

# **The Global Market for Electronic Textiles (E-textiles) and Smart Clothing 2023-2033**

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## **Abstracts**

Traditional textiles simply function as a covering material. Based on the rapidly changing global demands and due to advanced technological improvements, the development of integrated electronics and responsive functionality on textiles has led to the emergence of E-textiles and smart textiles accommodating the revolution we are witnessing in wearable electronics. The development of high value-added products such as smart fabrics and clothing, wearable consumer and medical devices and protective textiles has increased rapidly in the last decade. Recent advances in stimuli-responsive surfaces and interfaces, sensors and actuators, flexible electronics, nanocoatings and conductive nanomaterials has led to the development of a new generation of smart and adaptive electronic fibers, yarns and fabrics for application in E-textiles.

Advances in the ability to free-form print circuit processes enables electronic systems to be assembled directly onto textile items. This type of technology, "E-textiles," will compete with existing wearable devices that have dominated the market (smartwatches and fitness trackers), as a more discrete alternative to health and physiological monitoring. Electronic textiles incorporate interdisciplinary studies such as textiles, nano/micro technologies, computing systems, and communications and information technologies. These textiles contribute to help communication such as health surveillance, safety, comfort, and leisure.

E-textiles monitor heart health (heart rate, heart rate variability, electrocardiogram), activity recognition and measurement, sleep stage and sleep quality detection, drug adherence, stress level monitor and body temperature measurement, chemical sensing and can return heat and stimulus through the very fibers of textile products.

Covered in The Global Market for Electronic Textiles (E-textiles) and Smart Clothing

2023-2033 are smart and wearable electronic textiles that encompass systems with various functionalities:

sensors that detect pressure, temperature and humidity, strain,

chemical and bio-sensors,

data processing and networking,

mechanical actuation based on shape memory materials or electro-active polymers,

thermal and energy generation, as well as energy storage

smart fashion.

Report contents include:

Market drivers and trends in electronic textiles (E-textiles) and smart clothing.

Investment and product developments 2020-2023.

Materials and components analysis.

Applications and markets including smart clothing products, heated clothing, sports and fitness, smart footwear, military, medical and healthcare, workplace monitoring & protection, motion capture, soft exoskeletons, wearable advertising and power sources for E-textiles.

Global market revenues by sector, historical and forecast to 2033.

152 company profiles including AiQ Synertial, AI Silk Corporation, Fieldsheer Apparel Technologies, Hexoskin, Infi-Tex, Kymira, Liquid Wire, Loomia, Lumeotech, Myant, Inc., Nanoleq AG, Nyokas Technologies, Orpyx Medical Technologies Inc., Sensing Tex, Sensoria Inc., TactoTek Oy, Tyme Wear and ZOZO Group.

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