SUSTAINABLE INNOVATION:
THINK BIG, BE OPEN TO IDEAS AND EMBRACE SUCCESSFUL FAILURE
“InterfaceFLOR is gradually climbing higher up Mount Sustainability by continually looking for ways to make incremental changes to our products and processes.

But we also look for the miracle – the solution that will create the radical change we need to achieve Mission Zero.

We do this by viewing our products and processes from the top of the mountain looking down. Rather than just focusing on how we make what we already have more sustainable, we ask the question ‘what would we start with if we are trying to achieve true sustainability?’.”

This is how Nigel Stansfield, InterfaceFLOR’s Senior Vice President Product and Innovation for EMEAI, describes how we plan to achieve Mission Zero, our goal to have zero environmental footprint by 2020. We cannot achieve Mission Zero without radical innovation. We think some of the key ingredients are: aiming high, giving people freedom to take risks, and being open to looking for solutions outside the company.

THE CHALLENGE

Innovation is critical to achieving sustainability goals and cutting product impacts. It will only thrive in a culture where employees are allowed to experiment with new ways of doing things. The challenge is to create that positive culture:

- What should the company’s sustainability strategy focus on?
- How do you inspire innovation and encourage employees to come forward with their ideas?
- How do you know where to start when looking for ways to make a process or product more sustainable?
- Should you try to improve the sustainability of existing products or come up with something entirely new?
- What do you do if your own people can’t find a solution?
- How do you promote innovation that challenges the usual way of doing things?

These are just a few of the challenges that companies face when trying to foster a culture of innovation for sustainability. Overcoming them requires a willingness to be open to ideas, wherever they come from, and giving people the freedom and support they need to explore potential solutions.
THE CONVENTIONAL APPROACH

Many companies have made a commitment to become more sustainable. They have already made important progress by creating a strategy, setting targets, obtaining buy-in from senior management and embedding sustainability in the mindset of employees.

These steps will gradually reduce operational impacts as incremental improvements increase efficiency. But without embracing radical innovation, companies are unlikely to achieve the necessary step-changes or create competitive advantage from their sustainability agenda.

Despite genuine commitment, companies may inhibit the innovation essential to achieve ambitious goals. Engrained corporate cultures, fear of failure, and a lack of understanding of their environmental footprint or unwillingness to tackle the elephants in the room mean companies can stifle creativity because they:

• Aren’t ambitious enough to inspire employees to think outside the box and achieve significant change.

• Focus on easy wins, not on finding solutions to the biggest and most difficult sustainability challenges, often because they don’t have a clear grasp of where the most significant impacts lie.

• Ask employees to come up with solutions, but instil a fear of failure that means designers and engineers don’t dare to take risks and experiment.

• Fail to promote a culture that welcomes new ideas, so an employee with a great suggestion is pushed back by a manager with a narrow perspective.

• Are not open to external stimuli that could provide the missing link that transforms a small idea into a significant breakthrough.

• Rely solely on an internal team instead of casting a wide net seeking ideas from people outside the company, from universities, entrepreneurs and innovators.
Sustainability is core to InterfaceFLOR. As we described in the first article of this series (Mission Zero), we have inspired real change by setting an outrageously ambitious goal: to have zero impact by 2020. The sheer audacity and all-encompassing scope of this goal has pushed us to come up with groundbreaking solutions to meet this enormous challenge.

Our attitude is that ‘there has to be a better way’. This applies to everything from a new manufacturing process to a new product. Rather than setting a narrow or short-term target that can be achieved by refining existing technologies or making incremental improvements in the efficiency of the processes we already use, Mission Zero demands real innovation. If we can’t achieve our goal using the technology we have available to us, we continually challenge ourselves to come up with new ways of doing things – sometimes with help from partners outside the business who can offer another perspective or expertise.

Here we share some of the approaches that have helped us come up with innovative answers to sustainability challenges. We hope others might find our experience useful.
When you know your limits you can begin to unlock the endless possibilities of sustainability.

The planet has limits and just as some things must grow, others must shrink. So for your profits to continue to get bigger the impact on the planet needs to get smaller. **Sustainability** is a platform to drive growth, streamlining your processes so you are more efficient and rethinking your products so they are more cost effective. It’s about getting everyone on board so you are more productive and you can be even better at what you do best.

---

**GET GROWING WITH SUSTAINABILITY**
We look for ways to cut the key impacts of our products throughout their life cycle, rather than just focusing on the impacts from our own company – the manufacturing stage. This helps us concentrate on the biggest sustainability challenges, and gives greater potential for competitive advantage because people buy products, not companies.

