

WP T2 INNOVATION ON TEXTILE WASTE MANAGEMENT

ACTIVITY A.T2.5 INTERNATIONAL ADVISORY BOARD - 2ND MEETING

Deliverable D.T2.5.1

Working Progress Report

Version 1

Responsible partner:

09/2018

PP6 Sachsen!Textil e.V.

(S!T - Germany)



CONTENT

July/September 2018..... 1

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)

This document reflects only the authors' view and neither the European Commission nor the Interreg Central Europe Managing Authority are responsible for any use that may be made of the information it contains.

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



CE1136 - Expert Network on Textile

July/September 2018

Strategic Agenda

An important new chapter of cooperation for the ENTeR project is officially opened, with the definition of the Strategic Agenda - on Textile Waste Management and Recycling - which establishes a common vision and sets objectives and priorities with a view to improving the management of textile waste in the medium-long term. Specifically, the Strategic Agenda, which will tend to encourage the application of the Circular Economy in companies, describes the strategy to prevent the depletion of non-renewable resources and to find new green waste / waste markets and alternative solutions to raw materials.

In this framework, the ten partners of the ENTeR project identified five areas of action:

- **Legal and Policy:** to monitor local and community policies in order to constantly orient the Strategic Agenda.
- **Waste management:** to develop specialized databases and platforms for the exchange of information, materials and technologies. Also, study a model for waste recovery (for example, a local consortium for recovery);
- **Research trends and technological:** to develop technologies that integrate and optimize production processes with respect to the product life cycle;



- **Communication:** to favor a secondary materials market and encourage the reuse of waste in order to create a "second life" to waste;
- **Educational:** to highlight the training needs of companies identifying the conditions that favor the implementation of circular models;

The five areas will guide partners in the implementation of the ENTeR project, to strengthen research and innovation with the ultimate goal of improving the management of textile waste, encouraging economic growth and, at the same time, promoting a joint offer of new Services.

Therefore, the collaboration model envisaged by the Strategic Agenda will be like a "Virtual Center", able to provide companies with a common proposal on the management of textile waste with a view to Circular Economy

ENTeR – Expert Network on Textile Recycling: innovative waste management and recycling methods in textile manufacturing make it possible to reduce and reuse waste. It helps cutting production costs while protecting the environment. 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.

Site Web:

www.interreg-central.eu/enter

Italy - M3P “Material Match Making Platform”

The M3P “Material Match Making Platform” is active. M3P developed in a Life + project and made available to ENTeR project partners. The ENTeR project has been active for one year and the M3P platform has been released to partners.

The platform contains characteristic data (mechanical, chemical and ecological characteristics and performance) of all materials/waste produced by the textile companies.

The on-line industrial waste management platform enable the valorization/transformation of waste into a resource and secondary raw materials, supporting companies in their continuous improvement, with the aim of reducing production waste and at the same time creating new economic opportunity.



Poland – International Conference on Circular Economy

Representative of IW took part in the International Conference on the *Circular Economy – Rational Use of Raw Materials* held in Cracow on 18-19 September 2018.

The purpose of this conference was to exchange knowledge and experience on effective methods of management in accordance with the rules of the circular economy and their future directions.

The subject of the conference was the rational use of raw materials from primary and secondary sources including social and economic changes and technological and innovative solutions. The discussion focused also on implementation of the circular economy: new business models, education, CE indicators, eco-innovation, economic symbiosis and the use of new IT tools.

The conference gave an opportunity to share ENTeR ideas and to look for new potential stakeholders for ENTeR project.



Germany - Technical Center for processing carbon fibres



STFI is steadily working on the expansion of the research and test field for the manufacturing of nonwovens made from carbon fibres. In October 2018, a further milestone could be reached through the implementation of a fibre preparation line. The plant supplied by the engineering company Nomaco GmbH & Co. KG, Rehau (DE) facilitates an automated, precise fibre opening and blending customized to the technical needs of high-performance fibres. Especially for running research activities in the field of thermoplastic fiber composites based on recycled carbon fibres a technological leap can be achieved.

Besides for the fibre opening unit but also the weighing and blending unit, the plant offers options to apply targeted sizing agents onto the fibres and therefore to influence actively the processing behaviour. The entire system is available for research work as well as customer trials.

Czech Republic - Production and processing of textile waste in countries of the Central Europe

Within the ENTeR international project, an extensive survey was carried out to map the production of textile waste in Central European countries and the ways in which they are processed. The aim was to collect information on the current state of use of these wastes, constraints (technical and legislative) making their recycling difficult and the needs of enterprises in the field of innovation. The results of this survey are the basis for the development of the Strategic Agenda and the Action Plan for the management and recycling of textile wastes, which are one of the project outputs and which, on the basis of defined problems relevant to the participating regions, formulate a common vision, goals and priorities for recovery and recycling of textile waste in the medium to long term. These should provide state authorities, industry organizations, businesses and research and innovation centers with an idea for their further work in this area.



The survey was conducted in the countries and regions participating in the ENTeR project, i.e. in the Czech Republic, Poland, Hungary, Lombardy (Italy) and Saxony (Germany), through questionnaires and personal interviews. The situation in other countries (Slovakia, Austria, Slovenia, Croatia) was mapped in the form of searches.

Generally, in most of mapped countries (except Hungary) there is a good separate collection of old textiles from public (clothing, household textiles, etc.) organised by various charities or waste companies, but still remains a large share of this waste which is a part of the municipal waste (this share is very high, for example, in Croatia). Technologies for processing of this "simple" textile waste are well-available - traditional mechanical methods are tearing and cutting, the obtained material is mostly used for production of non-woven textiles, cleaning cloths, insulation, fillers, etc.; however, its significant share remains to be incinerated or landfilled.

The situation in the processing of industrial textile waste reflects the fact that in many Central European countries, after the dramatic decline in textile production in the early 1990s, the textile industry was restructured and oriented towards production of technical textiles, especially for the automotive industry (Czech Republic, Germany, Hungary, Poland, Slovakia). Large volume of waste is produced from the manufacturing of this type of textiles (fibers, edge cuts, pieces of fabric, defective products, etc.). Enterprises are actively seeking to use it; wherever possible, these materials are returned to the production, but otherwise - especially in the case of more complex materials such as fabrics with coatings, laminates, composites, etc. - they usually end in landfills or in incinerators because of the lack of technological solutions for their processing and further utilization. Due to the significant position of the production of technical textiles in Central Europe, the solution for recycling this type of textile waste is a major challenge for innovations.

We have also mention the legislation on waste recycling; based on the requirement of the revised Waste Framework Directive, ECHA will create a database of articles containing hazardous substances from the SVHC Candidate List by the end of 2019. Waste operators will thus be able to get data to improve management of the risks of chemicals when using waste.

Poland – Seminar of the Society of the Polish Chemists & Colourists



Representatives of IW took part in XXXIV Seminar organized by the Society of the Polish Chemists & Colourists held in Ciechocinek on 19-20 September 2018.

The main theme of the Seminar was "Industrial revolution 4.0 – challenge for the textile industry". During the seminar, IW Partner Project Manager presented needs, requirements, challenges and benefits of transformation from Linear to Circular Economy in Textile and Clothing Sector and examples of good practices in CE approach, including ENTeR project ideas.

In the seminar participated over 50 representatives of textile industry, research units and authorities what gave opportunity to share info on progress in ENTeR project implementation with stakeholders.
