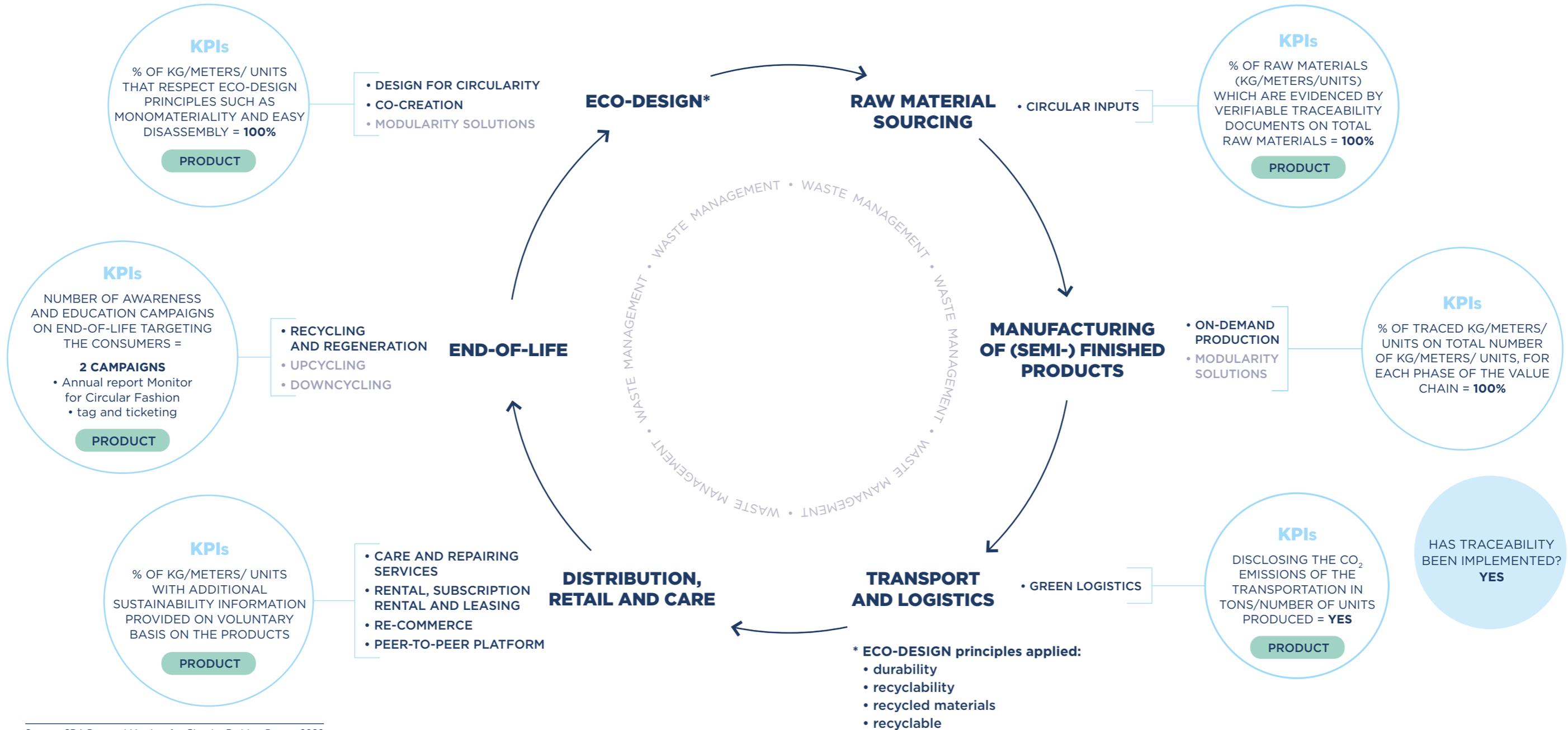


Discover more about this project at this [LINK](#)

PARTNERS



What if bag: circular fashion activities and KPIs



Source: SDA Bocconi Monitor for Circular Fashion Report 2022

Component shoe

B2C

This shoe, made using only five components, can be easily assembled at home. The upper is made of 100% upcycled cotton denim and cotton thread. The sole is made of natural FSC certified materials. The upper is secured to the sole by a lace made of a blend of cotton and TENCEL™. Fewer overall components enable easy disassembly, reparability, and recyclability at the end-of-life, helping to create a shoe designed with circularity principles.



Discover more about this project at this [LINK](#)

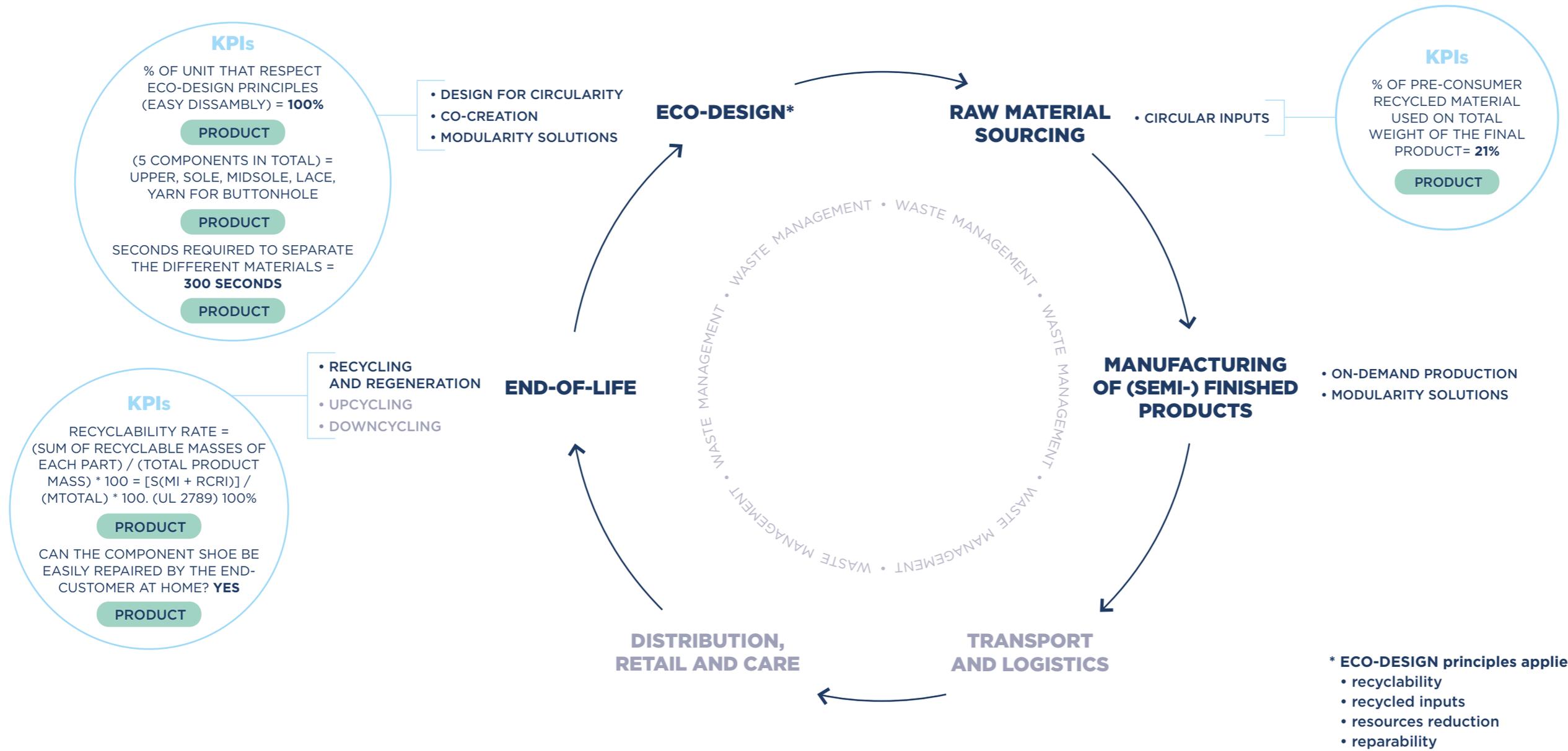
PARTNERS



“Circular Economy is key to decrease the use of natural resources and reduce waste. Designing products with fewer components that are easy to substitute can drive the change in educating consumers and manufacturers. Combining recyclability, use of recycled inputs, resources reduction, reparability and durability, in performances and timeless style, represents a concrete effort. Our component shoe is designed to embrace these eco-design principles.”

MARCO GUAZZONI
Vibram Sustainability Director

Component shoe: circular fashion activities and KPIs



Source: SDA Bocconi Monitor for Circular Fashion Report 2022

Anima

Double skin for waste saving

B2C

Anima is a bi-material backpack composed of 100% recycled polyamide fabric, made of 100% recycled polyamide yarn GRS certified and in compliance with Oeko-tex standard 100 for responsible manufacturing, and 100% recycled rubber coming from ISO-compliant standard plants.



Discover more about this project at this [LINK](#)

PARTNERS



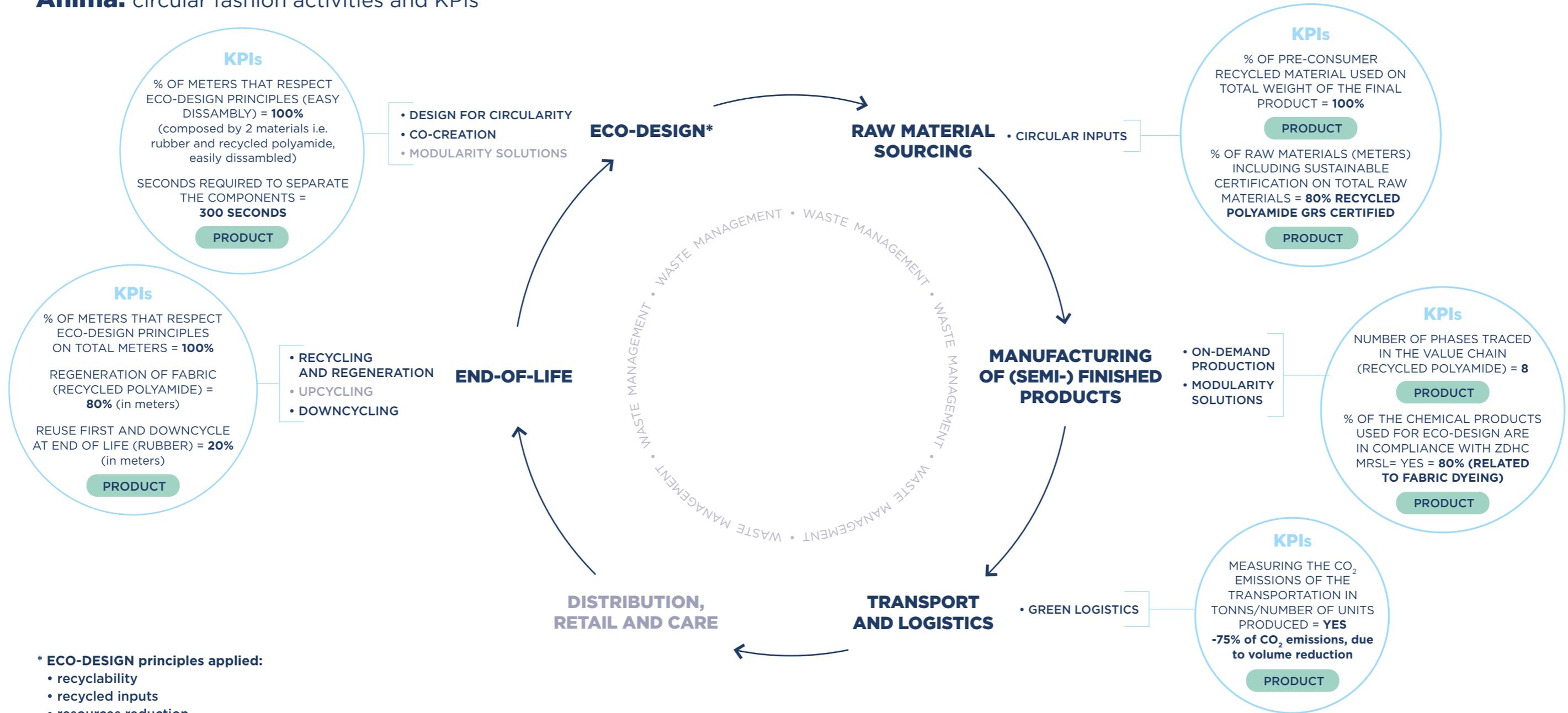
“In order to achieve a truly and reliable circular business model in textile business, it is crucial to start upstream, to be able to match eco-design principles selecting the right raw materials. As well as choosing the proper fabric is fundamental for product design, choosing the right fiber is fundamental for eco-design. RadiciGroup’s long experience as ingredient brand brought its know-how to the Monitor to provide solutions to several pilot projects requirements in terms of durability, recyclability, performance and environmental impact.”

