The European Technology Platform for the future of Textiles and Clothing

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European Technology Platform for the Future of Textiles and Clothing

The European textile & clothing industry

- An important industrial sector for EU
  - 177.000 entreprises (80% SMEs)
  - €77 billion turn-over
  - 2.000.000 employment

- Subsectors
  - Apparel
  - Interior textiles
  - Technical textiles

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The ETP Textile&Clothing

- Industry lead initiative
  - Start in december 2004
  - As a result of a discussion on the competitive position of the sector
  - Recognition of the strategic value for the EU

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Short overview of the ETP Vision

- From commodities towards specialty products.
- Textiles in new applications: the establishment and expansion of textiles as material of choice in many sectors and application fields.
- From mass production to customisation and personalisation.

Short overview of the ETP Mission

- Establishment of an effective European-wide expert network involving industry, research organizations, public authorities, financial institutions and other stakeholders to join forces and coordinate their efforts in the field of research, development and innovation to the benefit of the European Textile and Clothing Industry.
- Definition of a common strategic industry vision and elaboration of a Strategic Research Agenda (SRA) to implement this vision through targeted and coordinated research, technology development and innovation efforts.
- Development of structures and measures to improve the overall research, development and innovation framework conditions of this industrial sector focusing specifically but not exclusively on the removal of financial, educational, legal and regulatory obstacles.

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Research priorities

- New speciality fibres and fibre-composites
- Functionalisation of textile materials
- Bio-based materials, biotechnologies and environmentally friendly textile processing

- New textile products for improved human performance
- New textile products for innovative technical applications
- Smart textiles and clothing

- Mass customisation
- New design and product development concepts and technologies
- Integrated quality and life cycle management concepts

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Collaborations ManuTex

- Collaboration between ETP Textile&Clothing and ManuFuture
- Objectives of the collaboration
  - the establishment of a permanent collaboration forum between textile/clothing manufacturers and developers and manufacturers of machines, systems & tools for textile/clothing production to exchange major technological trends and evolving user needs;
  - the combination of complementary elements of the Strategic Research Agendas of the Manu*future* and Textile European Technology Platforms in a joint implementation plan;
  - the initiation of strategic, genuinely breakthrough-oriented collaborative research projects between the two sectors bringing together the best available competences and capacities to mutual benefit

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Collaborations BioTex

- Collaboration between ETP Textile&Clothing and SusChem
- Industrial biotechnology has a major potential to drive the textile sector into
  - new possibilities of selective enzymatic catalysis (as an alternative to chemical processing)
  - new bio-based materials, leading to textiles with new functional properties (textile auxiliary agents, and medical, technical or well-being textiles).
  - Natural and artificial (bio-fermented) fibrous polymers greater utilization of natural renewable fibre sources as an instrument ofnew surface architecture of hybridised fibrous matrices.

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Selected other activities

- Organisation of exchange of research project ideas for FP7
- Setup of a political mirror group
- Horizontal taskgroups
  - Education
  - Innovation and standards

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Impact of nanotechnology

- New materials and functionalities
  - Barrier properties, antistatic, antimicrobial, hydrofilic-hydrofobic, photocatalitic properties, ...
- New processes & technologies
  - electrospinning
  - Sustainable industry
- New products & markets

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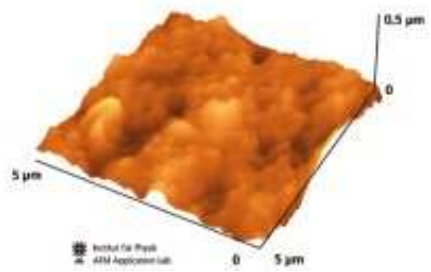
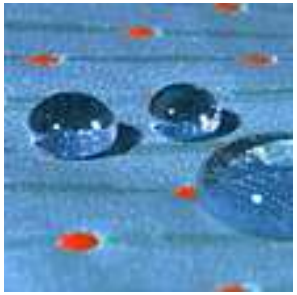
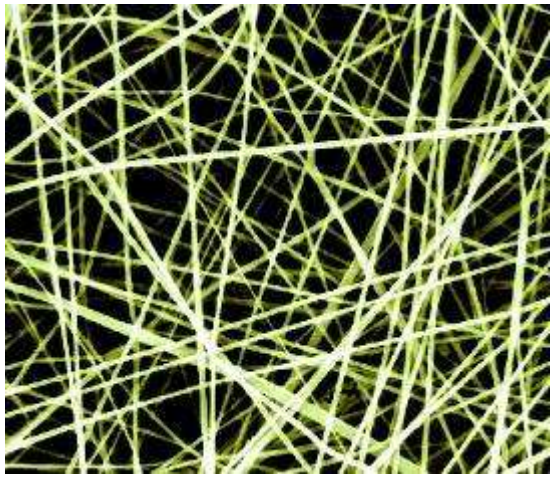
Impact of nanotechnology

- Research & development effort oriented to:
  - Nano-sized additives in fibre formation
  - Nano-sized additives in coatings
  - Nano-sized surface features
  - Nano-fibers







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Barriers for innovation

- Technical issues
  - Agglomeration of nano-particles
  - Unexpected deterioration of properties
  - Critical application (fiber extrusion)
- Cost of certain nano-additives
- Health issues

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Comments & suggestions for collaboration with ETP-Nano

- Strong interest of textile industry but:
  - Textile sector is supplier dominated
  - Strong collaboration with technology suppliers needed

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