

Change makers

**Focus on sustainability
as traditional directors
will be left behind**

**Investors are asking about
our sustainability policy**

**Smart design lasts
many lifetimes**

The future is refurbished

The power of procurement



Working methods and practical examples of circularity
from **directors, designers, buyers** and **marketing specialists**
for the **future-proof professional.**



Dear change makers,

The world as we know it is changing at an extraordinary rate. While we may not stop to think about it every day, this change has a major impact on our economy, which is directly dependent on nature. Fortunately, new professionals are daily joining the ranks of those looking to make a positive impact. But how do you actually make an impact through your job or your company? Despite the day-to-day frenzy, how can you make your company future-proof? And how can you make an impact – that goes beyond double-sided printing, drinking fair trade coffee and separating rubbish – without having to switch careers? Using inspiring stories and practical tools & tips from colleagues, 'Change makers' equips you to make a positive impact starting today, while still working towards a future-proof company, a healthy economy and a liveable world.

Everything around us is made from raw materials taken from nature: our mobile phone, our clothing, our homes and our food. For the first time in history, we are consuming these raw materials faster than nature can produce them. And nature simply cannot process all the waste we are producing. This unprecedented appetite for consumption means both nature and our economy are on the line. It is a problem that is growing more serious by the day due to our rising consumption, products with ever-shorter lifespans as well as a growing world population and increasing prosperity.

One way to effectively counteract the depletion of our planet and meet the evolving customer demands for responsible products and increasingly stringent environmental regulations is the circular economy. The circular economy brings our economy and nature into balance by focusing on smarter and reduced consumption, by designing products that can be repaired or whose components can be reused so they last longer or by using renewable or reused raw materials. It is an effective method for reducing waste and the emissions of harmful

substances like CO₂. A circular economy means we can extract fewer raw materials, produce fewer goods and engage in less global transport. In short, we can curb energy-guzzling, polluting activities. With a circular economy, we ensure that the very air we breathe, the food we eat and the water we drink remains clean and healthy. Put simply, a circular economy benefits our wallet and our health.

Although the challenges of our times can feel beyond our ability to make a personal impact, it is less complicated to make a difference than many of us believe. It is people, not companies, who make the difference. Tackling global issues is not the sole preserve of world leaders, inventors or idealists. Most people work in a profession where they themselves can make a positive difference and are, in fact, crucial to achieving a future-proof company and a vibrant, sustainable economy.

Dutch industry now has many circular innovations and professionals to its credit. We chose four crucial positions in the business sector and went in search of

the professionals who are already making a difference. In 'Change makers', we focus on the practical and professional applications of the people who are realising such innovations. We highlight their intrinsic motivations and zoom in on the steps taken and lessons learned through their new approach to their profession. This new approach is cross-sectoral and, using their approach as an example, every professional can get down to work immediately.

We highlight:

1. Directors: strategic management, CEOs and CFOs
2. Designers: product development and R&D
3. Buyers: supply chain management and purchasing
4. Marketers: sales, business development and marketing

Each interview contains helpful links to practical examples, informative websites and handy tools, so no one has to reinvent the wheel. And at the back of the magazine, you will find an overview of in-depth publications, tools, training courses and websites.

Companies will only be able to survive and thrive in a healthy world in which economy and ecology are in balance. As a professional, you have a crucial role to play because of the choices you make every day in the course of your work. Get inspired by the professionals in this magazine and start working today on a future-proof company and a liveable planet.

On behalf of all the change makers who joined in creating this magazine, we hope you enjoy the content.

Niina Pussinen and team, [Circl](#) - Initiatief van ABN AMRO
Klaske Kruk, [Circularities](#)
Hylke Faber, [Circularities](#)



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Foreword

World Business Council for Sustainable Development



The world is only 9% circular, which means there is still 91% room for improvement.

A circular economy offers enormous potential for accelerating the transition to a more sustainable world. A sustainable world that is more and more urgently needed due to the growing pressure humans are placing on nature and the climate. The current COVID-19 crisis is holding up a mirror to society, and the reflection is shocking. It is showing us just how closely our economic systems, our health and nature are intertwined.

By unleashing circular innovation, we can bolster the resilience of our planet, people and communities as well as companies and the global economy, while contributing to the necessary systems transformation and realising the climate accord and agreed sustainability objectives.

Moreover, given the sheer potential of the circular economy, we have no excuse to miss this opportunity for change.

You can make the difference. Visionary and strong 'all-round' leadership by companies and entrepreneurs is

indispensable to seizing this opportunity. This means collaborating (no one can achieve the necessary change on their own), taking account of all stakeholders and opportunities and continuously balancing the challenges with the interests of the planet and people. There is no room for waste, rather the focus lies on retaining value through restoration and reuse.

We must realise that we are talking about the single greatest opportunity to transform production and consumption since the first industrial revolution. And a prosperous sustainable world is simply not feasible without circularity.

Be inspired by this magazine packed with circular difference-makers and start today on making your own contribution. Our planet and the people who call it home are counting on you!

Peter Bakker

President and CEO of the World Business Council for Sustainable Development

Foreword

ABN AMRO



Welcome to this English edition of the originally Dutch Change Makers magazine. I imagine some of you may be asking yourselves, why am I reading a foreword on circularity by a bank? The changes the world needs won't be made by banks. That's true. But at the same time, I do think it is our role as a bank to act as change agent for the circular economy. The financial sector is part of the blood system of the current economy, and defines for a part how capital flows can make companies and projects thrive, or not. And luckily, a growing number of financial institutions are sharing our view at ABN AMRO that circularity and regeneration are the way forward for our clients, the economy and society at large.

Don't wait for others to take the first step

My response may raise another question in many readers' minds: if ABN AMRO finds this issue so important, why isn't this foreword written by the CEO? The reason is that circularity and sustainability became cornerstones of ABN AMRO's corporate strategy largely as a result of a bottom-up movement within the bank, with specialists like myself and many colleagues from across the organisation joining forces. Our experience underlines a key message of this magazine: don't wait for others to take the first step.

Every organisation is different, but it may be illuminating to elaborate on how this worked in practice at ABN AMRO. As colleagues began exploring and experimenting with circularity within their departments, they came into contact with kindred spirits in other departments. In 2016, we started regular informal meetings to reflect the bottom-up, challenger nature of our efforts. This group of explorers weren't interested in being thought leaders (the world has enough of those already!); we wanted to be action leaders.

By working together, you learn together

In 2017, we set concrete goals to finance €1bn in circular assets and 100 deals by 2020. And to learn with and from our pioneering clients, from major manufacturers like Mitsubishi Elevators (featured in this magazine) and global circular economy enablers like Reverse Logistics in Germany to scale-ups like MUD Jeans, who are challenging fast fashion. We have also learnt enormously from applying circularity principles to our own operations, real estate and procurement.

Also in 2017, we built Circl, a circular pavilion in front of our head office that quickly became our movement's symbol and hub. Here we hold training sessions and meet-ups on circularity for clients, em-

ployees and the wider community. By collaborating together, we learn together — and can achieve more than we think. At the end of 2018, our 300-year-old bank placed sustainability at the centre of its corporate strategy, with the circular economy as a key pillar. In addition to the current more formal governance, and a lively Circular Economy online community of 200+ colleagues, the original informal meetings still take place every six weeks to share lessons, discuss dilemmas and celebrate successes.

