

# ACTIVITY A.T3.3 - INTERREGIONAL ADVISORY BOARD - 3RD MEETING

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D.T3.3.3

Action Plan "Improvement of Textile  
Industry towards Circular Economy"

Final  
Version

11/2020

Responsible partner:

PP4 - INNOVATEXT (Hungary)

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This document has been issued within the project ENTeR (CE 1136) thanks to the funding received from the European Union under the Interreg Central Europe Programme (2nd call 2016)

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### **ENTeR - Expert Network on Textile Recycling**

ENTeR works in five central European countries that are involved in the textile business, to promote innovative solutions for waste management that will result in a circular economy approach to making textiles.

The project will help to accelerate collaboration among the involved textile territories, promoting a joint offer of innovative services by the main local research centres and business associations ("virtual centre"), involving also public stakeholders in defining a strategic agenda and related action plan, in order to link and drive the circular economy consideration and strategic actions. The approach of the proposal and the cooperation between the partners are oriented to the management and optimization of waste, in a Life Cycle Design (or Ecodesign) perspective.



## 1. Scope

An Action Plan is a sequence of steps that must be taken, or activities that must be performed well, for a strategy to succeed. An action plan must foresee: what will be done and by whom (tasks); when will it be done (time horizon); what specific funds are available for specific activities (resource allocation). An action plan should break down the strategy goals and objectives into specific tasks.



## 2. Introduction

### 2.1. Expert Network on Textile Recycling

Interreg Central Europe's ENTeR project focuses on waste reduction to prevent depletion of non-renewable resources in the textile industry. The main goal of the initiative is to strengthen the innovation capacity of textile companies in Central Europe, improve sustainable links among industrial textile areas and foster closer cooperation on waste management and circular economy. The project partners are located in five central European countries: Italy, Poland, Germany, the Czech Republic and Hungary. These countries have a relevant presence of the textile industry and a national textile platform. The project aims to accelerate cooperation between the involved textile territories, promoting a joint offer of innovative services by the main local research centres and business associations ('Virtual Centre').

ENTeR also involved public stakeholders during the three-year-long working period: the Strategic Agenda was defined and published by the partners in 2018. The next chapter is making the respective Action Plan to drive circular economy considerations and actions. The approach of the project is oriented to the management and optimisation of waste, in a life cycle design (or eco design) perspective. The aim is to demonstrate the benefit of an operational collaborative model amongst research and business partners, based on an online tool and shared skills focused on waste eco design and resource efficiency.

In order to continue the initiatives of the project, a Collaboration Model has been defined for the prosecution of the activities after the end of the project's timeframe. This Collaboration Model involves professional organizations, associations, R&TT centres and companies with the common objectives of promoting innovation in material resources efficiency and reducing the environmental impact of the products over the life cycle. The Action Plan is oriented towards the implementation of the common goals of the partnership, based on the fundamental pillars defined in the Strategic Agenda, and the main deliverables of the joint research and collaboration of the last three years.

### 2.2. The circular model<sup>12</sup>

Our economy has reached a turning point again, similarly to the former industrial revolutions. Just as well as before, technology and scientific results enable industries to take enormous steps towards increased efficacy. But the main question is, where are these steps focusing and what is their direction?

According to the Macarthur Foundation's definition, "A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems." The theory of "closing the loop" and removing "disposal" as an

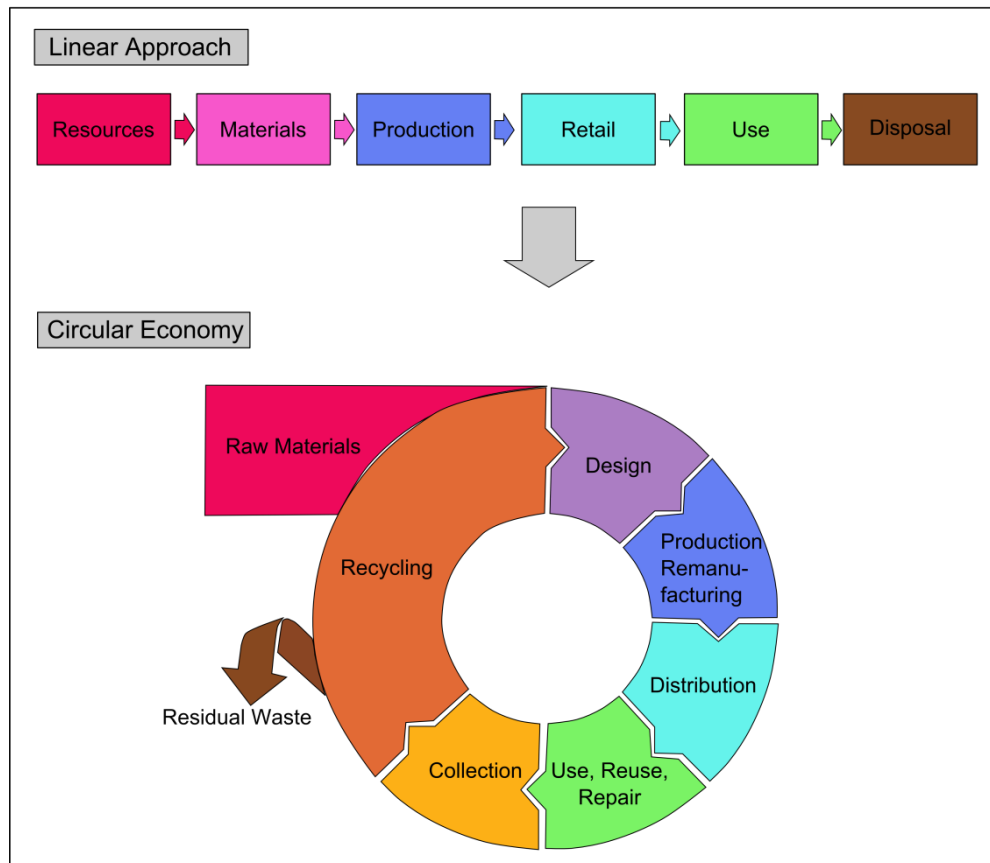
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<sup>1</sup>EURATEX & Co. - A Manifesto to Deliver A Circular Economy in Textiles

EURATEX & Co. - 12 key points and 6 must haves

<sup>2</sup> <https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy> (12.10.2020)

element of the manufacturing process to the greatest possible extent has gained the world's attention for both the consumers' and producers' side.



**Figure 1: Transformation from linear to circular economy systems<sup>3</sup>**

As forming the loop requires the cooperation of an entire industry throughout the supply chain, the European textile industry's mostly SME-based manufacturing needs special attention and coordination to tackle this issue. Several initiatives, toolboxes, regulations and best practices can be found all around Europe and the world, but maximum efficiency and fastest solutions can only be achieved by each and every company's and other industry stakeholders' participation.

EURATEX, the European Apparel and Textile Confederation specified 12 points to bring about the EU Textile Circular Economy, as summarized below:

1. Partnerships and cooperation between brands, makers, authorities, NGOs and all stakeholders from machine manufacturers to waste-managers, to build up the Circular Economy Action Plan.
2. To increase demand for recycled products, from brands, retailers and Public Authorities, which will enable reduced costs.
3. Eco-design (focusing, recycling, material regeneration and/or longevity) shall be incentivised and rewarded.

<sup>3</sup> Strategic Agenda on Textile Waste Management and Recycling



4. Fostering consumer consciousness and responsibility through education.
5. To decide on product/waste afterlife using life cycle assessment.
6. To create global standards for recycled materials and their quality.
7. Logistic, technological and organizational control of collecting and sorting of pre- and post-consumer waste.
8. Green public procurement plays a key role in circular transition.
9. To put greater emphasis on ensuring REACH compliance of products as recycled products need to fulfil the same requirements regarding product safety and chemical substances.
10. To harmonize local legislation in order to remove all barriers to waste management and shipment across EU countries.
11. Provide funding to make innovations financially viable and profitable.
12. New services shall be established within the textile industry for consumers and value chain partners to implement circularity.





### 3. Actions

We have developed the strategy and vision of the project until 2025. The time horizon of the Action Plan is the same, but the definition of the tasks can be considered for a shorter period of time, as the long-term detailed planning is not justified by the current economic situation, particularly because of the circumstances caused by COVID-19. Based on this, the tasks within the program were defined for the next five years, keeping in mind that a certain amount of flexibility is and will be required on the way of the stabilization of the current situation. The actual implementation of the tasks can start only after the necessary resources have been raised, therefore the uncertainty of the indicated time is higher.

We hope that the defined strategic directions in the professional fields will be timeless, but the definition of priorities and current tasks will require continuous monitoring and feedback. None of the selected strategic areas is unprecedented, all programs have product and technology development projects that have already been launched or can be launched immediately. The early start of these projects is also important because their success can create the conditions for new innovations.