To make a product significantly more sustainable, it is crucial to understand what its biggest environmental impacts are and focus on these. A life cycle assessment (LCA) provides a clear picture of a product’s impacts throughout its life: from extraction and production of raw materials to manufacturing, transport, use, maintenance and disposal. This provides the essential starting point to focus innovation efforts in the most critical areas. For example the main impact of a car is from the fuel consumption needed to drive it, not the energy used to manufacture the car in the first place.

At InterfaceFLOR, we know that over two thirds of the overall environmental impact of a carpet tile is related to the raw materials. Virgin nylon yarn alone makes up around half of the greenhouse gas emissions of the carpet throughout its life cycle, so reducing the amount we use is fundamental to our strategy of creating a more sustainable product. We are therefore focusing much of our investment in innovation for carpet tiles on:

- Reducing the amount of yarn we use in products
- Replacing virgin yarn with recycled content
- Exploring bio-based renewable alternatives to nylon
- Designing products to make it easier to separate the nylon from the other components for recycling at end of life.

FlatWorks is just one of the innovations we have come up with using this approach. Manufactured using our microtufting technology, this flat carpet uses up to 50% less yarn while offering the same performance – reducing its LCA impact by up to 40%.

2. Target adjacent markets to expand

We asked ourselves two questions. What is our core competence? And how can we use this to expand into adjacent markets? Our core competence is modularity, we invented carpet tiles. But there are all sorts of components linked with the carpet tiles – for example the adhesives that stick them to the floor.

Thinking of a more sustainable alternative to adhesive has allowed us to enter a new market. TacTiles is a revolutionary new way to install carpet tiles without glue. Using connectors that are placed in the corner of four tiles to create a floating floor, TacTiles cuts impacts from installation of carpet tiles by 90% compared with traditional glue, and virtually eliminate volatile organic compounds. In the USA, around 30% of our products are now installed with TacTiles.
3. **Embrace successful failure**

Some ideas work, others don’t; especially when looking for radical improvements. Allowing engineers and designers to take a risk by investing in their ideas can lead to groundbreaking solutions. It takes courage – and innovators need licence to succeed and also to fail. We call this a culture of ‘successful failure’.

Our FairWorks product range, for example, took us in a new direction. We created a business model based on a partnership with local artisan communities in India, creating products which would also improve their income. Although the actual product has not been as commercially successful as we hoped, we have certainly not given up. The project created a valuable network of external partners and introduced us to a new business model, which generates income for a community in India. This has built capacity for future projects and we are continuing to explore how to grow FairWorks commercially.

4. **Look at what nature would do**

When trying to solve a sustainability challenge it can be useful to ask, ‘what would nature do?’. At InterfaceFLOR, applying the science of biomimicry (learning from nature) has changed the way we think about design. We use biomimicry as a lens through which we look at challenges differently.

Biomimicry helped us to come up with the pioneering concept of random design carpet tiles. Inspired by leaves on a woodland floor, we learnt that in nature each ‘tile’ is unique, yet the floor is uniform. Making each carpet tile unique through our random design products allows installation in a non-directional pattern, which can reduce waste to between 1% and 2%, depending on the size and shape of the room. With every tile slightly different, this also allows them to be replaced without the usual problem of batch colour compatibility.

5. **Be open to external input**

Not all the smart guys in the world work for you. Looking outside the business multiplies the chances of finding the right idea. We throw problems at people outside the business, see what they come up with and feed their ideas into our development process. People with different knowledge, expertise and experience – sometimes in entirely different industries – can sometimes help to provide a missing piece of the puzzle.

In 2004, we launched our innovation network. This group of creative, forward-thinking people from outside our organisation – all with an interest in sustainability – includes designers, biopolymer experts, academics and sustainability experts. The more we engage with people outside the company, the more we become a magnet for people with good ideas. Our reputation for being open to external innovation means we are regularly contacted by inventors who have an idea, but need help to put it into practice. Some of these can create great new solutions for InterfaceFLOR, such as Zefo (see next page).
6. Share your innovations to make sure they reach their full potential

If you do come up with a great innovation, don’t necessarily keep it to yourself. It may be too radical or simply might not fit your company’s business model. Or it might solve an even bigger challenge elsewhere.

In our quest to find an alternative bio-based material for flooring, we entered a collaborative research and development project to develop Zelfo. This adaptable and sustainable alternative to hard materials like plastics is made out of cellulose fibres left over as waste from other industries, such as cotton, paper and brewing. Because Zelfo is produced from waste with low energy input and no binding agent, its life-cycle environmental impact is extremely low – significantly better than conventional materials.

