

# Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

An Initiative of EIT Culture & Creativity,  
EIT Manufacturing and EIT Climate

September 2023



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### INDEX

<b>1. Executive summary</b>	<b>4</b>
<b>2. Background</b>	<b>6</b>
<b>3. Thematic Areas</b>	<b>8</b>
Thematic area 1 - Transformation	8
Thematic area 2 - Innovation and research	10
Thematic area 3 - Education and Skills	12
Thematic area 4 - Networks and accessibility	15
Thematic area 5 - Mobilization	16
Thematic area 6 - New Financial Instruments	18
List of entities or persons contributing with their input to this innovation agenda	21
Links to sources and related documents	21



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### POSITION PAPER

This Position Paper for a circular and sustainable Fashion and Textile Industry in Europe is an initiative of EIT Culture & Creativity, EIT Manufacturing and EIT Climate.

It outlines the status and opportunities in 2023 for innovation actions of EIT innovation communities to achieve a systemic change towards a circular and sustainable Fashion and Textile Industry.

The paper was developed and written in a collaborative process with experts from industry, academia, and the public sector from all over Europe. The process started with a workshop at the RWTH Aachen Institute of Textile Technology on March 3rd, 2023. After this workshop a smaller working group commonly wrote this paper in a joint process (names of all participating experts can be found on p. 21). The paper was developed in exchange and coordination with the European Commission.



Co-funded by the  
European Union



Co-funded by the  
European Union



Funded by the  
European Union



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### 1. EXECUTIVE SUMMARY

In the EU, the consumption of textiles, most of which are imported, now accounts on average for the fourth highest negative impact on the environment and on climate change and third highest for water and land use from a global life cycle perspective.<sup>1</sup> 92 million tonnes of textile waste is generated worldwide each year of which the vast majority ends up in landfills. In the EU 5,8 million tonnes<sup>2</sup> of textile products are discarded each year, which amounts to approximately 11 kg per person,<sup>3</sup> with garments typically having been worn only 7 or 8 times.<sup>4</sup>

Reaching the goals of the Green Deal, a transition towards a sustainable society, is not just a technical endeavour but a change that needs to happen on many levels.

The European Textile and Fashion sector is hence in urgent need of a systemic transformation process to secure a more sustainable impact on our environment and advance European competitiveness in a global context.

The three KICs, EIT Culture & Creativity, EIT Manufacturing and EIT Climate, therefore commonly developed this Position Paper for the Fashion and Textile Industry as a strategic document to explore synergies and accelerate a systematic change of the textiles and fashion sector in Europe in order to support the implementation of key activities set out in the Textiles Ecosystem Transition Pathway. The paper also sets a special emphasis on the consumers through working with awareness raising and mobilization.

The paper defines six thematic areas in which the three KICs will implement concrete actions:

#### Transformation

The digital transformation of the Fashion and Textile sector is fundamental in order to enhance efficiency, collaboration, decision-making, and sustainability in addition to fostering creativity and the adoption of new or innovative business models.

#### Innovation and Research

Innovation and Research along the value chain is needed to achieve standardizations and develop alternative materials and production processes in order to preserve natural resources.

#### Education and skills

The Fashion and Textile industry is in need of more tailor made education for the sector as well as continuous professional development across the value chain, providing specialist skills and expertise

---

<sup>1</sup> EEA (2022) Textiles and the environment: the role of design in Europe's circular economy

<sup>2</sup> <https://eur-lex.europa.eu/legalcontent/EN/TXT/HTML/?uri=CELEX:52022DC0141#:~:text=About%205.8%20million%20tonnes%20of,is%20andfilled%20or%20incinerated%20%20>

<sup>3</sup> <https://www.eea.europa.eu/publications/textiles-in-europes-circular-economy>

<sup>4</sup> [https://emis.vito.be/sites/emis/files/articles/91/2021/ETCWMGE\\_report\\_final%20for%20website\\_updated%202020.pdf](https://emis.vito.be/sites/emis/files/articles/91/2021/ETCWMGE_report_final%20for%20website_updated%202020.pdf)



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

to assist the sector in innovating and delivering strategic change towards a more circular and sustainable sector, including designing better products from the start.<sup>5</sup>

### **Networks and accessibility**

The consolidation and development of a Europe wide network of European Fashion and Textiles hubs will assist companies, in particular SMEs, to foster an agile, creative new culture to achieve growth with a positive impact.

