Go beyond labels and claims.
It's time to be clear about carpet tiles,
environmental impact, product transparency and
real progress towards sustainability.

www.interface.com/gobeyond

Interface®

a rich History

of innovation & sustainability

Interface Milestones

1950's	1994	1995	1998	1999	2000	2003	2004	2006	2007	2009	2010	2011
Invented the world's very first carpet tile	Announced new company vision: "To become sustainable by 2020"	Introduced ReEntry® take back scheme for carpet tiles	Launched first sustainability report	Introduced first carpet tile with recycled content in the yarn and backing	Introduced Life Cycle Assesment (LCA) as a decision making tool.	First to launch Carbon neutral carpet Cool Carpet®	First to achieve US Green Building Council's LEED Platinum Rating for Commercial Interiors	Invented and launched TacTiles™ glue-free installation in USA	Introduced FairWorks concept based on sustainable materials and social innovation	First Environmental Product Declarations for carpet tiles in USA	First Environmental Product Declarations for carpet tiles in Europe	First collection launched with 100% recycled nylon
					Created first random designs based on Biomimicry				First to separate top cloth from backing with ReEntry® 2.0	Launched TacTiles™ glue-free installation in Europe		Environmental Product Declarations for all carpet tiles in Europe
					Launched first successful microtuft carpet tiles with reduced yarn weight				First post consumer recycled content nylon 6,6 collection			Introduced ReEntry® 2.0 recycling process in Europe to separate yarn and backing

The power of an outrageously ambitious mission

When Ray Anderson challenged his employees in 1994, to create a fully sustainable company, the goal was more than ambitious. The magnitude of that vision, Mission Zero, would literally transform our philosophy and business model.

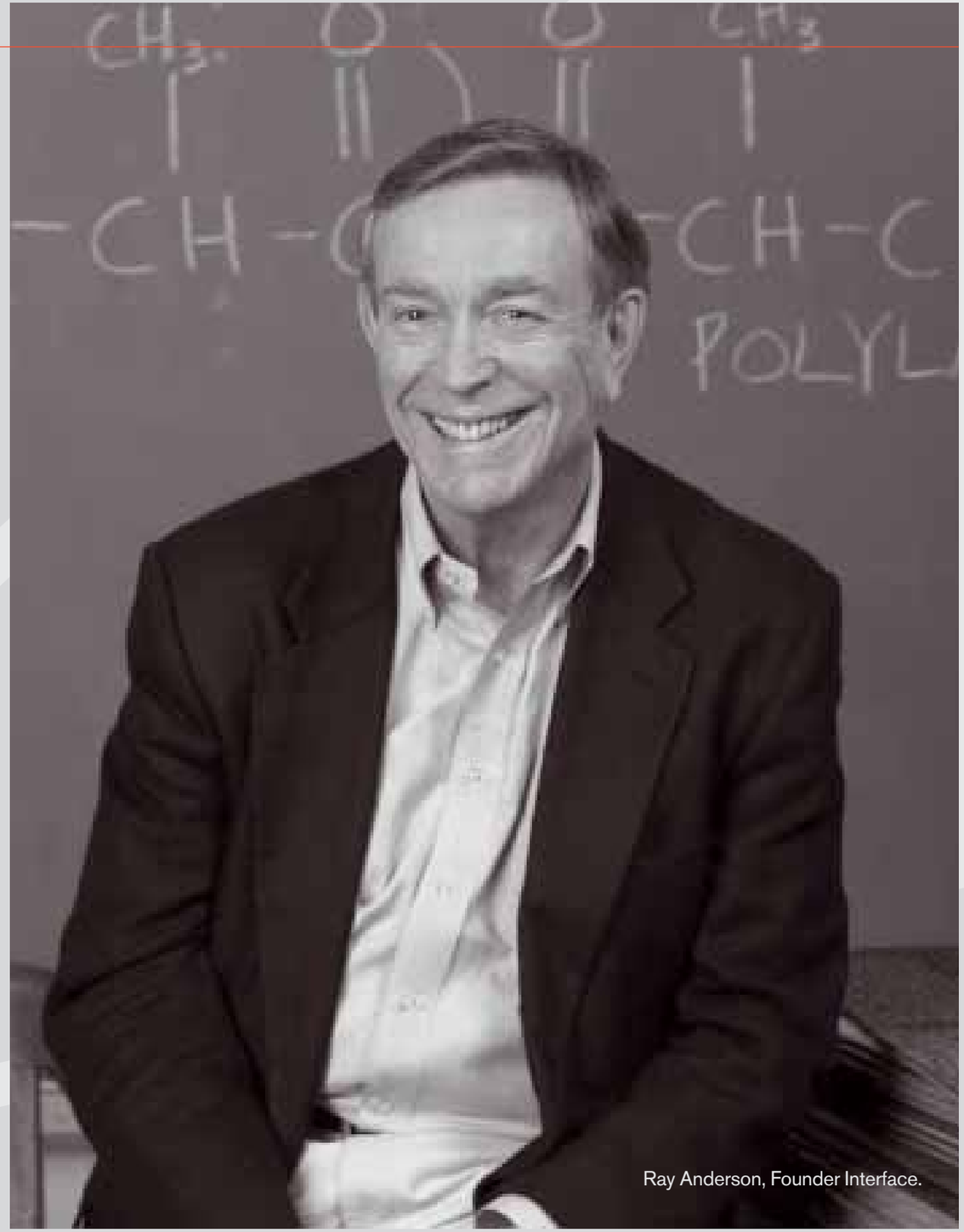
Some people say it was naïve to think this is achievable. But it has inspired us to make fundamental changes in the way we work because whatever you do, you can always do better. At Interface, we are continually striving to come up with innovative processes that contribute to achieving the long-term vision, rather than making small adjustments to existing processes to meet less demanding targets. Ray summarised it:

‘There has to be a better way’.

‘There has to be a better way’ has helped us to come up with innovations such as microtuft, TacTiles™, Biosfera I and ReEntry® 2.0. And the journey doesn’t stop there.

mission Ø

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



Ray Anderson, Founder Interface.

life cycle

measuring every phase of the

For most physical products the main environmental impacts happen outside the company's own direct scope. The Life Cycle Assessment (LCA) studies the impacts throughout the life of a carpet tile from extraction, production and manufacturing to transport, customer use, maintenance and disposal. In other words, it tells the bigger story, revealing the environmental impacts at every phase. This clarifies where the biggest improvements can be made, and it prevents companies from cherry-picking only the good stuff.

