

## **Strategic Design, Sustainability and Multiple Approaches for Textile Experimentation**

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### **Abstract**

The underlying context of this research takes into consideration design as an essential component for economic competitiveness and connected to strategic levels of changes; sustainability as a change process; fashion as a broad concept and incorporated into "dressing" and "living" practices or into the “dressed house” and the “dwelling clothing”; textile industry as an economically important sector, but responsible for a high environmental impact. Thus, the purpose of this study is to identify strategies in order for the design to contribute to environmental sustainability using a Strategic Design approach and focusing largely on textile materials. For this reason, a bibliographic and documental review was carried out in the fields of design and textile engineering, along with an exploratory research underpinned by the Material Driven Design method and by the Handstorm and Experimental Draping techniques. Pre-consumer carpet waste was used for experiments due to the volume of carpet waste, its synthetic nature and its recycling difficulty. Therefore, the study is instrumental in suggesting four design strategies at the strategic level to overcome obstacles to adopting sustainability in the textile industry supported by: combination of disruptive technologies, systemic view, knowledge building through creative experimentation and multiple approaches. Furthermore, upon disregarding the limits imposed by specialized subsectors of the textile industry – fashion and interior design – the study shows upcycling difficulties, but it helps to develop metaphoric objects and generate alternatives for form, texture and scale that undermine aspects such as two-dimensionality and horizontality.

**Keywords:** Strategic Design; Sustainability; Textiles; Material Design Driven; Fashion; Interiors Design; Recycling; Upcycling.

**ISBN: 978-989-54263-0-0**