

Sustainable Innovation Culture at Work: The Case of Interface*

Early spearheads in sustainable innovation such as Interface Floors took decades to deliberately translate their values and mission into an organisational culture that repeatedly and reliably generated sustainable innovation despite unforeseen challenges and against the odds of unintended or unexpected consequences. Interface, the global manufacturer of commercial flooring, is an outstanding case. Interface not only improved the energy and resource efficiency of its supply chain and production, it not only reinvented its business model but is steering the whole organisation to work towards climate take-back. Over the last 30 years, its sustainable innovation culture became a role model for the industrial transformation towards sustainable development. As a classical case, it also allows to illustrate the definition of **Sustainable Innovation Cultures**. These cultures:

1. ... turn values of sustainability into novel, economically, socially, and ecologically beneficial and regenerative outcomes.
2. ... require deliberate efforts by establishing corresponding values, addressing tensions and values-action gaps, and aligning notions, practices, and artefacts.
3. ... create sustainable value repeatedly and reliably, despite unforeseen challenges, and against the odds of unintended consequences or potential rebound effects.

Interface and its Outstanding Journey Toward Sustainable Innovation Culture

Founded in 1973, Interface was one of the manufacturers of carpet tiles in the US American market, and grew until now into the largest carpet-tile maker worldwide. In 1994, motivated by concerns of employeesⁱ and his own 'Spear in the Chest Epiphany'ⁱⁱ having read *The Ecology of Commerce*ⁱⁱⁱ, its founder and CEO Ray Anderson set the course for a **deliberate approach** to create a sustainable innovation culture. An 'Eco Dream Team' of environmental experts was set up to drive what became known as the company's 'mission zero'. Based on its early commitment to convert the company into a sustainable and 'restorative enterprise worldwide'^{iv}, mission zero aimed at eliminating any negative environmental impact by the year 2020. In his keynote speech held 1994, Anderson also outlined an according 'strategy: Reclaim, reuse, recycle, conserve, adopt and advance best practices ... feel free to take each of these, massage them, develop them, then come back to me with your version of each.'

An impressive list of innovations in engineering, sourcing and manufacturing, design and business models led to the **economically, socially and ecologically beneficial outcomes** the company has delivered since, most prominently with reaching the mission zero targets ahead of time^v.

Repeated and in so far **reliable** delivery of sustainability innovations paved the road for the company's journey: Already in 1995, a 'ReEntry' program was launched to reclaim and recycle used tiles. The same year, an 'Evergreen Service Agreement' offered clients to lease rather than purchase carpets, extending the companies' business model from selling products to also offering services.

Engineers examined the manufacturing facilities, and achieved impressive reductions of energy consumption simply by implementing pipes that are fatter, shorter and straighter than the ones used before^{vi}. Investments in new technologies and products in the late 90ies and early 2000s enabled the manufacturer to use recycled nylon fibres and backings.

Since 2003, nature-inspired aesthetic designs pushed further product innovation. The world's first biomimetic carpet tile was introduced under the name 'Entropy'TM.

*2024 teaching case by Henning Breuer to be published in: Breuer, H. & Ivanov, K. (forthcoming 2025).

The design mimics the randomness found in nature, and helps to extend product lifetime, to save materials during installation and local fixes^{vii}. In 2012, a Net-Works Program was launched in partnership with the Zoological Society of London, to recover and recycle discarded fishing nets in the Philippines, also creating economically added value for the coastal communities. A 'Carbon Neutral Floors'TM initiative launched 2014 committed the company to carbon neutrality across its product range. Through offsetting and leadership in low-carbon manufacturing it was achieved by 2018^{viii}.

When Mission Zero was accomplished, a new Climate Takeback mission raised the bar even further dedicating the company to become a carbon negative enterprise by 2040. One of the first milestones to reverse global warming and to use carbon as a resource, was the introduction of carbon-negative products in 2019. The world's first carbon-negative carpet tiles were introduced to the market, with a tile collection branded as Embodied Beauty in 2020. Using bio-composite, so called CQuest backings were made from plants and organic materials that retain their carbon dioxide.

