

Smart Textiles Markets 2016-2023

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Abstracts

In this report we identify the opportunities emerging from commercialization of smart textiles. These include textiles that are (1) fabricated from smart materials or (2) utilize sensing devices that are seamlessly integrated into the textile.

The smart textile sector has taken off in the past few years, driven by the keen interest in the Internet-of-things (IoT) and enabled by the latest smart materials and powerful sensing devices. This report provides market coverage of the potential for emerging textile products where the textile is rapidly becoming the sensor.

The report also discusses how the latest generation of smart materials is expanding the market for advanced textiles. While the focus of this report is on the opportunity for smart textiles, we also discuss how the sensor industry can benefit from the latest trends in smart textiles and also how the supply chain for smart textiles is evolving.

In putting together this report n-tech has drawn on its extensive experience in the smart materials space as well as interviews with key companies in smart textiles. n-tech believes that this report will provide valuable insight into the smart textiles market that will benefit marketing and business development executives from various parts of the supply chain, including raw material suppliers, chemical companies, and clothing manufacturers, as well as investors in the industry.

Applications and Markets

This report includes an analysis of applications where n-tech believes smart textiles have a real opportunity to move beyond the lab and expensive demonstrations high-volume commercial applications. Applications covered include:

Health and Fitness: Sportswear, health monitoring, and clinical applications

Military and Security: Uniforms for soldiers and firefighters

Fashion: Functional clothing for the masses

Non-clothing applications: Solar cells, automotive, and more.

Smart Textile: Materials, Manufacturing and Components

This report provides coverage of how the following categories of materials are being used to fabricate commercially available smart textiles:

Electrically conductive yarns and threads

Conductive polymers

Shape memory materials

Color-changing materials

Phase-changing materials

Self-cleaning and antimicrobial materials

Nanomaterials

We also discuss how sensors are being integrated into textiles and how these will be powered. Finally, this report provides coverage of the latest business trends in smart textile fabrication processes, including weaving, knitting, printing, and embroidery. We focus on how these processes can be used to advance integration of function into textiles.

Eight-Year Forecasts for Smart Textile Materials

This report contains detailed forecasts of volume (in square meters and units) and revenue (in \$ millions), broken down by:

End application

Type of material

Fabrication method

Profiles of Key Players

This report evaluates the product/market strategies of the leading suppliers of key materials for smart textiles. These firms include giants such as DuPont, as well as newer and smaller companies and startups that n-tech believes have compelling products that are likely to make inroads into the smart textiles market.

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