

## Research and Markets: Global Markets for Smart Fabrics and Interactive Textiles, 2008 Edition

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**Dublin - Research and Markets** 

(<a href="http://www.researchandmarkets.com/research/57074e/global\_markets\_for">http://www.researchandmarkets.com/research/57074e/global\_markets\_for</a>) has announced the addition of the "Global Markets for Smart Fabrics and Interactive Textiles, 2008 Edition" report to their offering.

The market for smart fabrics and interactive textiles (SFITs) is likely to exceed \$640US mn by the end of 2008. This figure is well in excess of the figure of \$485US mn predicted in our previous report, published in 2005. Moreover, the compound annual growth rate (CAGR) of 18% which we forecast for 2004-08 has, in the event, turned out to be as high as 27%.

The bulk of turnover in SFITs is generated in the production of intermediate components, or SFIT modulesEUR"a sector involved in combining base electronic components into a textile substrate. However, this sector is growing by a relatively slow 19% per annum whereas finished SFIT-based textiles are growing by 76% per annum.

The biggest single end use for SFITs continues to be heated automotive seating. But other applications are expected to catch up and overtake it, particularly textiles for physiological sensing. Demand for SFITs for military use also continues to be strong.

One of the most important technical developments in SFITs has been the replacement of metallic fibres with conductive polymersEUR"such as polypyrrole and polyaniline. In addition, there have been important developments in fibres coated with conductive metals. A further area of major promise is the use of nanotechnology, including carbon nanotubesEUR"provided concerns over potential health hazards can be resolved.

The SFIT industry is characterised by the presence of a large number of relatively small companies. This is a consequence of the diversity of technical expertise involved and the wide variety of developments which have emerged. In this business environment, smaller enterprises are able to occupy profitable technological niches. Larger companies, by contrast, have been reluctant to enter the SFIT market. The industry is also characterised by strategic alliances and partnershipsEUR"despite low levels of competition. These have been seen as solutions to problems arising from limited production capacities and high costs of research and marketing.

For the future, a number of issues will need to be addressed as the industry develops. One is the lack of industry standards. Another is the need for more professional marketing. Of particular importance is the need to bring down the cost of manufactureEUR"and hence selling prices.

**Key Topics Covered:** 

**SUMMARY** 

**INTRODUCTION** 

ADVANCED MATERIALS AND COMPONENTS USED IN SMART FABRICS AND INTERACTIVE

TEXTILES (SFITs)

Textile materials

Use of nanotechnology

Non-textile materials and components

TRENDS IN THE STRUCTURE OF THE SMART FABRICS AND INTERACTIVE TEXTILES (SFITs) INDUSTRY

Growing vertical integration

Diversification and economies of scope

SMART FABRIC AND INTERACTIVE TEXTILE (SFIT) BASE TECHNOLOGIES AND INTERMEDIATE MODULES: PROFILES OF LEADING SUPPLIERS AND THEIR PRODUCTS

Suppliers of Smart Fabric and Interactive Textile (SFIT) base technologies

Eeonyx: EeonTex conductive textiles

Bekaert: conductive textiles based on thin metallic fibres

Konarka: light-activated plastic power cells

Austriamicrosystems: AS3525 multimedia chip

Oryon Technologies: Elastolite electroluminescent technologies

Santa Fe Science and Technology: Panion electrically conductive fibre

Potential suppliers of smart fabrics and interactive textile (SFIT) base technologies

Suppliers of intermediate sfit-based modules

Eleksen: ElekTex touch-sensitive interactive textiles

Textronics: wearable sensors for use in fitness and health monitoring

Gorix: maintaining a constant temperature within a garment

SOFTswitch: fabric-based switch and pressure sensing technology

Intelligent Textiles: sophisticated woven fabrics and electronic design

Philips and Photonic Textiles: Lumalive

International Fashion Machines: soft and "fuzzy" capacitive sensors

Polartec: fleeces which conduct heat using stainless steel fibres

Milliken: StainSmart stain-release technology CuteCircuit: garments for telecommunications

Future-Shape: SensFloor textile with integrated microelectronics sensors and radio

Fibretronics: sophisticated textile switches

Luminex: textiles with fibre optics lit by light emitting diodes (LEDs)

Ardica: flexible power and heating systems

Outlast Technologies: temperature regulation using phase-change materials (PCMs)

MicroEmissive Displays: polymer organic light-emitting diodes (P-OLEDs)

SMART FABRIC AND INTERACTIVE TEXTILE (SFIT) APPLICATIONS: PROFILES OF LEADING

SUPPLIERS AND THEIR PRODUCTS

Actuation and response

University of Wollongong Intelligent Polymer Research Institute (IPRI): Smart Bra

Computing and communication

Burton and Apple: Burton Amp

Rosner multimedia "lifestyle" jacket

Heat and energy management Outlast Technologies: Outlast The North Face: MET5 Jacket

Grado Zero Espace and Hugo Boss: thermally regulated overalls for McLaren Formula

One mechanics

d'Appolonia: cooling jacket

WET Automotive Systems: Carbotex

Lighting

Violich Architecture: the portable light project

Location and position

QinetiQ: QinetiQ Metal Printing (QMP)

Sensing and monitoring

Eleksen: ElekTex Bluetooth fabric keyboard

VivoMetrics: LifeShirt Sensatex: SmartShirt

DRIVERS AND INHIBITORS OF THE MARKET FOR SMART FABRICS AND INTERACTIVE

TEXTILES (SFITs)

Factors driving the market for smart fabrics and interactive textiles (SFITs)

Market awareness among customers and consumers

Partnerships and collaboration

Funding and investment

Demand arising from SFIT processors

The competitive environment

Pressure from the final supplier of SFITs

Factors inhibiting the market for smart fabrics and interactive textiles (SFITs)

High selling prices

Health and safety issues

Lack of standards

Performance features

User scepticism

MARKET FORECASTS TO 2010: SMART FABRICS AND INTERACTIVE TEXTILES (SFITs) BY MANUFACTURING SEGMENT MARKET FORECASTS TO 2010: SMART FABRICS AND INTERACTIVE TEXTILES (SFITs) BY FUNCTION

Conduction and distribution of thermal energy

Conduction and distribution of electric current

Conduction and distribution of light energy

Transfer and distribution of matter

MARKET FORECASTS TO 2010: SMART FABRICS AND INTERACTIVE TEXTILES (SFITs) BY APPLICATION

Market shares by application: 2006 Market shares by application: 2010

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Figure 2: Inhibitors of the market for smart fabrics and interactive textiles, 2007

Companies Mentioned:

- Apple
- Burton
- d'Appolonia
- Eleksen
- Grado Zero Espace
- Hugo Boss:
- Outlast Technologies
- OinetiO
- Rosner multimedia
- Sensatex
- The North Face
- University of Wollongong Intelligent Polymer Research Institute (IPRI)
- Violich Architecture
- VivoMetric
- WET Automotive Systems

For more information visit

http://www.researchandmarkets.com/research/57074e/global markets for

CONTACT: Laura Wood, Senior Manager, Research and Markets Fax: +1 646 607 1907 (USA) Fax: +353 1 481 1716 (International) e-mail: press@researchandmarkets.com

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