The new material offers InterfaceFLOR an opportunity to enter the hard flooring market. But we quickly recognised it also has many other potential applications as a low-impact, renewable material outside flooring – from furniture and building materials to plastics. Besides, in a mature company where most of the sales relate to carpet tiles, we were not sure if we were best positioned to maximise the full potential of Zelfo. So we have set up a joint venture to do this instead.

7. Entice budding entrepreneurs out of the closet

Every organisation has closet entrepreneurs (or what we call intrapreneurs) or inventors. Harnessing their creativity and talent can create a wealth of new ideas.

We want to give our employees the freedom to innovate, no matter what their role is. Part of this is encouraging people to think beyond their own role. For example, someone who works on the manufacturing line for carpet backing in one of our factories might be great at spotting ways to make that particular process more efficient, but given the opportunity they might also be able to offer some great ideas in other areas.

Our Ambassadors programme is already promoting innovation among people across the business by asking prospective members to research and present a project that will help InterfaceFLOR make progress towards its sustainability goals. Projects include a member of our finance team researching ways to make our vehicle fleet more sustainable, a commercial director improving energy efficiency in our showrooms and a sales representative working with the Welsh government to create a joint venture to recycle and reuse old carpet.

We aim to embed innovation as a core thread throughout the business in the same way as we have embedded sustainability (see our separate paper on embedding sustainability). Our vision is to make everyone responsible for innovation. We aim to make this happen by creating a network for communication, transparency and sharing throughout the business.

OUR TOP TIPS

• Aim high to inspire transformative change
• Don’t be afraid to look for the miraculous product or project
• Look beyond core products for other potential applications and access to new markets
• Create a culture where people aren’t afraid of failure
• Take inspiration from nature
• Look for answers outside the company and be prepared to collaborate.
Interface & Mission Zero

Interface is a worldwide leader in the design and production of high-quality, innovative modular floor coverings and widely recognised as an environmental pioneer.

Interface Chairman and Founder Ray Anderson pioneered corporate sustainability in 1994 by recognising that the way industry works is fundamentally unsustainable and had to change. It needed to stop having a destructive effect on the natural and social environment, and, instead, work to restore it.

Ray’s epiphany revolutionised Interface’s business strategy from that day forward. In 1994, we made our Mission Zero promise: to eliminate any negative impact we have on the environment by 2020. We’ve come a long way since then, but there’s still a long way to go.

We liken the challenge of achieving Mission Zero to climbing a mountain higher than Everest. With this in mind, we have set out our path to scale ‘Mount Sustainability’ on seven ambitious fronts.

The Seven Fronts: our goals and progress

1. Eliminating waste – Eliminating all forms of waste in every area of business. Since 1996 there has been a 67% reduction in the volume of waste sent to landfill.

2. Benign emissions – Eliminating toxic substances from products, vehicles and emissions. We have cut total greenhouse gas emissions by 34% since 1996.

3. Renewable energy – Reducing our energy demands while substituting non-renewable sources with renewable ones like solar, wind and landfill gas. In Europe, all factories operate on 100% renewable electricity and 28% of our global energy comes from renewable sources.

4. Closing the loop – Redesigning processes and products so that all resources used can be recovered and reused, closing the technical or natural loop. 24% of total raw materials are recycled or bio-based materials.

5. Resource-efficient transportation – Transporting people and products efficiently to reduce waste and emissions. 99.7% of the products sold in Europe were manufactured in Europe.

6. Sensitising stakeholders – Creating a community within and around InterfaceFLOR that understands the functioning of natural systems and our impact on them.

7. Redesign commerce – Redesigning commerce to focus on the delivery of service and value instead of material.
EXPERIENCE IT YOURSELF

Corporate clients, sustainability professionals and academic institutions visit our factories every year to experience the Interface culture of sustainability for themselves. Talking directly to our people and seeing our vision in action demonstrates how deeply embedded Mission Zero™ is in the company.

That’s why we set up InterfaceRAISE, a consulting service that helps organisations weave sustainability into the fabric of everything they do, accelerating their learning, while enhancing their value and fulfilling their mission. We run two-day in-house executive training workshops – called ‘Cultural Immersion Programmes’ – at our factories. We also collaborate with universities and business schools to enable their students to participate through external presentations or in-house training.

With over 15 years of experience in applying sustainability in competitive markets, our international peer-to-peer consulting service offers a powerful sets of tools, insights and experts to deliver practical guidance at every stage of the sustainability journey. It’s a new way for an organisation to plan, manage and excel; raising aspirations while respecting the needs of society and the environment. With InterfaceRAISE, the possibilities are endless and the benefits real.

www.interfaceraise.com
And we still haven’t arrived. With more than fourteen years of practical real world experience we’ve been there and got the t-shirt when it comes to sustainability. We’re still on our own journey but we know what works and what doesn’t to help your company raise the bottom line.