### **Mobilization**

The Fashion and Textile Industry needs to develop and communicate a new vision for the textiles and fashion sector. Concrete actions in this thematic area will not only develop new future scenarios for the sector but also take the industry, including the creative operators in the sector, and their customers on a journey of a systemic change.

### **New financial instruments:**

The Fashion and Textile Industry is in need of new financial mechanisms supporting start-ups and actions within innovation projects.

For the implementation of the different actions, the three KICs will identify and exploit the potential of design-driven innovation methods. Different design competences are used from the start in order to ensure that the process revolves around user needs. These methods help to convert the information collected into new business opportunities using concrete rough drafts of plans, prototypes and solution descriptions. The goal is to find solutions that are so unique and interesting that they can be incorporated into the research, development and commercialisation phases and with excellent potential for a successful market launch. A special emphasis will be put on circular solutions or circular business models wherever circularity has a positive impact on the environment.

The actions often require a cross-disciplinary approach which is given through the unique cooperation of the three KICs and their various partners from all over Europe who will be involved in the implementation of this paper.

---

<sup>5</sup> In synergy with the Pact for Skills initiatives such as: TCLF Pact for Skills initiative, the large scale skills partnership for the Cultural and Creative industries (CCIs) as well as the TCLF Skills Alliance initiative.





## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### 2. BACKGROUND

In the EU, the consumption of textiles, most of which are imported, now accounts on average for the fourth highest negative impact on the environment and on climate change and third highest for water and land use from a global life cycle perspective.<sup>6</sup> 92 million tonnes of textile waste is generated worldwide each year of which the vast majority ends up in landfills. In the EU 5,8 million tonnes<sup>7</sup> of textile products are discarded each year, which amounts to approximately 11 kg per person,<sup>8</sup> with garments typically having been worn only 7 or 8 times.<sup>9</sup>

The European Textile and Fashion sector is hence in urgent need of a systemic transformation process to secure a more sustainable impact on our environment and advance European competitiveness in a global context.

To ensure that this position paper contributes to the necessary transitions, it builds on central strategic documents that have been co-created among stakeholders of the textiles ecosystem, under participation of the team of authors of this EIT position paper. As an input to this document following documents were used: the EU Textile Strategy for Circular Textiles and Fashion (Commission Adoption COM(2022)141 and European Parliament resolution), the EU Pact for Skills for the Textiles Ecosystem, the Strategic Research and Innovation Agenda of the Textile European Technology Platform as well as the Textiles Ecosystem Transition Pathway (Stakeholder Consultation Report and Policy Report of the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs).

This policy report highlights a range of needs that are also taken into account in this position paper:

- Demand for sustainable products
- EU support to SMEs
- EU support to increase the competitiveness and the economic potential of the cultural and creative sectors<sup>10</sup>
- Green transition (also taking into account the essential need for a multi-level engagement, including consumers)
- New possibilities of (eco)design through the introduction of a Digital Product Passport (DPP)
- New monitoring systems to analyze the green transition of the sector
- Sustainable management of waste by reusing and recycling materials
- Chemicals strategy for sustainability
- Disruptive and advanced digital technologies (such as big data, AI, blockchain and XR)

<sup>6</sup> EEA (2022) Textiles and the environment: the role of design in Europe's circular economy

<sup>7</sup> <https://eur-lex.europa.eu/legalcontent/EN/TXT/HTML/?uri=CELEX:52022DC0141#:~:text=About%205.8%20million%20tonnes%20of,is%20andfilled%20or%20incinerated%205%20>

<sup>8</sup> <https://www.eea.europa.eu/publications/textiles-in-europes-circular-economy>

<sup>9</sup> [https://emis.vito.be/sites/emis/files/articles/91/2021/ETCWMGE\\_report\\_final%20for%20website\\_updated%202020.pdf](https://emis.vito.be/sites/emis/files/articles/91/2021/ETCWMGE_report_final%20for%20website_updated%202020.pdf)

<sup>10</sup> <https://culture.ec.europa.eu/creative-europe/about-the-creative-europe-programme>



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

- Support of circular business models
- New skills for the sector (lifelong learning, future workforce, new target groups and gender equality)
- New investment and funding opportunities

In line with the Textiles Ecosystem Transition Pathway this position paper also proposes cooperation between industry, public authorities, social partners, consumers and other stakeholders in order to achieve a systemic change of the sector.