According to the European Commission 'the key aim of life cycle thinking is to avoid burden shifting. This means minimising impacts at one stage of the life cycle, or in a geographic region, or in a particular impact category, while helping to avoid increases elsewhere'

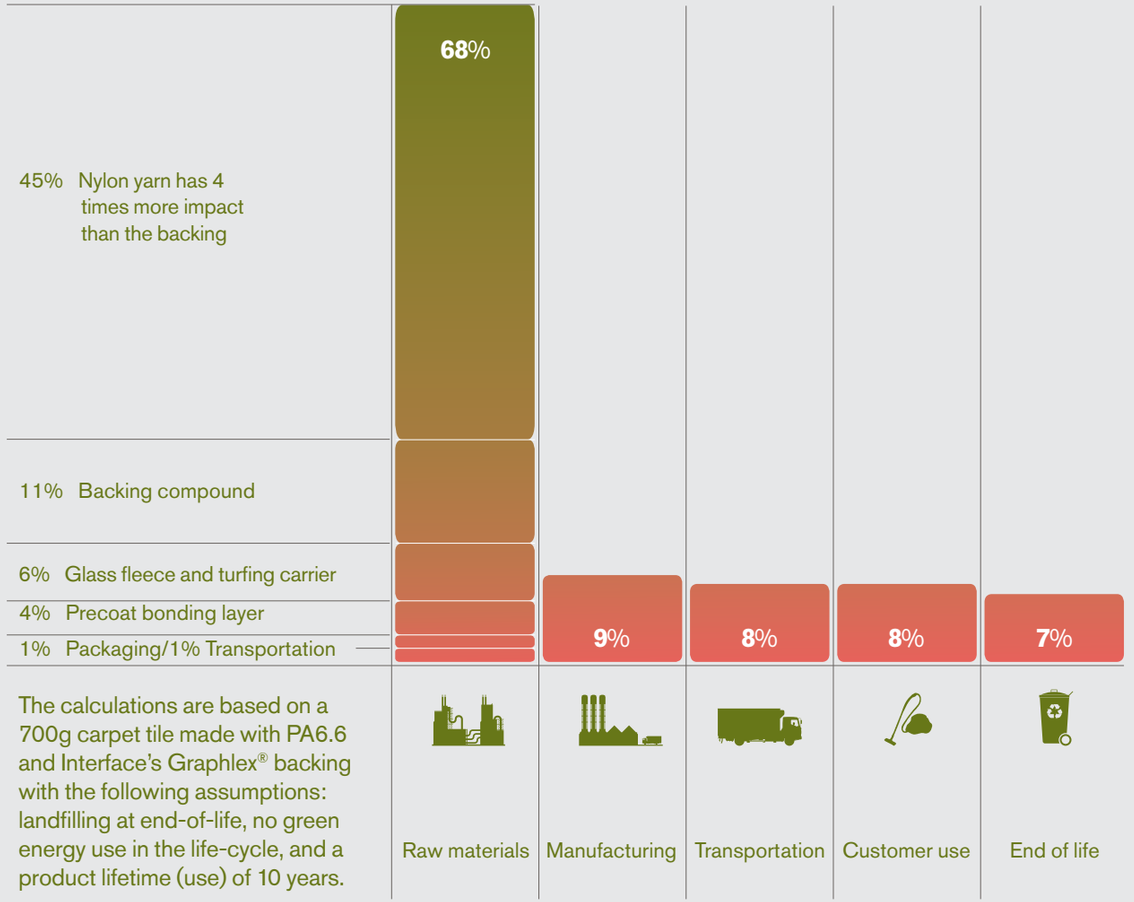
http://lct.jrc.ec.europa.eu/

For a typical carpet tile for commercial use, this is what an LCA looks like; the main environmental impact is related to the raw materials needed to manufacture it.

Facing our biggest impact: **The Yarn**

Yarn is the single largest contributor to environmental impacts amongst all raw materials in a carpet tile. For a standard product, as shown in the example below, virgin nylon yarn contributes to around 50% of the total lifecycle Global Warming Potential of the carpet.

So, while many focus their attention on the backing, the biggest environmental impact of a carpet tile is actually the yarn. In fact, it has around **four times more impact than the backing compound.**



The calculations are based on a 700g carpet tile made with PA6.6 and Interface's Graphlex® backing with the following assumptions: landfilling at end-of-life, no green energy use in the life-cycle, and a product lifetime (use) of 10 years.

3 obvious ways to **decrease the impact of yarn**

Knowing that yarn is the biggest obstacle to producing a sustainable carpet tile, there are three key things do about it...

Reduce the amount of yarn used

Can you create a carpet with less yarn per square metre?

Develop a yarn with more recycled content

Minimising use of virgin yarn can save embodied energy at multiple levels

Invent a new yarn

Over the years we have investigated innovative solutions in our search for an alternative to virgin nylon yarn. This has led to our first collection made from bio based materials.

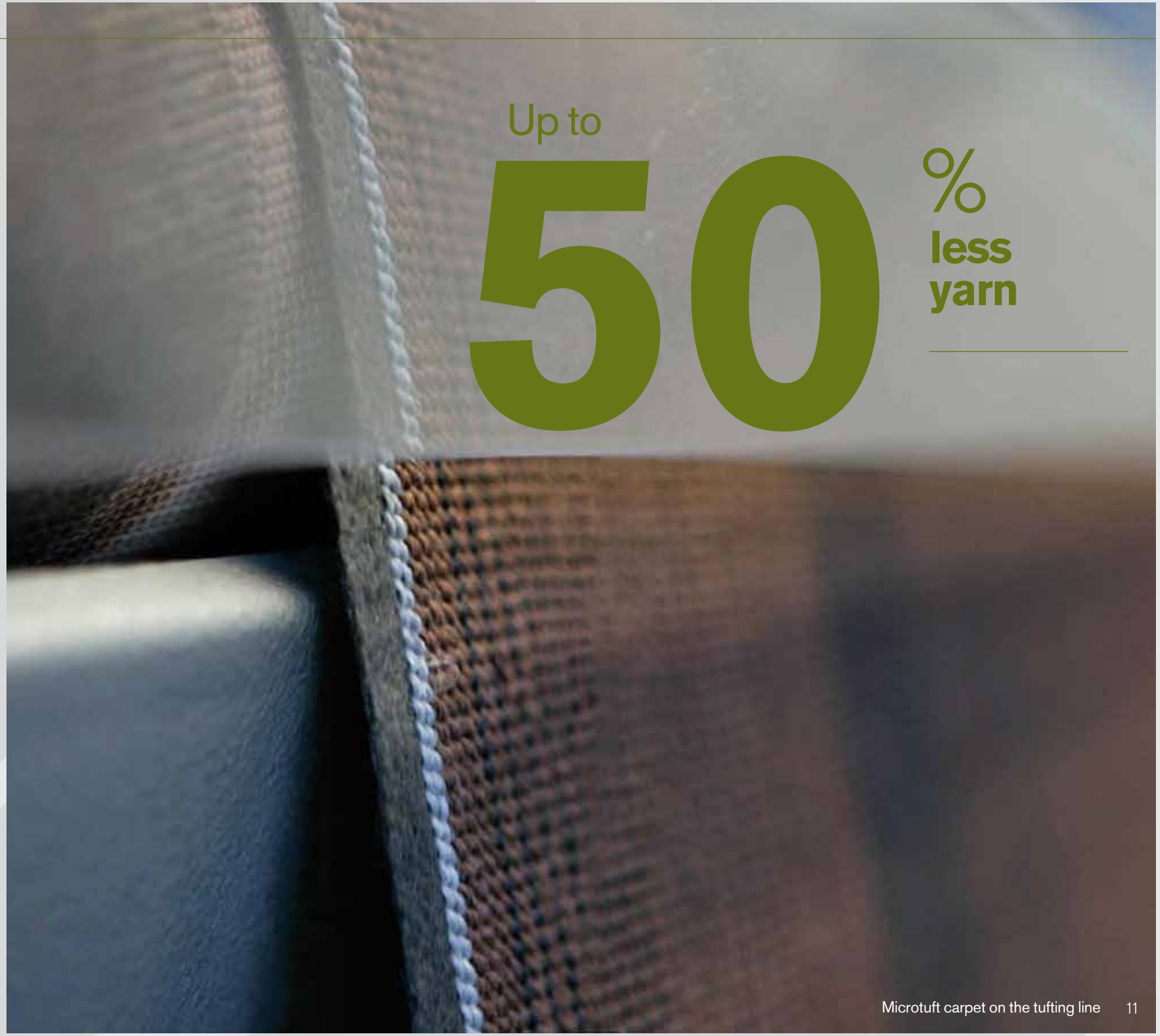
Microtuft carpet tiles:
Style and performance