CHIARA FERRARIS
Head of Corporate Communication & External Relations RadiciGroup

“We are aware of the value of partnering with the Monitor to bring innovation through the experiential contribution of each participant. Developing a circular product has been the 2022 challenge. A choral project involving our companies in the choice of materials, design, and development of prototype, filtering each phase through the KPIs and creating trustable claims to promote the initiative.”

SILVIA MAZZANTI
Sustainability Manager Save The Duck

Anima: circular fashion activities and KPIs



Source: SDA Bocconi Monitor for Circular Fashion Report 2022

M-Pocket

B2B

Completely recyclable tablet pockets, produced with fabric production waste from industrialized processes. The pocket is produced with recycled and/or byproduct virgin wool by Manteco and virgin or recycled polyamide by RadiciGroup, depending on the ongoing production.



Discover more about this project at this [LINK](#).

PARTNERS

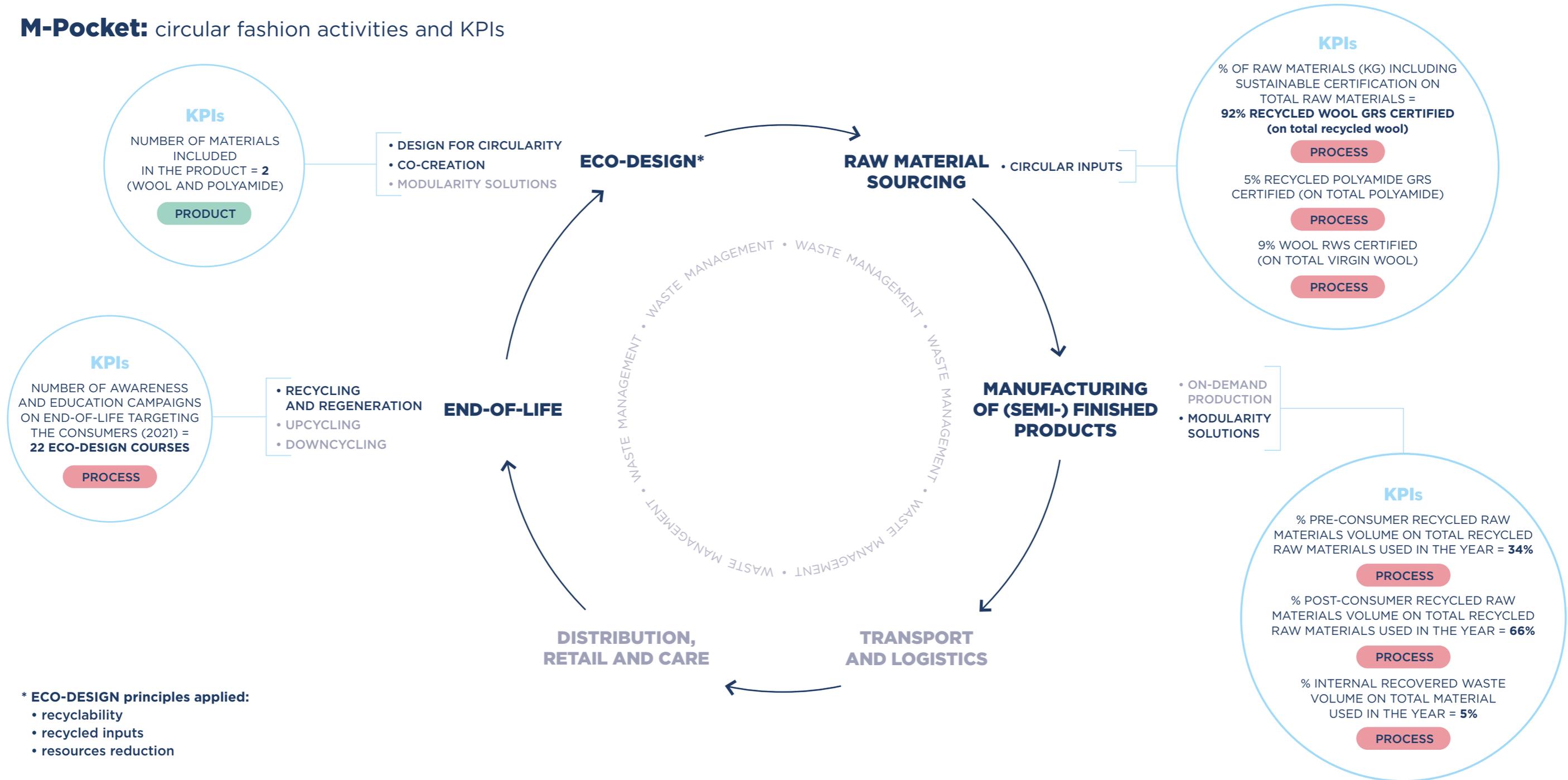
MANTECO®



“Adopting and increasing the circular economy in fashion could restore a balance that the industry’s lost control of and worsened over the last decades. If the fashion industry becomes circular, it would significantly reduce all kind of stress on natural resources, animals, and plants, by also minimizing waste and pollution. We were born with wool recycling and along the years we have enhanced circularity in our business, getting to a point where more than 500 fabrics of our collection are designed to be recycled; we recover and reuse all our wool production leftovers and offer take back programs for pre-consumer waste to our customers. This pocket is a great example of value capture along the supply chain, through which valuable materials are not only recovered, but also used to create a useful good, which is also recyclable.”

MATTIA TROVATO
Head of Marketing Communications Manteco

M-Pocket: circular fashion activities and KPIs



Source: SDA Bocconi Monitor for Circular Fashion Report 2022

UNECE “Sustainability Pledge”

The Sustainability Pledge (see Figure 7) is a result of the UNECE project ‘Enhancing Transparency and Traceability of Sustainable Value Chains in Garment and Footwear’ that is being implemented with the UN/CEFACT, in collaboration with the International Trade Centre (ITC) and with funding from the European Union. The goal of the project is to establish a mechanism that enables governments, industry partners, consumers and all other relevant stakeholders to make risk-informed decisions and achieve accountability for sustainability claims.

Asserting and verifying sustainability claims in the garment and footwear sector are set to become easier thanks to a toolkit of policy recommendations, implementation guidelines and standards endorsed by UNECE member States that provide traceability and transparency solutions for tracking any garment or item of footwear from raw components to point of purchase.

The UNECE toolkit delivers solutions for generating an immutable record of provenance and composition for any item of clothing or pair of shoes. Armed with such information, consumers, regulators and companies themselves can check claims around sustainability and ethical production. Greater traceability and transparency can also contribute to efforts towards building a cir-

cular economy, as prioritised by the European Union. When precise information on product composition is made available, goods can be more

easily recycled keeping materials in use and practices that generate waste, pollution or damage the natural environment cannot be hidden from regulators.

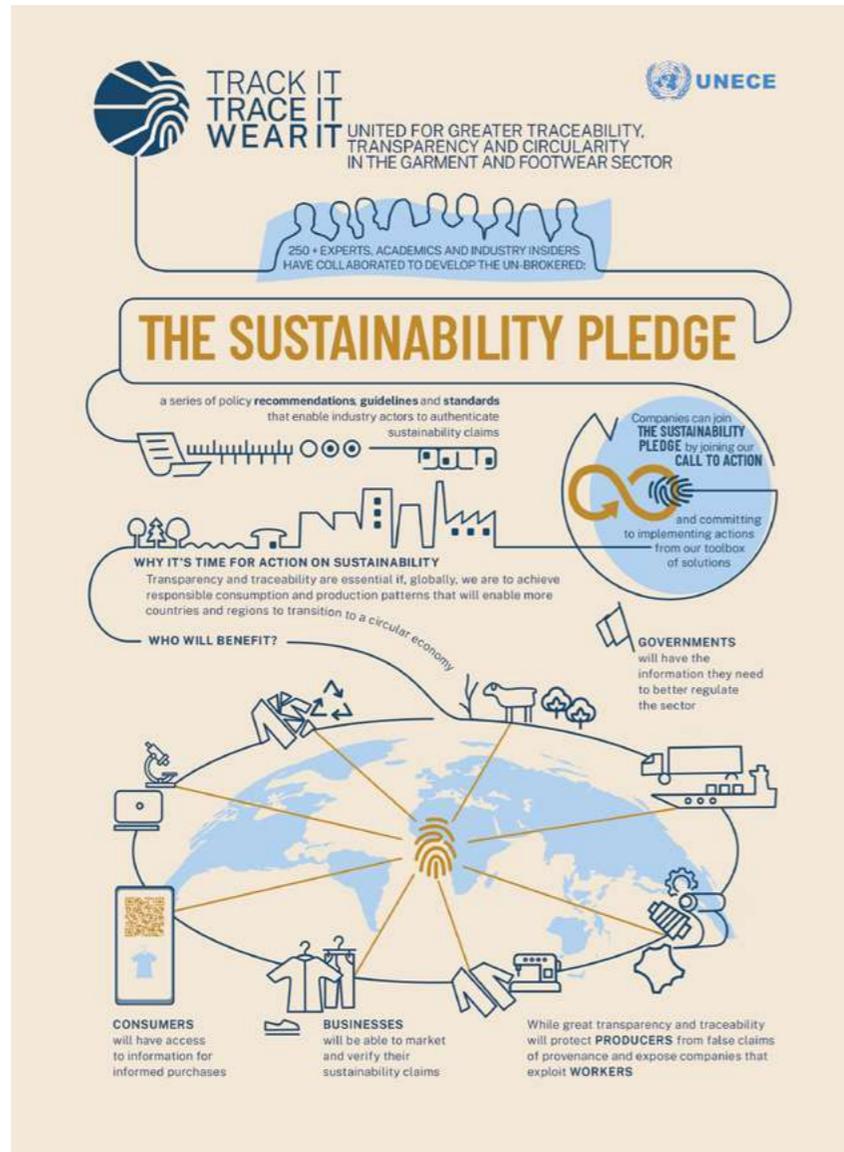


Figure 7: The UNECE Sustainability Pledge.
www.thesustainabilitypledge.org

“Traceability and transparency are at the core of UNECE’s work to advance the circular economic transition. However, to achieve systemic change in the fashion industry, every action in the right direction matters.

We are delighted to see the great achievements of the Monitor for Circular Fashion in our UNECE Sustainability Pledge community. This is another step forward to accelerate transformation at scale and to join forces, for the sustainable clothing industry of the future.”

MARIA TERESA PISANI
(OIC) Chief Trade Facilitation Section and Lead of “The Sustainability Pledge”

“Circular economy is about cooperation. This system innovation is only feasible by leveraging a systemic process of dialogue, where all expectations of the various stakeholders are integrated into the formulation of organizational strategies, including voiceless parties and collaborating with the supply chain to create value for all stakeholders.

This will ensure an advancement towards greater circularity and more responsible business conduct, communicating sustainability information to the final consumer through clear and transparent claims.”

GIORGIO RAVASIO
Country Manager Vivienne Westwood Italy

BOX 1 - AGGREGATE DATA ANALYSIS ON CORPORATE AND ENERGY KPIs ALONG THE CIRCULAR FASHION VALUE CHAIN

Survey results from ingredient brands and brands & retailers of the Monitor for Circular Fashion

The following findings may be highlighted from Enel X survey results³⁶.

CORPORATE KPIs

The Corporate Circularity Analysis goes through the value chain of companies, from the design phase to end-of-life management of products, identifying key strengths and opportunities from the perspective of a circular growth path.

Starting with **procurement**, i.e., the purchasing policy of products and suppliers, only 33% of analysed companies already include minimum sustainability standards in their tender requirements. However, more than 50% prefer suppliers that can provide products with Sustainability or Circular Economy certifications (e.g., LCA, C2C, etc.). To guarantee a transformational change towards circularity, brands & retailers should keep partnering even more with ingredients to promote the diffusion of minimum threshold criteria in tenders (e.g., minimum percentage of recycled material content) while encouraging the achievement of sustainability certifications.

In the selection of **input materials**, almost all companies choose to purchase materials with a minimum percentage from recycling, while less than half of them even use second-hand and/or remanufactured materials. A more widespread use of regenerated input materials would be desirable and could be achieved by enhancing take-back initiatives for end-of-life products and leveraging emerging platforms that are able to match the demand and supply of by-products and secondary raw materials.

Moving onto **production waste**, almost all companies manage to recover and valorise their own production waste internally, and some even manage to valorise it externally, thus "closing the loop" through industrial symbiosis. To fully exploit this key opportunity for circularity growth, companies should consider more process integration with suppliers and other potential partners.

