

Transferkolleg 2013 - Soft Materials for Advanced Products

For Swiss companies from many industry sectors, soft materials – ranging from polymers, to colloids, to biomaterials – play a major role.

These materials can be easily processed and are used in applications like packaging, automotive parts, construction materials, furniture, textiles and clothing, personal care/medical products, medical implants or even food additives.

New and enhanced soft materials can be the answer to the market demand for ever extended product capabilities whilst keeping processes and raw materials cost effective.

The 2013 Transferkolleg wanted to help to identify promising opportunities and facilitate Swiss industry's access to expert know-how and technical support. The challenges addressed by the Transferkolleg include following fields:

- Mechanically reinforced polymer nanocomposites
- Functional textiles
- Flexible barrier layers, membranes, and filters
- High performance plastics with enhanced functionality: thermal/electrical conductivity, dielectric constant, magnetic response, self-healing, anti-microbial, surface wettability, self-lubrication
- Smart and enhanced adhesives, lacquers and paints
- Stimuli-responsive materials with change in mechanical properties, color, transparency, shape, wettability, permeability
- Self-organized colloids/polymers for novel optical properties
- Micro- and nano-capsules for controlled release
- Hydrogels for lifescience
- Food processes and additives

The Adolphe Merkle Institute and the Réseau Plasturgie were the key partners of the 2013 initiative.

Project team

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