In 2000, Interface introduced a carpet-construction process to the market, which would spawn an innovative new product line. Our process, called microtuft, challenged the old perception that high yarn weight equals high quality. It proved that a well-constructed dense surface can be just as durable and hard wearing.

A typical carpet tile can contain around 700 grams of yarn per square metre. With our microtuft process we have cut that weight in half without compromising performance.

While reducing the environmental impact significantly, microtuft products also deliver great customer benefits, with an easy-to-clean surface, improved acoustics when compared to hard-floor surfaces, and sophisticated aesthetics with great appeal to those who traditionally wouldn't use carpet.

Microtuft has become one of the most popular product categories with more than 11 million square metres sold since it was launched in the EMEAI region.



Microtuft carpet on the tufting line

Pioneering yarn recycling

Years ago, when we first pushed for recycled nylon, we were told by the inventors of nylon that it was impossible.

Yet, we have gone beyond what was considered possible. Since 2000, through close cooperation with our suppliers, we have pioneered the use of recycled yarn, from our own and other industries. Today, the majority of our carpet tiles contain recycled yarn.

In 2007 we were the first company to launch a carpet tile with post-consumer recycled content nylon, recovered from used carpets and transformed into new yarn. In 2011 we were the first company to launch a carpet with 100% recycled nylon, taking another important step towards our Mission Zero goal. We aim to extend the use of only recycled or renewable yarn to our entire portfolio by 2020.

And thanks to green building certification schemes such as LEED, BREEAM, DGNB and HQE, the demand is increasing.

Biosfera I

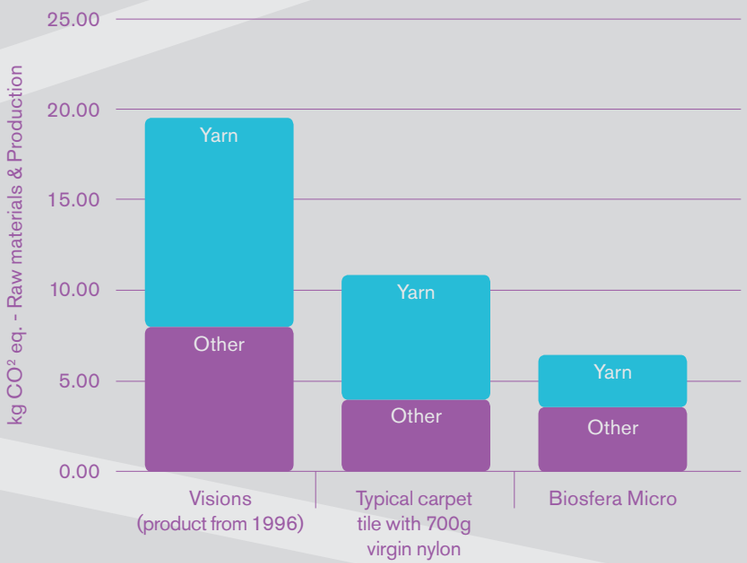
a double innovation

100% recycled nylon - and less yarn

To create the most sustainable carpet tile possible, we have combined the best of what we have learned in one collection. Biosfera I uses 100% recycled nylon, with pre- and post-consumer recycled content. Some of the post-consumer material comes from the yarn we have recovered from used carpets and some of it comes from fishnets that are no longer useful. In addition we have reduced the yarn weight to a minimum.

The result: Three high-performance styles in three known constructions; Bouclé, Velour and Micro and a product with much less environmental impact than a typical carpet tile.

Reducing the biggest impact of a carpet tile



Fishing nets waiting to be recycled into 100% nylon at our yarn supplier Aquafil.