Next steps

Alongside financial institutions, another group is playing a key facilitating role in the evolution of the circular economy: the public sector. The farsighted local, national and international policymakers who are creating pathways, for example through tax and policy changes, that will make it easier for entrepreneurs and businesses to progress their ideas for a circular economy. We will hear more from them in another edition of Change Makers. But in this edition, all the glory and attention goes to the amazing pioneering entrepreneurs and business professionals who share their experiences here. I hope that, like me, you will find them a source of invaluable insights and inspiration.

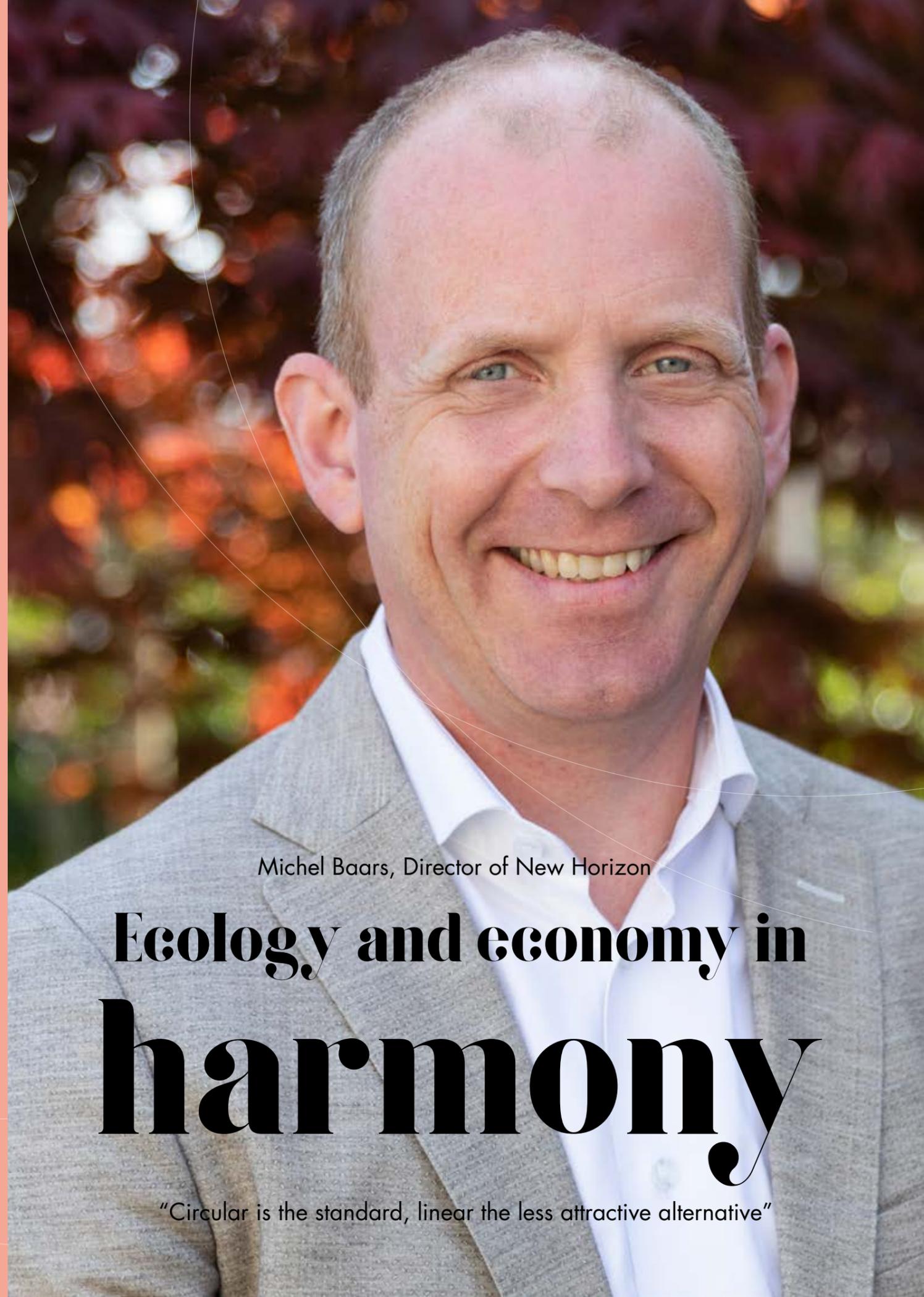
Karianne Tieleman

Head of Sustainability Advisory Corporate Banking,
ABN AMRO



The director

Strategic Management, CEO & CFO



Michel Baars, Director of New Horizon

**Ecology and economy in
harmony**

"Circular is the standard, linear the less attractive alternative"

Those who want to be able to compete in a linear sector like construction must have the courage to change the rules of play. This is a role that fits New Horizon's Michel Baars, a specialist in urban mining, like a glove. Michel's mission is to show the world that circularity can be beneficial at every level, both for the planet and the (construction) budget.



What, for you, is the main reason to embrace circularity?

Because we are losing sight of society and the environment, with all the attendant consequences. For me, the circular economy is the economic model that brings together apparent opposites: ecology and economy united in harmony. And personally, as an entrepreneur, I think my role in society is to persuade people who do not yet understand the added value and necessity of a circular economy.

Why would a company choose to be circular?

All companies are concerned with the continuity of their business, and matters like scarcity and availability, as well as environmental and social impact, directly influence this continuity. As a director, I consider circularity to be the only winning strategy. Though the linear economy may not break down in the short term, a circular economy is not only better, it is inevitable. Inevitable because negative environmental impacts will be taxed — such as through a CO₂ emissions tax — and buyers are already frequently applying circular purchasing. Moreover, a circular economy is better

because it has less of an environmental impact. And, thanks to repairs and renovation, among other things, it provides more jobs for more people, throughout the chain and locally, through increased craftsmanship. This creates new jobs, including for the people at a distance from the labour market.

New Horizon specialises in urban mining. We dismantle buildings, harvest the subsequent raw materials and then sell these secondary building materials. According to calculations by the Dutch Institute for Building Biology and Ecology (NIBE), these building materials have a far lower environmental impact. Circular concrete, for example, has at least half the impact. Grant Thornton has not yet completed its calculation, but I estimate that we'll save at least 80,000 tonnes of CO₂ in 2020. And that's the actual environmental impact achieved by using secondary materials that avoids the purchase of new materials. In other words, non-recovered material that lies in the warehouse.

New Horizon is already competitive, despite the extra work this approach entails. And we'll only become more competitive once the CO₂ tax is introduced. In short, circularity is a win on all fronts. Another advantage of the circular economy is that it's more regional by nature — local employment, local raw materials — which makes us less dependent on other countries. This means that a crisis like we have now with the coronavirus will not hit us as hard in the future.

What current trends are you seeing that will increase the importance of circularity?

Eventually, the government will tax CO₂ emissions and possibly primary (new) raw materials, as is already the case in Sweden. When that happens, linear construction materials will become considerably more



“Breaking through the system requires hard work, perseverance and gaining trust”

expensive in a very short amount of time; depending on the product, between 40 and 400% more expensive according to NIBE calculations.

At present, environmental costs are already being charged for large infrastructure projects. This is the so-called ‘Environmental Cost Indicator’ (EDI), a kind of life-cycle analysis. The environmental damage incurred during the construction and use of the infrastructure is assigned a price derived from this analysis. During the tendering process, this amount will be deducted from the price at which you offer your services as a supplier. So, your offer might be more expensive than the competition, but you still win the tender because your project will result in far less environmental damage. At the moment, it's still expensive to map out these environmental costs. But there are more and more data available, and there are faster and smarter methods to make these costs clear and transparent. Once enough calculations have been performed and incorporated into digital models, they will also be applied to small projects and become compulsory.