The textile and clothing industry a traditional industry that has always applied the most important technical innovations of the age throughout its history, which is essential due to the complexity of the processes as well as the adaptation to the human body in the manufacture of clothing. A characteristic of the textile and clothing industry is that it is perhaps the fastest and most frequent industry to change its products, thanks to its extraordinary variety of materials and technologies, as well as the role of fashion.

In technological innovations, the source of innovation is often applied research in related industries (mostly the chemical and mechanical industries but as time goes by, an interdisciplinary approach involving various fields becomes more frequent), which are being developed into a new product or technology in the textile and clothing industry. Today our industry is also becoming more and more user-friendly, so the “Market pull” is also a driver of innovation.

The key players in implementing the Action Plan are manufacturing and research companies in the textile and clothing industry, including world-class large organizations, SMEs and micro-enterprises. It is important that entrepreneurs accept and base their activities that the development directions set out in the strategy, the increase of added value, efficient, knowledge-intensive processes can lead to the increase of competitiveness and profit-making. It is important that they not only accept this, but also be active initiators from the users of their products, based on the demands of the market.

Due to the diversity of materials and technologies used, innovation is extremely diverse, requires a wide range of knowledge, and cooperation with many disciplines and several other manufacturing and service areas is a prerequisite.

The main source and input of innovations in the textile and clothing industry is often scientific results created in other fields, as well as innovations in other industries that are suppliers to the textile and clothing industry. Recently, there have been more developments in which the textile product or the textile technology together with other disciplines or sectors is radically new, of high technical standard (eg. high-tech) enables solutions, so more and more textile products can be considered high-tech products. These include e.g. carbon fiber reinforcement structures,



nanofiber-based artificial human tissues, intelligent textile products containing microsystems, or solar textiles.

With the fast spread of specialty textiles and new textile applications, the output and results are very often used outside the sector, in areas that cover almost the entire spectrum of the economy. It follows that the sector for innovation need cooperation. It is also true in the case of the textile and clothing industry that the original high-impact innovations are mainly created in border areas, in interdisciplinary relations.

The following collaborations are key to implementing the strategy:

- contact with researchers from other sectors and disciplines
- contact with entrepreneurs in sectors using textile products (this covers almost the whole economy)
- contact with sectors offering products and services to the textile and clothing industry (mainly fiber, chemicals, machinery and IT applications)
- contact with designers
- contact with trade and marketing
- contact with vocational training and higher education institutes

The role of this Action Plan is to continue and supplement the roadmap defined in ENTeR's Collaboration Model, and offer a wider spectrum of use and afterlife of the project's results. As it is also stated by that deliverable, the implementation of those activities is based on the project partners' voluntary contributions at the moment. Funding opportunities are introduced in Chapter 4 of this Action Plan: the allocation of human resources and expenses depend upon the financing obtained.

### 3.1. Legal and Policies Area

#### 3.1.1. Influence on policy-making

Towards simplified approaches of regulations controlling waste management, separation, recycling and transportation.

<b>Critical Factors</b>
<ul style="list-style-type: none"> <li>▪ Separate collection of waste made of valuable materials is not facilitated enough by national and EU-level regulations.</li> <li>▪ Specific targets for waste prevention, reuse and recycling are missing.</li> </ul>
<b>Reasons, Goals &amp; Expected Outcome</b>
<p>As the current legislative system - both on national and international levels - is complex and has multiple stakeholders, the textile industry's executive side - such as manufacturing and research companies - needs to find efficient ways to make their voice heard and give usable feedback to</p>



the Legislature. This way, the issues currently hindering and making the implementation of circular economy practices difficult will be dealt with to all parties' satisfaction.

Past and ongoing industry experiences show that the separate collection and further utilization of valuable materials, such as bio-waste and used textiles, both pre- and post-consumer waste needs to be strengthened by official policies.

For the above reasons, reaching decision makers and advocacy groups at appropriate levels is key to the improvement of relevant laws and to define specific target values regarding all levels of waste management, beginning with prevention and ending with reuse and recycling.

### Indicators

- developed **professional relationships** with national and international organizations in the field of lobbying and advocacy (such as EURATEX and national employer organizations)
- participation in the making and publishing **position papers and studies**
- **influenced EU and/or national-level legislation processes:**
  - removal of obstructive laws
  - creation of new laws which are circularity based

### Professional Content

- Knowledge base of current and planned waste-related legislation (e.g. European Waste Framework Directive, Extended Producer Responsibility, etc.)
- Position papers and impact studies based on research and industry experiences
- Living network and continuous conciliation of legal and textile industry professionals

### Subtasks of Realization

1. Forming of a designated group with textile industry professionals - possibly with a background in legal and/or political studies - who will be in charge of providing policymaking with first-hand information and experiences from the industry
2. Making a joint stakeholder analysis focusing particularly on industrial relations & connections with the legal & policies area
3. Building collaboration and partnership with national employer organizations, EURATEX and other sectoral organizations
4. Identifying obstructive laws in current national and EU legislation
5. Defining proposals of modification and impacts of changing regulatory requirements
6. Eliminating obstacles of separate collection and recycling
7. Defining specific targets for waste prevention and reuse
8. Exchanging information on new regulations (see Chapter 3.4)



Participants & Connecting Disciplines
<ul style="list-style-type: none"> <li>➤ Project partners*</li> <li>➤ Law &amp; policymaking</li> <li>➤ Industrial relations</li> <li>➤ Communication</li> </ul> <p>*based on the Collaboration Survey, INNOVATEX proposes collaboration with EURATEX</p>

### 3.1.2. Developing innovative collection, reuse and recycling schemes

Underpinning recycling, starting at the design phase.

Critical Factors
<ul style="list-style-type: none"> <li>▪ Missing specifications on eco-design</li> <li>▪ Missing economic steering instruments for appropriate resource utilization</li> </ul>
Reasons, Goals & Expected Outcome
<p>As the efficiency of reuse and recycling is increasing drastically, which is easier to implement for industries and recycling companies and transparent for consumers.</p> <p>Specifics, standards and practical know-how on eco-design needs to be published.</p> <p>To make a reality supporting and promoting the use of financial support available for investments.</p>
Indicators
<ul style="list-style-type: none"> <li>• published material on the subject for a professional target audience</li> <li>• involved countries and regions</li> </ul>
Professional Content
<ul style="list-style-type: none"> <li>• precise details and definitions of eco-design and collection, reuse and recycling schemes as its output</li> </ul>
Subtasks of Realization
<ol style="list-style-type: none"> <li>1. Appointing an international group of experts of eco-design and recycling</li> <li>2. Create a baseline for future legislations by a publication specifying the possible forms of eco-design, depending on the required output (reuse or recycling)</li> <li>3. Expanding the Virtual Centre with a section about financial support opportunities and funding, which is constantly updated</li> </ol>



Participants & Connecting Disciplines

ENTeR partnership  
Designers, manufacturers  
Environmental Sciences



### 3.1.3. Gantt chart for actions in the legal and policies area

		2021	2022	2023	2024	2025
<b>3.1.1. Influence on policy-making</b>	1. Forming of a designated group					
	2. Making a joint stakeholder analysis					
	3. Building collaboration and partnership					
	4. Identifying obstructive laws					
	5. Proposals of modification and impacts					
	6. Eliminating obstacles					
	7. targets for waste prevention and reuse					
	8. Exchanging information					
<b>3.1.2. Developing innovative collection, reuse and recycling schemes</b>	1. Appointing an international group of experts					
	2. Create a baseline for future legislations					
	3. Expanding the Virtual Centre					



## 3.2. Waste Management

### 3.2.1. Improving industrial and production waste management

<b>Critical Factors</b>
<ul style="list-style-type: none"> <li>▪ Problematic storing of textile production waste due to not sufficient storage spaces</li> <li>▪ Expensive recycling methods</li> </ul>
<b>Reasons, Goals &amp; Expected Outcome</b>
<p>Various methods of re-utilization and recycling already exist, but chemical and physical recycling methods are highly resource-intensive in terms of time, energy and cost. Improvement is needed on that area. Also, the optimization of processes regarding waste management is also crucial to develop company practices, with at least as emphatically as the other manufacturing processes.</p> <p>Another long-term solution to this issue is to study other models of waste recovery - see relevant ENTeR pilot cases.</p>
<b>Indicators</b>
<ul style="list-style-type: none"> <li>• replication of best practices: number of companies and countries with newly implemented recycling methods in their manufacturing processes</li> <li>• number of companies with an improved logistic &amp; storage system</li> <li>• efficiency and savings achieved by the new methods</li> </ul>
<b>Professional Content</b>
<ul style="list-style-type: none"> <li>• assess economic viability and sustainability of recycling and reuse of waste materials and various methods of re-utilization (within process), recycling by tearing or cutting, secondary use (e.g. cleaning rags, filling or insulation material, upholstery, etc.), physical or chemical recycling (strongly overlapping with 3.3 - Research trends and technologies);</li> <li>• e.g. PBN pilot case for in-house logistic system; other relevant pilot cases</li> </ul>
<b>Subtasks of Realization</b>
<ol style="list-style-type: none"> <li>1. Developing specialized databases and platforms for exchanging information, materials and technologies - see M3P</li> <li>2. Analysis of textile production waste</li> <li>3. Improving efficiency of recycling methods</li> <li>4. Studying other models of waste recovery</li> </ol>



5. Implementing corresponding recycling methods in manufacturing facilities throughout Europe
6. Developing storage practices of manufacturing plants

#### Participants & Connecting Disciplines

ENTeR partnership  
Chemicals industry and other sciences

### 3.2.2. Disposal of unusable household textiles and end-of-life-clothing

Tackle the issue of disposal of unusable household textiles and end-of-life-clothing into communal waste.

