RESET

Interreg Europe

European Union
European Regional
Development Fund

AN INTERREGIONAL COOPERATION PROJECT FOR IMPROVING INNOVATION INFRASTRUCTURE CAPACITIES AND POLICIES

MESSAGE FROM THE COORDINATOR

Business sustainability is becoming the most important objective of the Textile and Clothing industry. Beyond the economic factors, critical to the success of any business, many companies are now also considering the financial impact from environmental and social issues. Innovative business strategies try to find the right balance of investment and benefits across the 'people, planet and profit' aspects of sustainability. Networking between regional and local authorities, T&C clusters, R&D centres and other stakeholders is an essential part of the transition to a more sustainable future.
The RESET project aims to contribute to the efforts of the textile and clothing industry in this direction by sharing experiences across the European Union that have succeeded in linking technological evolution of products and processes with a more sustainable approach to the market, enfolding ecological, safety, ethical, social and economic values. By combining forces, sharing resources and raising awareness amongst the various actors and stakeholders of the T&C value chain, we believe that socially responsible and environmentally friendly production can become the main strength of the European textile and clothing industry in the near future.

Città di Prato

Daniela Toccafondi
Alderman for Economic Development of the City of Prato

PROJECT PARTNERS

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LODZKIE REGION – POLAND
CLUTEX – CLUSTER TECHNICAL TEXTILES – CZECH REPUBLIC
TEXTILE RESEARCH INSTITUTE AITEX – SPAIN
TEXTILE CENTRE OF EXCELLENCE – UNITED KINGDOM
SAXON TEXTILE RESEARCH INSTITUTE (STFI) - GERMANY
TECHNOLOGICAL CENTRE FOR TEXTILE AND CLOTHING OF PORTUGAL (CITEVE) – PORTUGAL
NATIONAL RESEARCH & DEVELOPMENT INSTITUTE FOR TEXTILES AND LEATHER – ROMÂNIA
CENTRE OF EUROPEAN TEXTILE INNOVATION – FRANCE

PROJECT DESCRIPTION

The textile and clothing sector in Europe includes 173,000 companies with a turnover of €165 billion, employing 1.87 million people. The sector's competitiveness is linked to innovation and technology development and more recently, sustainability and environmentally-friendly production.
Production uses high levels of raw materials, water, energy and chemicals and often generates air, water and soil pollution through untreated effluent and waste, which can have a big impact on the environment.
New, sustainable approaches are being developed and adopted by textile and clothing companies across the EU. Informing stakeholders and policy makers about these good practices would allow those solutions to be adopted in other regions.
RESET is an Interreg Europe project which aims to change the way European Structural Fund policies and programmes are implemented in the partners' regions. Its key objective is to improve regional policies and promote a more sustainable approach to production in the sector. This includes the creation, management and enhancement of the innovation infrastructure capacities and policies required to develop greener and more sustainable textile and clothing products and processes which will differentiate these regions from their competitors.

RESET addresses 6 key themes:

// Recycling in textile and waste disposal
// Water consumption and energy saving, sustainable company organisations
// New sustainable chemistry, including reduction of chemical substances
// Smart textiles and new ways of production
// Eco-creativity, natural fibres, short value chains
// New materials and new applications

Each RESET partner will develop an Action Plan detailing how policy instruments are to be improved in each region, indicating the actions, timeframe, players, possible costs and funding sources required. They will be embedded into the participating regions' National and Structural Fund Programmes with the aim of significantly reducing the environmental impact of textile and clothing production across Europe whilst increasing the competitiveness of the sector.