To date, none of the analysed companies have switched nor have planned to switch to sustainable transport solutions for **logistics and distribution**. The situation is similar with regard to employee mobility, with only one company providing electric vehicles as part of its company fleet. The adoption of low carbon mobility solutions is an immediate means of positively impacting the environment, reducing greenhouse gas emissions, and promoting the spread of sustainable culture and habits within the organization.

As for **sales** models, most analysed companies already promote second-hand and/or regenerated products sales. On the other hand, only one of them has already approached product-as-a-service, a model that could be further developed in the next years along with the efforts of the companies to increase end-users' awareness and education on circularity.

³⁶ Enel X has produced 11 Circular Economy Reports, of which 8 completed in 2021 and 3 in 2022, to generate the aggregated data analysis on Corporate and Energy KPIs. Source: Enel X Monitor for Circular Fashion Survey, 2021-2022.

In the **post-consumption** phase, almost the entirety of the sample under analysis has already launched initiatives and solutions to extend the useful life of their products through repair or take-back. Finally, looking at the maturity of Sustainability and Circular Economy strategies, it is clear that the majority of the companies have mostly defined high level strategies and qualitative objectives for circularity in their industrial plans, but only few of them have set tangible and measurable targets and goals (e.g., reduction of material and energy consumption, mitigation of CO₂eq emissions, etc.) to be monitored over time.

"Sustainable inputs, both in the form of materials and energy, are the main drivers of a circular fashion industry. The partners of the Monitor for Circular Fashion are leading the materials innovation for circularity and each have the opportunity to further improve their energy circularity through renewables, efficiency and other innovative solutions reducing in the same time their impact in terms of CO₂." (Francesco Venturini, CEO Enel X)

ENERGY KPIs³⁷

With the fashion industry being one of the most polluting industries globally, energy can play a key role to achieve full circularity and decarbonization. As a matter of fact, the analysis carried out on the companies and their related sites shows that energy circularity is a common goal, but that only a few preliminary steps have been taken in this direction so far.

ENERGY INPUT. When choosing their energy sources, almost half of the surveyed companies purchase renewable energy with certified Guarantees of Origin. Renewable energy self-consumption, which represents a further step towards energy circularity, has been adopted by only two companies, which are equipped with photovoltaic systems.

Given the high energy requirement, especially from manufacturing companies along the fashion and textile supply chain, it would be preferable to opt for on-site production systems (e.g., photovoltaic panels) or, if not feasible, for the purchase of certified energy from renewable sources.

A very interesting opportunity from a circular energy point of view are Renewable Energy Communities, a program that none of the analysed companies have currently joined. Especially for companies that already purchase certified green electricity, it is strongly recommended to switch from buying from the grid to buying from off-site local generation, whenever technically feasible.

³⁷ The Energy Circularity Analysis was carried out on a mix of production sites, offices and mixed buildings.

BOX 1 - AGGREGATE DATA ANALYSIS ON CORPORATE AND ENERGY KPIs ALONG THE CIRCULAR FASHION VALUE CHAIN
cont.

ENERGY EFFICIENCY AND MANAGEMENT. From the point of view of energy efficiency, almost half of the companies in scope are equipped with systems to monitor their consumption. However, it is important to emphasise that only one of the companies monitors 100 per cent of its plants at a specific level (with metering systems for each energy asset).

Monitoring is a fundamental aspect from the point of view of energy circularity, as it guarantees the efficient use of energy loads and allowing prompt intervention as part of the general maintenance process. Mapping consumption allows companies to both monitor their consumption as well as optimise them.

Regarding the Energy certifications, only one company, however, claims to be ISO 50001 certified. Adopting energy certification (e.g., ISO 50001) and carrying out energy audits can bring significant benefits to companies, both in terms of accurate management of internal processes and in terms of transparent communication to their external stakeholders.

ENABLERS. Circular energy enablers include innovative solutions facilitating circular energy behaviours. For example, the presence of electric vehicle charging infrastructures encourages the diffusion of low carbon mobility solutions, both among employees and site visitors (e.g., partners, suppliers, clients, etc.). As of today, only one of the analysed sites has already installed charging stations in its car parks.

Another example of circular energy enablers are grid flexibility services, such as Demand Response, which none of the companies in scope have joined despite enabling to modulate on-site energy consumption and/or production in order to address peaks in electricity supply or demand, and thus allowing for greater grid flexibility and stability, more efficient use of resources, and greater exploitation of renewables.

How a circular energy transition can mitigate the climate impact of fashion

Renewable Energy and Energy Efficiency to incentivize Decarbonization in the Fashion Industry

The fashion industry is among the most polluting in the world, contributing to up to 10% of global greenhouse gas (GHG) emissions as a result of long supply chains and energy intensive production processes. To cut down on this huge amount of emissions, fashion companies have been extensively working on product design, materials innovation, circular value-added initiatives and services (e.g., take-back, repairs, etc.), and more sustainable supply chains and sales models.

A 2020 study³⁸ shows how energy also plays a key role in the decarbonization path of fashion companies, with **63% of the fashion industry emissions reduction potential relying on energy sources**, its use and management, of which:

- 45% of emission savings can be derived from energy efficiency solutions;
- 39% is enabled by the transition to renewable energy sources;
- the remaining 16% refers to the electrification of energy consumption.



³⁸ McKinsey & Company (2020) "Fashion on Climate. How the Fashion Industry can urgently act to reduce its greenhouse gas emissions".

BOX 1 - AGGREGATE DATA ANALYSIS ON CORPORATE AND ENERGY KPIs ALONG THE CIRCULAR FASHION VALUE CHAIN
cont.

Energy efficiency and renewables are two cornerstones of circularity and decarbonization, minimizing energy waste while maximizing the exploitation of energy sources that naturally renew, or replenish themselves.

Figure 8 is showing the energy efficiency and renewable energy solutions that fashion companies have available.

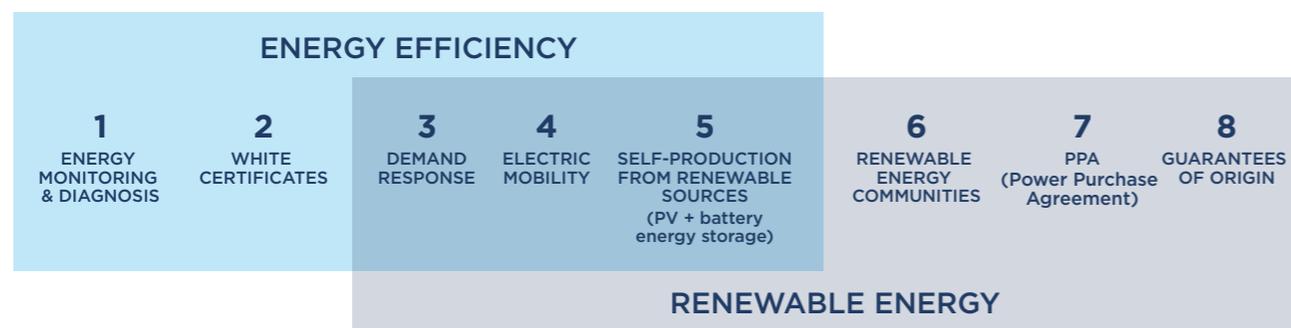


Figure 8: Energy efficiency and renewable energy solutions

The most popular and immediate step to reduce GHG emissions is energy efficiency, enabling to reduce the overall energy consumption of a site or company.

1 Fashion companies can take this first step starting with **Energy Monitoring**: Energy Monitoring Systems (EMS) provide companies with consolidated data and KPIs on their energy consumption patterns, helping them make informed energy management decisions and maximize efficiency. EMS usually acquire and process data via software, leveraging meters or sub-meters located on-site, and can detect faults and suggest interventions in real time. EMS are often used in **Energy Diagnosis**, an in-depth analysis, that is mandatory for large and energy intensive companies, assessing the energy consumption of a production system through site inspections, extensive data collection, utilities mapping and load distribution analysis. Through this diagnosis, companies can identify improvement measures and prioritize energy efficiency interventions, therefore reducing the amount of CO₂ emitted into the environment.

2 Energy diagnosis, as well as being a guide to optimize energy consumption, is also a pre-requisite to obtain Energy Saving Certificates. Energy Saving Certificates, also known as **White Certificates**, are negotiable securities issued by an authorized body that certify the achievement of energy savings through efficiency-enhancing interventions and projects³⁹. Overall, this is an extremely interesting solution for companies that are looking for financial support to upgrade their own production technology while reducing energy consumption and contributing to the mitigation of CO₂ emissions.

3 Companies may also contribute to a greater grid stability and more efficient integration of intermittent renewable resources into the generation mix through **Demand Response**, an innovative service that allows commercial and industrial consumers to access the local Dispatching Services Market, by modulating their own energy consumption or even on-site

³⁹ In Italy, State-owned energy service system operator GSE (Gestore Servizi Energetici) recognizes and issues a White Certificate for each tonne of oil equivalent (toe) saved, and each White Certificate is currently worth €260. Examples of interventions eligible for White Certificates in Italy that are applicable to the fashion industry are: replacement of boilers with methane gas or heat pumps, new installation or replacement of heat recovery systems from fumes, dryers, compressed air utilization systems, lighting, textile spinning machines.

energy production, to mitigate peaks in electricity supply or demand. As a result, grid operators and utilities avoid the cost of having to build new plants to cope with peak demand, while companies benefit by turning their flexibility into a new revenue stream, as well as from lower energy costs when they use the grid during off-peak hours.

4 **Electric Mobility**, applied to both goods and people logistics, represents another opportunity for companies to contribute to a sustainable energy transition by electrifying their fleets and installing charging infrastructure on their sites. EVs not only are more energy efficient than fossil fuel vehicles, but can drastically decrease the climate impact of mobility if powered by renewable energy sources (i.e., if the charging infrastructure is powered by self-generated solar power or green certified energy).

5 Moving towards renewable sources, for companies with available surface area and investment capacity, the installation of **Photovoltaic Systems** for green energy self-consumption and storage is undoubtedly the most impactful step towards CO₂ reduction. Thanks to self-consumption, the cost of the energy bill goes down, the risk of energy price fluctuations is mitigated, CO₂ emissions are lowered, and various forms of tax incentives and financing are guaranteed. Renewable energy sources, however, are by nature inconstant: this is why it always makes sense for companies to combine photovoltaic systems with **Battery Energy Storage**, avoiding the loss of self-generated solar energy during off-peak hours.

6 Furthermore, for companies that already have or plan to equip themselves with self-consumption and storage systems and would like to partner with local stakeholders to improve the territory's sustainability, **Renewable Energy Communities** can be an extremely innovative solution. Renewable Energy Communities are associations of companies, commercial activities and citizens who decide to join forces to equip themselves with one or more plants for the shared production and self-consumption of electricity from renewable sources, achieving economic, environmental, and social benefits⁴⁰.

7 A similar, yet less collective approach to renewables, is PPA (**Power Purchase Agreement**). PPA is dedicated to companies that intend to feed their energy consumption with renewable sources but do not necessarily have the investment capacity to purchase a photovoltaic system, despite having an available area on their site: throughout the duration of the contract, which can vary from 10 to 20 years, energy operators like Enel X guarantee that the company will benefit from an advantageous price on the electricity produced by the plant installed on its site for free, and manage the ordinary and extraordinary maintenance of the plant; at the end of the contract, the ownership of the plant is transferred to the company free of charge. This formula allows companies to contribute significantly to the energy transition process, already underway in modern production systems, and to increase their environmental sustainability.

8 Last but not least, companies facing technical constraints that hinder the implementation of previously mentioned solutions, but still wanting to reduce the environmental impact of their energy consumption, shall request their energy supplier to provide 100% green energy, certified through **Guarantees of Origin** (GO). GOs are electronic certifications that attest the renewable origin of the sources used by qualified energy plants.

In conclusion, sustainable inputs, both in the form of materials and energy, are the main drivers of a circular fashion industry. As described in this chapter, fashion companies already have multiple energy efficiency and renewable energy solutions at their disposal, with the opportunity to define impactful strategies and further upgrade their technologies while reducing CO₂ emissions.

⁴⁰ In Italy, the energy produced by such communities benefit from an economic subsidy issued by GSE, while surplus energy can be sold to GSE at market price and is fed into the grid.

BOX 2 - ECO-DESIGN PRINCIPLES FOR PACKAGING MATRIX

Is it possible to speak about a product, without talking about its packaging?

The pack, the material, the ribbon, but also the design and the end-usage, are themselves part of the final product for the end user. In a context that is increasingly sensitive to both sustainability and circularity, the packaging choices also determine a key factor in a company strategy.

For one in three end users, in addition to environmentally friendly production methods, packaging plays a fundamental role in determining the overall judgment⁴¹. Moreover, claiming a sustainable product inside and yet having a non-sustainable pack, indicates inconsistency for the customer.