#### Critical Factors

- Disposal companies require assorted textile waste bales (colour-wise), which means a considerable effort for companies, not to mention end-user textile waste
- Huge amount of household textiles disposed

#### Reasons, Goals & Expected Outcome

At the moment, each Central European country is on a different level regarding the procession of end-of-life textiles and their further treatments. Separate sorting of this waste stream would greatly facilitate reuse and recycling endeavours.

In terms of end-user textile waste, the Central European community needs to identify, establish, put into practice and disseminate new, viable and feasible ways of managing their waste.

#### Indicators

- companies involved

#### Professional Content

- sorting solutions
- information material (on- and offline) to advance long life household materials (see 3.4 Communication)

#### Subtasks of Realization

1. Finding ways to make sorting by colours and baling easier and less resource-intensive
2. Decreasing the amount of household textiles discarded...
  - 2.1 by communication campaigns





2.2 by increased quality

Participants & Connecting Disciplines

ENTeR partnership

Logistics & waste management

3.2.3. Gantt chart for actions in the waste management area

		2021	2022	2023	2024	2025
<b>3.2.1. Improving industrial and production waste management</b>	1. Developing specialized databases and platforms (M3P)					
	2. Analysis of textile production waste					
	3. Improving efficiency of recycling methods					
	4. Studying other models of waste recovery					
	5. Implementing corresponding recycling methods					
	6. Developing storage practices of manufacturing plants					
<b>3.2.2. Disposal of unusable household textiles and end-of-life-clothing</b>	1. Finding ways to make sorting by colours and baling easier					
	2. Decreasing the amount of household textiles discarded					



### 3.3. Research trends and technologies

#### 3.3.1. Models and treatments of waste recovery

Studying models of waste recovery and investigating treatment technologies for textile waste

<b>Critical Factors</b>
<ul style="list-style-type: none"> <li>▪ Lack of technological and technical recycling solutions</li> <li>▪ Overly high efforts are required by separation, storage and logistics</li> <li>▪ Economic interest is missing, viability is questionable</li> </ul>
<b>Reasons, Goals &amp; Expected Outcome</b>
<p>First and foremost object of current circularity-related research trends are to improve ways of textile waste recovery. This consist of identifying new technologies of waste recovery and identifying their place of use.</p> <ul style="list-style-type: none"> <li>- identifying new technologies of waste recovery and finding their places of use (e.g. mono-fraction, homogeneous and valuable waste)</li> <li>- to investigate ways of re-using of waste coming from technical textiles especially by the technical character of such textiles (e.g. heavy coated or laminated, composites with latex, paper etc.)</li> <li>- to study removal of chemical substances from textile waste</li> </ul>
<b>Indicators</b>
<ul style="list-style-type: none"> <li>• number of companies implementing solutions and best practices from former ENTeR pilot cases</li> <li>• quantity of waste recycled/reused using the newly implemented methods</li> </ul>
<b>Professional Content</b>
<ul style="list-style-type: none"> <li>• high-performance materials and textiles, smart and multifunctional textile surfaces, new manufacturing technologies, digitisation, virtual modelling, new business models, high-tech recycling and circular economy concepts, sustainability of production and products, smart and functional wear products for health, sport and personal production, lightweight applications, and energy-efficient buildings</li> <li>• ENTeR pilot cases</li> <li>• networking &amp; cooperation among companies</li> </ul>
<b>Subtasks of Realization</b>
<p>1. Finding new companies for the implementation of good practices developed in the pilot cases</p>



2. Putting into practice suitable technologies at the cooperating companies
3. Publishing new studies and conducting research projects about the experiences of implementing various recycling and recovery technologies in (vertically and horizontally) different parts of the European textile industry
4. Develop new test methods for recycled textiles

**Participants & Connecting Disciplines**

ENTeR partnership  
Universities, companies, R&D organizations  
Chemicals industry, physics, environmental sciences, etc.

**3.3.2. Support to technology transfer**

**Critical Factors**

- Relatively small number of companies using innovative technologies of waste management
- Insecurity of economic viability of circular models

**Reasons, Goals & Expected Outcome**

Essential innovations are not yet implemented on a large scale, as long-term economic viability of circular business models is uncertain and the absence of long term commitments with retail and waste processors.

Most companies do not recycle waste due to lack of appropriate technologies, low level of information about new solutions and high costs of waste management activities.

**Indicators**

- feedbacks from companies
- number of technologies implemented
- number of companies using the solution provided

**Professional Content**

- see 3.2 Waste Management and 3.4 Communication

**Subtasks of Realization**

1. Research on the concrete reasons of companies being hindered in implementing circularity
2. Tackling the issues found



/see 3.2 Waste management and 3.4 Communication/

**Participants & Connecting Disciplines**

ENTeR partnership

Universities, educational institutes

Companies, R&D organizations

Chemicals industry, physics, environmental sciences, etc.

**3.3.3. Gantt chart for actions in research trends & technologies**

		2021	2022	2023	2024	2025
<b>3.3.1. Models and treatments of waste recovery</b>	1. Finding new companies for the implementation of good practices					
	2. Putting into practice suitable technologies					
	3. Publishing new studies and conducting research projects					
	4. Develop new test methods for recycled textiles					
<b>3.3.2. Support to technology transfer</b>	1. Research on the concrete reasons of companies being hindered in implementing circularity					
	2. Tackling the issues found /see 3.2 Waste management and 3.4 Communication/					



### 3.4. Communication

#### 3.4.1. Further development of the M3P platform

<b>Critical Factors</b>
<ul style="list-style-type: none"> <li>▪ Transition to the circular economy is partially hindered by logistic and geographical obstacles, which prevent companies to pass on their valuable but not anymore needed materials</li> <li>▪ Lack of data regarding waste management indicators of the manufacturing companies</li> <li>▪ No common ground for supply and demand regarding reuse and recycle of textile manufacturing waste</li> </ul>
<b>Reasons, Goals &amp; Expected Outcome</b>
<p>As for the current situation, information gaps prevent the wide-scale use of textile recycling, and "demand and offer are not met due to poor communication between waste producers and potential users or solution providers".</p> <p>The solution to this problem would be to form a new industrial symbiosis, which puts the needs and opportunities of different sectors in line with each other, providing a direct and problem free flow between the value chains. The online matchmaking platform of M3P is a practical tool to implement circular economy on an international basis, which is already working. Other than the textile and clothing industry, the platform is open to cross-sectoral possibilities for the utilization of materials no longer needed by the companies.</p> <p>The platform enables companies to build a network of connections and find their regular, sound and trustworthy partners for their waste management, particularly in regards of post-production waste.</p>
<b>Indicators</b>
<ul style="list-style-type: none"> <li>• number of registered companies, reaching all stakeholders of the textile and recycling industry: manufacturers and service providers of waste management</li> <li>• quantity and types of registered waste</li> <li>• quantity of actual exchanges realized</li> </ul>
<b>Professional Content</b>
<ul style="list-style-type: none"> <li>• continuously improved user interface</li> <li>• professional support system for applicants for more efficient and easier usage</li> <li>• published technologies and know-hows for waste management and recycling</li> <li>• an assessment system providing information about the maturity and attractiveness of each solutions</li> </ul>



- cross-sectoral cooperation and networks
- two main functions: matchmaking for already existing and used technologies AND strategic partner search for new technology developments organizing a pilot or demonstration plant

#### Subtasks of Realization

1. Identifying contact persons who will be responsible for smooth adapting / adjusting data from the Regions to the platform; establishing a support system for users
2. Maintaining & improving technically the M3P platform, the portal & the current community
3. Organizing B2B meetings and training sessions for the dissemination of M3P and increasing the number of users
4. Evaluating additional features supporting technology transfer activities (by CENTROCOT)
5. Expand the scope of M3P database with: know-hows and tutorials; forum and working groups; legal acts relating to circular economy; possibility to join e-learning, etc.
6. Use of M3P platform on a broader spectrum; collaborating with other match-making platforms
7. New pilot cases based on M3P collaborations

#### Participants & Connecting Disciplines

- CENTROCOT, Univa, Innovatext, IW, Inotex\* & all the other ENTeR partners
  - (assigned contact persons per region)
  - the partners representing manufacturers' associations are responsible for the promotion of the platform; partners representing technology centres and clusters are responsible for the registration of new users, particularly solution providers
  - IT, environmental sciences, trade experts
- \*partners respectively proposing their relevant suggestions in the Collaboration Survey

### 3.4.2. Creating the Virtual Centre

and make it a reference point for textile recycling and circular economy

#### Critical Factors

- Increased demand and consciousness of eco-compatible products is needed (both regarding consumers and manufacturers)
- Consumer perception of sustainability and compatibility as positive elements should be enhanced

#### Reasons, Goals & Expected Outcome



As textile recycling is far from common practice - yet, an accentual cultural change is needed in order to modify consumer and other economic operators' behaviour regarding sustainable development. This means the sensitization of consumers and thus market demand as well, and increasing awareness on the issues of textile waste management and the deteriorative effects of the linear economy model (take-make-dispose).