THE PROJECT ADDRESSES SIX KEY THEMES:

// RECYCLING IN TEXTILE AND WASTE DISPOSAL

// WATER CONSUMPTION AND ENERGY SAVING, SUSTAINABLE COMPANY ORGANISATIONS

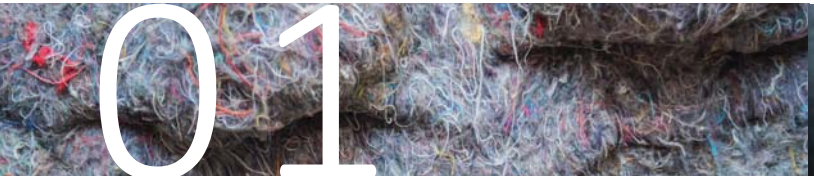
// NEW SUSTAINABLE CHEMISTRY, INCLUDING REDUCTION OF CHEMICAL SUBSTANCES

// SMART TEXTILES AND NEW WAYS OF PRODUCTION

// ECO-CREATIVITY, NATURAL FIBRES, SHORT VALUE CHAINS

// NEW MATERIALS AND NEW APPLICATIONS

PROJECT DURATION: APRIL 2016 - MARCH 2021



POLICY THEME ONE:
RECYCLING IN TEXTILE AND WASTE DISPOSAL

The textile industry is characterized by the consumption of high levels of resources like water, energy, chemicals and natural/synthetic fibre materials. Due to the scarcity of some of them in many countries, combined with the pressure of environmental policies and the significant impact textile and clothing production has on the environment, management, recycling and waste policies of textile waste are needed to protect the environment and to enhance the sustainability of the textile value chain. Europe rejects 6 million tons of garments per year and only 25% are recycled. Recycling companies can classify rejected garments for a second use and unwearable garments are crushed, stripped and fiberized to develop new yarns or nonwovens for different uses. NGOs can also take profit from recovery of waste (mainly garments).

To share experience and knowledge in the management, processing, transformation and re-use of different sources of textile waste, and share (for further implementation) best practices and technologies in the field of recycling in textile and waste disposal with other European regions will be one of the foremost targets of the RESET project.

POLICY THEME TWO:
WATER CONSUMPTION & ENERGY SAVING, SUSTAINABLE COMPANY ORGANISATIONS

Water and energy are two of the most relevant resources used in the textile sector, not only because of the quantities needed but also because of the direct and indirect environmental impacts associated with those resources.

Energy and the climate changes associated with it are part of the EU 2020 strategy, setting three specific targets that must be fulfilled by 2020: reduce greenhouse gases by at least 20%, increase the share of renewable energy in the EU's energy mix to at least 20% of consumption and improve energy efficiency by at least 20%. The textile and clothing sector recognizes the need to implement measures to ensure an efficient use of energy and water. These kinds of measures not only have a positive environmental impact, but also improve the competitiveness of textile companies. In some European regions specific water and energy public policies and specific measures exist and are already implemented in textile companies. These should be shared and implemented in other regions.

POLICY THEME THREE:
NEW SUSTAINABLE CHEMISTRY, INCLUDING REDUCTION OF CHEMICAL SUBSTANCES

The concept of sustainable chemistry encompasses the design, manufacture and use of efficient, effective, safe and more environmentally benign chemical products and processes. Recently, textile companies have been introducing advanced processing technologies to make textile processing greener and to reduce or eliminate water consumption. These include technologies with low process water need, the use of greener fibre and greener dyes and auxiliaries, eco-friendly, optimized and efficient processing and elimination of hazardous chemicals. Examples for sustainable textile processing concepts and related technologies include:

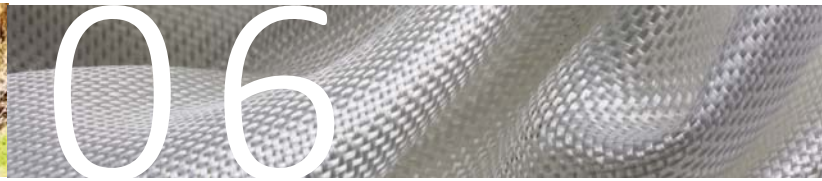
// Replacement of chemical processing by biotechnological processing through use of enzymes or other bio-organisms instead of chemicals.
// Water-free textile finishing techniques such as digital printing and Nano coating by physical methods deposition.

There will be similar examples of more environmentally friendly/sustainable products and textile processes for nishing, coating and laminating of textiles being developed in the partners' regions and the RESET project will identify these good practices and their transferability in regional Action Plans.