European companies are already obliged to act according to the latest decrees and directives: to mention a few, according to Directive 94/62/EC, by 2025, at least 65% of the weight of all packaging waste will have to be recycled, rising 30% by 2030 (1. Direttiva UE 2019/904⁴²; 2. Direttiva 94/62/CE⁴³), while the latest legislative Decree n. 116/2020 has made mandatory environmental labelling of products packaging, intended for consumers in Italy, with the aim to provide the appropriate disposal information for each packaging type.

But are companies and their suppliers ready to apply these changes? What are the main practices to act with ECO and Sustainable choices?

Bip and Monitor for Circular Fashion worked together to define and set a path for packaging with eco-design principles for retail companies. Bip designed and submitted an online survey to selected project partners (e.g. brands & retailers), and thanks to its expertise on the topic, a best practice matrix was created starting from the partners' answers.

The Table 4 (page 98) explains the practical actions that both B2B and B2C companies should apply in order to make the packaging of their products sustainable and environmentally friendly.

To better clarify the analysis perimeter, B2C packaging means those delivered to the end-user and containment of the final product, usually called *primary* Packaging with fancy and branded design, while B2B packaging includes the *secondary* or tertiary pack, which are functional to collect, store and transport products throughout its own value chain: this difference generates in turn some discrepancies in suggested application methods for the advice presented.⁴⁴

⁴¹ <https://www.nomisma.it/servizi/osservatori/osservatori-realizzati-ad-hoc/osservatorio-packaging/>
<https://italiani.coop/download/rapporto-coop-2021-versione-definitiva/>

⁴² <https://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32019L0904&from=LV>

⁴³ <https://eur-lex.europa.eu/legal-content/IT/LSU/?uri=CELEX:31994L0062>

⁴⁴ <https://www.airseacontainers.com/blog/primary-secondary-tertiary-packaging-guide-to-3-levels-of-packaging#:~:text=Summary%3A,containers%20for%20storing%20and%20warehousing>

The information collected during the survey has been divided into four analysis areas:

Strategy

To advise on the initial stages of the Brand solutions for pack

Material, Procurement, Transport

To guide on material choices and providers, with a hint on Transport & logistics advice

Traceability & Transparency:

To deal with the internal and external communication of the firm's best practices

End-of-life

To address Brand and end user behavior of the packaging management

While the analysis allowed Bip to collect some general recommendations on best sustainability practices applicable equally to different businesses, some further exploration on specific topics required a differentiation in practical actions between B2B and B2C business.

This internal analysis is fundamental in order to obtain an impacting result with a real effect and positive consequences on the environment. The matrix can be used to understand how these different options can couple with the strategy, the core business of the company and the messages to be conveyed.

It would be ideal to obtain an effective sustainable packaging at 360°, reviewing the processes from the beginning till the end of the supply chain, redesigning the concept to comply with new green standards, including the main stakeholders (e.g. the suppliers that companies rely on) and the chosen materials.

The most important factor is the commitment and the willingness to start, to take action: brands can start with smaller steps and key objectives, always being transparent with their stakeholders. After all, just getting started is half the task!

"Throughout the value chain, packaging covers both functional/protection and aesthetic/marketing purposes. To ensure consistency with a sustainable product, the pack itself should comply with appropriate sustainability principles. The recommendation is to set up a long-term strategy for the overall packaging, and then apply the most suitable advice, based on the context. Otherwise, the most important factor is commitment and the willingness to start, to take action". (Francesca Pilla, Bip Senior Consultant, Sustainable Fashion Specialist; Sofia Giudice, Bip Consultant, Packaging Development Specialist; Elvira Maniscalco, Bip Manager at the Sustainability Practice).

TABLE 4 - ECO-DESIGN PRINCIPLES FOR PACKAGING MATRIX

	WHICH ADVICE SHOULD BE FOLLOWED WHEN CHOOSING A SUSTAINABLE PACK?	“HOW TO” PROPOSAL - B2C	“HOW TO” PROPOSAL - B2B
STRATEGY	<ul style="list-style-type: none"> Define a clear strategy balanced with functionality and environmental aspects of the product Define clear sustainability KPI's and objectives for your pack Preference to be given to circularity principles approach products Choose minimal approach for packaging material 	<ul style="list-style-type: none"> co-Design with internal & external stakeholders since the first phases eco-Design session since the beginning, including partners and providers when possible Promote standard packaging / perfect fit* <p>*Perfect fit: provides a flexible answer to portioning and preservation</p>	<ul style="list-style-type: none"> Support standardization and impact mitigation Refer to CONAI simplified LCA to verify packaging product impact
MATERIAL & PROCUREMENT	<ul style="list-style-type: none"> Choose recycled and recyclable material Preference to be given to natural origin, excluding virgin materials Apply green procurement policy to ensure correct choices Introduce technologies in reusable packaging (sensors, RFID, GPS) Preference to be given to mono-material packaging or produced via 3D printing Reduce the weight and volume of packaging's materials – without compromising the technical functions (resistance, straight..) 	<ul style="list-style-type: none"> For plastic, choose bioplastic from renewable biomass sources For paper, choose “packaging corrugated”, recyclable and biodegradable For wood, choose virgin wood fiber obtained from sustainable sources Request LCA assessment for the selected product Preference to be given to a packaging that can be assembled and folded up Choose Couriers with Green Carrier “Certification”** <p>**Green Carrier commitment to achieve decarbonization or compensation actions</p>	<ul style="list-style-type: none"> Materials: Same as per B2C Partner with supplier that optimizes loads to reduce mileage, emissions, and carbon footprint Reduce all not indispensable/ mono-usage plastic Recycle or make compostable all the plastic drapes/pack (e.g. Re-pack to rent) Partner with suppliers to co-design packaging to optimize logistics processes (e.g., shelf space) Attention to absence of common use harmful chemicals Transparency, traceability and certifications as key factors when choosing the carrier Transport: same as per B2C
TRANSPORT	<ul style="list-style-type: none"> Setup a sustainable strategy for transport and logistics processes Reduce shipments, promoting packages batch optimization and larger delivery Always check the safety application of all regulations for the relative connection to the packaging 		
TRACEABILITY & TRANSPARENCY	<ul style="list-style-type: none"> Look for certified materials and certified suppliers Check regulatory measures Define clear messages for the end user on the information of the pack and on the final usage Preference to be given to the final pack with clear volumes of the related CO₂ consumption 	<ul style="list-style-type: none"> Certificate***: <ul style="list-style-type: none"> GRS and GOTS for textile material, chrome-free for leather goods FSC (mix, 100%, recycled) for paper materials Ecolabel for environmentally-friendly products RCS for the presence and quantity of recycled material in the finished product OCS for textile products made from natural, vegetable or animal fibres. Communicate the pack features through dedicated channels (e.g. website, socials) Request documentation to prove suppliers' traceability & transparency Place a QR code linked to a web page with all the instructions on how to dispose of the packaging 	<ul style="list-style-type: none"> Certificate: same as per B2C Print the information outside the packaging or include it on the various invoice Structure a CO₂ weight collection process
END OF LIFE	<ul style="list-style-type: none"> Provide clear instruction on packaging final destination Define a waste management: design for dis- and reassembly, dematerialization, upcycling and reverse logistics 	<ul style="list-style-type: none"> Provide to the end user clear instruction on how to dispose the packaging (effective communication and infographic) Suggest to the end user how to “creatively” reuse the packaging 	<ul style="list-style-type: none"> Reuse in the logistics flow as much as possible the packaging from external stakeholders/suppliers Structure upcycle processes for logistic materials and re-use principles (e.g., pallet)

*** GRS: Global Recycle Standard | GOTS: Global Organic Textile Standard | FSC: Forest Stewardship Council | RCS: Recycled Claim Standard | OCS: Organic Content Standard

4.3 Watching for greenwashing

What is Greenwashing and why is it important to avoid it?

In this report we intend greenwashing as *“the intersection of two firm behaviors: poor environmental performance and positive communication about environmental performance”*.⁴⁵

According to Delmas and Burgano⁴⁶, greenwashing can negatively affect investor confidence in environmentally friendly firms, as well as increasing the risk of lawsuits for false and misleading advertisements. Despite these risks, corporations still engage in greenwashing due to uncertain regulation, as well as external, organizational and individual drivers.

The phenomenon is well spread. According to the European Commission’s press release “Screening of websites for ‘greenwashing’: half of green claims lack evidence”⁴⁷, the analysis of 344 dubious sustainability claims in several industries led to finding out that in 59% of cases the trader had not provided easily

accessible evidence to support its claim. In 42% of cases authorities had reason to believe that the claim may be false or deceptive and could therefore potentially amount to an unfair commercial practice under the Unfair Commercial Practices Directive (UCPD).

In the EU, some national regulations are beginning to be implemented. Starting from January 1st, 2022, France is adopting a sustainability label law on consumer goods with the goal to provide reliable information to end-users⁴⁸. The label will be based on a Life Cycle Assessment and will assess incorporation of recycled material, use of renewable resources, durability, compostability, reparability, reusability, recyclability, presence of hazardous substances, precious metals and rare soil.

Initiatives at the European level are also being implemented. The first part of the Circular Economy Package⁴⁹ of the European Commission was adopted in March 2020 and mentioned the need for strengthening consumer protection against greenwashing and premature

obsolescence, setting minimum requirements for sustainability labels/logos and for information tools.

The second part of the Circular Economy Package should be published at the end of November 2022 and include, among other initiatives, a proposal for a Regulation on substantiating environmental claims (green claims).

In paragraph 4.1.1 we presented the Sustainability claims principles to build reliable claims: the same principles have been implemented in the 8 pilot projects presented in the Circular Fashion Manifesto 2022.

Table 5 is summarizing the sustainability claims principles to avoid greenwashing.

Box 3 describes the most relevant results of the Circular Fashion Survey on New Generations by PwC and SDA Bocconi School of Management for the Monitor for Circular Fashion Report 2022.

TABLE 5 - GOOD SUSTAINABILITY CLAIM PRINCIPLES AND WHAT TO AVOID

SUSTAINABILITY CLAIM PRINCIPLES	WHAT TO AVOID
Clarity	Vagueness
Relevance	Irrelevance
Reliability	Solely qualitative approach; Only talk about goals
Disclosure	Partial disclosure and cherry picking of data
Truthfulness	False or deceptive information

⁴⁵ Delmas M, Burbano V (2011), “The drivers of greenwashing”, California Management Review 54(1): 64-87

⁴⁶ Delmas, M. A., & Burbano, V. C. (2011), “The drivers of greenwashing”, California Management Review, 54(1): 64-87

⁴⁷ European Commission (2021), press release Screening of websites for “greenwashing”: half of green claims lack evidence

⁴⁸ Article L541-9-1 of the Code de l’environnement, France.

⁴⁹ European Commission (2020), “A new Circular Economy Action Plan For a cleaner and more competitive Europe”.

BOX 3 - CIRCULAR FASHION SURVEY ON NEW GENERATIONS

For 7 years, PwC has been conducting the *Observatory on purchasing habits for Millennials and Gen Z* to investigate the habits and sensitivities of the new generations (Millennials and Gen Z) and how these affect their purchasing behavior. The latest edition of our Survey, conducted in collaboration with SDA Bocconi School of Management, focused on current and heartfelt issues of the circular economy and greenwashing.

"The new generations are increasingly sensitive to the consequences of climate change and the impact that their actions or choices may have on the planet. This new green awareness is reflected in their daily lives: sustainability becomes a compass to guide young people towards the most responsible brands" (Erika Andreetta, EMEA Fashion & Luxury Leader PwC Italia).

This box describes the most relevant results of the Circular Fashion Survey on New Generations by PwC and SDA Bocconi School of Management for the Monitor for Circular Fashion Report 2022.

Between May and September 2022, over 4,000 people were interviewed including Gen Z (76%), Millennials (12%) and Boomers (12%). The sample is divided between women (62%) and men (37%), plus the 1% who preferred not to declare their gender.