The Virtual Centre tackles these issues through its strategic objectives, such as creating a source for the dissemination of solutions developed by technology - or other, such as competence - centres; supporting the development of capacities and skills by educating society and industry stakeholders about ecological solutions, by creating an expanded website (which possibly could be part of the M3P platform as well). Other than that, increasing general awareness and common acceptance of recycled products is crucial for the successful transition towards circular economy.

#### Indicators

- number of visitors reached
- time spent on the online platform by the visitors
- ages reached (particular focus should be put on age brackets 5-15; 15-25 and 25-35)

#### Professional Content

- introduction to ENTeR pilot cases, success stories, training modules and technological solutions, research and technological trends (with connections to developers), from the Central European manufacturing scene
- jointly developed educational material adapting to the needs of particular age groups
- see D.T2.4.1 - Collaboration Model (Virtual Centre)

#### Subtasks of Realization

1. Identifying a communication coordinator and a team responsible for acquiring materials for filling in the Virtual Centre's thematic spaces, developing information from the Regions and updating information
2. Selecting the most appropriate media channels (including social media) with regards to mass reach and focus of information to stakeholders
3. Publishing useful project deliverable content, pilot case studies, etc. (anything that could be of use for the wider industry)
4. Offering the services of regional parties, R+D centres, collaboration hubs, etc.
5. Developing and adding new, interactive content (such as self-assessment tools, educational online games for all ages, etc.) (quarterly publishing, in English)
6. Social media campaigns for more publicity and raising awareness (also for educational purposes)



### Participants & Connecting Disciplines

- ENTeR partnership
- *1 assigned team and 1 appointed communication coordinator*
- IT & communication professionals





### 3.4.3. Gantt chart for actions in the communications area

		2021	2022	2023	2024	2025
<b>3.4.1. Further development of the M3P platform</b>	1. Establishing a support system for users					
	2. Maintaining & improving technically the M3P platform					
	3. Organizing B2B meetings and training sessions for the dissemination of M3P					
	4. Evaluating additional features supporting technology transfer activities					
	5. Expand the scope of M3P database					
	6. Use of M3P platform on a broader spectrum					
	7. New pilot cases based on M3P collaborations					
<b>3.4.2. Creating the Virtual Centre</b>	1. Identifying a communication coordinator and a team responsible					
	2. Selecting the most appropriate media channels					
	3. Publishing useful project deliverable content, pilot case studies, etc					
	4. Offering the services of regional parties					
	5. Developing and adding new, interactive content					
	6. Social media campaigns for more publicity and raising awareness					



### 3.5. Education

#### 3.5.1. Further dissemination of circularity-related training materials

& development of new ones according to industry needs.

The strategic objective of this line of action is to create the suitable skills, knowledge, standards and mechanisms and to break down cross-sectoral barriers.

<b>Critical Factors</b>
<ul style="list-style-type: none"> <li>▪ Loss of skills</li> <li>▪ Ageing workforce</li> <li>▪ Scarcity of young professionals</li> </ul>
<b>Reasons, Goals &amp; Expected Outcome</b>
<p>As the European textile sector is currently going through a generational and technological transformation at the same time. Thus, there is a continuously growing need for professional education and training possibilities of staff, also considering a particular approach to sustainable development. General information on the subject of sustainability and circular economy can be easily found, however there is a growing need for sector-specific and practical knowledge.</p> <p>For this reason, establishing cooperation between industries, technology centres and educational institutions (universities, VET providers and any other forms of adult education) is essential to prepare the new generation of workers for more sustainable textile production. However, the management' commitment is crucial for the implementation of the principles and good practices taught.</p> <p>The overall goal of this newfound approach is to create skills, knowledge, standards and mechanisms through providing educational institutes with up-to-date, practical and useful knowledge.</p> <p>The above mentioned objectives can only effectuate by reaching a variety of professional educational institutes. Contacting primary education institutes may also be effective on the road of creating committed professionals for the European textile and clothing industry.</p>
<b>Indicators</b>
<ul style="list-style-type: none"> <li>• number of students reached throughout Europe, and possibly outside of Europe (evaluated by demographic segments)</li> <li>• collaborations with educational institutes, covering secondary and higher education</li> </ul>
<b>Professional Content</b>
<ul style="list-style-type: none"> <li>• An established training platform within the Virtual Centre</li> </ul>



- High-level training modules developed by the ENTeR partnership
- A collection of other good practices, developed by any stakeholders of the industry (reference languages: English and any other official EU language)

### Subtasks of Realization

1. Designating a training coordinator responsible for the objectives, plans, contributions and the timing of their publishing (“The coordinator will be selected on a rotating basis for one year, with the next known at least one quarter before the end of the current coordinator’s period of work.”<sup>4</sup>)
2. Analysing the training offer and needs of companies
3. Making a list of reference training modules (by all project partners)
4. Assessing feasibility of implementing new functions related to the training platform (by CENTROCOT)
5. Identify potential users of the training materials (in a database - possibly using already existing ones such as <https://www.s4tclfbblueprint.eu/community/>) and build up connections with them by the suitable communication channels
6. Identify existing best practices and courses in every region, set up the corresponding circumstances of their online publication, also involving textile producers to the development of materials & education activities

### Participants & Connecting Disciplines

- ENTeR project partners (led by CENTROCOT\*)
- textile producers & waste management professionals
- the recycling industry
- youngsters participating in sectoral vocational and higher education
- education, any other industries with good practices on resource efficiency (e.g. automotives, etc.)

\*based on the contributions of the Collaboration Survey

<sup>4</sup> ENTeR Deliverable D.T2.4.1 - Collaboration Model



### 3.5.2. Gantt chart for actions in the education area

		2021	2022	2023	2024	2025
<b>3.5.1. Further dissemination of circularity-related training materials</b>	1. Designating a training coordinator responsible for the objectives					
	2. Analysing the training offer and needs of companies					
	3. Making a list of reference training modules (by all project partners)					
	4. Assessing feasibility of implementing new functions related to the training platform					
	5. Identify potential users of the training materials					
	6. Identify existing best practices and courses in every region					



## 4. Fundings

### 4.1. EU level

There is no introduction that contextualizes the project with respect to what is written below. There are two important financing plans at the European level.

Achieving the goals formulated in the Action Plan also requires financial resources. The following chapter is intended to help with the compiled information about the financial support available in the framework of various EU programmes or national, regional projects.

#### 4.1.1. New Cohesion Policy [7]

In addition to reaching agreement on the Recovery Fund and the Multiannual Financial Framework 2021-27, the European Council of 17-21 July also defined the position of the member states on a series of general principles of the post-2020 Cohesion Policy.

Cohesion policy is the main investment policy of the European Union. Supported by the European structural funds, it pursues the objective of harmonious development of the Union, reducing the differences between the various regions and supporting the more backward ones.

For the next long-term EU budget 2021-2027, the Commission proposes to modernise Cohesion Policy, the EU's main investment policy and one of its most concrete expressions of solidarity.

#### **Regional Development and Cohesion Policy beyond 2020: The New Framework at a glance**

##### **A focus on five investment priorities, where the EU is best placed to deliver**

Five main objectives will drive EU investments in 2021-2027:

Regional development investments will strongly focus on objectives 1 and 2. 65% to 85% of ERDF and Cohesion Fund resources will be allocated to these priorities, depending on Member States' relative wealth.

Five main objectives:

- Smarter Europe, through innovation, digitization, economic transformation and support to small and medium-sized businesses
- a Greener, carbon free Europe, implementing the Paris Agreement and investing in energy transition, renewables and the fight against climate change
- a more Connected Europe, with strategic transport and digital networks
- a more Social Europe, delivering on the European Pillar of Social Rights and supporting quality employment, education, skills, social inclusion and equal access to healthcare
- a Europe closer to citizens, by supporting locally-led development strategies and sustainable urban development across the EU.