POLICY THEME FOUR:
SMART TEXTILES AND NEW WAYS OF PRODUCTION

Smart or intelligent textiles are considered as a new generation of textile products actively providing support in fields like safety or health. They are high-tech and highly specialised products with a high added value. One of the main reasons for the fast growing development of smart textiles during recent years is their importance for both research and industry. Smart textiles can be used for very different applications and under extreme weather conditions. They are very versatile in terms of products and processes. Smart textile products can be described as textile materials able to monitor and to think for themselves. They are sensitive to environmental influences and react on mechanical, thermal, chemical, electrical or magnetic sources.

The global market for smart textiles is estimated to reach $6.2 billion by the year 2017 with growth mainly pushed by developments in materials and fibre technologies. Key areas of development are nano-fibres, hybrid fabrics, miniaturisation of electronic components and the increased application of electronic textiles in innovative wearable products. Furthermore, the focus will be on developments for the health care sector. Biomedical applications have been forecast as being one of the fastest growing end-use markets.



POLICY THEME FIVE:
ECO-CREATIVITY, NATURAL FIBRES, SHORT VALUE CHAINS

The key priorities of long-term industrial policy for the textiles and clothing sector are to increase investment leading to the growth of innovation and creativity potential and to increase the efficiency of enterprises in the sector. Eco-friendly textile goods and technologies that minimize power consumption, CO2 emissions and the volume of waste generated at every manufacturing stage, are a priority for the textile and clothing sector, stimulating the development of modern technologies in European regions. This priority is implemented by gradually adopting measures focused on the implementation and modification of eco-friendly goods and technologies including:
- eco-creativity from concept design until implementation into industrial practice, which focuses on maintaining a balance between the innovation level of a product and technology, its price, competitiveness, and its impact on the surrounding ecosystem;
- maximizing the use of natural raw materials and their novel modifications, as well as eco-friendly technologies,
- comprehensive and careful evaluation of the time taken for a new product to be introduced to the market and the guidelines of its useful development after the warranty period.

POLICY THEME SIX:
NEW MATERIALS AND NEW APPLICATIONS

Innovative textile companies operating in the field of new materials and applications are developing a range of ground-breaking, hi-tech textile solutions with a range of useful new properties. New materials are being developed with an incredible range of functionalities, capable of containing explosions, protecting firefighters, providing anti-bacterial protection, maintaining the structural integrity of built structures and providing high performing filtration and containment. Such developments not only improve the competitiveness of the companies involved, but also deliver significant environmental benefits.

Both traditional and technical textiles are increasingly being used for new applications across a range of sectors. An example is the development of 3D weaving for the manufacture of components for the automotive and aerospace industries. This technology allows the production of components with the strength and rigidity of steel and the weight of aluminium. Emission targets for 2020 have made weight and strength priorities for many other sectors including heavy truck, rail, defence and the renewable energy industries. There will be other examples of leading edge new materials and applications being developed in the partners' regions and the RESET project will identify these good practices and identify options for embedding support for them in regional Action Plans.

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SEMINAR PROGRAMME

POLICY THEME ONE // RECYCLING IN TEXTILE AND WASTE DISPOSAL, ALCOY, SPAIN, OCTOBER 2016

POLICY THEME TWO // WATER CONSUMPTION AND ENERGY SAVING, VILA NOVA DE FAMALICAO, PORTUGAL, FEBRUARY 2017

POLICY THEME THREE // NEW SUSTAINABLE CHEMISTRY, BUCHAREST, ROMANIA, APRIL 2017

POLICY THEME FOUR // SMART TEXTILES AND NEW WAYS OF PRODUCTION, CHEMNITZ, GERMANY, JUNE 2016

POLICY THEME FIVE // ECO-CREATIVITY, NATURAL FIBRES, SHORT VALUE CHAINS, LODZ, POLAND, OCTOBER 2017

POLICY THEME SIX // NEW MATERIALS AND NEW APPLICATIONS, HUDDERSFIELD, UNITED KINGDOM, JANUARY 2018

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