Ecodesign methodology for recyclable textile coverings
used in the
European construction and transport industry

Fact Sheet

Project information

ECOMETEX
Grant agreement ID: 280751
Project website

Funded under:
FP7-NMP
Overall budget:
€ 5 515 035,50
EU contribution
€ 3 839 497

Coordinated by:
RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN
Germany

Status
Closed project

Start date
1 May 2012
End date
30 April 2015

Objective

The overall aim of EcoMeTex is to develop a tailored Ecodesign methodology for optimising the design of textile coverings with regard to eco-efficiency and cost-effectiveness. This comprises an analysis of the entire life cycle identify significant environmental and economic impacts and hence potential for improvement guaranteeing high product quality, as well as high product safety. Life Cycle Assessment (LCA) allows to identify the crucial weak points in the life cycle and to assess improvement strategies to achieve an environmentally sensitive product design. LCA informs designers and developers concerning the implications of their choices on the environmental impacts and is therefore a decision-making tool.
The innovative methodology faces the challenge to solve the paradox of textiles coverings: on the one hand the bonding of the multi layers has to be solid; on the other hand the multi layers have to be easy to dismantle for recycling. Applying this methodology a closed loop system of resources is realised, enabling material recycling. Re-design comprises not only optimisation of currently used material sets or manufacturing and distribution processes but also product and process innovations: It covers the development of innovative material adaptations as well as new approaches within the manufacturing process, recovery and reuse stage itself. The feasibility of the re-design concepts will be proven by producing prototypes of eco-designed textile floor coverings from the construction sector. The work will be completed by describing the methodology in a Code of Pratice which will be implemented in a customised,
practical and intuitive software tool. The Ecodesign methodology will provide additionally a communication scheme for external communication based upon LCA results too. The transferability of the Ecodesign methodology for textile coverings to other sectors will be analysed using the example of luggage cover representing the transport sector.

Field of Science

/ engineering and technology/materials engineering/textiles

/social sciences/social and economic geography/transport

/engineering and technology/environmental engineering/waste management/recycling

/natural sciences/computer and information sciences/software

/social sciences/economics and business/economics/sustainable economy

Programme(s)

FP7-NMP - Specific Programme "Cooperation": Nanosciences, Nanotechnologies, Materials and new Production Technologies

Topic(s)

NMP.2011.3.1-1 - Eco-design for new products

Call for proposal

FP7-NMP-2011-SMALL-5

See other projects for this call

Funding Scheme

CP-FP - Small or medium-scale focused research project

Coordinator
## Participants (15)

<table>
<thead>
<tr>
<th>Organisation</th>
<th>EU Contribution</th>
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<tr>
<td><strong>RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN</strong></td>
<td>€ 798 172,50</td>
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<tr>
<td>Address</td>
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<tr>
<td>Templergraben 55 52062 Aachen</td>
<td>Higher or Secondary Education Establishments</td>
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<tr>
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<td></td>
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<tr>
<td><strong>ECODESIGN COMPANY ENGINEERING &amp; MANAGEMENT CONSULTANCY GMBH</strong></td>
<td>€ 516 200</td>
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<td>Address</td>
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<tr>
<td>Schwindgasse 4/2 1040 Wien</td>
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<td>Austria</td>
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<tr>
<td><strong>TFI - INSTITUT FUR BODENSYSTEME AN DER RWTH AACHEN EV</strong></td>
<td>€ 616 856,50</td>
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<td>Charlottenburger Allee 41 52068 Aachen</td>
<td>Research Organisations</td>
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<td>AQUAFIL SPA</td>
<td>€ 347 268</td>
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<td>BONAR BV</td>
<td>€ 277 200</td>
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Administrative Contact:
- Guy Buyle (Mr.) for CENTRE SCIENTIFIQUE & TECHNIQUE DE L'INDUSTRIE TEXTILE BELGE
- Karim Tonelli (Mr.) for AQUAFIL SPA
- Ksenia Ovsiannikova (Mrs.) for BONAR BV
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32549 Bad Oeynhausen | Private for-profit entities  
(excluding Higher or  
Secondary Education  
Establishments) |
| OERLIKON TEXITLE GMBH & CO. KG | € 65 500 | Leverkusener Strasse 65  
42897 Remscheid | Private for-profit entities  
(excluding Higher or  
Secondary Education  
Establishments) |
| SIOEN INDUSTRIES NV | € 214 800 | Fabriekstraat 23  
8850 Ardooie | Private for-profit entities  
(excluding Higher or  
Secondary Education  
Establishments) |
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<td>€ 174 000</td>
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<td>Zollhausstrasse 112 52353 Dueren</td>
<td>Eike Johannsen (Mr.)</td>
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<td>EUROPEAN CARPET AND RUG ASSOCIATION AISBL</td>
<td>€ 83 400</td>
<td>Other</td>
<td>Rue Montoyer 24 1000 Bruxelles</td>
<td>Simon Van De Vrande (Mr.)</td>
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<td>INTERFACE EUROPEAN MANUFACTURING BV</td>
<td>€ 45 600</td>
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<td>Industrielaan 15 3925 Bd Scherpenzeel Gld</td>
<td>Luca Achilli (Mr.)</td>
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<td>KLIEVERIK HELI BV</td>
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<td>€ 123 000</td>
<td>Edisonstraat 8, 7575 At Oldenzaal</td>
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**Website**

**Contact the organisation**

Administrative Contact: Milco Hemme (Mr.)

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**Contact the organisation**

Administrative Contact: Luca Achilli (Mr.)

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**Website**

**Contact the organisation**

Administrative Contact: Luca Achilli (Mr.)
INTERFACE EUROPE LTD
United Kingdom

EU Contribution
€ 72,000

Address
Shelf Mills
Hx3 7pa Halifax

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Admin Contact
Luca Achilli

Contact the organisation

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