The challenges which the industry is facing are multiple and demand actions on various areas and levels in order to achieve a systemic change. The sector is fragmented into a majority of SMEs with limited financial capital for the implementation of all the new or upcoming EU standardization and regulations in regards to sustainability, chemicals policy (application of EU regulations REACH & CLP, BPR), level playing field, circular economy opportunities in materials re-use, recycling, resources efficiency, waste management, industrial emissions, energy and climate change (such as CO<sub>2</sub> emissions, energy efficiency, defining Best Available Technologies (BREF), as well as sustainable supply chains. Furthermore, many initiatives require support in order to be implemented, such as re-skilling and upskilling under the Pact for Skills.

This position paper addresses these challenges by suggesting a number of actions allocated to specific thematic areas. These activities include the design of tools and formats for an enhanced orientation and ideation as well as enhanced means of collaboration and knowledge/best practice sharing with other sectors.

The EIT community is fully committed to the European Green Deal. We welcome the Green Deal Industrial Plan and its subsequent regulatory framework, the net zero industry act and the critical raw materials act.

To achieve the ambitious goals of the European Green Deal, the EIT Community already has developed and implemented a number of successful activities.

In re- and upskilling of people, the EIT Community has achieved success through programs like the Higher Education Initiative. Just recently, two new initiatives were launched, the EIT Campus and the Deep Tech Talent Initiative. Both are contributing to the European Year of Skills and actively contribute to climate-neutral, worker-centric but even strong economy.

*This position paper for a circular and sustainable European Fashion and Textiles industry aims to address the **systems challenges** key to unlocking transition towards a green and sustainable future. It will accelerate positioning of the EU Fashion and Textiles industry as a champion of climate neutrality and a planet friendly way of doing business.*



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### 3. THEMATIC AREAS

The position paper will implement concrete actions in the following 6 thematic areas:

#### THEMATIC AREA 1 - TRANSFORMATION

The digital transformation of the Fashion and Textile sector is important in order to enhance efficiency, collaboration, decision-making and sustainability, in addition to fostering creativity and the adaption of new or innovative/circular business models. A digital value chain streamlines processes, reduces lead times, and improves productivity through automation. Digital tools facilitate better communication and coordination among stakeholders, accelerating product development and enabling faster responses to fashion trends. Increased visibility and transparency in the supply chain result in better inventory management and issue resolution. Data generation through digitalization supports informed decision-making, while digital platforms enhance customer experiences and enable sustainability efforts. By optimizing resources, reducing waste, and promoting ethical sourcing and manufacturing practices, digitalization contributes to a more sustainable fashion industry. Overall, digitalization empowers fashion companies to stay competitive, drive innovation and creativity, adopt innovative business models and reach consumers as well as foster sustainability in a rapidly changing industry.

##### Action 1 – Fostering Digital Innovation in Manufacturing

Automation, robotisation and Industry 5.0 solutions, along with constant usage of production data and moreover the adoption of all the enabling technologies that are at the basis of the Industrial Metaverse (e.g. digital twins) might help the industry towards a more circular and sustainable approach.

Remanufacturing the products, designing them to be able to be remanufactured and testing all the possibilities of transforming the production process in a digital environment can help the industry move forward.

This action supports innovators to deploy technology transfers within the SMEs and companies to have a wider open innovation approach.

*Timeframe: 2024*

##### Action 2 – Use of new technologies in the textiles and fashion industry





## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

New technologies have numerous applications in the textiles industry, revolutionising various aspects of the manufacturing process, product development and customer experience. The usage of a thorough and controlled approach to artificial intelligence (AI), blockchain based solutions or extended realities (XR) can help big and small realities to benefit from a smoother industrial process. Also design processes can benefit from AI development and the use of XR, especially in the area of modelling, sketching aids or 3D-2D design.

This action will support the implementation of new technologies in different parts of the textiles and fashion value chain, with activities such as investment and commercial support to startups, fashion and textiles innovation projects and specific education in the application of new technologies to the industry.