The data confirms the expected results:



OF YOUNG PEOPLE INTERVIEWED ARE **WORRIED ABOUT THE FUTURE OF THE PLANET**



ARE **KEPT INFORMED** THROUGH VARIOUS SOURCES **ABOUT SUSTAINABILITY ISSUES**

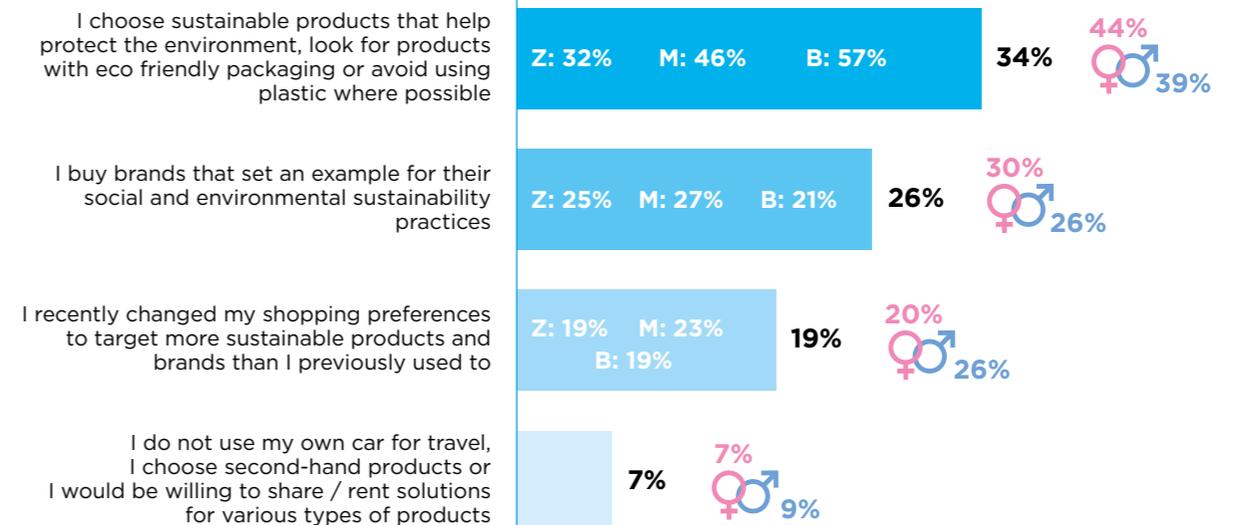


ARE CONVINCED THAT THE CONDITIONS OF THE ENVIRONMENT AFFECT THE QUALITY OF ONE'S LIFE

In addition to apprehension, **hope for the future** is also widespread among young people. They believe in the positive impact of individual choices and actions: for more than **8 out of 10 respondents, people and businesses can do a lot to improve the environment** (respectively for 84% and 86% of the sample).

Among the ones interviewed about their purchasing behavior, 34% of them (32% Gen Z vs 46% Millennials) say they choose sustainable products that help protect the environment, look for products with ecological packaging and avoid using plastic when possible. 26%, on the other hand, **recently changed their shopping preferences** to target more sustainable products and brands compared to the ones consumed previously.

FOR MORE THAN 34% OF NEW GENERATIONS THE INFORMATION ON THE PRODUCT BEST REFLECTS THE PURCHASING BEHAVIOR



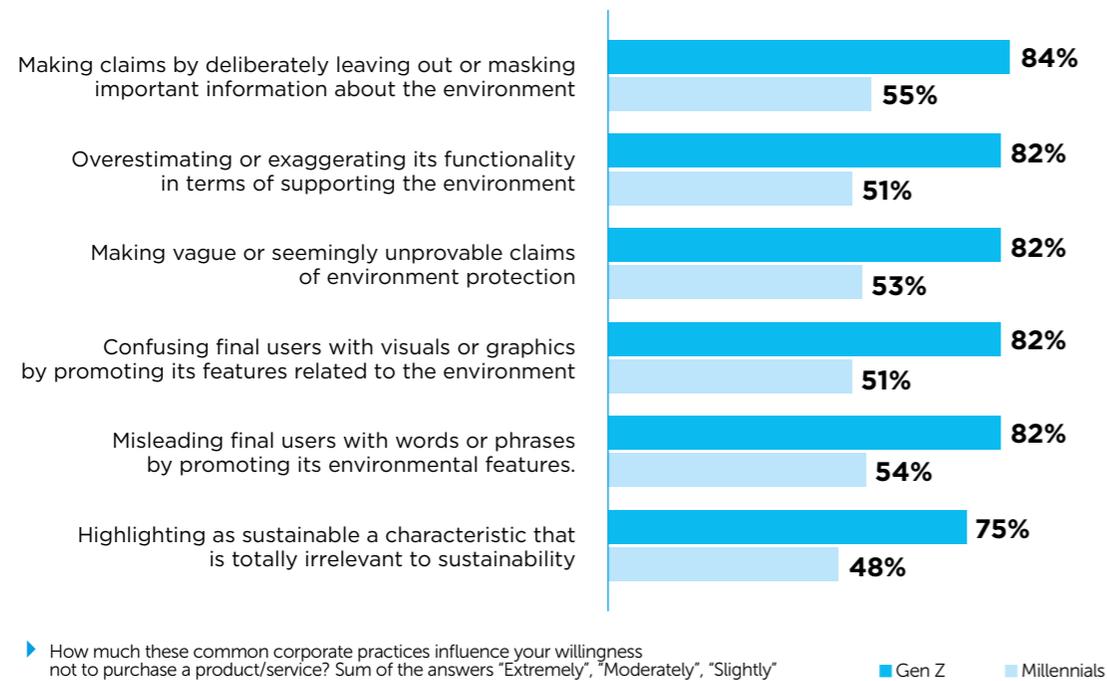
► Indicate which statement best reflects your purchasing behavior in terms of sustainability, environment and society.

It is therefore not surprising that **72%** of new generations say they are **willing to radically change their habits to protect the ecosystem** (72% Millennials vs 73% Gen Z).

In this context, the growing attention of consumers to **sustainability** represents both an **opportunity** and a **risk** for businesses. While on the one hand greener approaches to different business practices can push consumers to prefer a brand, on the other hand, less diligent behavior can push them away.

BOX 3 - CIRCULAR FASHION SURVEY ON NEW GENERATIONS - Cont.

HOW MUCH FASHION GREENWASHING PRACTICES INFLUENCE THE WILLINGNESS NOT TO PURCHASE A PRODUCT/SERVICE?

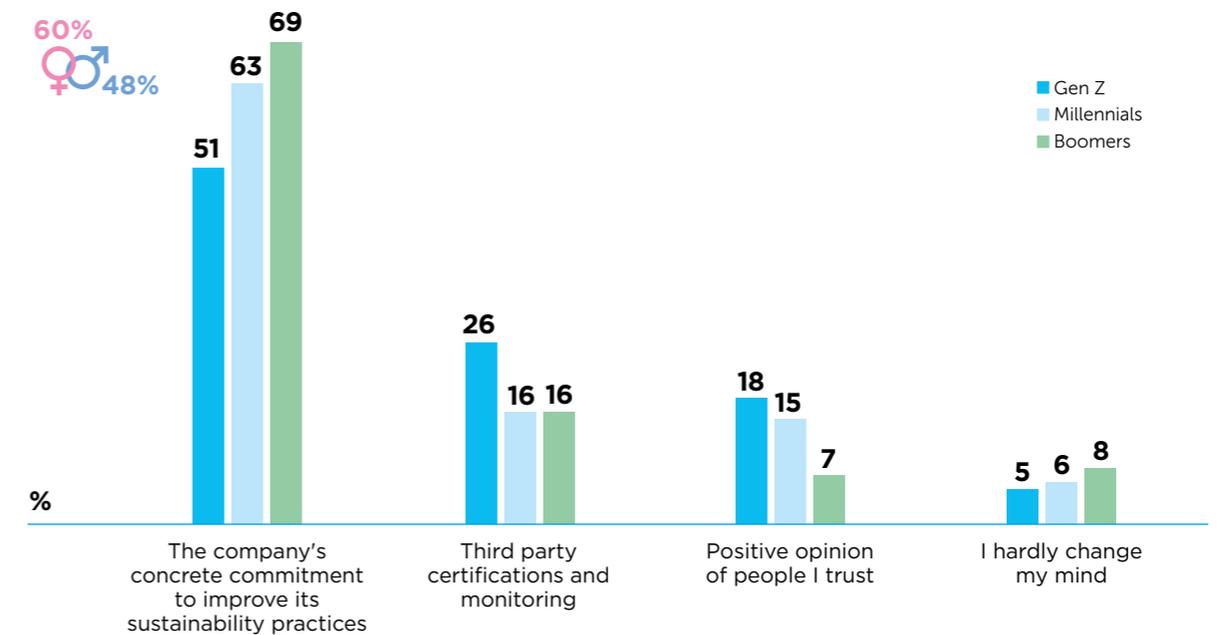


The youngest in this sense are also the most severe: **84%** of Gen Z said they **would no longer buy a "green" brand or product that makes claims by deliberately omitting or masking important information on the environment** (vs 55% Millennials). 82% say the same with respect to those who deceive end users with words or phrases by promoting their environmental characteristics and to those who overestimate or exaggerate its functionality in terms of environmental support (vs respectively 54% and 51% Millennials). Similar dissent is also found in other incorrect corporate practices, such as the deliberate omission of information, the use of vague, apparently unprovable statements, or the use of visual or graphic elements aimed at confusing the sustainability of a product.

The new generations are therefore increasingly cautious in assessing the transparency and honesty of brands. For **58%** of respondents, **fashion companies do not communicate in a transparent way** information regarding where, by whom, and how their products are processed (i.e. sum of respondents "not at all" = 14% and "little" = 44%).

What is certain is that the fashion industry, undeniably characterized by a particularly polluting production system and repeatedly subject to various scandals, is also the one about which we tend to be more reticent. The attention to the environmental impact of the sector is proven by the fact that almost all of the interviewees (98% Millennials vs 96% Gen Z.) agree with the introduction in Italy of the obligation of separate collection for textiles, which came into effect in January 2022 but which is struggling to be implemented due to bureaucratic obstacles. In conclusion, one therefore wonders: what can push the new generations to **change their opinion on the sustainability of a company or a brand?**

WHAT CAN MAKE YOU CHANGE YOUR OPINION ON THE SUSTAINABILITY OF A COMPANY OR A BRAND?

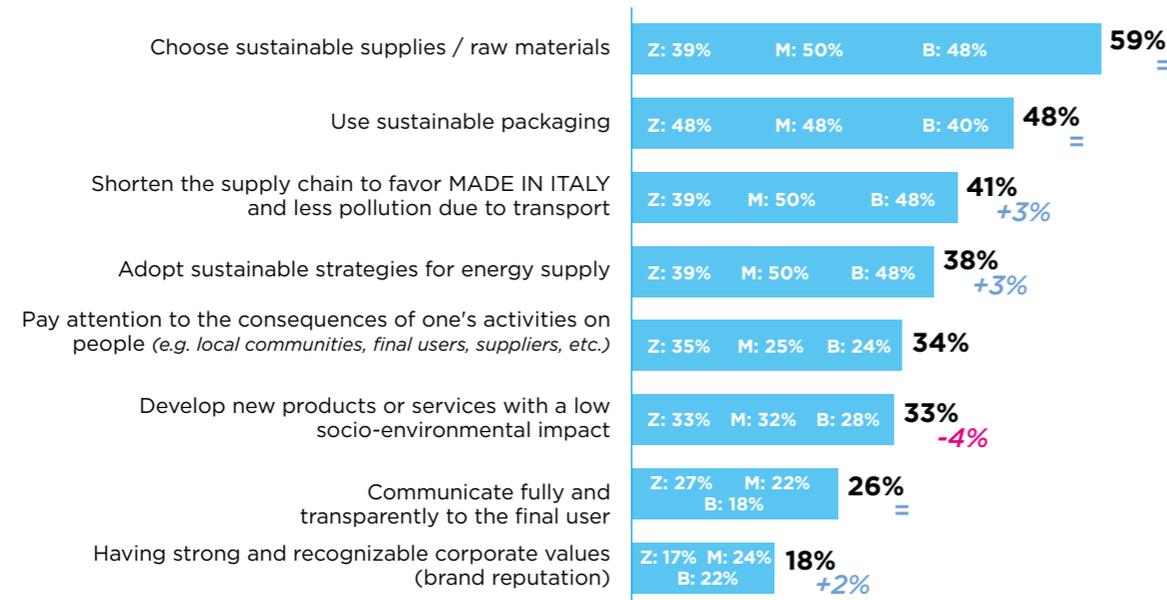


The first factor at the level of influence in this sense, for both Millennials and Gen Z., is the **concrete commitment of companies to improve their sustainable practices** (indicated as the first choice by 53% of the sample of Gen Z and Millennials together) which is worth more than the contribution that the certifications and controls of third parties can give (indicated by 24% of the sample as first choice) or the opinion of trusted people.

BOX 3 - CIRCULAR FASHION SURVEY ON NEW GENERATIONS - Cont.

