



EUROPEAN COMMISSION

Directorate-General Information Society & Media

Components and Systems

**Micro Systems**

---

***Aim:** Implementation of the “e-textile” paradigm*

***How?** Seamless integration of micro-nano-info technologies/systems and textile material in "all in one" fabric, with sensing, actuating, communicating, processing and energy generation/storage functions*

---

**Concertation WS on EC-Funded projects on Smart Fabrics & Interactive Textiles (SFIT) and Consultation on Future R&D Challenges and opportunities**

**21 February 2008, Brussels**

*Avenue de Beaulieu 33, Room 0/54*

SFIT - Project information - Microsoft Internet Explorer provided by European Commission


File Edit View Favorites Tools Help


Back Forward Stop Home Favorites Print W Go Links


Address http://www.csem.ch/sfit/html/projects.html

**SFIT CLUSTER OF EC CO-FINANCED PROJECTS**

## Projects







 The *Intelligent Biomedical Clothes* endeavor reported was started at the Information Society Technologies (IST) by the European Commission with the project [WEALTHY](#) in September 2002. This project aimed at developing a "Wearable Healthcare System" by exploring the capability of combining smart sensors in fiber and yarn form, advanced signal processing and modern telecommunication systems, the whole on a textile platform.

 Several years later, while WEALTHY has been able to go beyond the original objectives and is seeking its way towards industrialization and mass production, several other projects have been co-granted by the European Commission to extend the work in this field. They are listed in the table below.



### Summary of the projects

The following projects in the field of Smart Fabrics, Interactive Textiles are co-financed by the European Commission, Information Societies Technologies, in the 6th Framework Programme.

Acronym	Project name	Type	Start	End	Presentation	Coordinator	Number of partners	Overall budget (M€)
<a href="#">MyHeart</a>	Fighting cardiovascular diseases by preventive lifestyle & early diagnosis	IP	Jan 2004	Sep 2007	 (477KB)	<a href="#">Philips</a>	33	33
<a href="#">BIOTEX</a>	Bio-Sensing Textiles to Support Health Management	STREP	Sep 2005	Feb 2008	 (178KB)	<a href="#">CSEM</a>	8	3.1
<a href="#">PROETEX</a>	Protection e-Textiles: MicroNanostructured fibre systems for Emergency-Disaster Wear	IP	Feb 2006	Jan 2010	 (1322KB)	<a href="#">CNR-INFM</a>	23	12.8
<a href="#">STELLA</a>	Stretchable Electronics for Large Area Applications	IP	Feb 2006	Jan 2010	 (127KB)	<a href="#">FFD-KG</a>	11	13.2
<a href="#">OFSETH</a>	Optical Fibre Sensors Embedded into technical Textile for Healthcare	STREP	Mar 2006	Jun 2009	 (809KB)	<a href="#">Mutitel</a>	11	2.3
<a href="#">CONTEXT</a>	Contactless sensors for body monitoring integrated in textiles	STREP	Jan 2006	Jun 2008	 (893KB)	<a href="#">Philips</a>	6	
<a href="#">MERMOTH</a>	Medical Remote Monitoring of Clothes	CRAFT	2003	2006		<a href="#">CENTEXBEL</a>	9	1.7

© 2006 CSEM - All Rights Reserved. The content of this page is the sole responsibility of the project participants and in no way represents the views of the European Commission or its services.

Internet

[www.csem.ch/sfit](http://www.csem.ch/sfit)

### *Objectives of the WS:*

#### *1. Clustering/concertation*

- Improve the performance of the individual projects by maximizing the possibilities for interaction with other projects and stakeholders in the domain.
- Build critical mass of activities, with clear visibility and societal impact.
- Identify possible -inter or intra group- synergies and interesting topics for further collaboration.

#### *2. Consultation of Future R&D Challenges and Opportunities*

- Gather and analyse R&D and market information at the forefront of integration between Smart Fabrics and Interactive Textiles (SFIT) and micro and nano systems,
- find out how advancements in sensors, actuators and textile circuitry can bust the smart fabrics industry,
- brainstorm on the forthcoming RTD and technological breakthroughs
- identify killing applications like medical, emergency, daily life support, ambient assisted living, transportation, environment & professional SFIT
- brainstorm on how to bring future RTD work into business ideas
- identify constituency and encourage cooperation, coordination and critical mass in the above mentioned areas in Europe
- identify new opportunities and a way forward for collaborative research and other stimulating initiatives within FP7 (2009-10 and beyond)