Fotosfera

Pioneering bio-based nylon

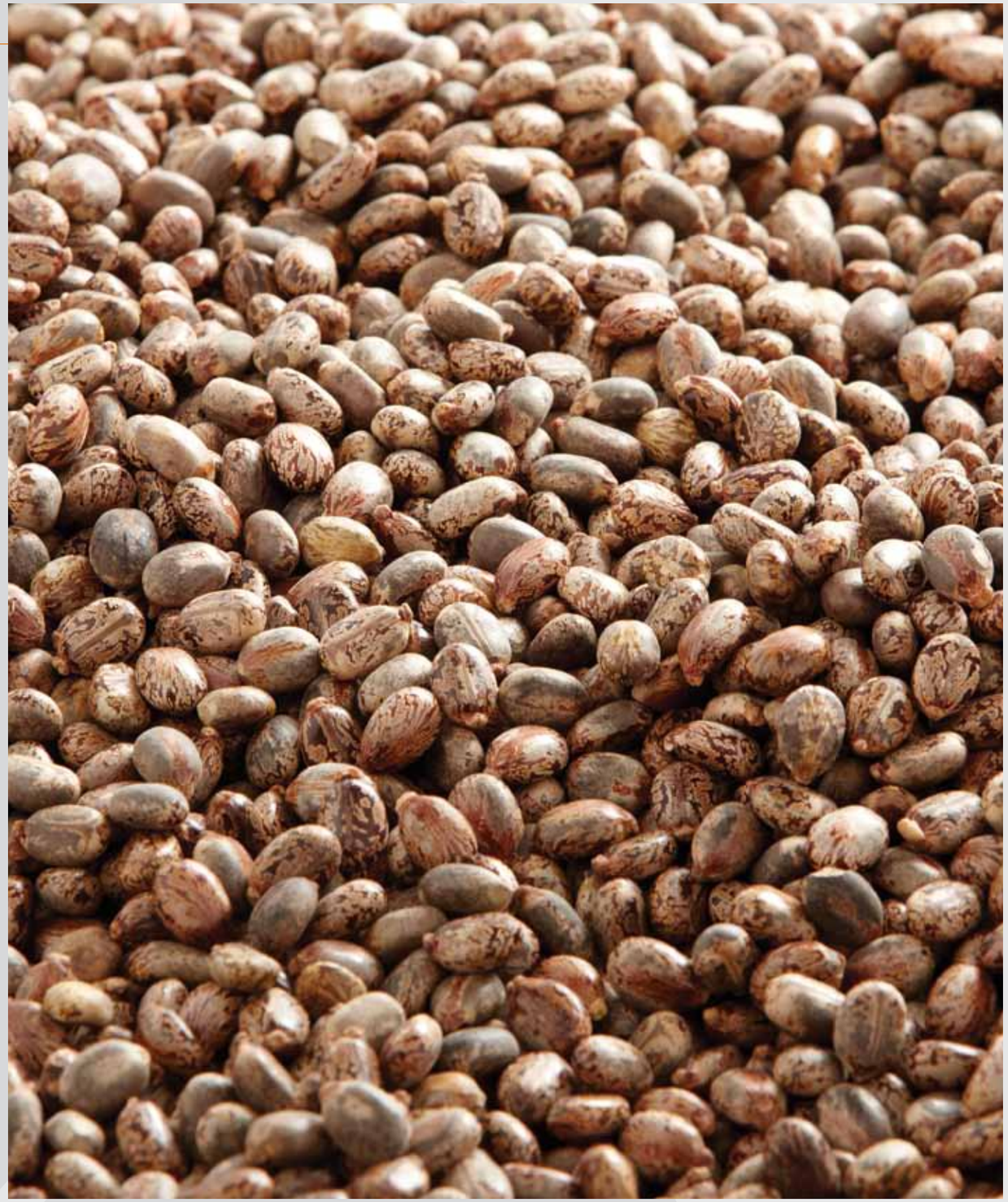
Fotosfera is a pioneering collection made from a yarn with 63% bio-based content. The key ingredient? Oil from the seeds of the castor bean plants.

Fast-growing castor bean plants are rapidly renewable, and grow in hot, dry climates, in sandy loam soil. Hardier than many other crops, they can thrive in land prone to erosion, and only require water once in up to 25 days.

The crops are typically harvested twice each season to maximise yield. It is the high oil content of the castor beans which is extracted and then used as the key ingredient in the further processing of the bio-based nylon. This minimises the use of petroleum-based materials in Fotosfera.

Around 70% of the world's castor bean plants are grown in India, where production provides interesting socio-economic benefits to local farmers. Castor bean plants grow on marginal land where other crops often struggle, providing farmers with additional income – often fetching revenue over ten times what it costs to start the crop.

What's more, unlike many other crops for bio-based materials, castor bean plants don't compete with food crops, as they can thrive on land unsuitable for other uses.

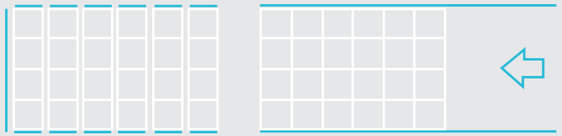


Dried Castor Beans

eliminating factory waste

isn’t rocket science

Window waste with die cutting



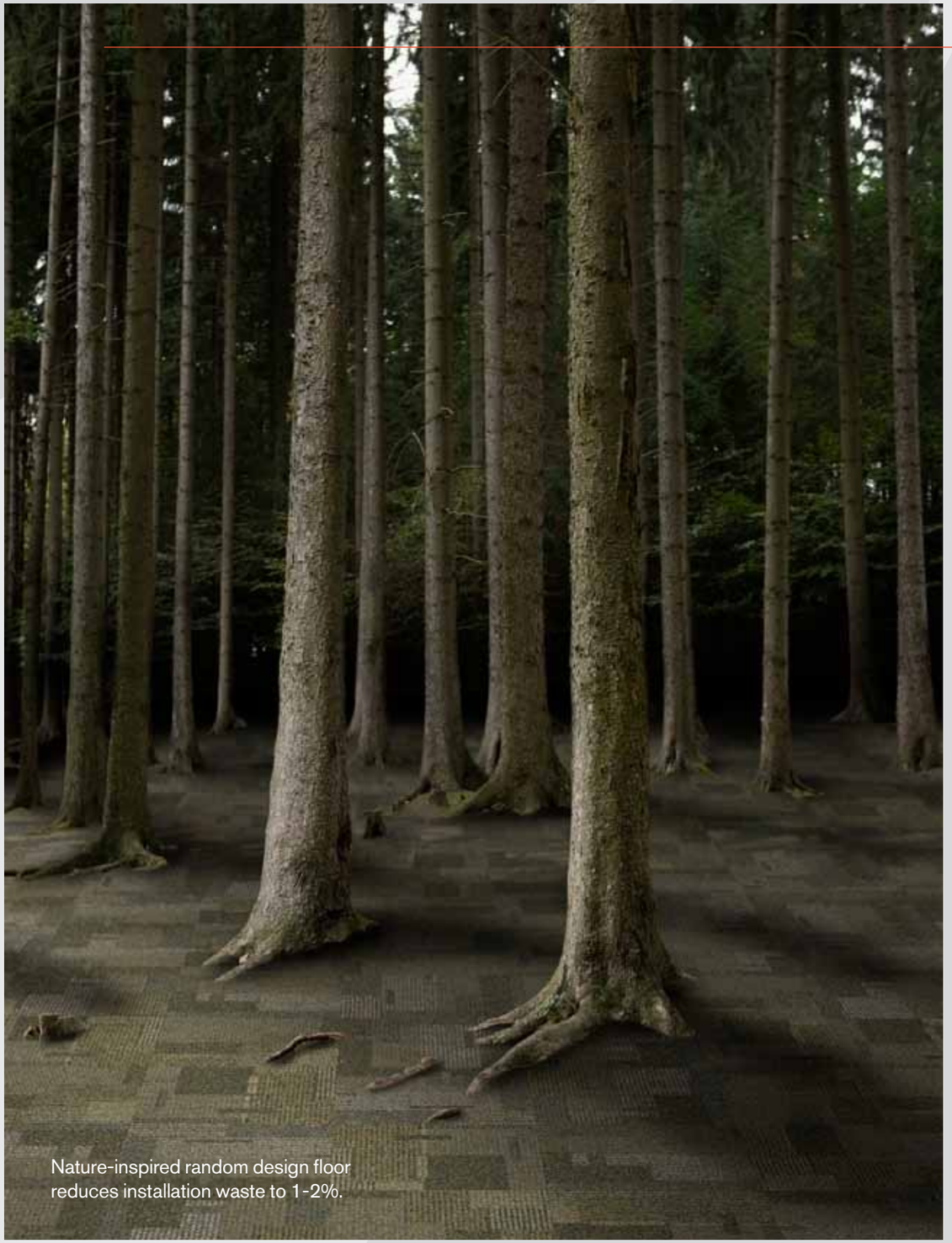
Window waste with ultrasonic cutting

or is it?