This means that in the construction and real estate sectors, more and more demands are being placed on the environmental performance of building materials. It also affects how buildings are dismantled. After all, by

applying urban mining, building materials can have a substantially lower environmental impact.

I'm also seeing the first signs of scarcity. Not directly due to a shortage in the world as a whole, but due to a shortage of materials at the right time and in the right place. A concrete example is the low water supply we've been dealing with for a long time, which has directly resulted in a shortage of sand and gravel. This is something new, and we must be able to anticipate it.

How do you persuade clients?

A sustainable or circular product does not automatically sell itself on our market, not even when the quality is comparable and the price competitive. The secondary building materials we sell are not more expensive and they offer the same guarantee. In addition, the demolition does not take longer and it's even cheaper. Plus, our materials make an enormous positive environmental impact. However, in order to persuade our clients to try these materials, we must understand their motives, why they're organised as they are, and we need to show empathy. Projects in the construction sector are often financially large in scope and have a high risk of failure and relatively low margins. So it's preferable to work with known parties and products, ▶

New Horizon provides construction companies with high-quality building materials extracted through urban mining (the reuse of components reclaimed from depreciated buildings). Reusing or up-cycling the maximum possible amount of materials while dismantling (harvesting) buildings enables those materials retain the highest potential value. This allows New Horizon to compete with the traditional 'linear approach'.



according to an existing routine and to avoid the risk associated with innovation. In this context, it's difficult to be open to a better but — as yet — unknown alternative. Breaking through that system not only takes hard work and perseverance, but it also means assuming risk. Once a player crosses over, the whole apparatus cooperates immediately and it all suddenly proceeds remarkably fast.

How do you break through the system?

By changing the rules. Demolition workers, because of their revenue model, benefit from as much demolition waste as possible. Asbestos removal workers have a vested interest in the largest possible amount of 'contaminated' building material. They then shift the risk of the additional work on to a client who is unable to properly assess that risk.

My interest is the same as the client's: to throw away as little as possible, to reuse as much as possible and — within the rules — to classify as little as possible as being 'polluted with asbestos'. I conduct a careful analysis that allows to me to thoroughly assess the risk, and then I assume that risk. When it comes to asbestos, I deliberately use the word 'pollution' rather than 'contamination'. It is less scary, and the association is

highly relevant. The question is, are you minimising or maximising the problem?

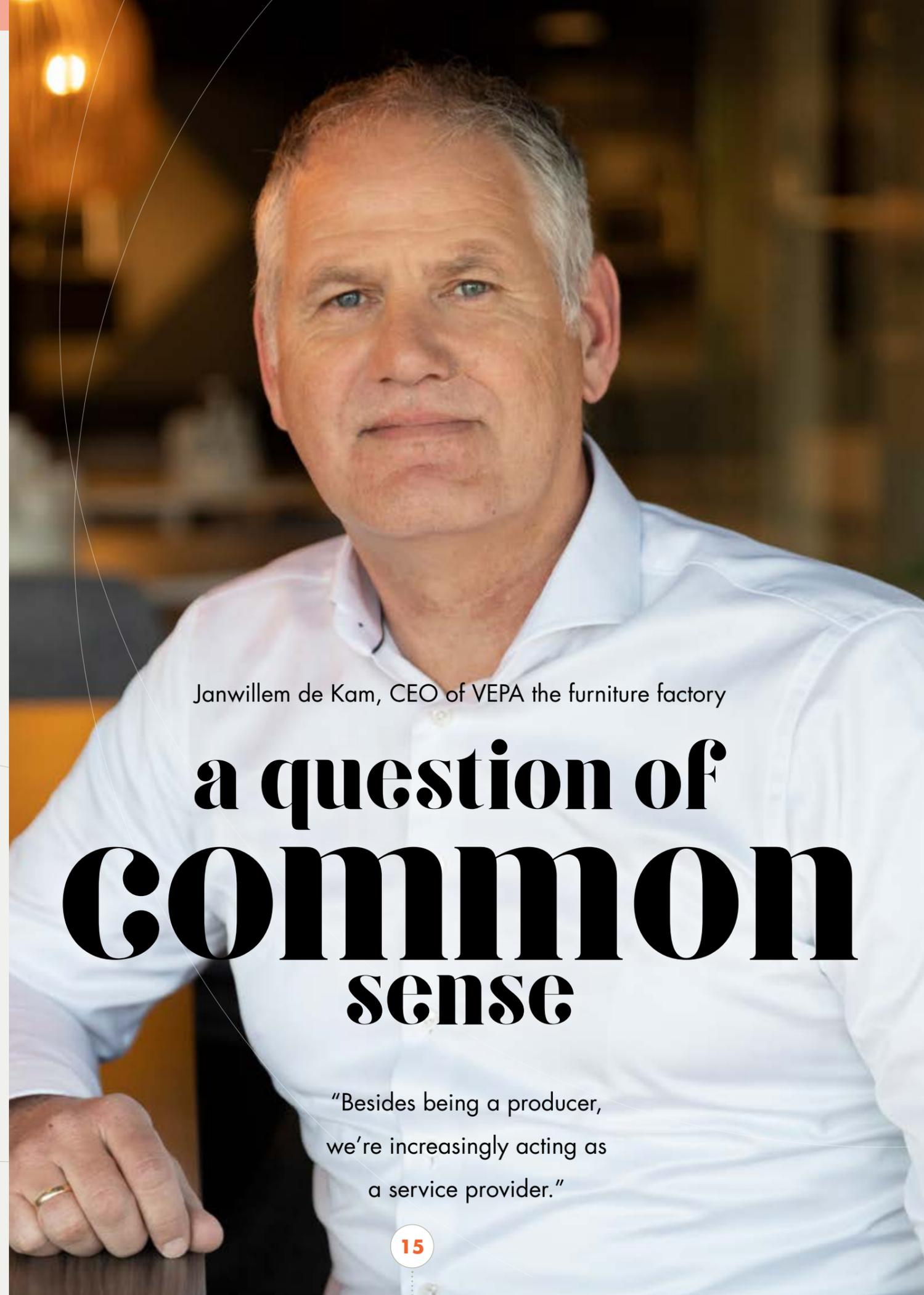
How do you prevent greenwashing?

In conversations with buyers, I look for the points of tension. I only want to supply circular concrete to the right project, not as greenwashing for a project that is non-circular. I see myself as a producer who would like my materials back in due course. This can be achieved either by retaining ownership of the material or by placing a deposit on it. I look for the middle ground and directly ask buyers, 'Why should I supply materials to you?' 'What do you bring to the table?' Afterwards, I request that a donor building be dismantled. I do this to show that circular building materials are only available thanks to urban mining. It cannot and must not be the case that companies who purchase circular concrete, thereby realising huge CO₂ savings, choose not to organise their own projects in a circular way and end up with construction and demolition waste.

Which classic CEO mindset needs to change?

As leaders, we have to steer clear of that oft-quoted objection: 'That's not what the market demands.' That mindset blocks innovation. Instead of pointing fingers at one another, take responsibility and get to work. This can be as a frontrunner or as the first one to follow, depending on what suits your organisation. In my opinion, this means sharing knowledge unreservedly. Indeed, many dilemmas go unresolved due to the lack of knowledge.

Recognise that circular is the new standard and linear is the less attractive alternative. If you change your company now based on this insight, you'll keep up with the times. But if you make changes out of a sense of urgency, you'll definitely be too late!



Janwillem de Kam, CEO of VEPA the furniture factory

a question of COMMON sense

"Besides being a producer, we're increasingly acting as a service provider."

