

# smart textiles - webtool and support package

### a webtool to enable designers and producers of smart textiles to assess the environmental performance of their products

The LCA to go webtool enables smart textile designers and producers to assess the environmental profiles for typical smart textile applications. These environmental profiles can be referenced at the early product design phases to direct users towards ecodesign practices. By providing the relevant technical performance data of smart textiles, users are able to gain a deeper understanding of the life cycle environmental impacts of their design decisions.

The LCA to go webtool is based upon a fast-track Life Cycle based Assessment approach. The webtool translates the

environmental impacts of smart textiles into eco-costs. Eco-costs represent the amount of money theoretically required to prevent the environmental impacts of a product. This enables the environmental costs over the product's life cycle to be related to the value of the product. LCA to go users can use this insight to prioritise environmental improvements when designing smart textiles.

\*In the context of LCA to go, smart textiles have been defined as textile products that are integrated with electronic components.

### available support package

- A free webtool that is quickly accessible without the need to install software.
- A quick and easy life cycle based environmental assessment using easily accessible information.
- A catalogue of typical eco-profiles and environmental information of smart textiles.
- A calculation of eco-costs associated with the product life cycle of smart textile designs.
- Free mentoring by LCA, ecodesign and smart textile experts through workshops, site visits, online tutorials and online support.





# what is life cycle thinking?

All products have life cycles with interlinked stages including supply chains, production, distribution, use and disposal. Every product has positive and negative environmental impacts along its life cycle. These environmental impacts are influenced by decisions made within each company involved in the product's lifecycle.

LCA to go uses Life Cycle Based Assessments to quantify these environmental interactions and relate them back to a company's decisions. The results from Life Cycle Based Assessments can be used to identify environmental and commercial performance improvements. These improvements can be in the form of reduced environmental pollutants, reduced energy consumption, improved product quality or increased use of environmentally responsible resources.

# the life cycle of smart textiles



LCA to go is a Seventh Framework Programme led by the Fraunhofer Institute. It aims to boost Life Cycle based Assessment within Small and Medium Sized Enterprises by developing a Life Cycle Based Assessment webtool for seven sectors: bio-based plastics, industrial machinery, electronics, photovoltaics, printed circuit boards, sensors and smart textiles.

Fraunhofer FUTURESHAPE 🖞 Del

#### To sign up to the LCA to go web-tool or support package please visit www.LCA2go.eu or contact you national support agent

or contact you national support agent Jude Sherry Ecodesign Centre United Kingdom jude@edcw.org



Ecodesign Centre Wolas Canolfan Ecoddylunio Cymru