Our products may be floor-based, but our ambitions are sky-high! In 2008 we developed an inventive new way of cutting carpet tiles based on ultrasonic technology, used in the aeronautic sector by the likes of NASA. This new approach reduces manufacturing waste by 80% and eliminates 310 tonnes of waste material each year.

This is just one example of how we tackle factory waste. To date, we have avoided waste cost per unit of product by 41% since 1994, and reduced waste sent to landfill by 88% globally since 1996.

Ultra-reduced window waste with our ultrasonic cutting machine.



Nature-inspired random design floor reduces installation waste to 1-2%.

reducing installation waste with

random design

Janine Benyus, founder of the Biomimicry Institute

Inevitably, cutting carpet to fit the shape of a room results in waste. When installing traditional carpet rolls, around 12% is wasted in off-cuts and trimmings. But when benefiting from the versatility of carpet tiles, that figure drops radically – to around 3% or 4%. And when tile patterns are flexible enough to be placed in any position, the waste level can be cut by more than half that! Such is the beauty behind random design.

By studying the science of Biomimicry with Janine Benyus, we developed our random design products to be installed in a non-directional pattern. This can reduce waste to as low as 1% or 2%, depending on the room's size and shape. Random design makes installation quick and easy, as there is no need to worry about matching patterns at tile edges or following directional arrows. There is also the benefit of being able to replace individual tiles without the constraints of colour compatibility.

At Interface, we introduced the first random-design products in 2001, and have since sold around 14 million square metres in Europe.

ReEntry® 2.0 recycling line at Scherpenzeel

ReEntry®

A new generation of carpet recycling

True recycling; yarn to yarn and backing to backing.

Our approach to sustainability covers the full life cycle of our carpet tiles, also beyond the end of their useful life. Our ultimate goal for all carpet tiles is a closed loop system where carpet tiles are made from fully recycled materials and used carpet tiles are converted into raw materials for new products, leaving no waste at end of life. Recently we have achieved a breakthrough for the carpet industry with our ReEntry® 2.0 recycling process, based at our plant in the Netherlands. This process makes true recycling of carpet tiles possible, both our own and competitors'. ReEntry® 2.0 uses a highly effective technology, recycling yarn to yarn and backing to backing, leaving only a small fraction for energy recovery currently. This means each of the main components are recovered and can be used in new products of similar value. This is especially important for recycling nylon yarn – the most carbon intensive part of carpet.

ReEntry® 2.0 offers by far the highest combined CO_2 , energy and material savings compared to all other end of life options. And most importantly it has a high capacity of 600,000 square metres, and has been designed so it is scalable for the future.

In cooperation with our suppliers we are directly making more post-consumer recycled yarn available for new products, decreasing the dependence of virgin raw materials. And the reclaimed backing material can be fed straight into our manufacturing process on site.

Shifting to lower-carbon transport

Like any business, our operations depend on a reliable transport network to get our people, products and resources wherever they need to go. Taking radical measures in this area can generate significant gains in sustainability. And that's exactly what we've been doing.

For starters, avoiding intercontinental shipping helps reduce the impact dramatically. Around 99% of the products we sell in Europe are manufactured in Europe. Additionally, we work with all our suppliers to increase the use of low-emission vehicles. And by grouping our deliveries with other merchandise, we're able to avoid partial loads, which reduces both emissions and costs.

We are also making a progressive transition from road transport to train and boat. In Italy, For example, for transport to Italy, we have transferred 98% of our shipments from road to rail, reducing CO emissions associated with the journey from Scherpenzeel to Italy by 69%. In the Netherlands our inland container transport has switched from road to barge as well, cutting CO_2 emissions by 35%.

We will continue to pioneer radical ideas to make our transport greener. We will test new technologies as they become available and partner with the most ambitious innovators on green transportation. As an example of upcoming initiatives, we have committed ourselves to introduce vehicles using alternative fuel or electricity for our London and Paris deliveries in the near future, as part of an innovative trial project.

Container being shifted from a truck to a train in the Netherlands for shipment to Italy

No space for greenwash:
It's time to be clear about

facts

Sustainability has entered the mainstream business agenda, and that's great news. However, with it have come a lot of unsubstantiated marketing claims, exaggerations and half truths. Many companies put more effort into what they say than what they do.

To help people navigate through all the noise and assist our customers in making informed fact-based decisions, we are thoroughly committed to full transparency at product level.

Here's a look at some of the most popular claims in the building sector and why they can rarely stand their ground…

'Environmentally friendly'
'Kind to the environment'
'In tune with nature'

What do they all have in common? They're vague and virtually all misleading if not backed up with an explanation. In other words, it could look like a flower but smell like a rat!

'Produced locally'
'Made in [country X]'

This is supposed to suggest support for the local economy and low transport impact. It often just means 're-packaged nearby'.

'Recyclable'

One of the most misused terms today! Many materials are technically able to be recycled but it's not always economically feasible to do so. The real question is, will the material actually be recycled? Likewise, energy from waste is sometimes described as 'recycling' but in fact means burning where some of the energy is recovered.