According to Janwillem de Kam, it's not rocket science: the circular economy is the future, and those who can't keep abreast with the times should call it a day. A transition like this requires curiosity and no small amount of adaptability. Following this recipe, Janwillem has transformed his VEPA furniture factory from a linear manufacturer to a circular all-rounder that not only produces and revitalises items but also provides advice.

As CEO, why is the circular economy so important to you?

You don't need a college education to know the way things are headed. It won't be long before the use of new raw materials is no longer an option. Raw materials are not an infinitely extractable resource. Trees regrow into new wood, but the same cannot be said for many other raw materials and ores. That's what incited us to begin thinking about making our production process more sustainable. Out of sheer interest, I began reading and talking with everyone.

How did you get started with the circular economy?

We had very little substantive knowledge about the circular economy in 2008. We asked ourselves, 'Who in our organisation knows anything about sustainability? Who in our network?' At the time, we had a colleague — a recent graduate from the Delft University of Technology — who had studied with a professor of sustainable design. So we asked this professor if he wouldn't mind visiting us to take a critical look at our company and advise us on where we could apply circular innovation. He thought we were already doing a lot of good things. In those days, steel cabinets were fashionable, but we produced wooden cabinets. After commissioning a life-cycle analysis, our cabinets appeared to have a 60% lower environmental footprint compared to a steel cabinet. We then focused the development of our wooden products under the motto: 'wood is good'. We improved the cabinet design and made sure it reflected the popular taste of the time. We removed our metal cabinets and plastic chairs from the showroom. Our clients didn't realise we had simply removed all of the 'bad' raw materials. By taking those steps, we came into contact with all

kinds of new parties, such as the waste processor Sita. Sita had a PET (polyethylene terephthalate) waste flow, which is used to make things like soft drink bottles. In collaboration, we began looking for circular applications. We now have plastic chairs again, which are returned to us at the end of their use phase. This also applies to furniture purchased from other suppliers that is made from recycled PET.

How do your clients view your circular products?

For one thing, they don't notice any difference when they enter our showroom. At the same time, our circular approach takes us places we never would have gone otherwise, because our products set us apart from our competitors. We now sell products to clients like KLM Royal Dutch Airlines and Royal HaskoningDHV, but we also clean old furniture, convert free standing coat racks into tables and so forth. We reuse and repurpose objects. For some projects, 50% of our work is comprised of logistics and advice, 25% goes toward giving products a second life and 25% is spent on processing second-hand materials. In the past, we had to make our margin from product sales. Now, we also realise our margin by providing logistics and advice. Besides being a producer, we're increasingly acting as a service provider.

Clients can return their old office furniture to us once it has reached the end of its use phase. This even applies to furniture they've purchased from other suppliers. We then put our heads together to see how we can reuse the furniture. Everyone enjoys working on us and exchanging ideas. It has enormous added value for our clients. They value striving for the same

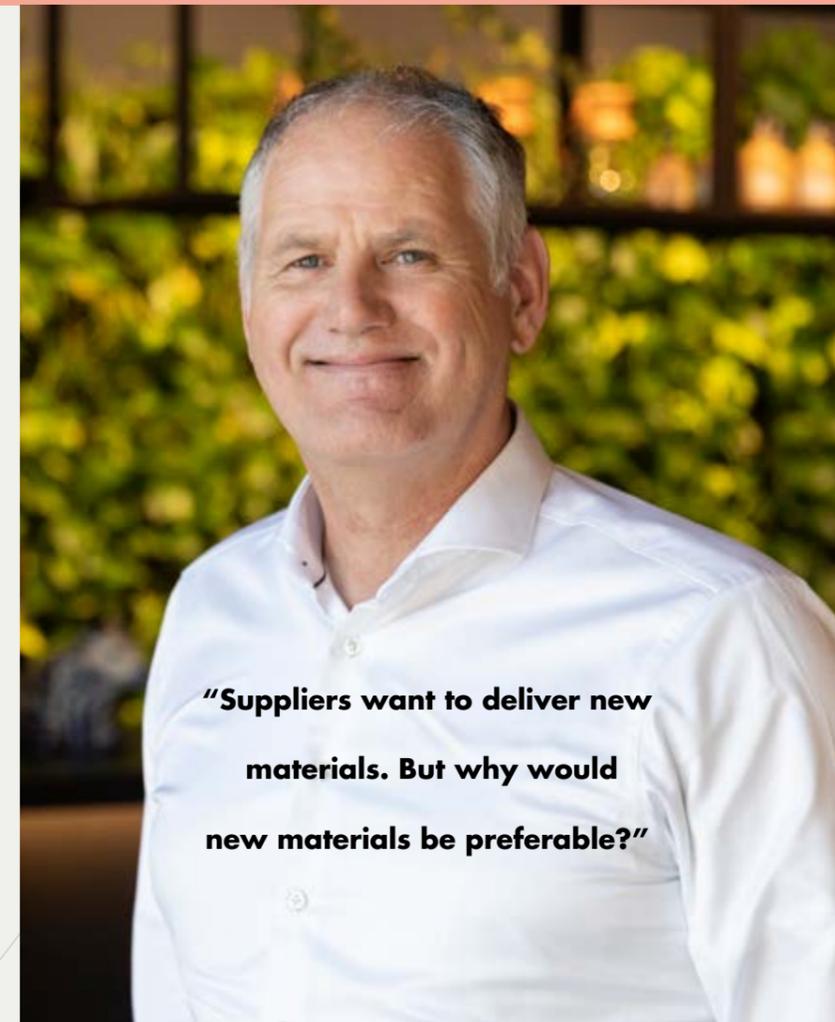
sustainability goals. It also makes us, as a company, more important to our clients because we end up having far more intensive contact. As a service provider, our range of tasks has expanded. That's a sizeable transition. We've set up a Green Furniture Circle that is a tremendous help with this. It is a collaborative research lab with other furniture producers that allows us to share our knowledge and experiences.

Do your suppliers see the added value in circularity?

Many suppliers are hesitant; they find working with the circular economy difficult or complicated. We're always looking for new ways to encourage them to make changes and to participate. We do this, for example, by presenting cases that appeal to their imagination and also have a commercial impact. But it can be costly to make the switch to circularity; it requires an investment. And it's risky: only one out of three circular initiatives is commercially successful. Added to this, we usually don't know in advance how it will turn out. That's why we often assume the development costs. But we've seen that this is an investment that definitely pays off in the end. For example, we've purchased machines that enable us to process and reuse suppliers' waste flows. Our suppliers often want to deliver new materials. But why would new materials be preferable? There's an unwarranted prejudice against the quality of second-hand materials. We earn money, however, from processing raw materials, not from buying them. In fact, raw materials are our biggest cost item. And if we can save on costs there, it's even profitable to have a seemingly more expensive production system in the Netherlands rather than in low-wage countries.

What do your shareholders think about the transition?

Of course we're still responsible for achieving good results for our shareholders. That's why we've invested all of our budgets, such as our sponsor budget for a premier league football club, in circular innovation. In the medium term, it's not good business sense to push forward in the same old linear manner. Eventually, you'll be forced out of the market by China, where the production costs are far lower. That's why we maintain a domestic production line, and we use local raw materials. Local production and distribution are clearly



"Suppliers want to deliver new materials. But why would new materials be preferable?"

also part of a circular economy. People seem to forget that producing domestically also represents an investment in our economy. In addition, we keep the know-how and craftsmanship of production in-house. With our circular approach, we earn a better margin after the initial investment. The profit is directly reinvested into the company. For me, it's a logical choice. You either choose to take a step forward or you're gone.