*Timeframe: 2024*

### **Action 3 – Sustaining a new micro scale approach in the Retail system**

Retail sector is undergoing major changes, both in terms of omnichannel approach and in terms of defining the new role of retail and how it can be part of the change.

Physical retail stores are following two main trends: on one hand, there is the dominance of vertical integrated distribution through flagships stores, on the other hand there is the resurgence of small independent micro boutiques or in the manufacturing sector also shared microfactories.

This action supports solutions that will help these phenomenons grow further through the development of new processes, technical solutions and new business models.

*Timeframe: 2024*

### **Action 4 - Understand how the industry can exploit "sustainable competitiveness" and benefit from a move away from "consumerism"**

(How can manufacturers be supported in avoiding low-cost mass-production offers?

To manufacturing entities "Product Lifetime Extension" seems to be a contradiction to "financial stability and growth". Nevertheless there are potentials to be lifted from a financial perspective (e.g. "reduction of over-production reduces costs for resource procurement") as well as from the image perspective (e.g. "we DO care for change"). Nevertheless there seems to be a lack of awareness of successful businesses that did implement circular business models into the DNA of their organisations.

This position paper suggests exchanging knowledge on best practice examples also from outside the textiles ecosystems in order to learn and pave the ways for change.

*Timeframe: 2025*



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### Action 5 – Circular Business Models and Circular Fashion Design

Circularity has been one of the main challenges in the Fashion and Textile sector in recent years. Identifying proper business models aimed at minimising waste, optimizing resource consumption and promoting a closed loop, where materials are reused and recycled has become the main research topic.

This action aims for identifying, supporting and accelerating promising design and technical interventions, business models and enabling conditions to address current issues in the fashion and textiles sector. Through cross innovation processes the creative capacity of the CCSI will leverage industrial symbiosis and design and help implement the circular business models across industrial ecosystems.

*Timeframe: 2024*

## THEMATIC AREA 2 - INNOVATION AND RESEARCH

One of the biggest challenges for the Fashion and Textile industry is aligning a circular system framework and sustainability (reduction of carbon and environmental impacts). Vital to this is the production of standardised and universally agreed data which can then lead to reduced environmental impacts across a circular value chain. The employment of data analysts and environmental scientists in the sustainability teams of some large brands is evidence of the importance of this approach, as is a proliferation of new data-technology start-ups developing tools to translate environmental data to the brands in a compelling and meaningful way. However, the data itself is splintered and contestable and needs standardisation through a regulatory framework.

The concept of renewable (or positive) natural capital should be incorporated within the development of new materials/processes to ensure that the proposed full value chain is both sustainable and resilient. Damage to the environment caused by fibres (and associated chemicals) is also of the highest priority for mitigation. This includes issues of toxicity as well as irritation to wildlife and human ingestion. Increasing research into biodegradation, and also fibre recovery, would be beneficial. This includes testing under real-life conditions of soil, freshwater, air and ocean environments, and with relevance to the most commonly used fibre blends and chemical combinations.

### Action 1- Supply chain impact reduction

Supply chains in textile and fashion can be extremely complex and long, taking into account different continents. Reshoring, nearshoring, friendshoring and improved legislation - also when the production phase is not within EU reach - are among the most immediate solutions. Integrating environmental science research into the earliest possible stages of product development is an essential but currently limited practice. More work is needed to study how the particular



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

characteristics of fashion and textiles design, material science and Life-cycle Assessment research can be integrated.

In this action concrete alternative manufacturing and chemical processes and machinery will be designed in order to minimise energy, water and chemical use and preserve natural resources. Moreover, logistics efficiency solutions, proximity evaluations and reusability frameworks need to be fostered for a better integrated circular supply chain. Data analytics and monitoring of these impacts should be embedded into manufacturing systems.

*Timeframe: 2024*

### Action 2 - Resource and chemical loss prevention

The concept of renewable (or positive) natural capital should be incorporated within the development of new materials/processes to ensure that the proposed full value chain is both sustainable and resilient.

Through this action a systematic understanding and mitigation of the primary chemical and fibre leakage points will be built across the value chain of textiles applications, including waste which is created at product level.