'Natural'

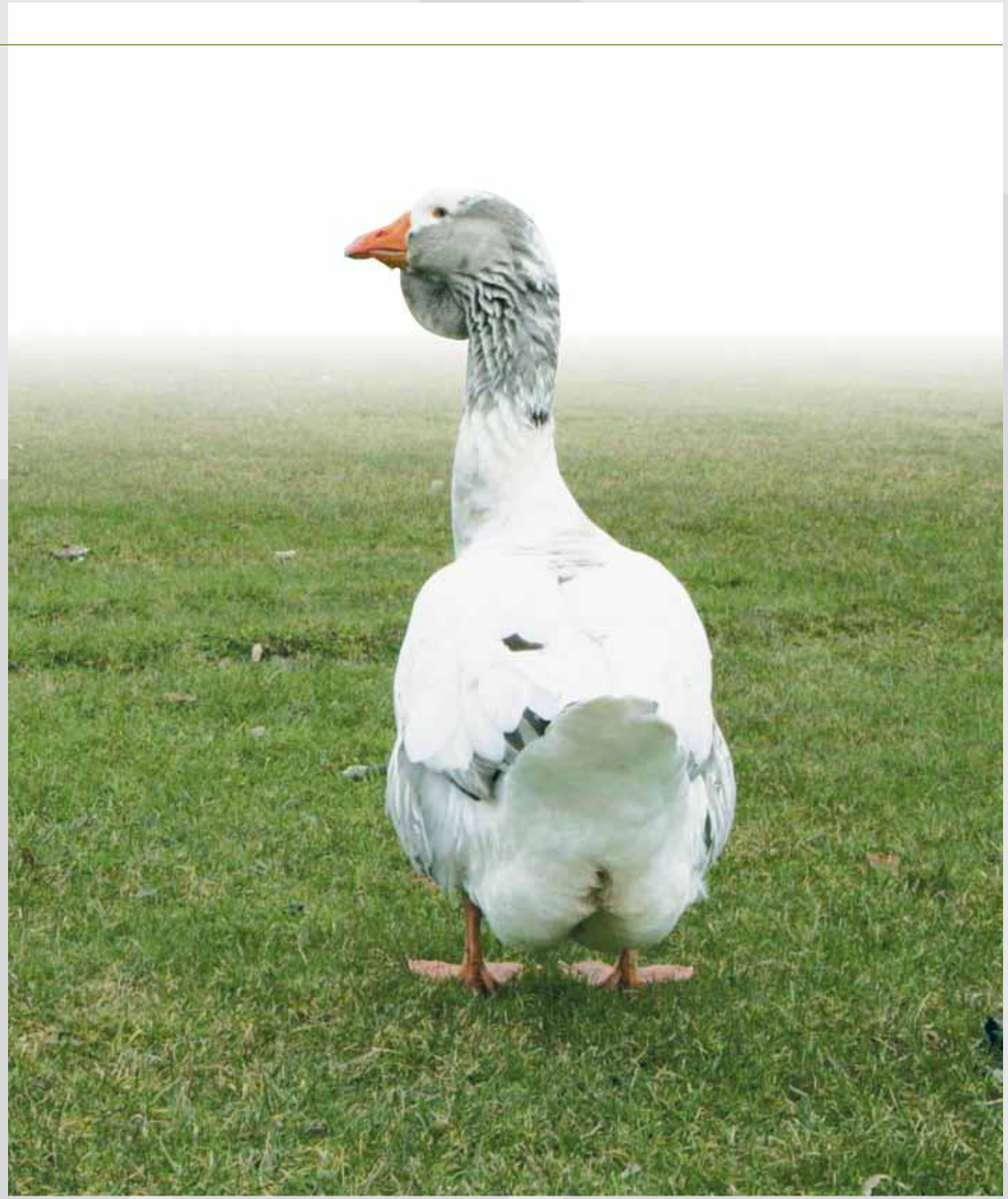
Sounds nice enough, right? But actually, not everything natural is good or sustainable.`
E Coli bacteria are natural. So are hurricanes. It may seem counterintuitive, but some natural products actually have a higher environmental impact than their synthetic counterparts.

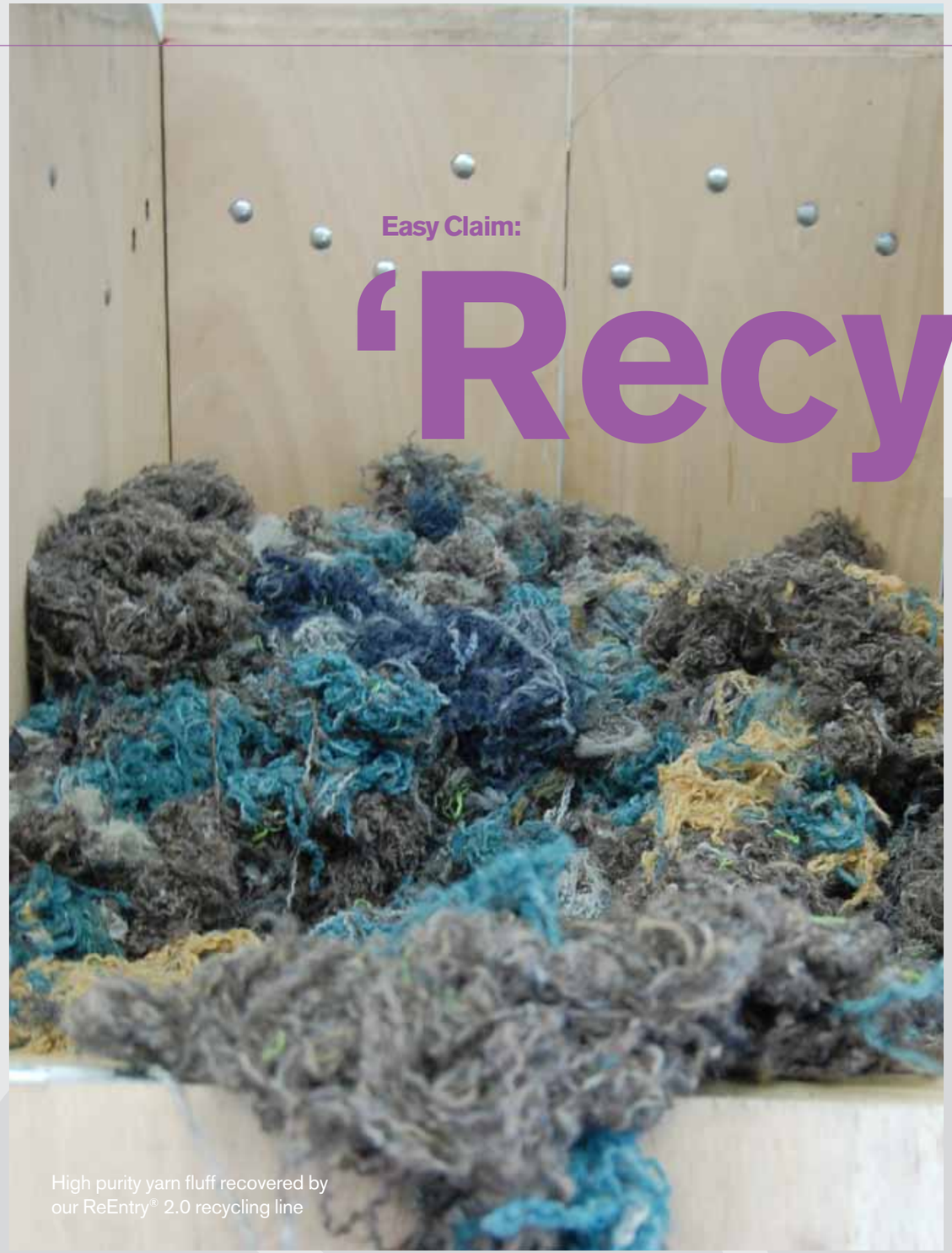
'Downcycling'

This is where the material's second life is of lower value. For example, like when glass is 'recycled' into aggregate for roads, instead of new glass

Label x or y

There are so many labels today that customers get confused. Some labels are exclusive, some are paid for, some have a very narrow scope. You need to look beyond the label.