This highly visible output of sustainable innovation initiatives is backed up with internal measures embedding sustainability in the organisational culture, and ensuring that skills and practices are in place. In 1999 biomimicry workshops were conducted to inspire employees from different departments to go beyond traditional tile design. Since 2018, new hires receive mandatory *Mandatory Training* on issues of sustainability through a global onboarding program, briefing them about ongoing activities and lessons learned, building awareness for the mission, and encouraging a sustainable innovation mindset. Optional advanced training is also offered to enhance societal problem-solving skills, an ambassador program empowers advanced employees to implement their own sustainable innovation programs within their function and to represent the company publicly.^{ix}

The dense list of ground-breaking milestones may appear like a straight success story, where there have been serious **tensions** and struggles along the way, even though only few of them made it into the press. Already with the initial announcement of the new normative orientation for the company in 1994, employees articulated doubts, and wall street investors dumped their stock doubting the sanity of the chairman^x who prioritized sustainable over short-term profit. In fact, upfront investment costs eat up short-term returns and may financially stress the whole endeavour, whereas passing on costs to clients may lead to loss in market share. In the case of Interface, clients also hesitated to adopt the new carpet-as-a-service model with 'Evergreen Service Agreements', shying away from the financial implications of turning their capital investment costs to operational costs^{xi} in spite of the financial agility and peace of mind the service model could offer. In spite of its limited acceptance by clients the offering was kept up for its circular benefits.

'What drives us? A positive vision of the future and the determination to make it come true. The moral courage to do what is right, despite all obstacles. An abiding commitment to show that sustainability is better for business. We believe that change starts with us and is transforming Interface from a plunderer of the earth to an agent of its restoration. Through this process of redesigning ourselves, we hope to be a catalyst for the redesign of global industry.'^{xii}

The vision also provides a clear sense of direction in dealing with unintended consequences. For instance, in 2008 the market introduction of a new product line of grass and bamboo woven floor tiles failed, but the cooperation with Indian weavers improved the company's capacity to network and collaborate with non-traditional business partners. This prepared the grounds for creating the already mentioned a Net-Works partnership, a community-based supply chain. Likewise, not intended was the failure of carbon offsetting schemes to reach carbon neutrality^{xiii} when the company started its offset program 'Cool Carpet' in the 2000s. However, it does not come as a surprise that sustainability-oriented companies such as Interface don't solely rely on external compensations, but take the sustainability challenges to the core of their innovation efforts.

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- ⁱ Hoffmann, A. 2022. Interface: The Journey Toward Carbon Negative. WDI Publishing. <https://store.hbr.org/product/interface-the-journey-toward-carbon-negative/W10C83>. Accessed: 10 October 2024.
- ⁱⁱ Ray C. Anderson Foundation. 2024. Ray's Life. <https://www.raycandersonfoundation.org/rays-life>. Accessed: 10 October 2024.
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- ^v Interface. 2019a. Lessons for the Future. The Interface guide to changing your business to change the world. https://www.interface.com/content/dam/interfaceinc/interface/sustainability/emea/25th-anniversary-report/Interface_MissionZeroCel_Booklet_EN.pdf Accessed: 10 October 2024.
- ^{vi} Lovins, A. B., Lovins, L. H., & Hawken P. (1999). A road map for natural capitalism. Harvard Business Review, 77(3), 145-158.
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- ^{ix} Interface. 2019a. Lessons for the Future.
- ^x Hoffmann, A. 2022.
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- ^{xii} Anderson, R. 2023. Sustainability Innovation Leaders – Planet. <https://www.e-education.psu.edu/ba850/node/640>. Accessed: 10 October 2024.
- ^{xiii} Kajosaari, E. 2023. Community conflict and vague predictions: The five biggest reasons carbon offsetting schemes fail. <https://www.euronews.com/green/2023/01/10/the-five-biggest-reasons-carbon-offsetting-schemes-can-fail>. Accessed: 10 October 2024.