*Timeframe: 2024*

### Action 3 - Fibre, alternative textile processing and recycling technology scale up

This action supports the development of circular fibre technologies (both bio-based and synthetic) as well as recycling technologies that will bring substantial environmental benefits across all impact categories and prevent regrettable substitutions. Recycling and refurbishing of fibers is also an alternative to intensive exploitation of resources.

Development of green alternative textiles processing methods, e.g. sustainable zero-effluent and energy-efficient dyeing and finishing processes, and green multi-functional textiles development processes. Recycled, recyclable and/or biodegradable alternatives to highly used poly(ethylene terephthalate) or PET-based polyester will need to be developed that match the performance of virgin PET-based polyester fibres.

The challenge is to combine these processes into a singular and interrelated approach within the industry itself. The urgency of these actions does not allow for usual timeframes for R&D. Best practice principles must be established and proven through collaborative research, and embedded through a proactive design, decision-making approach to reach maximum impact in the time frame required to meet net zero and achieve climate change objectives set during 2021/2022, with effect by 2030.

*Timeframe: 2025*



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### Action 4 – Exploiting the CCSI potential to enable a user-centered implementation of the Digital Product Passport (DPP)

This action supports the development of novel user-centered software tools and tagging systems as well as the up-scaling of identified promising solutions along the value chains. Designers and creative teams need support in orienting themselves towards eco-design themes to enable appropriate influence on the DPP content. As every textile value chain is highly individual, a significant degree of adaptability is necessary for the design of solutions which fulfill the needs of each stakeholder group. Furthermore, operators on shop floor level as well as quality managers and decision-makers in production need to have access to solutions that enable them to comply with the upcoming legal requirements.

*Timeframe: 2024*

## THEMATIC AREA 3 - EDUCATION AND SKILLS

Education is a key element of capacity building which again is a key ingredient for successful circularity transitions. Many stakeholders are willing to contribute to the transitions but they do not know how and with the support of which technology and partners. Furthermore the understanding of interdisciplinary elements which are required for inclusive transformations needs to be enhanced e.g. by learning from front-runners.

Being a creator in the fashion industry is increasingly more liaise to technical knowledge. This position paper will help a deeper and greater collaboration between creative knowledge and scientific-technical one, aiming at cross-fertilisation of disciplines in the area of Fashion.

The European Commission has launched the Pact for Skills which aims to get public and private organisations together and encourage them to make concrete commitments to upskilling and reskilling the workforce. Members of the Pact have access to advice on relevant funding instruments to boost the skills of adults in their regions and countries, and partnership opportunities within our growing community. All members of the Pact contribute to gathering knowledge and assessing upskilling and reskilling needs, they commit to concrete upskilling activities and they can benefit from three dedicated services:

- Through the Networking Hub, members can find partners and relevant EU tools (like Europass, Skills Panorama, EURES and the European Network of Public Employment Services). They can also promote their activities.
- The Knowledge Hub organises webinars, seminars and peer learning activities for members. It also provides updates on EU policies and instruments, as well as information on projects, tools, and best practices.
- In the Guidance Hub, members can find information about EU and national funding opportunities, and guidance to partnering with national and regional authorities.





## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

As an example, EURATEX together with COTANCE and CEC has launched the TCLF Skills Alliance: the Textile Clothing Leather and Footwear (TCLF) initiative to support public and private organisations with upskilling and reskilling.

In addition, EIT Culture and Creativity as well as EIT Climate are members of the large-scale skills partnership for the Cultural and Creative Industries ecosystem.

All actions under this thematic area should contribute to upskilling the workforce from textile and fashion industry, thus contributing to the commitments under the Pact for Skills. Synergies will be created with other EU initiatives and projects targeting the implementation of the Pact for Skills e.g. dedicated support from the Single Market Programme to the Pact for Skills lead organisations to set up multi-stakeholder local partnerships in relevant member states.