High purity yarn fluff recovered by our ReEntry® 2.0 recycling line

Easy Claim:

‘Recyclable’

‘Recyclable’ is a promise. Almost anything can be recyclable. But what would be the point, for example, of recycling a diamond or a mobile phone into cement?

‘Recyclable’ is one of the most misused environmental terms. It is used to describe many things, such as ‘reuse’, ‘like for like’,‘downcycling’ and ‘incineration’. Many materials are technically able to be recycled but it is not always economically feasible to do so. So the key question is: WILL the material actually be recycled and HOW?

In a waste management hierarchy, some ways of recycling are better than others from an environmental perspective. ‘Reuse’ and ‘like for like’ recycling are the best options for carpet tiles made with energy intensive materials.

Solid Fact:

‘Recycled’

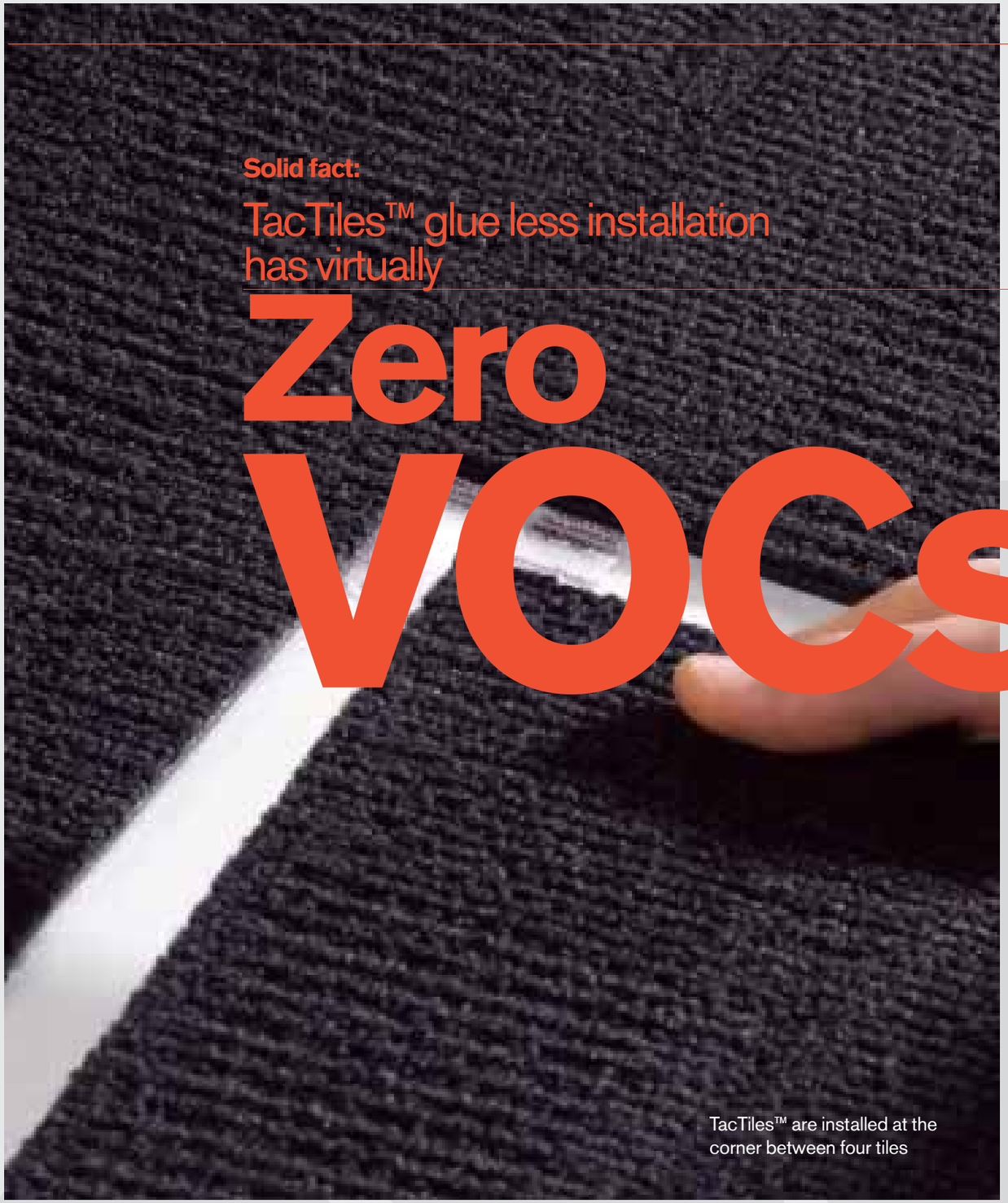
Recycled is performance delivered. By using recycled materials both in the yarn and in the backing of our carpet tiles, their environmental impact is reduced significantly.

We introduced our ReEntry® take back programme for used carpets in 1995 with the primary goal to divert carpet from ending up in landfill, in countries where this is still allowed. In 2011, ReEntry® diverted more than 11,000 tonnes of used carpet and carpet scraps from landfill globally.

But our bigger ambition is fully ‘closing the loop’ and ‘like-for-like’ recycling.

With our ReEntry® 2.0 recycling line and in partnership with one of Europe’s leading waste management companies, SITA, we are taking important steps to further increase the amount of used carpet tiles that go through a real ‘like for like’ recycling process. And thereby also making more post-consumer recycled material available, for yarn as well as backing.

And we are making recycling easier, with the use of our glue-free installation system, TacTiles™, leaving no sub floor residues on the back of the carpet. After all, what’s the point of a recyclable carpet if it’s stuck to the floor?