How do you ensure that the circular economy becomes part of the company's strategy rather than a hollow marketing term?

You have to be prepared to convert your primary process; investing in new machines, for example. In addition, we began with a simple but steadfast ambition: we wanted to be a waste-free company. It's a tangible ambition that involves everyone — whether they work in the office or the factory — so its company-wide. Your marketing should only contain accurate statements that are verifiable and make an impact, otherwise you'd be better off not making them. I see many empty, unsubstantiated cries being made around us about sustainability, but few results. If you're truly going to participate in the circular economy — which

VEPA is one of the most sustainable manufacturers of office and contract furniture in the Netherlands. As the only manufacturer in the sector, they construct all their products in their own domestic factories. VEPA is part of the Fair Furniture Group, a family of like-minded brands and people who share the same ambition: to continuously strive for new circular and sustainable solutions.

is inevitable — invest serious money and time in it, use your common sense and don't be shy about stopping by to see us for inspiration. And visit factories to see if what they say is true!

How do you convince your internal organisation to forge ahead with circularity?

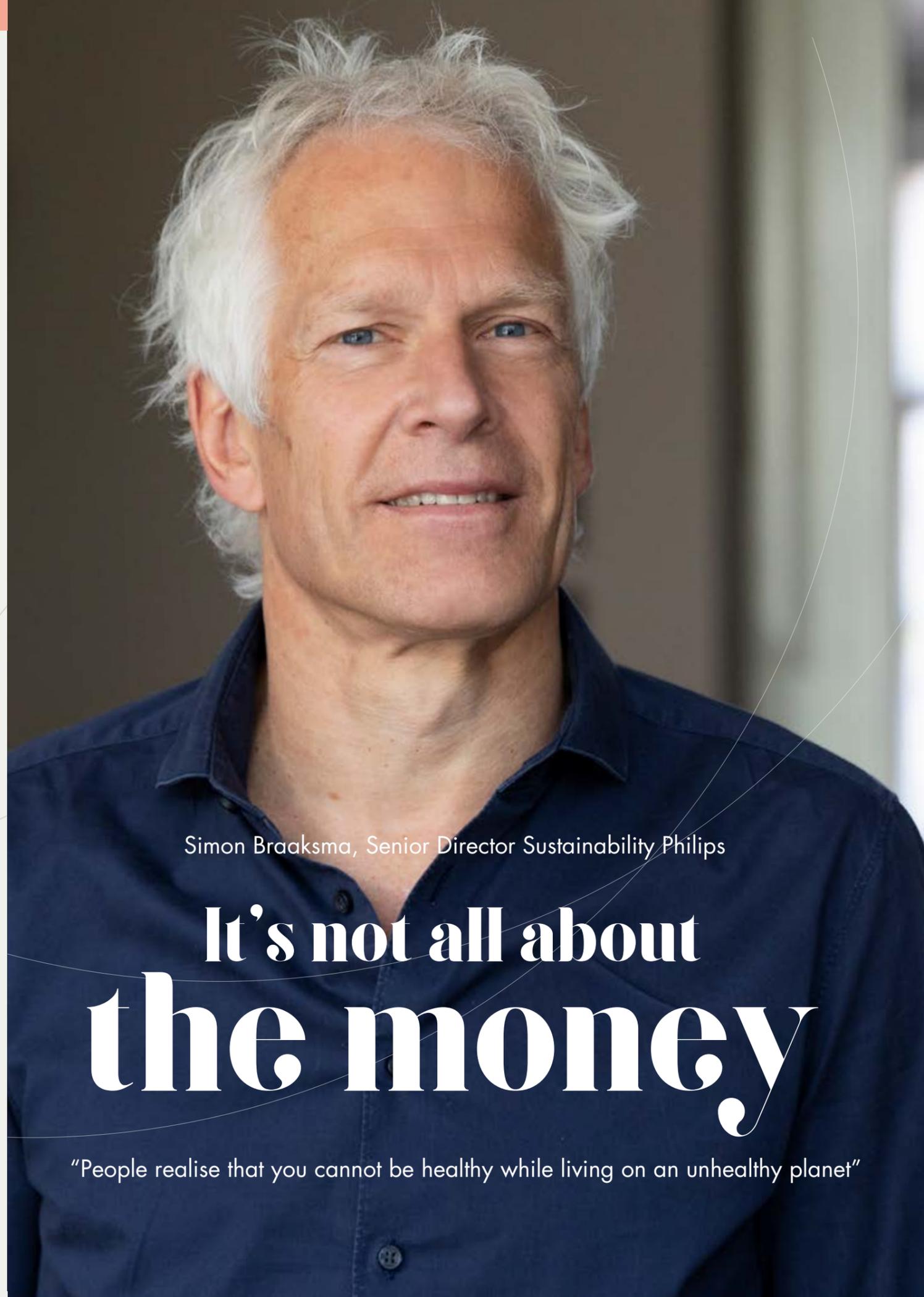
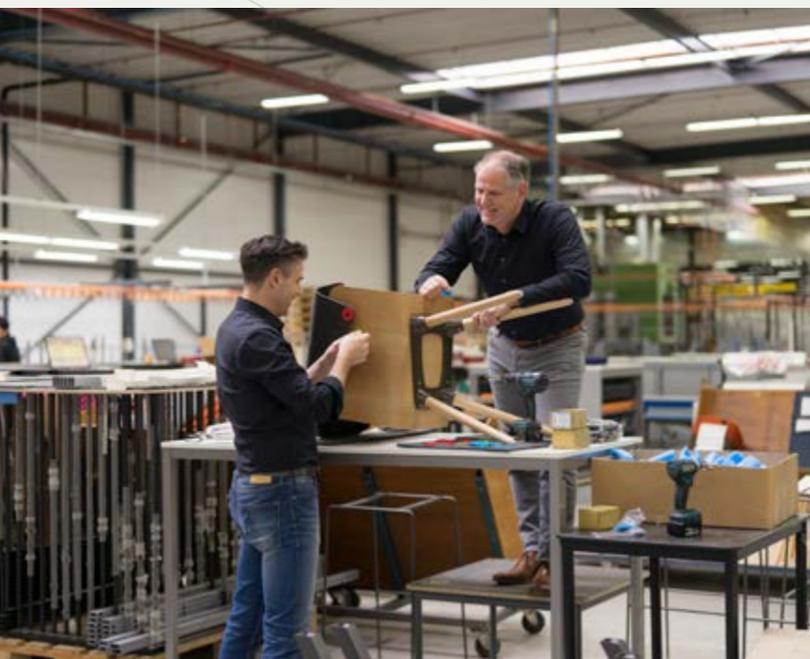
There will always be people who don't see the point of circularity or who shy away from the challenge. To them, it feels like a big hassle, but we learn from every project we complete, so each time it's that little bit easier. The successes as well as the failures prompt new projects and ideas, so we never actually stop innovating. It does take considerable energy and time to get everyone on board. It's vital to do a good job of explaining our aims, and doing so frequently. So we produced videos, for example, that show us both inside and outside our company in order to demonstrate how we use the waste flows from our own factory.

You have to make the circular economy fun and engaging, and not too heavy. Our employees also

want to show their children and friends at home what a great company they work for. People are proud of our circular mission. My children love the circular work that I do. And everyone I meet, including friends who work in other fields, are very interested in what we're doing. Recently, the director of a major client visited our factory while on holiday with his wife and daughter to see how you can apply the circular economy. It was his daughter that urged him to make the visit. It was great that his entire family wanted to see how a circular economy works in practice. That's a motivation.