### Action 1 - Industry informed CPD courses and postgraduate degree programmes

The Fashion and Textile industry is in need of continuous professional development (CPD) across the value chain, providing specialist skills and expertise to assist the sector in innovating and delivering strategic change, and enabling its digital and green transition. In addition, novel postgraduate courses will be developed that bring together STEM and creativity harnessing synergies between the various disciplines, and preserving the European know-how and cultural heritage of textiles crafting skills. A specific measure to be explored will be the upskilling of non-textile experts (e.g. from the fields of economic sciences, social sciences, data science as well as practitioners from different fields and regions of the world) with a basic understanding of domain knowledge in textile production technology. Such an upskilling program shall be conducted in close collaboration with manufacturing companies in order to contribute to the Pact for Skills.

*Timeframe: 2024*

### Action 2 - Empowering female entrepreneurship and leadership in the fashion and textile sector

The textile and fashion industry is dominated by women: they represent 52% of the workforce in the textile sector, 79% in the clothing sector, and 58% in the leather and footwear sectors. Nevertheless, the majority of these women do not hold leadership positions with only 38% of them holding senior officials & managers positions.

Indeed, the battle for women's rights is a long and twisted one. Many are the problems women face, from the burden of unpaid care work, to segregation of work sectors, from the alarming numbers of violent acts against women, to the lack of women in managing positions. According to the 2020 Gender Equality Index from the European Institute for Gender Equality (EIGE), the EU pace towards equality is slow and, at the current rate, it would take 60 years to reach full gender equality.

This action wants to support female entrepreneurship and leadership in the fashion and textile sector by creating synergies with other female entrepreneurship programmes and by creating an environment that foster female entrepreneurship such as promoting child support initiatives as well as funding opportunities.



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

*Timeframe: 2024*

### Action 3 - Capacity building for future workforces

Awareness raising from an early age, capacity building and co-creation are strongly recommended to create a shared culture of circular and sustainable fashion in Europe. Through this action an educational program for pupils and students will be developed. Pupils from across Europe will learn about the ecological impact, the social meaning, and the career chances of a fair, sustainable and inclusive fashion and textiles industry (in synergy with the TCLF Pact for Skills)

Like pupils learn swimming, driving or cooking a playful curriculum and “license” on sustainable fashion and textile consumption is implemented and the basis for a mobilizing campaign, reaching a wider audience.

*Timeframe: Pilot 2024/25, Rollout 2026*

## THEMATIC AREA 4 - NETWORKS AND ACCESSIBILITY

The consolidation and development of a Europe wide network of European Fashion and Textiles hubs will assist companies, in particular SMEs, to foster an agile, creative new culture in which fashion and textiles and technology businesses can access leading-edge research and development (R&D) to advance innovation capacity, environmental sustainability, and good growth with a positive social impact. In addition, the cross-fertilisation with the ‘Enterprise Europe Network’ and the European Digital Innovation Hubs as well as the EIT network offer further opportunities to enable SMEs to transform the sector. Actions to exploit this opportunity, detailed below, include information flows as well as collaboration and mentoring schemes proposed to be delivered by the dedicated sector hubs.

### Action 1 - Developing a wider Fashion and Textile community and networks

The European Textiles and Fashion hubs will engage with a wide community of different stakeholders (creatives, technologists, and entrepreneurs, manufacturers, financiers) across Europe in the Fashion and Textile sector through a bottom-up approach and will establish a sustainable transnational network of Textiles and Fashion organisations (Associations, Research Centres, Accelerators, Incubators, Competence Centres), companies (SMEs) and FT Investors. It will also facilitate the knowledge exchange and increase the FT community’s connectivity. In doing so, it will rely on existing networks and initiatives and avoid duplication of efforts already in train.

*Timeframe: 2024*



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### Action 2 - Learn from the past and from different regions

Cultural heritage and global knowledge exchange as facilitator for transitions. Europe is historically a continent linked to the production of textiles and fashion. Important and significant industrial districts of textiles and fashion were born and evolved with an evident and unique knowledge in manufacturing processes starting from the "production" of raw material of natural or manmade origin, up to fiber, yarn, weaving, crafting techniques, finishing and garment manufacture. The recovery, restoration and revitalization thanks to the integration of new technologies, start-ups and spinoffs in the digital field, circular economy and new green and sustainable approaches can consolidate the market of textile and fashion districts and open up new business models in the future. The push towards these new trends will allow greater attractiveness towards the new generations and the new workforce. The recovery of crops, production processes, historical and contemporary design integrated with new biotechnologies, ecodesign, industry 5.0 and Artificial Intelligence, new models of business linked to the extension of product life, product maintenance, rental and restoration of the end of life or recycling "textile to textile" or "textile to other" will launch Europe as a global leader for the textile and fashion market.