Solid fact:

TacTiles™ glue less installation has virtually

Zero VOCs

TacTiles™ are installed at the corner between four tiles

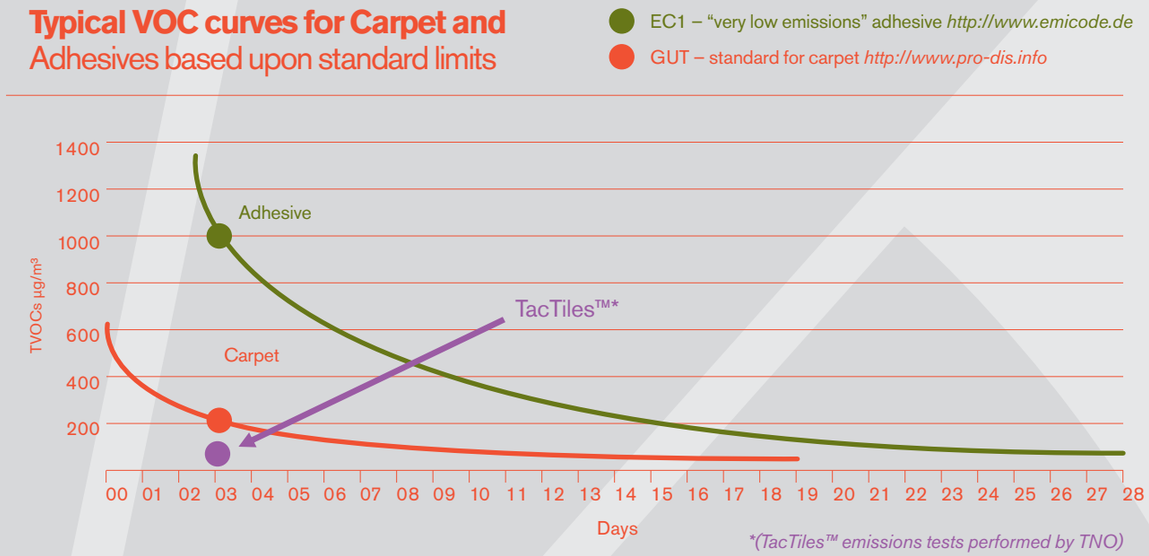
Easy claim:
'Our carpet improves indoor air quality'

Some manufacturers claim that their carpet tile backing has lower Volatile Organic Compound (VOCs) and is better for the indoor air quality. But they are not telling the full story…

A typical carpet tile installation requires a certain amount of adhesive to keep the tiles in place during heavy traffic. Even the lowest emission adhesives often emit more VOCs than the actual carpet. So comparing VOCs between two carpet types is totally meaningless unless you also address the issues surrounding the adhesives.

At Interface, we've invented a smarter, more sustainable way to install carpet tiles. Without glue! TacTiles™ are connectors placed at the intersection of four tiles to create a floating floor, making replacement and uplifting of individual tiles even easier. This means less mess, no smells and a significantly lower environmental impact compared to traditional glue.

Typical VOC curves for Carpet and Adhesives based upon standard limits



(TacTiles™ emissions tests performed by TNO)

Easy Claim: ‘My company is

Carbon Neutral’

Carbon offsetting is very controversial. The phrase ‘carbon neutral’ is almost universally misused. Some have even taken it to the extreme by calling themselves ‘carbon negative’ or ‘carbon positive’. This hasn’t helped the reputation of carbon offsets.

One of our concerns is the scope of the offsets. For example, it would be too easy for a car manufacturer to be carbon neutral based solely on its direct manufacturing energy footprint, when the majority of the emissions happen in the use phase. Only products accounting for the full life cycle, should be carbon neutral, not companies.

And carbon neutral claims only make sense when you are addressing your biggest issue. It is ridiculous for a public affairs or law firm to claim to be carbon neutral while lobbying on behalf of the coal industry.

Finally offsets should follow proper standards to ensure that the credits are real, additional, measurable, permanent, not subject to double-counting, and retired in a public registry.

Solid Fact:

Offsetting can be part of a climate change strategy

Every organisation and individual has, like it or not, a carbon footprint. At Interface we have reduced our absolute emissions by 32% since 1995 despite increase of sales. This is quite an achievement, but we haven’t come to zero emissions yet. That’s why we have Cool Carpet®.

Cool Carpet® offsets all the emissions for the full life cycle of the carpet. It follows the Voluntary Carbon Standard (VCS) as a minimum and the programme is audited annually by a third party.

Since the programme began in 2003, more than 146 million square metres of Cool Carpet® have been sold, and more than 2.5 million tonnes of verified emission reduction credits have been purchased and retired in a public registry.

Cool Carpet project - Fuel switch programme in a ceramic factory in Brazil, using biomass energy sources instead of wood from local ecosystems.

wise decisions

are based on facts

We believe this is also the case when it comes to making decisions around sustainability. The many labels available can be confusing and don't always tell you the full story.

Interface was the first carpet tile manufacturer in Europe to achieve a third-party-verified Environmental Product Declaration (EPD). An EPD is not a label, but a declaration based on the core principles of objectivity and comparability.

An EPD provides comprehensive, uniform details about a product's composition and environmental impact throughout its life cycle. It also provides customers with the tools they need to review and compare alternatives – similar to comparing calories and ingredients between food products.

We believe in full transparency at product level, and we have made a commitment to have all Interface products covered by an EPD.

Sooner

than we thought, EPDs will be standard

EPDs will be the European standard soon. The European Union is encouraging all the construction products to have an EPD. The new European Norm EN 15804 is a harmonised standard leading to mutual recognition of EPDs across national borders.

The harmonisation means that green building certification schemes used in Europe, such as DGNB, BRE, LEED and HQE will have to take into account harmonised EPDs.

The new norm will prevail on all the national norms. Interface has anticipated this development and in 2012 we obtained the first EPD for floor coverings in conformance to the new EN 15804 European harmonised standard for Biosfera, in the ECO format.

Our EPDs can be downloaded from the IBU web site (Institut Bau und Umwelt)

http://bau-umwelt.de/hp481/Environmental-Product-Declarations-EPD.htm

Europe, Middle East, Africa, India

AE	+971 4 399 6934	**FR**	+33 1 58 10 20 20	**PT**	+35 217 122 740
AT	+41 44.913.68.00	**HR**	+385 1 2315 027	**RO**	+40 21 317 12 40/42/43/44
BA	+387 33 522 534	**HU**	+36 1 3 84 90 05	**RS**	+381 11 212 9579
BE	+32 2 475 27 27	**IE**	+353 1 679 8466	**RU**	+7 495 234 57 27
BG	+359 2 808 303	**IL**	+972 546602102	**SA**	+966 500615423
BY	+375 17 226 75 14	**IN**	+91 80 30589350/54	**SE**	020 801 801
CH	+41 44/9136800	**IT**	+39 02 890 93678	**SK**	+421 244 454 323
CS	+381 11 212 95 79	**KZ**	+7 727 250 84 30	**SI**	+386 1 520 0500
CZ	+42 0 233 087 111	**NL**	+31 33 277 5555	**TR**	+ 90 5425220807
DE	+49 2151 3718 0	**MK**	+38 9 23 224 210	**UA**	+38(044)238 27 67
DK	+45 33 79 70 55	**NO**	+47 23 12 01 70	**UK**	+44 (0)1274 698503
ES	+34 932 418 750	**PL**	+48 (0) 22 862 44 69	**ZA**	+27 11 6083324

www.interface.com

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

5991.025 October 2012