THE CHOICE OF SUPPLIES AND RAW MATERIALS IS FUNDAMENTAL FOR THE SUSTAINABLE REPUTATION OF THE FIRM

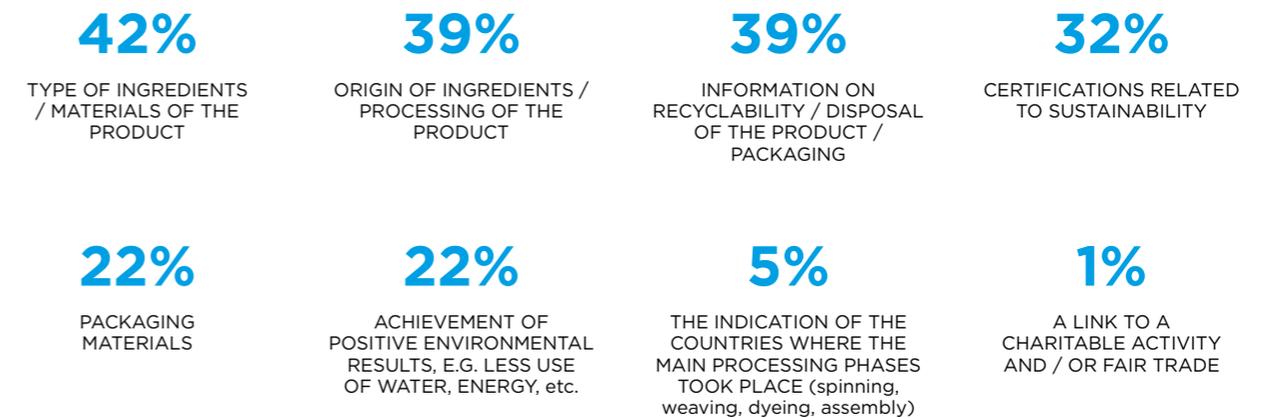
... FOR **38%** OF THE NEW GENERATION **IT'S IMPORTANT TO ADOPT SUSTAINABLE STRATEGIES** FOR THE SUPPLYING OF ENERGY. AMONG MILLENNIALS THE PERCENTAGE REACHES 50%.



► Which of the following aspects do you consider the most while deciding if a company is sustainable or not? (all relevant answers)
Source: Circular Fashion Survey on New Generations 2022

For new generations, a clear and certain perception of the actions taken by brands is increasingly relevant. To **assess whether a company is sustainable** or not, 59% of new generations indicate the **choice of sustainable supplies and raw materials** as the first factor of influence. 48% instead look at the use of **sustainable packaging** while for 41% it is important to shorten the supply chain to favor Made in Italy and less pollution due to transport. It is also considered important to adopt sustainable strategies for energy supply (38%).

WHAT INFORMATION SHOULD BE INDICATED ON A PRODUCT'S PACKAGING/LABEL TO ASSESS ITS SUSTAINABILITY?



► What information do you think should be indicated on a product's packaging / label to assess its sustainability? (maximum 3 answers)

In this context, **labeling** deserves increasing attention as it becomes a **vehicle of information capable of guiding purchases**. 42% of new generations think that, in order to evaluate the sustainability of a product, the type of ingredients / materials used should be indicated on the labels. For 39%, the indication of the origin of the ingredients and the processing of the product or information on the recyclability or disposal of the product is important, while for 32% the certifications related to sustainability are important.

"This growing sensitivity represents a great opportunity: companies that will be able to put sustainability at the center of their organization, through concrete actions, in addition to avoiding the risks deriving from greenwashing, will have a strong return in reputational terms as they will be able to satisfy the needs and desires of the new generations" (Erika Andreetta, EMEA Fashion & Luxury Leader PwC Italia).

Innovative solutions

Scaling up

- 5.1 Scaling up circularity through technological innovation
- 5.2 Scaling up circular innovations through collaboration and cooperation
- 5.3 Monitor for Circular Fashion: Next steps



Scaling up

4 key priorities to accelerate sustainability and circularity are suggested.

Front-runners which would like to drive the sustainability transition can prioritize the following actions:

- 1. Implementing eco-design principles and measuring through eco-design KPIs**
- 2. Leveraging on a common traceability and transparency standard to build reliable sustainability claims against greenwashing**
- 3. Scaling up circularity through technological innovation to accelerate the transition**
- 4. Scaling up circular innovations through collaboration**

During the next months and years the Monitor for Circular Fashion concretely aims also at:

- acting as a community of frontrunners to implement eco-design principles, substantiate the sustainability claims, enhance traceability and transparency in fashion;
- increasing the level of cooperation with relevant consortiums and alliances on the topic of waste management;
- encouraging Policy Makers to adopt a harmonized policy framework to support circular fashion initiatives;
- collaborating with existing organizations focused on social dimension of sustainability and circularity, with a particular focus on due diligence initiatives;
- increasing the level of cooperation with born circular SMEs.

TABLE 6 - PRIORITIES FOR CIRCULAR FASHION FRONT-RUNNERS

KEY PRIORITIES FOR FRONT-RUNNERS	RELATED PRIORITIES IN THE CIRCULAR FASHION ROADMAP	STAKEHOLDERS INVOLVED
Implementing eco-design principles and measuring through eco-design KPIs	<ul style="list-style-type: none"> Measuring and assessing circularity Engaging final clients/users in circularity initiatives Scaling up circularity pilot projects 	
Leveraging on a common traceability and transparency standard to build reliable sustainability claims against greenwashing	<ul style="list-style-type: none"> Measuring and assessing circularity Increasing the level of traceability of fashion value chains 	
Scaling up circularity through technological innovation to accelerate the transition	<ul style="list-style-type: none"> Measuring and assessing circularity Engaging final clients/users in circularity initiatives Improving the collection of waste Scaling up circularity pilot projects Developing harmonized EU-wide end-of-waste criteria 	
Scaling up circular innovations through collaboration	<ul style="list-style-type: none"> Resolving circular fashion trade offs Scaling up circularity pilot projects Accelerating industrial symbiosis 	

Source: Monitor for Circular Fashion desk analysis 2022

Scaling up

The Monitor for Circular Fashion Report 2021 presented the circularity roadmap. This roadmap has been further strengthened by the European Commission EU Strategy for Sustainable and Circular Textiles.

In this chapter we suggest 4 key priorities to accelerate sustainability and circularity.

Circularity roadmap actions were presented at different levels:

1. Managerial actions

Companies need to **measure and assess sustainability and circularity, engaging final clients/users in circularity activities.**

2. Joint industry actions based on partnership:

Companies along the different phases of the fashion value chains **need to work together in order to increase the level of traceability, resolving circular fashion trade-offs, scaling-up circularity through pilot projects.**

As discussed in the 2021 report, **resolving circular fashion sustainability (both environmental and social), operational, economic and quality trade-offs** is necessary in order to accelerate the sustainable and circular transition.

3. Actions by policy makers

More and more companies understand that a traceability and a transparency common standard is needed to create a level playing field and is an important enabling factor to accelerate sustainability and circularity⁵⁰. **The adoption of a common traceability and transparency standard is to be requested by the regulator.**

As communicated by the European Commission on the 30th of March 2022, **harmonised EU extended producer responsibility (EPR) rules for textiles with eco-modulation of fees** is another tool to accelerate waste management. Investments are needed for the

“collection, sorting, reuse, preparation for reuse and recycling, as well as incentives for producers and brands to ensure that their products are designed in respect of circularity principles”⁵¹. It is important to highlight that **the waste reduction should start from implementing the eco-design principles and educating end-users to extend the use of the garments.**

Also, **accelerating industrial symbiosis** is among the priorities, starting from the basic condition of having common definitions of waste cross-industries and countries, developing **harmonized EU-wide end-of-waste criteria.**



How to increase circularity performance

Reimagining the future of the industry towards circularity requires a collective effort. The community of the Monitor for Circular Fashion is of the opinion that to increase circularity performance of the industry as a whole, the following actions should be prioritized:

1. Measuring and assessing circularity 
2. Increasing the level of traceability of the fashion value chains 
3. Resolving circular fashion trade-offs 
4. Engaging final clients/users in circularity initiatives 
5. Improving the collection of waste 
6. Accelerating industrial symbiosis 
7. Scaling-up circularity pilot projects 
8. Develop harmonized EU-wide end-of-waste criteria 

 MANAGERS' ACTIONS
  JOINT INDUSTRY ACTIONS
  POLICY MAKERS' ACTIONS

Source: Monitor for Circular Fashion 2021

4 key priorities to accelerate sustainability and circularity are presented in table 6 at page 114-115.

Front-runners which would like to drive the sustainability transition can prioritize the following actions:

- **Implementing eco-design principles** and measuring through eco-design KPIs
- **Scaling up circularity through technological innovation** to accelerate the transition
- **Leveraging on a common traceability and transparency standard to build reliable sustainability claims** against greenwashing
- **Scaling up circular innovations through collaboration**

⁵⁰ UNECE (2021), "Recommendation No. 46: Enhancing Traceability and Transparency of Sustainable Value Chains in the Garment and Footwear Sector".
⁵¹ European Commission (2022), "EU Strategy for Sustainable and Circular Textiles"

TABLE 6 - PRIORITIES FOR CIRCULAR FASHION FRONT-RUNNERS

KEY PRIORITIES FOR FRONT-RUNNERS	RELATED PRIORITIES IN THE CIRCULAR FASHION ROADMAP	UPCOMING EU REGULATION ALREADY ANNOUNCED	STAKEHOLDERS INVOLVED
<p>Implementing eco-design principles and measuring through eco-design KPIs</p>	<ul style="list-style-type: none"> Measuring and assessing circularity Engaging final clients/users in circularity initiatives Scaling up circularity pilot projects 	<ul style="list-style-type: none"> Proposal for measures to reduce the release of microplastics in the environment (expected end 2022/early 2023) Proposal for a directive on Sustainable Consumption of Goods – Promoting Repair and Reuse (expected end 2022) REACH Regulation Revision (2023, expected) Ecodesign for Sustainable Products Regulation (expected by 2024)⁵² 	
<p>Leveraging on a common traceability and transparency standard to build reliable sustainability claims against greenwashing</p>	<ul style="list-style-type: none"> Measuring and assessing circularity Increasing the level of traceability of fashion value chains 	<ul style="list-style-type: none"> Proposal for the revision of Directive 94/62/EC on Packaging and Packaging Waste (REFIT) (expected late 2022) Legislative Proposal on substantiating green claims (expected late 2022) Revision of the Textile Labelling Regulation (expected end 2023)⁵³ Proposal for a Directive on corporate sustainability due diligence⁵⁴ (2022) Corporate Sustainability Reporting Directive - CSRD (expected by 2023) 	
<p>Scaling up circularity through technological innovation to accelerate the transition</p>	<ul style="list-style-type: none"> Measuring and assessing circularity Engaging final clients/users in circularity initiatives Improving the collection of waste Scaling up circularity pilot projects Develop harmonized EU-wide end-of-waste criteria 	<ul style="list-style-type: none"> Revision of the Waste Framework Directive including EPR (2023) 	
<p>Scaling up circular innovations through collaboration</p>	<ul style="list-style-type: none"> Resolving circular fashion trade offs Scaling up circularity pilot projects Accelerating industrial symbiosis 	<ul style="list-style-type: none"> On voluntary basis 	

The first two priorities have been at the very center of the Monitor for Circular Fashion. The following paragraphs go more in depth on:

- opportunities and challenges of the **Digital Product Passport**, a key technology for the twin transition;
- the power of collaboration**, partnering with start-ups and SMEs (within the same industry or in other industries) and creating consortiums to scale solutions.

⁵² Including bans on the destruction of unsold products, subject to receiving the empowerment under the proposed Regulation and a dedicated impact assessment.

⁵³ "(The Textile Labelling Regulation) requires textiles sold on the EU market to carry a label clearly identifying the fibre composition and indicating any non-textile parts of animal origin. As part of this review and subject to an impact assessment, the Commission will introduce mandatory disclosure of other types of information, such as sustainability and circularity parameters, products' size and, where applicable, the country where manufacturing processes take place (*'made in'*)" extract from European Commission (2022), "EU Strategy for Sustainable and Circular Textiles".

⁵⁴ European Commission (2022), "Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937.

5.1 Scaling up circularity through technological innovation

Among all technologies presented in the report 2021 (Table 7) we focused on the Digital Product Passport, presented as a priority in the sustainable textile strategy in 30 March 2022.