This action supports historical textile districts and enterprises including crafters to enter in the new paradigms and the evolutions of textiles and fashion through interaction with eco-designers, innovators, start-ups, spin-offs and innovative SMEs, maintaining knowledge and expanding it with new trends and synergies.

As the "Global South" has in many regions learned historically how to cope with resource scarcity, an enhanced awareness of solutions and measures contributing to product lifetime extension and circularity (beyond mere recycling) have been established. This tremendous amount of knowledge would need to be understood and checked for transferability into European textile value chains and consumption patterns. Similarly in Europe there have been times of severe resource scarcity in the past, especially during times of war. Hence, learning from historical perspective should be exploited for a transfer of such cultural heritage into our present manufacturing and consumption reality.

*Timeframe: 202*

### THEMATIC AREA 5 - MOBILIZATION

In large parts the Textiles and Fashion sector still is locked up in old structures and production systems. Bad reputation through media about "fast fashion" and "greenwashing" is a risk to become the new image of the sector. Also the consumption of fashion is still primarily driven by trends, brand names, and affordability, without much consideration for the ethical and sustainable aspects of the products purchased. Consumers are not informed about the working conditions of garment workers, the use of harmful chemicals in textiles production, and the consequences of fast fashion on waste and resource depletion. However, as awareness and information have become more accessible, there has been a shift towards a demand for more sustainable and ethical fashion alternatives.



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### Action 1 - Re-visioning the fashion and textiles sector

There is an urgent need to develop and communicate a new vision for the textiles and fashion sector in Europe. The cultural and creative industries and sectors have the expertise to not only imagine and shape different future scenarios but also the ability and outreach to take along the industry and customers on such a journey of change.

In this action a participative process will be designed and implemented in which foresight specialists, artists and speculative designers together with experts from the European Fashion and Textile industry will develop a new vision for a sustainable textiles and fashion sector.

*Timeframe: 2024*

### Action 2 – Changing Consumer Behaviour

There is a significant level of unconsciousness among customers in the fashion industry. Consumers often lack awareness about the social and environmental impact of their fashion choices. However, slowly new consumer behavior trends arise such as sustainable fashion, rental and second hand fashion or valuing of local and independent brands in new ways. Furthermore, inclusiveness in fashion or textile products as well as the accessibility of sustainable fashion and textile products for affordable prices has to be supported.

This action therefore supports specific trends by engaging with relevant actors in order to lead European citizens into a change of behavior.

*Timeframe: 2025*

### Action 3 - Mobilizing campaign

Based on a new vision for the Fashion and Textile sector this action will implement a transnational mobilizing campaign to reach the customers of the future, starting at schools and universities across Europe. Through well known musicians, actors, artists and stakeholder involvement (e.g. designers, fashion brands) the new vision as well as sustainable fashion approaches (e.g. through stage costumes, films, exhibitions etc.) will be widely communicated.

*Timeframe: 2025*





## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### THEMATIC AREA 6 - NEW FINANCIAL INSTRUMENTS

The changing landscape of the fashion and textiles industry and the need to tackle sectoral challenges in new and innovative ways, also requires development of the new financial instruments fit for purpose.

#### Action 1 – Financial support for Materials and Energy Digital Innovation

Tracing the provenance and calculating the impact of the production is of the uppermost importance in the Fashion and Textile sector.

Actions dedicated to support startups and innovation projects in the area of traceability (up to Digital Product passport), sustainability (measuring the Product Carbon Footprint and avoiding the long-lasting process of producing and sending samples back and forth from the company to the producer) are just the tip of the iceberg.

This action is designed for identifying the causes and to support the change within the companies through the adoption of digital solutions, which can smooth the process and eventually reduce the impact of said production on the environment as well as to help them reuse the materials that are not sold or already in commerce.

