

# Smart textiles – Challenges and opportunities

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## **ABSTRACT**

*Mankind has been accompanied throughout his evolution by textiles. During centuries, textiles were handmade products mainly used for clothing applications. New synthetic fiber technologies, advancements in finishing and dying process chemistry as well as optimization of production by automation were the main concerns of development for textile in past decades. In parallel to this textile evolution, numerous other technologies emerged. A very large amount of research effort has been spent in areas like micro-electronics, telecommunication and information, material sciences or microbiology. These emerging technologies open the door to new applications in a rapidly changing socioeconomic world. Traditional textile industry has now the opportunity to step in a new evolution round. Merging the knowledge from new technological fields with existing textile technologies leads to highly functionalized and more application oriented textiles.*

*This paper discusses technological challenges and opportunities of new markets for smart textiles.*