TABLE 7 - MAIN ENABLING TECHNOLOGIES TO ACCELERATE CIRCULARITY IN FASHION

MAIN ENABLING TECHNOLOGIES FOR CIRCULARITY	TECHNOLOGIES FOR TRACEABILITY							
	BLOCKCHAIN	● ● ● ● ● ● ●						
RFID	● ● ● ● ● ● ●							
ARTIFICIAL INTELLIGENCE & INTERNET OF THINGS	● ● ● ● ● ● ●							
TECHNOLOGIES FOR CIRCULAR PROCESSES	RECYCLING TECHNOLOGIES	● ● ● ● ● ● ●						
AUTOMATIC SORTING MACHINES	● ● ● ● ● ● ●							
ONLINE PLATFORMS FOR WASTE	● ● ● ● ● ● ●							
PRODUCT PASSPORTS	● ● ● ● ● ● ●							
3D PRINTING	● ● ● ● ● ● ●							

MAIN FASHION VALUE-CHAIN ACTIVITIES INVOLVED:

- 1. ECO-DESIGN
- 2. RAW MATERIAL SOURCING
- 3. MANUFACTURING OF SEMI-FINISHED PRODUCTS
- 4. MANUFACTURING OF FINISHED PRODUCTS
- 5. TRANSPORT AND LOGISTICS
- 6. DISTRIBUTION AND RETAIL
- 7. END-OF-LIFE SERVICES

Source: Monitor for Circular Fashion 2021

Towards the adoption of a Digital Product Passport

What is the Digital Product Passport (DPP)?

The idea of the DPP was developed by the European Commission starting from 2021 with the Establishing a Carbon Border Adjustment Mechanism. According to the European Commission, the DPP is a "product-specific data set, which can be electronically accessed through a data carrier to reg-

ister, process and share product-related information amongst supply chain businesses, authorities and consumers⁵⁵. The tool provides information on product's origin, composition, repairing and disassembling strategy to increase its lifecycle. By using this information, circular economy practices like maintenance program, repair, remanufacturing, and recycling may be scaled up. Additionally, it educates customers and other parties involved about the sustainability features of goods and materials⁵⁶.

Which are possible opportunities and challenges related to the introduction of the DPP?

Analysis of dedicated reports, interview with service providers of the Monitor for Circular Fashion and additional inputs⁵⁷ brought to the table 8 at page 118 that is summarizing the main opportunities and challenges related to the introduction of the DPP.



⁵⁵ European Commission, (2021, July 14). "Proposal for a Regulation of the European Parliament and of the Council, Establishing a Carbon Border Adjustment Mechanism".
⁵⁶ University of Cambridge Institute for Sustainability Leadership (CISL) and the Wuppertal Institute, (2022), "Digital Product Passport: the ticket to achieving a climate neutral and circular European economy?", Cambridge, UK: CLG Europe.
⁵⁷ EU Circular Talk - EU Digital Product Passport - Learning from frontrunners Webinar. <https://circulareconomy.europa.eu/platform/en/news-and-events/all-events/eu-digital-product-passport-learning-frontrunners>

TABLE 8 - OPPORTUNITIES AND CHALLENGES RELATED TO THE INTRODUCTION OF THE DPP

OPPORTUNITIES	CHALLENGES
FOR BUSINESSES	
Improving access to information and processes to increase transparency of the supply chain	Collecting and mapping upstream data using a common traceability and transparency standard
Improving company's supply chain efficiency thanks to traceability and transparency	Improving the sustainability performance and avoiding any negative impact on the brand reputation
Collecting data on end-users	Creating a tag that remains permanently without damaging the garment
Sharing information on the supply chain and providing a warranty of product authenticity	Protect firms' value proposition while sharing information on the supply chain
Increasing the dialogue with the industry stakeholders, including end-users	Orchestrating DPP providers and stakeholders along the value chain
FOR END-USERS	
Educating end-users on lengthening the life-cycle of products	Offering care and maintenance services for all products
Educating end-users on more sustainable purchasing choices	Educating end-users on the value added provided by the DPP, including the potential additional costs
Enabling end-users to do direct comparisons among products on carbon footprint, eco-design information, recycling content etc... based on standardized data	Collecting and providing standardized data
FOR REGULATORS	
Introducing harmonized mandatory information requirements and favoring accessibility of information exchange across the value chain	Finding a common standard (and platforms) to provide and rate the information (creating an EU database - taxonomy)
Supporting authorities to verify compliance with legal obligations and addressing difficulties relating to IPR protection	Rewarding virtuous firms that adopt the DPP through financial and non-financial incentives
Improving products quality and sustainability (including safety) and circularity performance	Banning products which don't respect minimum quality and sustainability (including safety) and circularity performance

Source: Monitor for Circular Fashion 2022 analysis based on interviews with service providers



Suggestions to Regulator

Suggested methodology to introduce the DPP:

1st STEP: defining the characteristics of the tool.

- Defining DPP content in terms of macro area of information (i.e., environmental responsibility, health & safety, social responsibility)
- Defining KPIs and references for each item, including guidelines and common definitions
- Introducing thresholds to monitor product impact
- Defining an approach to verify data reliability
- Agree with companies and providers on data ownership and privacy

2nd STEP: adopting a smart implementation plan that differs based on the stakeholder types.

Support fashion companies in adopting the DPP:

- Identifying target front-running companies to collaborate with to start DPP implementation, for each value chain
- Following up with companies and supporting them in the DPP introduction process, especially SMEs, collaborating with existing initiatives already in place at EU level
- Adapting DPP features to each value chain

Support end-users in adopting the DPP:

- Identifying the DPP early adopters and educating them to use the DPP
- Incentivize the DPP among early adopters through incentives
- Identify what information end-users are searching for, to customize DPP end-user features

Collaboration among companies and education of end-users are essential to

make the DPP a tool to scale up circularity in fashion industry.

To scale up circularity in the fashion industry, the DPP must be used on a large scale.

Companies must adopt it on their products and this means fostering collaboration between companies within the supply chain and service providers to drive technology adoption.

End-users should be educated to use the DPP to drive their purchasing choices.

Through this technology, it will then be possible to have greater traceability and transparency in the industry, between companies, end-users and institutions, and to encourage the development of greater circularity.

5.2 Scaling up circular innovations through collaboration and cooperation

Supporting collaboration between born circular SMEs and large companies was highlighted among the key priorities by the Monitor for Circular Fashion community in the 2021 Report. Born-circular SMEs' innovations are paving the way to new industrial paradigms, thus increasingly attracting brands as their early investors and adaptors. **To successfully scale up circular innovation through collaboration, fashion players must address born-circular SMEs' needs,**

which still lack a clear identification and analysis. To this aim, a survey and in-depth interviews were conducted to study the organizational needs⁵⁸ of ten born-circular Italian fashion SMEs, which have partnered with large brands to scale-up circular innovation (see Annex 6.1 for detailed methodology). Their needs were analysed along **eight dimensions**, hereby presented in order of relevance according to the interviewees⁵⁹.

1. Social and Cultural
2. Supply chain and market-related
3. Information
4. Regulatory
5. Technological
6. Networking & mentoring
7. Economic
8. Financial

Table 9 presents the eight needs dimensions and examples of related tools.

TABLE 9 - IDENTIFICATION OF BORN CIRCULAR SMES' NEEDS AND RELATED TOOLS

SMEs NEEDS DIMENSIONS	EXAMPLES OF RELATED TOOLS
SOCIAL AND CULTURAL	EU awareness campaigns; EU education campaigns; collaboration with micro-influencers with a strong background and expertise on sustainability and circularity...etc...
SUPPLY-CHAIN AND MARKET-RELATED	Common traceability and transparency standard; multi-brand stores dedicated to circular and sustainable fashion SMEs...etc...
INFORMATION	Collaboration initiatives with larger companies to share knowledge; collaboration initiatives with Institutions, Research Centers and Academia...etc...
REGULATORY	Common traceability and transparency standard; clear and harmonized definitions of waste; common indicators to measure sustainability and circularity...etc...
TECHNOLOGICAL	Access to circularity infrastructure; reducing complexity/introducing tools to save time; dedicated and free training on the Digital Product Passport...etc...
NETWORKING & MENTORING	Dedicated hubs/forums to promote diffusion of knowledge and best practices; dedicated hubs for networking among sustainable and circular fashion SMEs; dedicated hubs for mentoring to sustainable and circular fashion SMEs...etc...
ECONOMIC	Incentives dedicated to SMEs based on sustainability and circularity performance, including Green Public Procurement dedicated to SMEs; funding schemes dedicated to SMEs; grants & subsidies dedicated to SMEs...etc...
FINANCIAL	Standardized and harmonized ESG principles; platforms pulling together specific grants and financing for circular SMEs; guarantees required by banks...etc...

Source: Monitor for Circular Fashion 2022 survey and in-depth qualitative semi-structured interviews to born circular SMEs.

⁵⁸ While barriers hinder the company from its goals, and the drivers pull it towards them, organizational needs emerge from the gap between the restrained company's performance resulting from the presence of barriers and the aspired performance to which the drivers aim. Adapted from: de Jesus, A., & Mendonça, S. (2018), "Lost in Transition? Drivers and Barriers in the Eco-innovation Road to the Circular Economy", Ecological Economics, 145, 75–89; Watkins, R., Meiers, M., & Visser, Y. (2011). "A Guide To Assessing Needs: Essential Tools for Collecting Information, Making Decisions, and Achieving Development Results", open access by the World Bank.

⁵⁹ de Jesus, A., & Mendonça, S. (2018), "Lost in Transition? Drivers and Barriers in the Eco-innovation Road to the Circular Economy", Ecological Economics, 145, 75–89.

Thanks to their greater level of resources and bargaining power, brands can facilitate small players to scale up circular innovation and gain market position. At the same time, their shared effort would result in a much more significant impact: bringing circular

models to an industrial scale can contribute to disrupting the linear rules of the entire fashion industry.

In this sense, **collaboration is a holistic approach to the circular economy that goes far beyond the single com-**

mercialization of innovation and triggers many spillovers across different ecosystem dimensions, here explored through the eight needs categories (Box 4).

BOX 4 - DESCRIPTION OF BORN CIRCULAR SMEs' NEEDS AND SELECTED QUOTES

Social and cultural needs

Creating awareness emerged as the paramount need of born-circular SMEs. Acting must first be preceded by awareness from all stakeholders: companies, the financial market, institutions, and end-users. Nevertheless, according to interviewees, while European fashion end-users are considered increasingly aware of sustainability issues, companies seem to still lag behind in meeting end-users' expectations.

“Today, fashion end-users expect transparency and real commitment to products beyond the moment of purchase. Working with large-scale partners has helped Reflaunt build a network of stakeholders involved in the traceability and lifecycle extension of garments, which allows us to become a gateway to endless after-use destinations for each product in the market, from resale to recycling, repair, and more.”

SOFIA GAZZOTTI
Reflaunt

Having shareholders more aware of circularity investment opportunities was highlighted as a necessary condition for tackling one of the most challenging barriers to circular fashion: conciliating environmental and economic value, hence, making circular business models financially sustainable. A clear signal of this cultural gap is the traditional association “sustainability/circularity”-“non-profit”.

“Investors need to be more aware of the opportunities in the circular fashion: sometimes we are perceived as non-profit only because we are circular. Also, small firms might seem less sustainable and attractive than large players as they lack green certificates. Some investors don't know that the criteria to obtain those certificates still don't consider production capacity and the phase of a product's lifecycle. This inevitably discriminates small businesses.”

ENRICA ARENA
Orange Fiber

Supply-chain and market-related needs

Circular SMEs' needs emerging from supply chain mechanisms involve six main areas: traceability and transparency; affordability of supplied materials; supply and demand integration; supply of durable and recyclable raw materials; market access; and green logistics. Among these, **born circular SMEs referred to traceability and transparency as one of their most urgent needs to be addressed to advance circular fashion.**

These gaps in the supply chain led small players to make an accurate choice of partners.

“Collaborating with a big company that has pre-existing frameworks for traceability and transparency, as well as shared objectives, is one of the success factors for scaling up responsible innovations.”

CAMILLA CARRARA
ZEROBARRACENTO

Traceability and transparency generated many advantages during the collaboration, including communication between business partners and improving end-users' access to reliable information for making responsible choices.

“Traceability platforms can enable circularity to scale by empowering stakeholders with resource efficiency and supply chain communication in a co-evolution process.”

MARTINA SCHIUMA
The ID Factory

Information needs

Data accessibility is considered too complex, expensive, or not available at all. Collaboration was mentioned as a vital aspect, especially to improve traceability and transparency, from the origin of every single raw material to the product distribution outcomes.

“When working with sustainability data, traceability, and transparency along the supply chain, collaboration with established companies is critical to achieving faster results. Gathering primary data from a single big source allows us to boost our product development and impact assessment algorithms properly.”

ALEX ALBINI
Sustainable Brand Platform

Regulatory needs

According to interviewees, the waste management regulation requires the largest attention. To follow, companies also stressed the necessity of receiving clarity on circularity definitions, KPIs and incentives from EU and national legislations.

“Waste management is still not affordable. Only by merging forces with big companies we can improve taxation on circular activities and make them affordable. We already have KPIs for waste management, but these are still an option for most of the fashion world. It is now time to move from relative sustainability to an absolute and measurable one.”