##### **A more tailored approach to regional development**

Cohesion Policy keeps on investing in all regions, still on the basis of 3 categories (less-developed; transition; more-developed).



The allocation method for the funds is still largely based on GDP per capita. New criteria are added (youth unemployment, low education level, climate change, and the reception and integration of migrants) to better reflect the reality on the ground. Outermost regions will continue to benefit from special EU support.

Cohesion Policy further supports locally-led development strategies and empowers local authorities in the management of the funds. The urban dimension of Cohesion Policy is strengthened, with 6% of the ERDF dedicated to sustainable urban development, and a new networking and capacity-building programme for urban authorities, the European Urban Initiative.

### **Simplification: shorter, fewer, clearer rules**

For businesses and entrepreneurs benefiting from EU support, the new framework offers less red tape, with simpler ways to claim payments using simplified cost options. To facilitate synergies, a single rulebook now covers 7 EU funds implemented in partnership with Member States (“shared management”). The Commission also proposes lighter controls for programmes with good track record, with an increased reliance on national systems and the extension of the “single audit” principle, to avoid duplication of checks.

### **A more flexible framework**

The new framework combines the necessary stability in investment planning with the appropriate level of budgetary flexibility to cope with unforeseen events. A mid-term review will determine if changes in the programmes are needed for the last two years of the funding period, based on emerging priorities, performance of the programmes and the most recent Country-Specific Recommendations.

Within certain limits, transfers of resources will be possible within programmes without the need for a formal Commission approval. A specific provision makes it easier to mobilise EU funding as of day one in the event of a natural disaster.

### **A strengthened link with the European Semester and the Union’s economic governance**

Cohesion Policy supports reforms for an investment-friendly environment, where businesses can thrive. Full complementarity and coordination with the new, enhanced Reform Support Programme will be ensured.

Country-Specific Recommendations formulated in the context of the European Semester will be taken into account twice over the budgetary period: in the beginning, for the design of Cohesion Policy programmes, and during the mid-term review. To further set the right conditions for growth and job creation, new “enabling” conditions will help remove barriers to investments. Their application will be monitored throughout the financial period.

### **More opportunities for synergies within the EU budget toolbox**

The single rulebook covering Cohesion Policy funds and the Asylum and Migration Fund will facilitate the setting up of local migrant integration strategies supported by EU resources used in synergy; the Asylum and Migration Fund will focus on migrants’ short-term needs upon arrival while Cohesion Policy will support their social and professional integration. Outside of the single rulebook, synergies will be made easier with other EU instruments, like the Common Agricultural Policy, Horizon Europe, the LIFE programme or Erasmus+.



## **Interreg: removing cross border obstacles and supporting interregional innovation projects**

Interregional and cross-border cooperation will be facilitated by the new possibility for a region to use parts of its own allocation to fund projects anywhere in Europe jointly with other regions.

The new generation of interregional and cross-border cooperation (“Interreg”) programmes will help Member States overcome cross-border obstacles and develop joint services. The Commission proposes a new instrument for border regions and Member States eager to harmonise their legal frameworks, the European Cross-Border Mechanism.

Building on a successful pilot action from 2014-2020, the Commission proposes to create the Interregional Innovative Investments. Regions with matching ‘smart specialisation’ assets will be given more support to build pan-European clusters in priority sectors such as big data, circular economy, advanced manufacturing or cybersecurity.

## **Reinforced rules for better performing EU investments**

All programmes will still have a performance framework with quantifiable targets (number of jobs created or additional access to broadband). The new framework introduces an annual performance review, in the form of a policy dialogue between programme authorities and the Commission. Performance of the programmes will also be assessed during a mid-term review. For transparency reasons, and so citizens can follow the progress made, Member States will have to report all implementation data every two months and the Cohesion Open Data Platform will be automatically updated.

## **An increased use of financial instruments**

Grants alone cannot address the significant investment gaps. They can be efficiently complemented by financial instruments, which have a leverage effect and are closer to the market. On a voluntary basis, Member States will be able to transfer a part of their Cohesion Policy resources to the new, centrally managed InvestEU fund, to access the guarantee provided by the EU budget. Combining grants and financial instruments is made easier and the new framework also includes special provisions to attract more private capital.

## **More communication efforts to improve the visibility of Cohesion Policy**

For a Europe ever closer to citizens, more emphasis is put on the need to better communicate the positive results of Cohesion Policy. Member States and regions have reinforced requirements in terms of communication, such as the organisation of events for the opening of big EU-funded projects and the development of social media outreach plans.

At the same time, communication on EU-funded projects is simplified, with a single branding covering all different EU funds, a single portal displaying all available funding for businesses and a single project database run by the Commission.

### **4.1.2. European Green Deal's Investment Plan**

The European Union is committed to becoming the first climate-neutral bloc in the world by 2050. This requires significant investment from both the EU and the national public sector, as well as the private sector. The European Green Deal's Investment Plan - the Sustainable Europe Investment Plan - presented today will mobilise public investment and help to unlock private funds through EU financial instruments, notably InvestEU, which would lead to at least €1 trillion of investments.





While all Member States, regions and sectors will need to contribute to the transition, the scale of the challenge is not the same. Some regions will be particularly affected and will undergo a profound economic and social transformation. The Just Transition Mechanism will provide tailored financial and practical support to help workers and generate the necessary investments in those areas.

### **The European Green Deal Investment Plan**

The European Green Deal Investment Plan will mobilise EU funding and create an enabling framework to facilitate and stimulate the public and private investments needed for the transition to a climate-neutral, green, competitive and inclusive economy. Complementing other initiatives announced under the Green Deal, the Plan is based on three dimensions:

- **Financing:** mobilising at least €1 trillion of sustainable investments over the next decade. A greater share of spending on climate and environmental action from the EU budget than ever before will crowd in private funding, with a key role to be played by the European Investment Bank.
- **Enabling:** providing incentives to unlock and redirect public and private investment. The EU will provide tools for investors by putting sustainable finance at the heart of the financial system, and will facilitate sustainable investment by public authorities by encouraging green budgeting and procurement, and by designing ways to facilitate procedures to approve State Aid for just transition regions.
- **Practical support:** the Commission will provide support to public authorities and project promoters in planning, designing and executing sustainable projects.

### **The Just Transition Mechanism**

The Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. While all regions will require funding and the European Green Deal Investment Plan caters for that, the Mechanism provides targeted support to help mobilise at least €100 billion over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition. The Mechanism will create the necessary investment to help workers and communities which rely on the fossil fuel value chain. It will come in addition to the substantial contribution of the EU's budget through all instruments directly relevant to the transition.

### **The Just Transition Mechanism will consist of three main sources of financing:**

1) A Just Transition Fund, which will receive €7.5 billion of fresh EU funds, coming on top of the Commission's proposal for the next long-term EU budget. In order to tap into their share of the Fund, Member States will, in dialogue with the Commission, have to identify the eligible territories through dedicated territorial just transition plans. They will also have to commit to match each euro from the Just Transition Fund with money from the European Regional Development Fund and the European Social Fund Plus and provide additional national resources. Taken together, this will provide between €30 and €50 billion of funding, which will mobilise even more investments. The Fund will primarily provide grants to regions. It will, for example, support workers to develop skills and competences for the job market of the future and help SMEs, start-ups and incubators to create new economic opportunities in these regions. It will also support investments in the clean energy transition, for example in energy efficiency.





2) A dedicated just transition scheme under InvestEU to mobilise up to €45 billion of investments. It will seek to attract private investments, including in sustainable energy and transport that benefit those regions and help their economies find new sources of growth.

3) A public sector loan facility with the European Investment Bank backed by the EU budget to mobilise between €25 and €30 billion of investments. It will be used for loans to the public sector, for instance for investments in district heating networks and renovation of buildings.

The Just Transition Mechanism is about more than funding: relying on a Just Transition Platform, the Commission will be providing technical assistance to Member States and investors and make sure the affected communities, local authorities, social partners and non-governmental organisations are involved. The Just Transition Mechanism will include a strong governance framework centred on territorial just transition plans.

## 4.2. National level

### 4.2.1. Italy

To strengthen the results obtained with the ENTeR project, Italy will mainly be able to use the 2021-2027 Cohesion Policy.

The comparison began in March 2019, on the basis of the Guidelines on investments financed by the 2021-2027 cohesion policy for Italy (contained in Annex D to the [Country Report](#)) and the European code of conduct on partnership in 'within the European Structural and Investment Funds.

The work organized on five tables, one for each of the strategic objectives proposed by the Commission, and started from a document prepared by the Department for Cohesion Policies, which identified four unifying themes (or main challenges) for the Italy:

- Quality work;
- Territory and natural resources for future resources;
- Homogeneity and quality of services for citizens;
- Culture vehicle of economic and social cohesion.