How much progress have you made with achieving your own circularity objectives, and where do you see room for improvement?

We want to prevent waste flows, and thus achieve zero waste. We're currently below 0.5%, but we're not there yet. In the meantime, another of our ambitions is to ensure our products are free of new materials. We've made great strides, but we have a ways to go there as well. For instance, the motors found in products like sit-stand tables are tricky. We have to invest more time and energy in this before we achieve our goal. Another example is the extra protective layer over sustainable board material. I can't wait until we find something that eliminates the need for that, and we appear to be close. Achieving a circular breakthrough means you get new projects, so we press on with our innovations.



Simon Braaksma, Senior Director Sustainability Philips

It's not all about
the money

"People realise that you cannot be healthy while living on an unhealthy planet"

From traditional banker to Senior Director of Sustainability at Philips - where Simon Braaksma was mainly preoccupied with figures - his main focus is now to leave the world a healthier place. Fortunately, he sees a growing shift to this mindset. Investors and customers are attaching ever greater importance to climate policy and at Philips, achieving ambitious sustainability targets now weighs as heavily as turnover.

You were once a banker; how did you end up in this position?

I spent eight years at Citibank. After that, I began working for Philips in the department that leverages financial opportunities and averts threats, including those concerning sustainability. In our reporting, we are increasingly explicitly including those opportunities and threats around sustainability, such as the customer demand for more sustainable solutions and the effects of climate change. Partly as a result of this, I'm constantly asking myself: "How can we improve?" Investors now inquire on a weekly basis about our sustainability efforts or our climate policy and, thanks to our reporting, we receive increasingly critical questions at the annual meetings. Rankings, like those from [Sustainalytics](#) and the [Dow Jones Sustainability Index](#), help us become ever more ambitious. They're very critical while also acting as an effective mirror. If you're at the top of the rankings, that's a great confirmation that you're on the right path.

What makes your job so appealing?

What I like about working with sustainability is that you have to deal with virtually every discipline in the organisation: logistics, HR, production, purchasing and marketing. Plus, I have children, and I've always considered it important that they inherit a healthy planet.

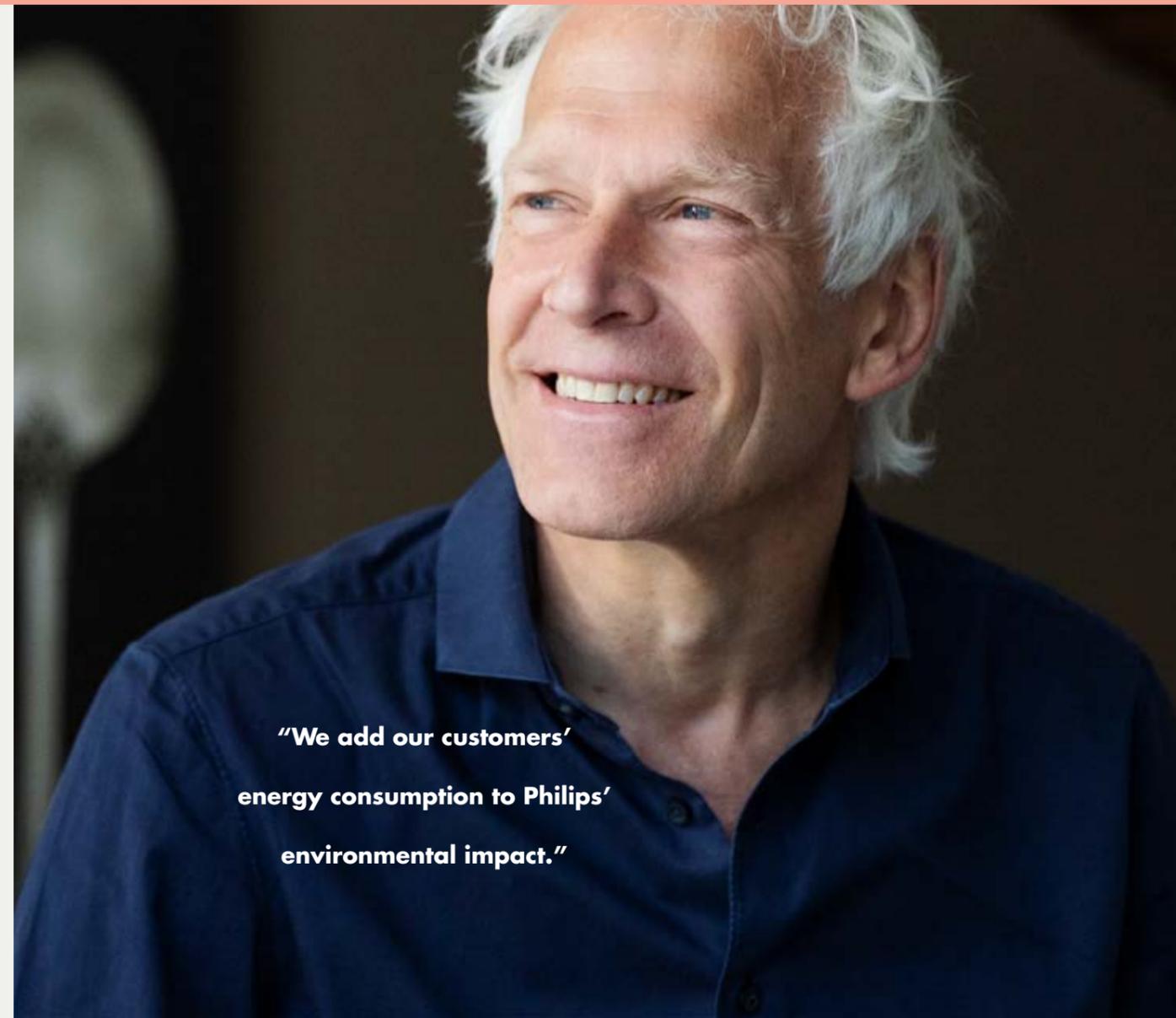
Why do you, as a company, examine your environmental impact?

That impact is one of the main reasons to purchase products from us. In the health care sector, many customers are concerned about sustainability. Patient care comes first, followed by sustainability. People are aware that you cannot be healthy while living on an unhealthy planet. Currently, up to 20% of tender requirements focus on sustainability, and that will only continue to grow. We can comply with this by, for example, examining the electricity consumption of our appliances, which immediately makes a positive difference in the hospitals. But we're also reviewing our own use of materials. We recently introduced a MRI scanner that is free of helium — a scarce and expensive gas — which makes it much easier to maintain.

How does your environmental impact reporting work?

We were getting more and more questions from retailers about such things as the types of plastic we use. And our customers were increasingly wanting to know more about the materials contained in their product. We didn't have any experience with the so-called "Environmental Profit & Loss Account" for products, so we started with just a few products before rolling this out company-wide at Philips. Hospitals now routinely ask for a raw materials passport for our products.

"Environmental impact will become one of the main reasons to purchase products from us"



"We add our customers' energy consumption to Philips' environmental impact."