EDOARDO IANNUZZI
ACBC

“Collaborating with important large players is a doubled-edged sword. On the one hand, when your partner is big and important, its bargaining power allows you to have your say in the round-table discussion on textile waste regulation. This increases your market credibility, reputation, and brand image. On the other hand, it can slow down your processes and increase complexity.”

ALBERTO BRESSAN
SEAY

Technological needs

SMEs mentioned highly specific skills, know-how, and infrastructure as pivotal requirements for implementing circular technology. Yet, accessing tools within the fashion industry can sometimes be challenging, and inter-sectoral collaboration can consequently signify a key solution for born circular SMEs.

“Collaboration with large players is fundamental in the life of a smaller circular player. However, because the fashion supply chain is still partially slave of linearity, collaborating with players outside your industry can give your business a new perspective and lead to even more positive results.”

MATTEO WARD
WRÄD

Networking & mentoring needs

Partnering with fashion brands facilitated small circular players to build a strong network that further supported their innovation's commercialization even after the collaboration. During the scale-up, both parties enriched their network and mentored each other by intertwining complementary resources and generating opportunities that wouldn't have risen otherwise.

“Joining small and big players' forces is a win-win situation. While the large firm embraces our young and sustainable mindset, we can increase the efficiency of traditionally offline processes and give a second life to unused materials. This is a huge challenge faced both on a European and global scale.”

ANDREA FIUME
BSamply

Economic needs

Economies of scale were mentioned as a core asset needed in every phase of the SMEs' circular activities. In the case of waste management innovation, working with small quantities required more resources and caused higher pollution, resulting in the opposite of the desired outcome. Compared to what a small firm could achieve alone, collaborating with large players enabled SMEs to access greater volumes of waste garments, thus scaling up their technologies while lowering environmental impact.

“Collaborating with large players is crucial to reach economies of scale and efficiency throughout the whole product's life: from prototyping and ideation to the final production.”

CHANTAL MARCHETTI
Quid

Financial needs

The most relevant financial needs regarded the appropriate funding and the range of available investors. Financial tools didn't emerge as the main drivers for pursuing circular-oriented collaboration. The lack of financial resources could be addressed in many other ways, including crowdfunding and receiving investments from investors (e.g., angel investors and venture capitalists). Nonetheless, the large player's financial resources still acted as a crucial gateway to quickly manufacturing and commercializing born circular SMEs' innovations.

Collaboration between born-circular SMEs and large players is a winning strategic approach to the circular economy that enables SMEs to scale up innovation, hence fulfilling their emerging needs. When selecting partners for scaling up innovation, small companies mentioned large companies as their top priority choice if compared to institutions, academia, or small firms. Specifically, the distinctive aspect of their interaction leading to such a wide and effective impact lies in the use of cooperative mechanisms.

On the one hand, collaboration entails a traditional win-win approach mainly

based on opportunistic behaviors leading to reciprocal advantages. On the other hand, cooperation sees many interconnected stakeholders' goals becoming one inextricable essence based on knowledge and experience sharing to create shared value and, ultimately, self-interest benefits⁶⁰.

The interaction between born circular SMEs and large players increasingly involves additional partners, resulting in a virtuous cycle of collaborative and cooperative behaviors. In this sense, **cooperation embodies a strong behavioral outcome that enhances partners' motivation, trust, and involvement.**

The success of circular-oriented collaboration is not circumscribed to collaborative actions for reciprocal benefits but also includes cooperative behaviors across the whole value chain, one of the vital elements of the fashion industry.⁶¹

During the next months and years the Monitor for Circular Fashion concretely aims at:

- acting as a community of frontrunners to implement eco-design principles, substantiate the sustainability claims, enhance traceability and transparency in fashion;
- increasing the level of cooperation with relevant consortiums and alliances on the topic of waste management such as ReHubs, Retex Green, Re.Crea and existing NGOs such as Humana People to People and Re_Fashion⁶²;
- encouraging Policy Makers to adopt a harmonized policy framework to support circular fashion initiatives;
- collaborating with existing organizations focused on social dimension of sustainability and circularity, with a particular focus on due diligence initiatives such as the Fashion Revolution Good Clothes Fair Pay European Citizen Initiative (ECI) (see Annex 6.2).
- increasing the level of cooperation with born circular SMEs.

The Monitor for Circular Fashion is willing to continue supporting born circular SMEs, especially small companies and startups, since they are the ones that can bring innovative solutions to challenges like the climate crisis, and help spread these solutions throughout Italy, Europe and the World.

5.3 Monitor for Circular Fashion: Next steps

During the second year of activities, the Monitor for Circular Fashion integrated additional circular fashion KPIs and tested selected KPIs through 8 pilot projects, strengthened the community for Circular Fashion and the cooperation activities with key stakeholders, published the "Circular Fashion Manifesto 2022 Best Practices Update" and the annual Report to be presented to companies and industry associations, institutions and other key stakeholders.

During the next months and years new value chains will be explored to cover step by step all value chains

of the Textile, Clothing, Leather and Footwear (TCLF) sector.

The Monitor is also willing to extend the geographical reach focusing on Europe.

Companies will be invited to participate in the Monitor for Circular Fashion, if they meet the following criteria:

- reporting system of sustainability aligned to a national or international standard;
- availability of governance for sustainability management;

alignment to Agenda 2030 goals with periodical measuring.

As Partners, the companies of the Monitor for Circular Fashion will:

- keep on monitoring their circularity performance by testing the industry-specific KPIs;
- keep on implementing the industry-specific KPIs in pilot projects and industrialized products;
- contribute to define the fashion industry Best Available Techniques (BAT) on circularity.

⁶⁰ "Inter-organizational cooperation consists of joint pursuit of agreed-on goal(s) in a manner corresponding to a shared understanding about contributions and payoffs", Gulati, R., Wohlgezogen, F., & Zhelyazkov, P. I. (2012), "The Two Facets of Collaboration: Cooperation and Coordination in Strategic Alliances", Academy of Management Annals.

⁶¹ The importance of building alliances in sustainable and circular fashion is also highlighted by The European House Ambrosetti (2022), "Just Fashion Transition".

During the next months and years the Monitor for Circular Fashion aims at acting as a community of frontrunners to implement eco-design principles, substantiate the sustainability claims, enhance traceability and transparency in fashion and increase the level of cooperation with born circular SMEs and relevant consortiums and alliances on the topic of waste management. The Monitor will also encourage Policy Makers to adopt a harmonized policy framework to support circular fashion initiatives.

Managing sustainability and circularity requires a holistic approach: focusing on the end-of-life only would be a mistake that reinforces the linear system. The implementation of eco-design principles along the circular fashion value chains is the real opportunity we have to accelerate the green transition in the next years. Scientific research, education and cooperation are needed - now more than ever - to solve complexities and customize the 4 key priorities for each business model in Textile, Clothing, Leather and Footwear value chains.

Francesca Romana Rinaldi
Director Monitor for Circular Fashion
SDA Bocconi School of Management

⁶² The Monitor for Circular Fashion started mapping and analyzing the current initiatives and is willing to publish the analysis in 2023.

Annex

- 6.1 Complete methodology
- 6.2 Supporting due diligence in fashion



6.1 Complete methodology

Keeping in mind the collaborative perspective, which is at the very basis of the project, the Monitor for Circular Fashion Partners and the KPIs Committee have been extensively involved in the field activity of semi-structured interviews and pilot projects implementing the industry-specific KPIs and building the sustainability claims.

The detailed methodology is presented at page 38 and 39 and in table 2 at page 40.

The field analysis was complemented by:

- a survey carried out in collaboration with PwC on factors influencing the perception of greenwashing in fashion;

- a survey and semi-structured interviews on role played by collaboration between small businesses and large companies in the scale-up of circularity innovations;

- a survey on eco-design principles for packaging carried out in collaboration with Bip.

This paragraph is presenting the methodology at the base of the explorative research results presented in chapter 5 with initial results of a survey and semi-structured interviews on the role played by collaboration between small businesses and large companies in the scale-up of circularity innovations.

To gather data, the research employed a desk research, surveys, and one-to-one semi-structured interviews. Companies

JANUARY 2022	DESK RESEARCH	Who: SDA Bocconi team	Analysis of 30+ updated sources focusing on circular fashion
	FIELD ANALYSIS	Semi-structured interviews and pilot projects implementing the industry-specific KPIs and building the sustainability claims Who: SDA Bocconi team	1. Brainstorming sessions with Eco-design and Sustainability claims task-forces and KPIs Committee 2. Testing the KPIs through pilot projects 3. Semi-structured interviews with partners
Survey on consumers' attitudes towards sustainability claims and factors influencing the perception of greenwashing in fashion Who: PwC & SDA Bocconi teams		1. Drafting the survey 2. Testing the survey 3. Distributing the survey 4. Analyzing the results	
Survey and semi-structured interviews on role played by collaboration between small businesses and large companies in the scale up of circularity innovations Who: SDA Bocconi team		1. Drafting the guidelines for the interviews 2. Carrying out the interviews 3. Analyzing the results	
SEPTEMBER 2022	RESULTS ANALYSIS AND VALIDATION	Survey on eco-design principles for packaging Who: Bip & SDA Bocconi teams	1. Drafting the survey 2. Testing the survey 3. Distributing the survey* 4. Analyzing the results: Eco-Design Principles for Packaging Matrix
		Who: SDA Bocconi team & KPIs Committee	SDA Bocconi team and KPIs Committee review of KPIs implemented during pilot projects
			SDA Bocconi team, co-design and Sustainability claims task-forces review of KPIs implemented during pilot projects and verification of sustainability claims
			Plenary Meeting with Partners for collective discussion on: 1. Application of agreed criteria on KPIs selected for each pilot project. 2. Application of agreed criteria on sustainability claims defined for each pilot project.

Table 2: Complete methodology of SDA Bocconi research - Monitor for Circular Fashion 2022

participated in a Qualtrics survey of 23 questions (in English) based on open text, multiple-choice or Likert scale. The survey was built upon an extensive literature review on born-circular SMEs' barriers and drivers. The one-to-one semi-structured in-depth interviews were performed via Zoom during the months of May/June/July 2022.

The 10 interviewed SMEs matched the following criteria: **1)** having no more than ten years; **2)** having less than 50 employees; **3)** having innovative circular pilot projects regarding a product, process or business model; **4)** being directly engaged in developing or/and selling fashion products to end-users;

5) having sufficient information or involvement with a circular pilot project in collaboration with a large player; **6)** being homogenous in terms of sector of activity, sustainability objectives, and circular practices to explore their needs; **7)** being homogenous in terms of collaborative strategies with large companies and brands to study similarities and differences in their scale-up processes. The definition of SME entails micro companies (0-9 employees), small companies (10-49 employees), and medium companies (50-249 employees)⁶³: the interviewees were all micro and small companies.

⁶³ European Commission (2003), "Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises"

6.2 Supporting due diligence in fashion

The European Union's Corporate Sustainability Due Diligence (CSDD) directive, which seeks to make companies responsible for human rights and environmental issues in their global supply chains, is set to be adopted in 2022.

In accordance with the Circular Fashion Manifesto Pledge, the companies of the Monitor for Circular Fashion want to "promote and implement corporate social responsibility for pursuing long-term benefits to all stakeholders".

In doing so, the companies would like to support existing due diligence initiatives. The European Citizens' Initiative (ECI) legal proposal Good Clothes Fair Pay presented by Fashion Revolution is one of them (Figure 9).

In accordance with OECD and ILO, due diligence is defined in the proposal as "the process put in place by an undertaking (company) aimed at identifying, assessing, preventing, mitigating, monitoring, disclosing, accounting for, addressing and remediating the risks in their production supply chain, linked to low wages and the violation of freedom of association and the right for collective bargaining, both in its own operations, its subsidiaries' operations and its business relationships. It is an on-going, proactive and reactive process subject to review"⁶⁴.

In relation to the CSDD we would like to also highlight some relevant recom-



Figure 9: Good Clothes, Fair Pay ECI legal proposal

Source: Fashion Revolution, 2022

mendations which Euratex presented in its 2022 Corporate Sustainability Due Diligence Position Paper⁶⁵, for further discussion during 2023:

1. Facilitating a risk-based approach and accordingly, a scope based on risk and size;

2. Ensuring a level-playing field through harmonisation, clarity, and better market surveillance;

3. Establishing clear support mechanisms for SME's and decrease burden of bureaucracy.

⁶⁴ Fashion Revolution (2022), "What is the Good Clothes, Fair Pay ECI legal proposal?" Further details can be found in the campaign materials available at <https://www.goodclothesfairpay.eu/about>

⁶⁵ Euratex (2022), "Corporate Sustainability Due Diligence position paper"

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