



**LEARNING AND LEGACY** THE ROLE OF EDUCATION IN CREATING HEALTHIER, HAPPIER CITIES EAUC 20th Annual Conference 25th - 26th May 2016

# An Introduction to Radical Sustainability

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#### Who we are





By definition, we are the world's largest designer and maker of carpet tiles.

- Inventor of the carpet tile
- Turnover \$1 billion USD
- 3,500 employees worldwide
- 7 manufacturing facilities
- Presence in over 100 countries



# There has to be a better way

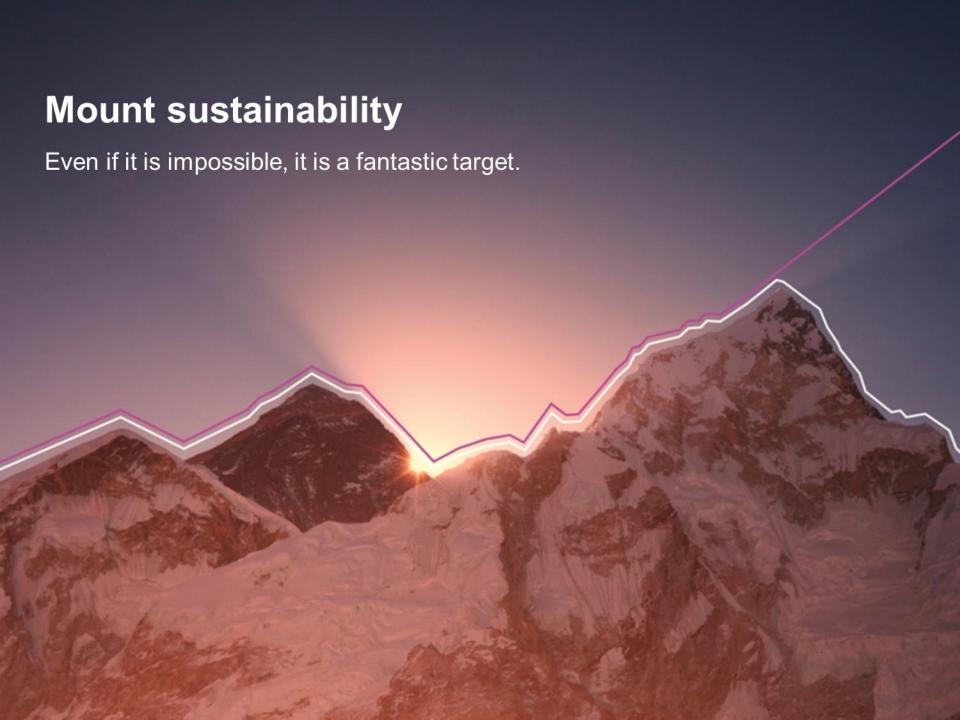




In 1994 we began to hear a **question** from our customers:







# Seven Fronts – From elimination to redesign



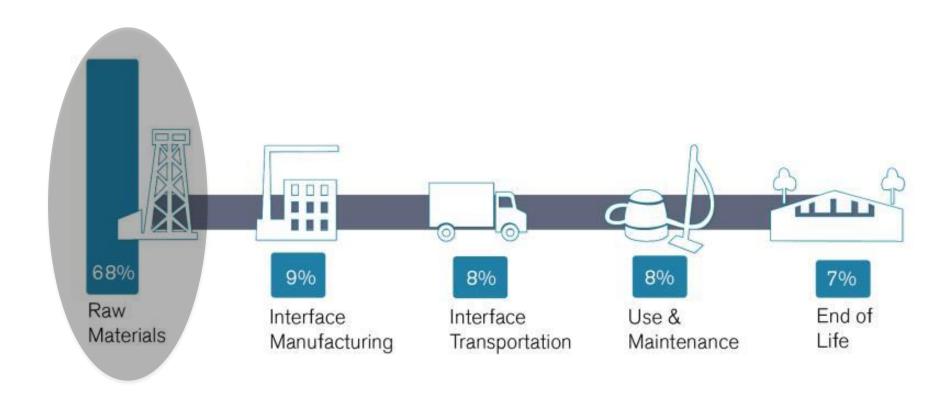


- 1) Eliminate Waste
- 2) Zero Problem Emissions
- 3) Switch to Renewable Energy
- 4) Close the Loop
- 5) Use Resource-Efficient Transportation
- 6) Sensitise Stakeholders
- 7) Redesign Commerce