*Timeframe: 2024*

#### Action 2 - Responsive R&D expertise, mentoring and collaboration SMEs

This action aims to support the SMEs in the fashion and textiles industry with the novel and systems-based approach built on the principle of leveraging R&D as a means for sustainable business and process transformation. The thematic focus of this R&D action will cover business model development and implementation, design, production and manufacturing of advanced materials, products, and experiences. It will also include the development of digital methods, enabling, and emerging technologies which support sustainable and circular practices in Fashion and Textiles SMEs.

A demand for greater product and process transparency and traceability creates an imperative for the sector to embrace more sustainable practices. Yet SMEs in the sector need time and resources to develop and implement innovative, sustainable and circular practices: R&D is key to realising this change, supporting SMEs in this sector will contribute to both meeting of the European Green Deal (EGD) objectives and 2030 Sustainable Development Goals (SDGs). R&D is a time- and resource-intensive commitment for SMEs in the FTT sector, who operate with narrow margins in a fiercely competitive market. Such specialised financial instrument will offer space for intervention and change, allowing SMEs to maintain their day-to-day business by supplying additional resources specifically for research, experimentation and innovation.



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

*Timeframe: 2025*



# EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

MATRIX OF THEMATIC AREAS AND ACTIONS FOR A SUSTAINABLE AND CIRCULAR FASHION AND TEXTILE INDUSTRY

Action	Transformation	Innovation and Research	Education	Networks and accessibility	Mobilization	New financial instruments
1	Fostering Manufacturing Digital Innovation	Supply chain impact reduction	Industry informed CPD courses and postgraduate degree programmes	Developing a wider Fashion and Textile community and networks	Re-visioning the fashion and textiles sector	Financial support for Materials and Energy Digital Innovation
2	Use of AI in the textiles and fashion industry	Resource and chemical loss prevention	Empowering female entrepreneurship and leadership in the fashion and textile sector	Learn from the past and from different regions	Changing Consumer Behaviour	Responsive R&D expertise, mentoring and collaboration SMEs
3	Sustaining a new micro scale approach in the Retail system	Fibre and recycling technology scale up	Capacity building for current and future workforces, School Licence		Mobilising campaign Building on School Licence	
4	Understand how the industry can exploit "sustainable competitiveness" and benefit from a move away from "consumerism"	Exploiting the CCSI potential to enable a user-centred implementation of the Digital Product Passport (DPP)				
5	Circular Business Models					



## EIT KICs Position Paper for a circular and sustainable Fashion and Textiles Industry in Europe

### LIST OF ENTITIES OR PERSONS CONTRIBUTING WITH THEIR INPUT TO THIS POSITION PAPER

- EIT Culture & Creativity, EIT Climate and EIT Manufacturing
- Ing. Mauro Sampellegrini, Federazione Tessile Moda - Sistema Moda Italia; EURATEX)
- Dr.-Ing. Jan Vincent Jordan, Institut für Textiltechnik of RWTH Aachen University
- Prof Kate Goldsworthy, Director of UAL Innovation Lab and Chair of Circular Design and Innovation UAL
- Nadja Ohranovic, Associate Director of Business Development and Partnerships, UAL
- Scott Lipinski, European Fashion Alliance, German Fashion Council
- Silvia Zancarli, Business Creation Manager, EIT Manufacturing and Course Leader of the Master in Fashion Innovation at Supsi

### LINKS TO SOURCES AND RELATED DOCUMENTS

- EU Textile Strategy for Circular Textiles and Fashion Commission Adoption COM(2022)141: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0141>
- EU Textile Strategy European Parliament resolution: [https://www.europarl.europa.eu/doceo/document/TA-9-2023-0215\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2023-0215_EN.html)
- Pact for Skills: <https://euratex.eu/wp-content/uploads/TCLF-Pact-for-Skills-FINAL-v1.pdf>
- Strategic Research and Innovation Agenda of the Textile European Technology Platform: [https://cdn2.assets-servd.host/deranged-cormorant/production/SIRA\\_graphical-version-PDF-version.pdf](https://cdn2.assets-servd.host/deranged-cormorant/production/SIRA_graphical-version-PDF-version.pdf)
- Textiles Ecosystem Transition Pathway Stakeholder Consultation Report: <https://ec.europa.eu/docsroom/documents/52638>
- Transition Pathway Policy Report: <https://op.europa.eu/en/publication-detail/-/publication/6392f189-0416-11ee-87ec-01aa75ed71a1/language-en>