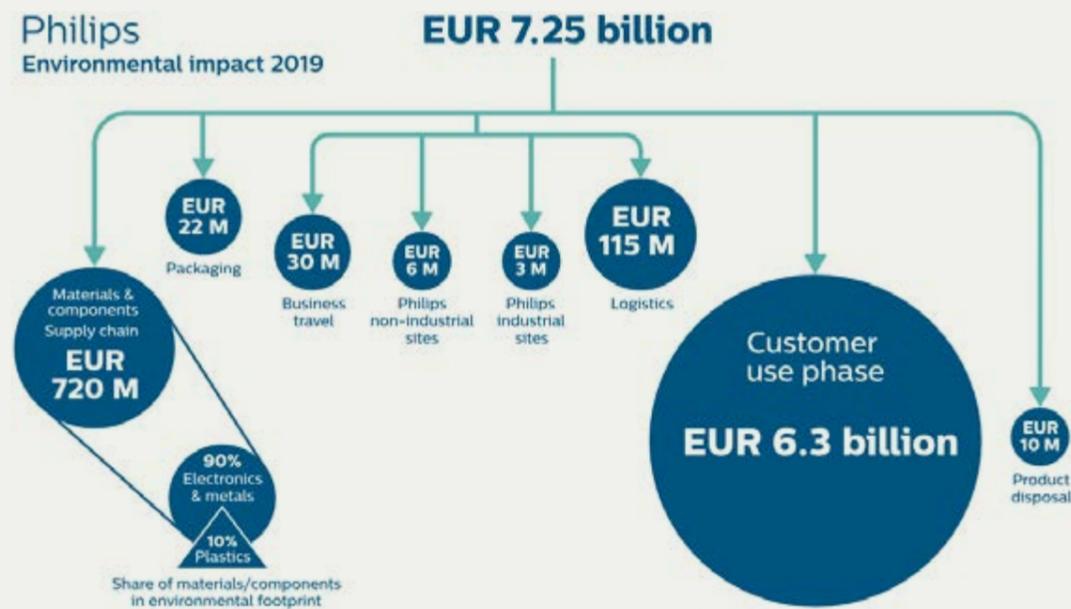
We can provide this very quickly because we already need to know so much about the exact materials in our products for our Environmental P&L reporting. Online retailers now rank our products even higher because we share our sustainability data.

How do you know where the company has its most significant environmental impact? And how do you apply this knowledge?

This can be figured out quite logically: we know our sales figures, we know which materials we need for our products and we know how those materials impact the environment. We can also look at how the production process impacts the environment. Lastly, we even calculate the environmental impact of the customer who will use our product. For example, we add our customers' energy consumption to Philips' environmental impact. That may sound a bit crazy, but we do it

because, as a producer, we can influence the product design. This means we have a responsibility to design the most energy efficient product possible. With the help of Ecochain, we've mapped out the environmental costs — the E P&L reporting we mentioned — for our entire product portfolio. To our great surprise, we discovered that when measured over their entire life cycle, our hair stylers, straighteners and hair dryers had the greatest negative environmental impact. Even greater than an MRI scanner. We knew, of course, that metals are very harmful to the environment because of the impact of their extraction, among other things. But the fact that "hair styling tools", like irons, would score so high due to their high energy consumption and long-term use was new to us. You can achieve considerable environmental savings with a new design where the hair styler takes ten rather than twenty minutes to do the job. The MRI scanners consume ▶

Philips
Environmental impact 2019



Milieukosten in kaart gebracht door Ecochain.

a significant amount of electricity but because we sell fewer of them, the environmental impact of our entire company is lower than that of a hair styler.

After users, our suppliers have the biggest environmental impact. So we're trying to influence them as much as possible. We discuss the impact of their product with all our business partners. This is often completely new information to them. We discuss our sustainability objectives with all our suppliers and indicate how they can contribute. For instance, we've proposed energy-saving options to various suppliers in Asia, which they subsequently implemented. So, we also use the experience we've gained with our partners. As for our targets, our ambition in 2020 is for 15% of Philips' sales to come from the revenue earned on circular products and services. We want to be able to take back 100% of our large-sized medical equipment from our customers. By 2025, we want to extend these circular practices to all of our medical products. And none of our industrial waste should end up in a landfill ("zero waste to landfill"), with at least 90% of the waste recycled. Our [methodology is available online](#) for those who are curious. Anyone can hold us

to account if they think our CO₂ price is too low, for example, or even for being too ambitious.

What other decisions do you take based on environmental costs?

We're phasing out certain materials in our products, designing more energy-efficient products and, for example, we no longer wish to standardly provide a new charger with our products. We're also tackling our packaging. Not every product has to be delivered in harmful, high-gloss white packaging, especially if it's distributed via an online retailer.

Every department that shares in the responsibility for a product discusses its environmental impact. This has already been eye-opening for many. When evaluating our targets, we look just as seriously at our environmental targets as we do at our sales figures. Our bonuses are also linked to both targets.

Do you consider products that generate considerable sales but also cause significant environmental damage to be profitable?

In our view, such products are not profitable. Despite

their financial "profit," we believe that products like these do not create value for our customers, employees, suppliers or even our investors. That's why our annual report includes information about the impact of our products throughout their life cycle.

If our sales go up, our negative environmental impact should fall. For example, you can't book a 2% increase in sales while simultaneously raising your environmental impact from a 7.25 to an 8. That would lead to questions from our stakeholders and shareholders. By including information on the environmental impact of our products in our [annual report](#), the CEO and the supervisory board also provide feedback on where we need to increase our focus.

Does your CFO agree that products that are very harmful to the environment are not profitable?

I believe that CFOs are generally a bit more traditional. But our CFO now understands the importance of taking our environmental impact into account. He regularly invites us to think about how we can create more value in the broad sense of the concept. He also sees that the market is evolving. Even the most traditional investors are now asking questions about environmental impact. We're even working towards integrated profit & loss reporting. This means that the environmental impact of our products during the production and use phases will be converted into a financial value. Soon, we'll deduct this value from our profits. We would also like to calculate our social impact. Our CFO is already examining Philips' value creation more broadly. We've identified different value elements for ourselves that he incorporates into his decision-making.

Will CFOs have more broad-based responsibilities than just financial ones?

Absolutely. In the near future, the financial, social and environmental impact reporting will be the CFO's responsibility, enabling him or her to become the Chief Value Officer. It's all value creation, profit and loss.

I already see that happening; it won't even take five more years. Even traditional investors are asking: 'How do we create value beyond financial value?' CFOs and other directors need to have a vision on the



Headquartered in the Netherlands, Philips is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as consumer health and home care. Its products range from MRI scanners to hair dryers.

“As CEO or CFO, you also need to focus on sustainability. Traditional directors will be left behind.”

issues of sustainability, and they must be able to report on and account for their vision. At Philips, we already have a good story to tell, and as first movers, we’re better prepared than our competitors. Traditional directors will be left behind. As the CEO or CFO, you also need to focus on sustainability.

What ambition should a CEO have?

In just a few years’ time, your company will cease to exist if you’re only looking at the financial figures. As a director, you’ll have to focus on the bigger picture. Shareholders, financiers and customers, as well as employees, all want to see broader value creation. Who wants to work for a company that damages people or the environment? Take the CO₂ pricing, which is inevitable. If you fail to get ahead of it, you’ll go bankrupt. Start preparing for the future because it will be here much sooner than you think. Think about where your

impact lies and begin there. And take a good look at the companies around you, at what they’re already doing. It’s fairly virgin territory. But have a look at an impact report from ABN AMRO, for example, or an [Integrated Profit & Loss report from Philips](#), and see if you understand it and what you can learn from it.



The growing importance of circular economy finance

Circular economy finance (CE finance) has been gathering momentum within the financial sector. In cooperation with the Ellen MacArthur Foundation¹, international investment provider Blackrock’s circular economy fund² grew from the initial 20 million USD invested to over 1.3 billion USD in less than a year of activity. This reflects the growing appetite of large investors for responsible investment in general and CE finance in particular.