# Life Cycle Assessment (LCA) – The key in sustainability



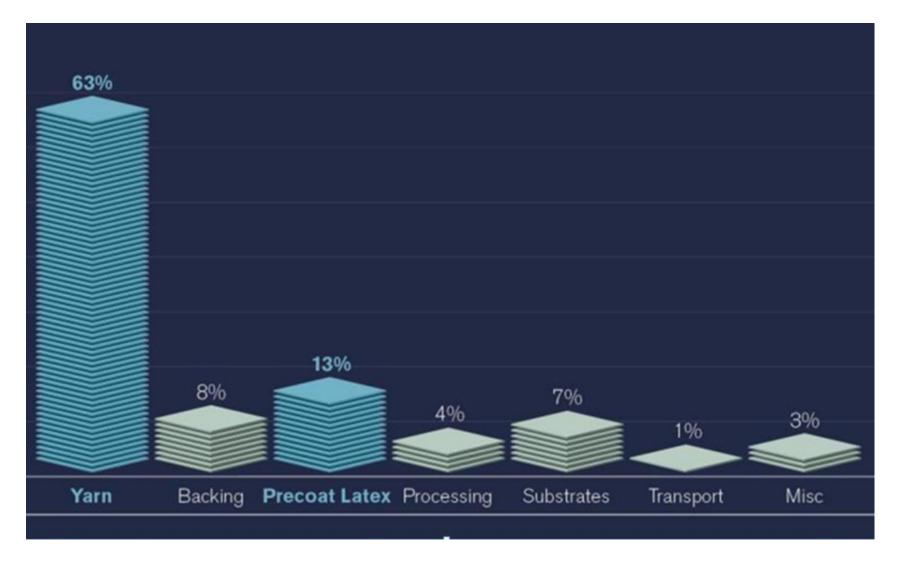




# Breakdown of materials and processes







### What can we do to zero out the impact of the yarn?





- 1) Use less yarn
- 2) Use more recycled yarn
- 3) Find an alternative yarn or re-invent an existing yarn



#### Biosfera – our eco hero





- Carpet with a minimum use of raw materials
- Made from 100 % recycled yarn including fishing
   nets and used carpet fluff
- 5.0 kg CO<sub>2</sub>e/sq. (standard carpet tile 12.5 kg CO<sub>2</sub>e/sq.)
- Suitable for heavy wear