As specified in the document, the objective of these issues is to stimulate a transversal reflection within the strategic objectives identified by the Commission.

In parallel to the national path, some Regions have already prepared their own strategic policy documents, which, within the framework of the priorities proposed at European Union level, summarize the positions taken by the regional administrations.

These positions constitute the starting point for the contribution of the Regions to the participation in the national partnership tables, as well as for the construction of the comparison with the economic and social partnership of their territory, for the purpose of a shared elaboration of the regional planning documents 2021-2027.

At the same time, central administrations, Regions and exponents of the economic and social partnership are also actively involved in the development of future Interreg 2021-2027 programs, through participation in the programming Task Forces of each program.



Annex D to the Country Report on Italy therefore outlines the investment priorities that Italy is called upon to deal up and on which, according to the technicians of the EU Commission, the spending of the European Structural Funds 2021-2027 should focus.

Continuing to work on the issues addressed by the ENTeR project means referring to the following specifications dictated to Italy by the European Community.

In the field of research and innovation, the EU asks Italy:

- to increase the number and size of innovative companies in knowledge-intensive sectors with high growth potential;
- to promote the exchange of knowledge between research institutions and the productive sectors, in particular SMEs, through partnerships and training, but also to promote the digitization of citizens, businesses and public administrations.

In terms of climate and energy, investments are suggested to improve energy efficiency and promote renewable technologies, focusing on a vast restructuring of public real estate assets. Investments aimed at increasing hydrogeological and seismic resilience as well as creating green infrastructures aimed at restoring the ecosystem in urban areas most vulnerable to climate change and air pollution are also considered priorities.

#### 4.2.2. Czech Republic

The most powerful funding tool for next years are Operational programs based on European Structural Funds (ERDF, ESF and Cohesion Fund). Czech Ministry of Regional Development has defined 8 Operational programs for period 2021-2027.

The most important Operation programs for implementation of Action plan of ENTeR project are:

- Operational program Jan Amos Comenius managed by the Ministry of Education, Youth and Sports
- Operational Program Employment Plus managed by the Ministry of Labour and Social Affairs
- Operational Program Technology and Applications for Competitiveness managed by the Ministry of Industry and Trade.

The project focused on Circular Economy that will be submitted to the mentioned Operation programs can affected some areas defined in Strategic Agenda (SA):

- Waste Management
- Research trends and technologies
- Communication
- Education

CTPT together with INOTEX and other members prepared in previous years Strategic documents of Czech Textile and Clothing Industry (TCI) - Strategic Research Agenda and Technology Foresight. The Circular Economy is defined as one of the most important strategic area in both documents. Technology Foresight defined several R&D topics that could foster transformation the Linear Economy to Circular Economy in Czech TCI. These R&D ideas will be/ could be transformed to the regular projects by companies, cluster (CLUTEX - cluster of technical



textiles) or CTPT. The R&D projects can be submitted to the Operational Program Technology and Applications for Competitiveness. This Operational program is the most useful the not only for R&D projects (ie. “Research trends and technologies” area from Strategic Agenda of ENTeR project), but also for “Waste Management” topic of SA of ENTeR, because also investment projects could be funded from the Program. The investment topics will be defined in next Strategic document of CTPT - Technology Roadmap (firs draft will be prepared at the begin of 2021).

Next possibility of funding for R&D projects can be found in national support programs managed by Technology Agency of the Czech Republic (sourced from national budget).

The big task is also to promote “Circular Economy” strategy. It must be connected to the R&D and investment projects. CTPT and also CLUTEX will prepare supporting projects for R&D in Czech TC Industry financed from The Operation Program Technology and Applications for Competitiveness, the prepromotion of Circular Economy and generally Environmental aspects of development of Czech TC Industry will be one of the topics of the projects.

The Education of “Circular Economy skills” can be divide into two lines. First one is focused on students in Secondary Schools and Universities - education in this area can be financed from the Operational program Jan Amos Comenius. Second line is focused on employee training that could be partly financed from Operational Program Employment Plus. The educational projects can be prepared and submitted not only by educational institutions but also by producers or service organisation as CTPT or CLUTEX.

#### 4.2.3. Germany

The German R&D system is one of the largest in the European Union. The state supports science by providing funds for long-term institutional funding and temporary direct project funding. Institutional funding means that the state provides funds to the research institutions. Within project funding, specific research projects are supported. Furthermore, there are instruments of state research funding where funds can be transferred directly to scientists or researching companies. Germany's state research funding is characterised by the division of responsibilities between the federal and state governments (federalism). The purpose of state research funding is to promote innovations in science and technology and it also aims to reduce the risk for companies to invest in R&D.

##### 1. INNO-KOM - Research for medium-sized businesses

<b>For whom:</b>	Non-profit external industrial research institutions Open to all technologies and sectors
<b>Objectives:</b>	To support the innovative performance of non-profit external industrial research institutions in order to sustainably enhance the innovative strength of structurally weak regions in Germany
<b>Funded are:</b>	Projects of initial research (Module VF) Projects of market-oriented research (Module MF) Investment Grant (Module IZ)
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.



<b>Project duration:</b>	2 - 3 years
<b>Funding agency:</b>	Funded by Federal Ministry for Economic Affairs and Energy (BMWi) Project management agency: EuroNorm GmbH More information: <a href="http://www.innovation-beratung-foerderung.de">www.innovation-beratung-foerderung.de</a>

## 2. Central Innovation Programme for SMEs (ZIM)

<b>For whom:</b>	National funding programme open to all technology types and all sectors For SMEs and business-minded research institutions cooperating with them
<b>Objectives:</b>	Strengthening innovativeness and competitiveness of SMEs through development of innovation concepts
<b>Funded are:</b>	Funding is provided for R&D projects and market launch as well as funding for networks. Funded are: individual projects, cooperation projects and cooperation networks
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.
<b>Project duration:</b>	2 - 3 years
<b>Funding agency:</b>	Funded by Federal Ministry for Economic Affairs and Energy (BMWi) Project management agencies: EuroNorm GmbH, AiF Projekt GmbH, VDI/VDE Innovation + Technik GmbH More information: <a href="https://www.zim.de">https://www.zim.de</a>

## 3. Federal Ministry of Education and Research (BMBF)

<b>For whom:</b>	The Federal Ministry of Education and Research (BMBF) supports innovative projects and ideas in research through targeted funding programmes. Research funding supports scientific institutions and enterprises.
<b>Objectives:</b>	Research funding has the goal of financing the development of new ideas and technologies. Funding is provided for projects in a wide spectrum of research areas. The range covers everything from basic research in natural sciences, environmentally friendly sustainable developments, new technologies, information and communication technologies, the life sciences, work design, structural research funding at institutions of higher education to innovation support and technology transfer.
<b>Funded are:</b>	Funding is generally based on research fields. The goals of funding are stipulated by research programmes. There is however a series of crosscutting, interdisciplinary measures.
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.
<b>Project duration:</b>	2-4 years
<b>Funding agency:</b>	Project management agencies: DLR, Project Management Jülich and others



#### 4. AIF - Industrial Collective Research

<b>For whom:</b>	Research associations organise pre-competitive collective research: The AiF and its research associations organise pre-competitive collective research and provide comprehensive service support in research and development matters, helping small and medium-sized enterprises to meet the challenges of technological change. The research associations are members of the AiF and each of them represents a certain business sector from specific branches of the economy or fields of technology. By joining a research association and taking an active part in its user committees etc., SMEs directly influence the association's research agenda and priorities.
<b>Objectives:</b>	Collective research is a mechanism enabling businesses to solve shared problems through shared projects. Industrial Collective Research, gives SMEs access to a continuous stream of new knowledge which can be used to develop their own products, processes and services as well as giving them the opportunity to build up their individual innovation networks.
<b>Funded are:</b>	R&D projects (Basic research)
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.
<b>Project duration:</b>	2 years
<b>Funding agency:</b>	Funded by Federal Ministry for Economic Affairs and Energy (BMWi)

#### 5. Collective Research Networking (CORNET)

<b>For whom:</b>	CORNET is a network of ministries and funding agencies in Europe which are owners or managers of national and regional funding programmes for collective research between Small and Medium-sized Enterprises (SMEs), their associations and Research and Technology Organisations (RTOs) across Europe. CORNET partner countries are: Austria, Belgium, Brazil, Canada, Czech Republic, Germany, Japan, Poland, Peru, Switzerland, The Netherlands, Turkey
<b>Objectives:</b>	Participation in a CORNET project allows SMEs, SME associations or groups and research organisations to build up an international network and to benefit from know-how and resources that might not be available in their country or region. The CORNET partners support applicants in finding the right partners for their pre-competitive collective research projects.
<b>Funded are:</b>	Pre-competitive R&D projects; application is possible twice per year (March and September)
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.
<b>Project duration:</b>	2 years



<b>Funding agency:</b>	Programme owner: Federal Ministry for Economic Affairs and Energy (BMWi) Project management agency: German Federation of Industrial Research Associations (AIF) More information: <a href="https://www.cornet.online">https://www.cornet.online</a>
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## 6. IraSME

<b>For whom:</b>	IraSME is a network of funding programmes from different countries/regions that share the same goal to support small and medium-sized businesses in their innovation efforts. IraSME partner countries are: Austria, Belgium, Brazil, Canada, Czech Republic, Germany, Luxembourg, Russian Federation, Turkey
<b>Objectives:</b>	IraSME supports SMEs in their transnational innovation activities, helps them acquiring technological know-how, extending their networks and bridging the gap between research and innovation. The idea is to fund international projects on a national/ regional level. The goal of the IraSME network is to reduce the threshold for international cooperation by making local funding schemes available to international projects.
<b>Funded are:</b>	Process or product related R&D projects; application is possible twice per year (March and September)
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total costs of the project.
<b>Project duration:</b>	2 years
<b>Funding agency:</b>	Programme owner: Federal Ministry for Economic Affairs and Energy (BMWi) Project management agency: German Federation of Industrial Research Associations (AIF) More information: <a href="https://www.ira-sme.net/">https://www.ira-sme.net/</a>

### 4.2.4. Hungary

The base of supporting programs is the National Development Plan; the sources are covered by different EU funds and the self-contribution of the investor.