## **PROGRAM**

**9:30-9:45 I. Opening –Setting-up the scene** Chair: A. Lymberis Project Officer  
*Opening – Welcome: EC, DG INFSO, G2 (MicroSystems) A. Lymberis, Augusto De Albuquerque (Head of Unit)*

**9:45-10:00** *Microsystems under the ICT priority: Portfolio and Future activities-the contribution of SFIT, A. De Albuquerque/ F. Ibanez/ A. Lymberis*

### **10:00-11:00 II. Project Results and State-of-the-Art**

**10:00-10:10** Bio-Sensing Textiles to Support Health Management (BIOTEX), *Jean Luprano, CSEM, CH*

**10:10-10:20** Protection e-Textiles: MicroNanostructured fibre systems for Emergency-Disaster Wear (PROETEX), *Annalisa Bonfiglio, CNR. IT*

**10:20-10:30** Contact less sensors for body monitoring incorporated in textiles (CONTEXT), *Bas Feddes, Philips Research Laboratories, NL*

**10:30-10:40** OFSETH: Optical Fibre Sensors Embedded into technical Textile for Healthcare, *Bernard Paquet, Centexbel, BE*

**10:40-10:50** Stretchable Electronics for Large Area Applications (STELLA), *Ralf Heinrich, Freudenberg, DE*

**10:50-10:55** "SWEET" (Stretchable and Washable Electronics for Embedding in Textiles), *Jan Vanfleteren, University of Gent, BE*

**10:55-11:00** CLEVERTEX SSA (Development of a strategic Master Plan for the transformation of the traditional textile and clothing into a knowledge driven industrial sector by 2015), *Philippe Guermonprez, IFTH, FR*

**11:00-11:10 Q&A**

**11:10-11:30 Coffee Break**

### **11:30-11:50 III. Lessons to be Learned**

**11:20-11:30** SFIT enabling Applications: Validation and Business issues (MyHeart Project), *Harald Reiter, Philips Research, DE*

**11:30-11:40** 5 years of R&D in SFIT: Lessons learned & challenges for future research, *Roberto Orselli, Smartex, IT*

**11:40-11:50 Q&A**

#### **11:50-12:00 IV: New Projects**

- 11:50-11:55** Coordination action for enhancing the breakthrough of intelligent textile systems (e-textiles and wearable Microsystems) (SYSTEX, FP7 Project), *Lieva Van Langenhove, University of Gent, BE*
- 11:55 -12:00** Project Smart-Well (Smart and functional clothing for improved well-being), *Harriet Meinander, Tampere University of Technology, SmartWearLab*

#### **12:00 -12:45 V: Discussion**

Activities of SFIT group in 2007;  
Topics of common interest/ synergies/ collaboration for 2008;  
Need for additional effort in R&D and coordination action

#### **12:45- 13:30 Lunch Break**

#### **13:30 -16:00 Session V: Future R&D Challenges & Opportunities**

*SFIT & Micro/nano systems: materials, components, smart fabric, interfaces, technologies*

- 13:30-13:45** Strategic Research Agenda for Smart Textile, European Technology Platform for the future of textiles and clothing, *Lutz Walter, EURATEX, BE*
- 13:45-14:00** SFIT commercial approaches and need for networking; *Christian Dalsgaard, Ohmatex, DK*
- 14:00-14:15** SFIT and integration of active functions: From textile fibers and classic woven approach to organic fibers /films and printed substrates: The "hybrid" SFIT approach and the new challenges, *Annalisa Bonfiglio, CNR, IT*
- 14:15-14:30** Enabling Micro System Technologies for Electronics in Textiles, *Torsten Linz, Fraunhofer IZM, DE*
- 14:30-14:45** Energy scavenging, transfer and storage for SFIT-based wearable systems, *Isabelle Chartier, CEA LETI, FR*
- 14:45-14:55** Light-emitting fabrics, *Liesbeth L. van Pieterse, Philips Research, NL*
- 14:55-15:05 Q&A**
- 15:05- 15:30 Discussion on driving technologies and applications**
- 15:30-15:45 Discussion on industrial needs/aspects (manufacturing, standardisation , etc)**
- 15:45-16:00 Constituency initiatives e.g. Roadmaps, National initiatives and support, Industry initiatives, etc**
- 16:00-16:30 Focus on the next call for proposals, ICT-Microsystems**
- 16:30 Summary and Conclusions**

.....  
,