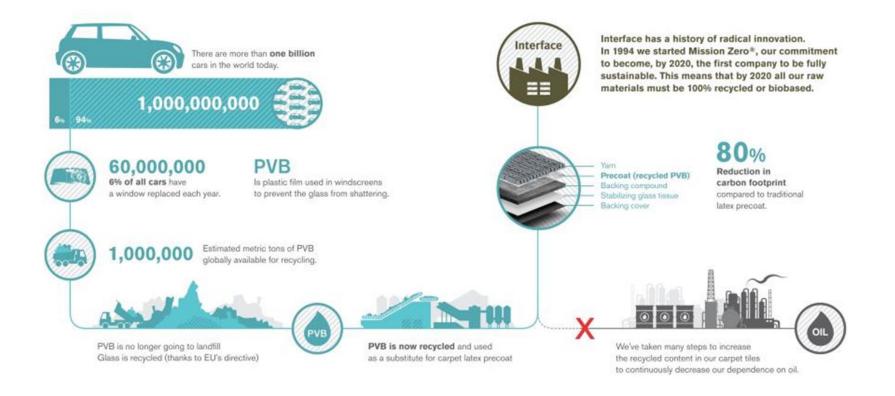
# Replacing the latex of our precoat





#### FROM WINDSCREENS TO CARPETS

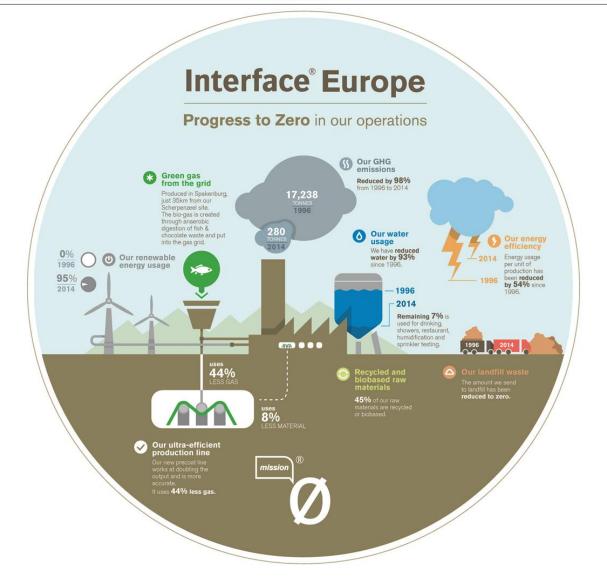




#### Scherpenzeel to Zero







#### **Biophilic Design Principles**





- Biophilia describes the innate relationship between humans and nature
- Biophilic Design seeks to strengthen our connection with the natural world
- In educational settings it has the capacity to reduce stress levels and improve wellbeing



#### **Biomimicry**





- Consider the random beauty of the forest floor
- Nature is neither monolithic nor uniform – which prompted us to create a new category of carpet tile featuring completely unique pattern and colouring
- The result was an innovative flooring system that substantially reduced installation time and cut waste by up to 90% compared to traditional broadloom



### TacTiles™ – Our first step toward a restorative business





- Glue-free installation
- Innovation substituting adhesives
- TacTiles<sup>™</sup> create virtually zero VOCs (Volatile Organic Compounds)
- Fast, clean and easy installation
- Added flexibility and makes recycling easier at the end of life



# ReEntry® – Closing the loop





- Our ReEntry 2.0 recycling process is a technological breakthrough for the industry, separating yarn and backing from used products for use in new carpet tiles
- Process can handle 600,000
   sq. per year
- Modularity at the core of the system is key for reverse logistics



#### Net-Works<sup>™</sup>– Our first step towards a restorative future





- Carpet made from 100 % recycled yarn
- A socially inclusive business model
- Net-Works<sup>™</sup> enables fishing communities in developing countries to sell waste nets back into a global supply chain
- Partnership with Zoological Society London (ZSL) and our yarn supplier Aquafil





Transparency is the New green.

#### **Full product transparency**





- Environmental Product Declarations (EPDs)
- Third party verified and based on a thorough LCA in line with ISO 14040 standards
- EPDs enable our customers to compare product ingredients and environmental impacts
- No green washing



#### **Five lessons learned:**





- 1) Kick-off with an outrageously ambitious mission
- 2) Focus clearly on the product
- 3) Expand into adjacent markets
- 4) Help change the system
- 5) Provide real value to customers

### **Approach and Business Case:**





- Sense of urgency. Not 2020, now.
- •Differentiating ourselves by doing some extraordinary ahead of schedule and expectations.
- •Empowering engineers, giving them an umbrella to act on and a stronger voice.
- Strong communication, yet humble.
- •Sense of pride for the rest of the organisation.
- •Extra motivation for the sales force feeling the winning hand.

### What is on the mind of our customers:





- Zero net energy buildings
- Raw materials made from waste
- Materials with radically reduced carbon footprints
- Super low VOCs and low chemicals materials
- Hyper flexibility (modularity)
- Bringing nature indoors
- Ultra transparency

# There has to be a better way \_ Ray Anderson **Louise Swift** louise.swift@interface.com Twitter: Louise@Interface