There are different Hungarian institution and agencies to help companies to apply for funding projects or to find business partners.

The HUNGARIAN DEVELOPMENT CENTRE (HDC) established as a non-profit Ltd. by the Ministry for National Development has been tasked to play a coordinative role in promoting and facilitating Hungary's participation in direct EU programmes with a view to creating synergies with the indirect financial resources of the European Structural and Investment Funds and other European financial instruments. These programmes are: CEF, COSME, Consumer Programme 2014-2020, Creative Europe, Customs 2020, EaSI, ERASMUS+, Europe for Citizens, Fiscalis 2020, Health III Programme, Hercule III, Horizon 2020, Internal Security Fund, Justice 2014-2020 Programme, LIFE Programme, Pericles 2020, Rights, Equality and Citizenship 2014-2020 Programme.





HDC contributes to the above by:

- providing up-to date information on opportunities such as calls for proposals and tenders in cooperation with relevant government departments, national, regional and international stakeholders,
- acting as a project generator and promoter by connecting and matching beneficiaries with existing opportunities for participation in calls for proposals,
- facilitating synergies for the optimal use of different European funding schemes by forging meaningful partnerships and by setting and disseminating best practices at national and regional levels.

THE HUNGARIAN EXPORT PROMOTION AGENCY (HEPA) is a non-profit organisation aiming to provide professional services and incentives to Hungarian companies to launch their products and services abroad.

Several information is available here about

- financial instruments and funding projects <https://www.palyazat.gov.hu/node/28691>
- grants for environmental projects: <https://palyazatokmagyarul.eu/competition/list/40>
- regulations related to waste and waste management: <http://www.mszt.hu/web/guest/nehany-kiemelten-fontos-ervenyes-jogszabaly-a-hulladekokkal-hulladekgazdalkodással-kapcsolatban-2018>

#### 4.2.5. Poland

The following are the main Polish agencies funding we can apply for funding projects:

- **the National Science Centre (NCN)**
- **the National Centre for Research and Development (NCBiR).**

NCN supports basic research (funds projects in Arts, Humanities and Social Sciences, Life Sciences and Physical Sciences and Engineering) and inspires international cooperation in basic research (bilateral projects, Norway grants).

NCBiR supports development of Polish research units and enterprises abilities to create and use solutions based on scientific research results in order to encourage economy development and to the benefit of society. The agency manages and executes strategic research and development programs, which lead directly to the development of innovativeness.

The pillar of the Polish system of financing environmental protection is **the National Fund for Environmental Protection and Water Management (NFEP&WM)**. NFEP&WM:

- creates a variety of financial instruments that meet the needs of beneficiaries,
- active participates in solving environmental problems on legal, financial and organizational grounds,
- supports and implements projects funded by the EU, as well as projects funded by the “Norwegian Funds”.

The agency involved in the implementation of national and international programmes financed from the EU structural funds, state budget and multiannual programmes of the European



Commission is the **Polish Agency for Enterprise Development (PARP)**. PARP is responsible for creating a business-friendly environment in Poland, thus contributes to the creation and effective implementation of the state policy related to enterprise, innovation and staff adaptability.

These are 6 major areas of activities implemented by PARP:

- **Start-up market** (the main objective is, among others, to increase the survivability of start-ups, while allowing them to bring a product to market and win a crucial contract),
- **Training and skills improvement;** training and other services offer, which help entrepreneurs answer the strategic questions: What is the company going to be like in several years? What will I produce? To whom do I want to sell it? What skills and resources do I need,
- **Investment in innovation;** support offer for entrepreneurs wishing to implement innovation,
- **Services for enterprises;** PARP helps the entire team by supporting the entrepreneurs directly, as well as Business Support Organisations,
- **Internationalisation,** facilitating foreign expansion of SMEs,
- **Infrastructure for development.**

We believe that new developed programmes - **National Recovery Plan**, pilot programmes of Ministry of Environment and Climate, programmes developed within new financial perspective and managed by the NCBiR or PARP will offer financial support for innovations, investments and reforms aiming transformation of T&C sector towards Circular Economy.

As stated in “*The roadmap: Transformation towards circular economy*” the implementation of circular economy approach may also be financed from other sources of the public finance sector, such as environmental charges. In the future, if such legislative changes are included into the waste management system, funds can also be derived from bail or deposit systems of the environment protection system.

#### 1. Small Grant Scheme 2020 call

<b>For whom:</b>	Small Grant Scheme 2020 call
<b>Objectives:</b>	The Small Grant Scheme (SGS) Call will support applied research projects led by female scientists in technical sciences. The projects will contribute to development of scientific research in Poland, as well as strengthen the scientific career prospects of female researchers involved. It is expected that involvement in SGS projects will allow the female researchers to progress in their scientific career, possibly completing important career steps like obtaining the PhD title, graduating from post-doctoral studies or being granted a title of professor.
<b>Funded are:</b>	Research organization as defined in the Commission Regulation (EU) No 651/2014 of 17 June 2014 Enterprise as defined in the Commission Regulation (EU) No 651/2014 of 17 June 2014
<b>Funding:</b>	Grants in the SGS call may cover up to 100% of eligible costs for research organisations.





	The total allocation earmarked for the SGS Call for Proposals is EUR 5 000 000, which will be devoted for the co-financing of projects. The minimum project financing amount is EUR 50 000 and the maximum is EUR 200 000.
<b>Project duration:</b>	foreseen duration of projects is up to 24 months.
<b>Funding agency:</b>	National Centre for Research and Development (NCBiR).

## 2. Fast Track competition

<b>For whom:</b>	Fast Track competition
<b>Objectives:</b>	National Smart Specialisation is NSS7 Circular economy - water, fossil raw materials, waste.
<b>Funded are:</b>	enterprises (SMEs, large) and consortia (also with the participation of research units)
<b>Funding:</b>	PLN 1.2 billion on co-financing innovative projects as part of the competition under the Smart Growth Operational Programme.
<b>Project duration:</b>	The competition is divided into three rounds: from May 6 to June 5 (round I), from June 6 to July 24 (round II), from July 25 to December 31, until 12:00 (round III).
<b>Funding agency:</b>	National Centre for Research and Development (NCBiR).

## 4.3. Regional level

### 4.3.1. Lombardy

The Lombardy Region will have, in the coming years, various sources of Community funding and the Italian partners will monitor the issuing of tenders in order to continue to strengthen the objectives achieved during the ENTeR project in the future.

The main funding funds to monitor will be:

- Resources of the Cohesion Policy 2021-2027 (resources transferred from the Italian State to the regions)
- Next Generation EU:
  - Recovery and Resilience Facility
  - REACT-EU

Resources of the Cohesion Policy 2021-2027:

In compliance with the priorities set by the European Union and declined to the state of Italy, the Lombardy region has set the main priority of incentivizing investments in research, innovation, competitiveness, sustainable development, connectivity, work, training and inclusion, urban and territorial development.

Next Generation EU - Recovery and Resilience Facility:



The European Commission, with its proposal for the EU budget 2021-2027 and the Next Generation EU plan, has introduced a range of new interventions and various implementations to existing European programs. Among the innovations is the Recovery and resilience facility: a device aimed at mitigating the economic and social impact of the crisis linked to Covid-19 and, at the same time, at facing long-term challenges.

In this context, the Lombardy region wants to encourage relaunch investments to promote the economic, social and territorial cohesion of the Union by improving the resilience and adaptability of states, mitigating the social and economic impact of the crisis and supporting green and digital.

