Radical sustainability is possible
“One day people like me will go to jail”  
Ray Anderson  
1994
An outrageously ambitious Mission

Mission Zero:
our promise to eliminate any negative impact our company may have on the environment by the year 2020.
European manufacturing from Jan 2014

- 95% Renewable energy
- 90% reduction of absolute carbon since 1996
- Zero water used in manufacturing process
- Zero waste sent to landfill
Approach and business case

• Sense of urgency. Not 2020, now.

• Empower engineers, giving them an umbrella to act on and a stronger voice

• Leave room for projects with longer paybacks

• Differentiate ourselves by doing something extraordinary ahead of schedule and expectations

• Strong communication, yet humble

• Be prepared to pay a premium for more sustainable inputs (eg. Renewables) but this should be done after strong efficiencies
Ultrasonic cutting technology

‘window waste’ with die cutting

Carpet → Die cut → Tiles

6 cuts + waste

‘window waste’ with ultra sonic cutting

Carpet → Ultra Sonic cut → Tiles

1 cut + waste
Our new Pre-coat process consumes 40% less gas per m².
What is the business case?

- **Saved €1.1M p.a.**
- **Reduced yarn usage by 12% / m² compared to 1996, saving €5.8M p.a.**
- **At a cost premium of 10% i.e. €0.1M p.a.**
- **Use 100% renewable energy (including gas & electricity) at their Scherpenzeel site from January 2014.**
- **Send Zero waste to landfill since May 2013.**
- **Reduced their energy usage by 40% per unit of production since 1996.**
- **2013 update: Now 50%**
- **Reduced their water use by 77% per unit of production since 1996.**
- **2013 update: Now 87%**

**Net impact:**
- €7.6M p.a. cost saving
- 13,800 tCO₂e GHG emissions reduction
- Happier staff and customers
- Higher profit margins
- Continued global market leadership in carpet tiles

**2013 update:**
- Now 50%
- 87%
Can this be replicated our manufacturing Europe?

€B p.a.

Material: 94
Energy: 28
Other: -22
Renewable: -1.9
Commercial: Not calculated
Total: 100

8.4
The 2 paradigm shift

OLD
• Corporate sustainability
• The Beauty contest
• Awards, labels, csr reports, certifications
• Zero company impacts

NEW
• Product sustainability
• Embedded
• LCA performance
• kg co$_2$ / m$^2$
• Zero product life cycle impacts

RADICAL
• Systems sustainability
• Services redesign
• Close loop systems radical materials
• Zeroing others by cannibalising
Embedding Sustainability?

Truly embedding is in your product

Interface
Life Cycle Assessment

- Raw Materials: 68%
- Interface Manufacturing: 9%
- Interface Transportation: 8%
- Use & Maintenance: 8%
- End of Life: 7%

Interface
Life Cycle Assessment

Raw Materials

- 45% Yarn
- 11% Backing Compound
- 6% Glassfleece and Tufting Carrier
- 4% Precoat Bonding Layer
- 2% Packing
- 1% Raw Material Transport

Interface
Addressing the biggest issue

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

- Reduce the amount of yarn used
- Use more recycled yarn in the composition
- Invent a new yarn
Less is more
50% less yarn
350g of yarn vs 700g
Microtuft are high growth products

14% of total EMEAI sales are Microtuft products
Over 400 colourways in 100% recycled yarn
Biosfera Micro

Superflat
350g yarn
100% recycled yarn

1\textsuperscript{st} carpet with 100% recycled nylon
Developments in technology and the shift to modular carpet have resulted in radical reduced carbon footprint.
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RADICAL
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- Services redesign
- Close loop systems radical materials
- Zeroing others by cannibalising
Innovation - substituting adhesives
What are cannibalizing here?

BBC offices, London
Zeroing out the walls!

Zoning

Using the full flexibility and design capabilities of carpet tiles to create all kind of zones within open spaces
Circularity in practice

- Raw Material Extraction & Processing
- InterfaceFLOR Manufacturing
- Product
- Use & Maintenance
- End of Life

Recycling (closing technical loop)
- a) Down-cycling
- b) Like for like recycling

Re-Use

Closing natural loop through bio-degradable materials

Waste to Energy

Landfill
Our ReEntry 2.0 process
Our ReEntry 2.0 process

Interface
High yield yarn separation at high enough purity
Modularity, precondition for circularity

Modularity at the core of the system is key for reverse logistics
The paradox: ‘Throwing away’ is cheaper than recycling
Ramón Arratia
Sustainability Director
Interface
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