#### Next Generation EU - REACT-EU

REACT-EU will provide Member States with exceptional additional resources, to be used to strengthen the economy and employment in the most affected regions and prepare for a green, digital and resilient recovery.

The resources will be made available in 2021 and 2022, acting as a bridge between the emergency response to Covid-19 and the subsequent phase of long-term economic recovery.

REACT-EU will mainly support health services and SMEs, the maintenance and creation of jobs, in particular for people in vulnerable situations, youth employment and access to social services.

In this context, the Lombardy region wants to encourage investments complementary to the 2014-2020 programming to overcome the effects of the crisis in the context of the Covid-19 epidemic and a green, digital and resilient recovery of the economy

#### 4.3.2. Czech regions

Funding system in the Czech Republic is different from other countries. In the Czech Republic the regional funding is only small part of total funding scheme, the main share of funding value is concentrated on national level.

The regional funding possibility (financed from regional budget and managed by regional government) are small. For implementation of ENTeR Action Plan just technology vouchers can be used. The vouchers are designed for support of cooperation among producers and R&D institutions and the value of the voucher is enough just for small orders.

But the important role of the regions is participations on definition of Regional Smart Specialisation Strategy (RIS3 Strategy). Each Region defines its strategy of development. The National RIS3 Strategy is defined from the Regionals Strategies. It's necessary to promote "Circular Economy in Textile and Clothing Industry" agenda into Regional Strategies and indirectly to the National RIS3 strategy, because National RIS3 Strategy is the main documents for definition of supported R&D areas on national level.

#### 4.3.3. Saxony

The fundamental objective of research project funding is to maintain and strengthen Saxony as a location for research, development and innovation in national and global competition - in particular by expanding existing expertise and stimulating the development of innovative,



forward-looking competencies. Projects that promote the initiation and expansion of networking activities between Saxon scientific institutions and support the initiation and establishment of cooperation with industry and society are also supported. Furthermore, the Saxon State Ministry of Science, Culture and Tourism (SMWK) supports the participation of Saxon universities and research institutions in competitive European research programs to maintain and expand Saxony as a location for research, development and innovation in Europe, to strengthen its global competitiveness and to improve Saxony's visibility in research and innovation and to increase the chances of raising funds.

**1. Funding via the Saxon State Ministry for Science, Culture and Tourism (SMWK) and the State Ministry for Ministry for Economic Affairs and Labour (SMWA)**

<b>For whom:</b>	In addition to the institutional funding of universities and non-university research institutions, an important component of funding is the promotion of projects in the field of research and innovation.
<b>Objectives:</b>	The fundamental objective is to maintain and strengthen Saxony as a location for research, development and innovation in national and global competition - in particular by expanding existing expertise and stimulating the development of innovative, forward-looking skills. Projects which promote the initiation and expansion of networking activities between Saxon scientific institutions and support the initiation and establishment of cooperation with industry and society are also funded.
<b>Funded are:</b>	R&D projects (open to all technologies and sectors) and investments for equipment and machinery; networking activities
<b>Funding:</b>	The grant is awarded as a non-repayable contribution to the total cost of the project or for the purchase of technical equipment.
<b>Project duration:</b>	Varying
<b>Funding agency:</b>	Saxon Development Bank (SAB): The SAB supports companies, public institutions and associations with appropriate grants and financing.

**2. European Social Fund (ESF)**

<b>For whom:</b>	The European Social Fund (ESF) is one of five European structural and investment funds (ESIF). The ESF focuses on education, training and vocational training, sustainable and high-quality employment, social inclusion and the fight against poverty and discrimination.
<b>Objectives:</b>	The basis for funding is the "Operational programme for the ESF in Saxony 2014 - 2020". The programme aims to improve the chances of young university graduates to enter the Saxon science and economy.
<b>Funded are:</b>	Funding will be provided for doctoral theses, junior research groups and innovative university projects to increase the success of their studies.
<b>Funding:</b>	The grant is awarded as a non-repayable contribution.
<b>Project duration:</b>	Varying
<b>Funding agency:</b>	Applications are submitted to the Saxon Development Bank (SAB). In the application procedure, the SAB naturally involves the Saxon State



	Ministry of Science and Art in the professional selection of the applications.
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### 3. European Regional Development Fund (ERDF)

<b>For whom:</b>	From the European Regional Development Fund (ERDF), Saxony gets funding for companies, municipalities, research institutions. Furthermore, schools and the university landscape in Saxony will benefit from the ERDF funding. Investments are also being made in climate protection and flood protection.
<b>Objectives:</b>	The focal points of EFRE funding are: strengthening research, technological development and innovation; strengthening the competitiveness of small and medium-sized enterprises; reduction of CO2 emissions; risk prevention; sustainable urban development.
<b>Funded are:</b>	Projects that improve the application-oriented research infrastructure (e.g. new buildings, conversions or equipment) or to promote innovative application-oriented research and development projects. This also includes so-called incubation projects, i.e. pre-competitive research work within the scope of a concrete spin-off activity.
<b>Funding:</b>	The grant is awarded as a non-repayable contribution.
<b>Project duration:</b>	Varying
<b>Funding agency:</b>	Applications are submitted to the Saxon Development Bank (SAB).

#### 4.3.4. Hungarian regions

Cohesion policy gives the possibility to support concrete actions throughout the whole European Union. In Hungary, creating jobs will continue to be a significant priority, establishing missing infrastructural links and providing possibilities to both the public and the private sector - after 2020 as well. Information about European regional and urban development programs are available here: <https://ec.europa.eu/info/eu-regional-and-urban-development>.

The Hungarian Operational Programmes adopted by the European Commission at the beginning of a programming period can be found below. The programmes are financed under the European Regional Development Fund or the Cohesion Fund.

- Competitive Central-Hungary OP [HU]
- Economic Development and Innovation Operational Programme [HU]
- Environmental and Energy Efficiency OP [HU]
- Human Resources Development Operational Programme [HU]
- Integrated Transport OP [HU]
- Public Administration and Civil Service Development OP [HU]



- Territorial and settlement development OP [HU]

Additional sectoral filters are available for:

- European Social Fund (ESF) programmes

#### 4.3.5. Polish regions

The Regional Operational Programme, through Entrepreneur Service Centres supervised by Voivodship Marshal Offices, supports regional innovation. There is an offer of financial support for innovations (innovative product/ service or technology development), investments within the Regional Smart Specialisations. One of the Regional Smart Specialisations of Lodzkie Region is *Modern textile and fashion industry*.

Voivodship Inspectorates for Environmental Protection cooperate with NFEP&WM in environmental protection and water management funds' issues.

## 5. Conclusion

The goal of our joint work and this publication was to define the future steps and possibilities that arose during the three-year-long work and from the deliverables created and done by the partnership.

The basic idea behind the Action Plan was to outline a strategic approach and highlight the things to be done within the next 3 to 5 years, following the instructions and lessons learned from the outputs which were created during the project: the Strategic Agenda, the Collaboration Model, the Textile Network for Circular Economy Agreement and last but not least, the High-Level Training Modules and Pilot Cases.

The results of the partnership's joint efforts made heretofore can be greatly enhanced in the future by defining a sequel to the project; consequently we made this detailed study of the next steps.

The conclusion of ENTeR's Strategic Agenda has left no doubt about how much work is ahead of the textile industry in order to make a switch to circular economy. Among the countless promising initiatives enforced by various industry stakeholders, ENTeR Partnership would like to play its part. As a result, we defined our future actions which will contribute to circular transition.

Our tasks have been sorted according to the five main topics identified by the Strategic Agenda: policies, waste management, research trends and technologies, communication and last but not least, education. After identifying the critical factors of each line of action, we took into account what we have done on the particular issue in ENTeR so far: we summarized our project deliverables and discussed what can be done in the future to continue the work towards complete circularity in textiles.

In order to tackle the issues of the critical factors, we broke down our goals to subtasks, allocated partners undertaking certain roles, proposed a timeline - which is to be made even looser taking



into account the recent drastic changes, - and identified milestones and indicators to monitor our progress along the way.

In the next, similarly important chapter, the Partnership collected the relevant funding opportunities foreseen on EU, national and regional levels for the next couple of years. As a result, the second part of the Action Plan provides a detailed collection of circularity and sustainability-related projects, tenders and grants, giving an overview about the target groups, objectives, funding agencies and duration of financing, etc. The publication is mainly focused on the funding opportunities offered in the five Central European countries of the project partners, which can facilitate the transition to circularity in textiles in a financially viable way, which is - of course - usually the bottleneck of the industrial implementation of precisely formulated-publications on the subject.

So the next phase is where challenge begins. Circularity and sustainability can only be reached by efficient living systems disseminated throughout the entire textile value chain. Using the knowledge, the professional social capital and - last but not least - the momentum of the Partnership's achievements, we can start and proceed step by step towards our newly defined and specified goals in order to help our industry to keep up to current standards, consumer and other stakeholder expectations.



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