At the same time, definitions of circularity are gradually converging. A common understanding is needed to make financial instruments that stimulate the circular economy transparent and comparable. In 2017, ABN AMRO, ING and Rabobank jointly issued their Circular Economy Finance Guidelines.³ Based on the circular business models described in the guidelines, ABN AMRO bank has been leading the way as a loan provider to Dutch entrepreneurs, and has the ambition to grow its CE financing, mainly through leasing and product-as-a-service (PAAS) transactions, to EUR 3.5 billion by 2024.

CE finance – a step beyond Climate Finance

Climate finance typically combines financial performance targets with the lowering of carbon emissions. For example, the production of electric vehicles, solar panels, wind turbines, heat pumps, energy efficiency for homes and businesses can all be financed through climate finance instruments such as Green Bonds⁴ or Green Loans⁵. CE finance, however, not only takes into account lower carbon emissions, but also the interchangeable use of virgin and secondary materials such as metals, non-ferrous minerals and biomass⁶. The aim of CE finance is to stimulate higher resource efficiency and the lowering of the use of virgin materials in favour of secondary (reused) materials. CE finance also stimulates the emergence of a newer range of service concepts, facilitated by digital services: sharing and PAAS business models form part of the CE finance universe because they have the potential to increase resource efficiency and reduce waste. Take cars: climate finance focuses on the move from combustion engine cars with high carbon emissions to electrical engines with lower carbon emissions. But CE

finance will also look at how many cars and resources are needed to provide a mobility service, and whether a company is reducing the use of virgin materials. CE finance requires financiers to delve into the details of resource use and resource efficiency since the financed mobility service can be based on traditional ownership or more innovative rental agreements such as sharing, PAAS or lease contracts.

Growing interest in CE finance from international finance community

Following the lead of early adopters like Blackrock, ABN AMRO and Intesa Sanpaolo others in the UNEP-FI (UN Environment Programme Finance Initiative) community have also started to show interest in CE finance. UNEP-FI's first report on financing circularity therefore aims to demystify Finance for our Circular Economies, with the executive summary giving recommendations for how the financial and public sectors can scale up financing for circular business models with a step-by-step process⁷. The report was launched at the UNEP-FI 2020 Global round table, which was attended by more than 2000 individuals representing hundreds of UNEP-FI member companies. So we can safely say that the considerations of finance professionals now extend beyond the scope of climate finance and carbon emissions to include the resource focus of CE finance.

EU policy and practice driving the global spread of CE finance

The EU sees major benefits in promoting the circular economy through its Circular Economy Action Plan,⁸ as part of the EU's Green Deal.⁹ The ultimate aim is not only to reduce carbon emissions by hundreds of millions of tonnes by 2030, but at the same time save EU-based businesses hundreds of billions of euros in production costs that would have been spent on virgin materials, as well as create hundreds of thousands of new jobs.¹⁰ The EU is also making the circular economy an integral part of its sustainable finance and international trade policy, and is using it as a means to improve international adherence to European environmental laws,¹¹ thereby helping extend CE finance's impact in other continents.¹²

Ongoing standardisation efforts, but much more is needed

In this growth phase of CE finance, most financial institutions are still applying a similar loan application process for circular business models as for linear business models. This means that de-risking the loan through collateral, either based on private funds or other parts of the company, is common practice. This favours companies with an existing base of cashflows; but it would help circular start-ups, scale-ups and SMEs if European tax rules saw a shift away from taxing labour towards taxing the use of materials. This would stimulate job creation, and promote labour-intensive activities such as remanufacturing, refurbishment and reuse of secondary materials.¹³

Accountants, lawyers and insurance will save the world

Accounting rules, legal frameworks and insurance models have also yet to be adequately adapted to reduce the perceived risks associated with CE business models. Accounting rules, legal frameworks and insurance favour traditional, linear business models (take-make-use-waste) and too often shy away from the added complexity that the focus on resource efficiency brings along. Those entrepreneurs that apply the principles of the circular economy in their offering are actually inventing appropriate CE friendly corporate and accounting structures, they are adapting legal frameworks related to waste and are negotiating appropriate insurance clauses with their insurers. Active support from these bureaucratic and highly procedural professions is crucial to the commercial success of CE finance.

The future for CE finance: a premium blend of public and private money

The private financial sector already offers investment and loan products for CE finance, but an acceleration is expected from blending private funding with EU and national government public funding.¹⁴ The renewed Horizon Europe programme under the EU Green Deal and EU Circular Economy Action Plan will run from 2021-2027 with a budget of over 75 billion Euro¹⁵ and a pillar, 'Global Challenges and Industrial Competitiveness', that explicitly mentions circular systems and industries.

Much needs to be done before businesses can easily access public capital to fund their circular business ideas. As a first step, the Horizon Europe programme promises to simplify its model grant agreements and guidance. The ultimate goal is for the EU funding and tenders portal to become a one-stop-shop, providing easy access to EU funding for companies with circular business models. If the EU can live up to this simplification promise, the future for CE finance will look even brighter. In the meantime, companies approaching ABN AMRO with a good business plan, based on circular resource efficiency and an innovative PAAS or sharing services model, will be brought into contact with ABN AMRO's Sustainable Impact Fund or Sustainability Advisory, where they can expect a positive reception.

Want to know more?

- EU Funding Programmes
- ABN AMRO Sustainable Impact Fund
- ABN AMRO Sustainable Business Solutions
CIB.Sustainability@nl.abnamro.com



Author: Jan Raes,
Global Sustainability Advisor
ABN AMRO



C-Level Impact Reporting

Businesses are increasingly being called to account to take responsibility in the face of global problems like climate change, resource depletion, social inequality and health concerns. They're being urged to do their part for the impact economy: an economy in which work, entrepreneurship, innovation and technology all contribute to a better world.

A utopia? In 2018, 86% of all S&P 500 companies published sustainability or CSR reports¹. In addition, institutional investors in Europe and North America are applying ESG (environmental, social and governance) criteria to their potential investments, and the EU is requiring companies to supplement their financial data with non-financial details.

The impact economy revolves around the ultimate consequences of doing business, such as cutting back on the use of scarce raw materials or preventing CO₂ emissions. Providing insight into the consequences of business activities represents a major change in business operations and reporting, thereby necessitating the involvement of the CFO

The Impact Report

To create long-term value for all stakeholders, the CFO will have to not only measure but direct social impact through tools like the Integrated Profit & Loss (IP&L): a social annual account

that's integrated into the financial annual accounts. Among other things, the IP&L provides an overview of social value creation and promotes a deeper understanding of social and natural capital. For example, in addition to the profit for shareholders, the IP&L also reports the (positive) effects of salaries and the social costs of CO₂ emissions.

As long as it remains unclear what the impact is as well as where it occurs in the value chain, it will be difficult for a company to take responsibility. One solution for addressing this is to combine organisation-specific data with the macro-economic data from the Impact Institute's Global Impact Database. The database provides insight into the impact of every euro spent in the countries and sectors in which your company operates.

For a company to direct its business according to its environmental impact, a limited number of measurable impact

targets are required: one hundred is too many, but a single net value creation number is not enough. After all, it's possible to create positive value on a social level, but if it results in protracted losses, the company will go bankrupt. On the other hand, it doesn't seem right to discount the damage caused by deforestation or child labour in favour of greater profits. Therefore, the Impact Institute distinguishes four independent goals:

1. Value creation for the shareholder;
2. Value creation for all stakeholder groups;
3. Minimalisation of the external costs;
4. Realisation of the SDGs.

Bearing these in mind, the CFO can measure long-term value creation while directing the company according to the responsibility it has within society.

The Dutch bank ABN AMRO published their Impact Report 2019 based on the IP&L.

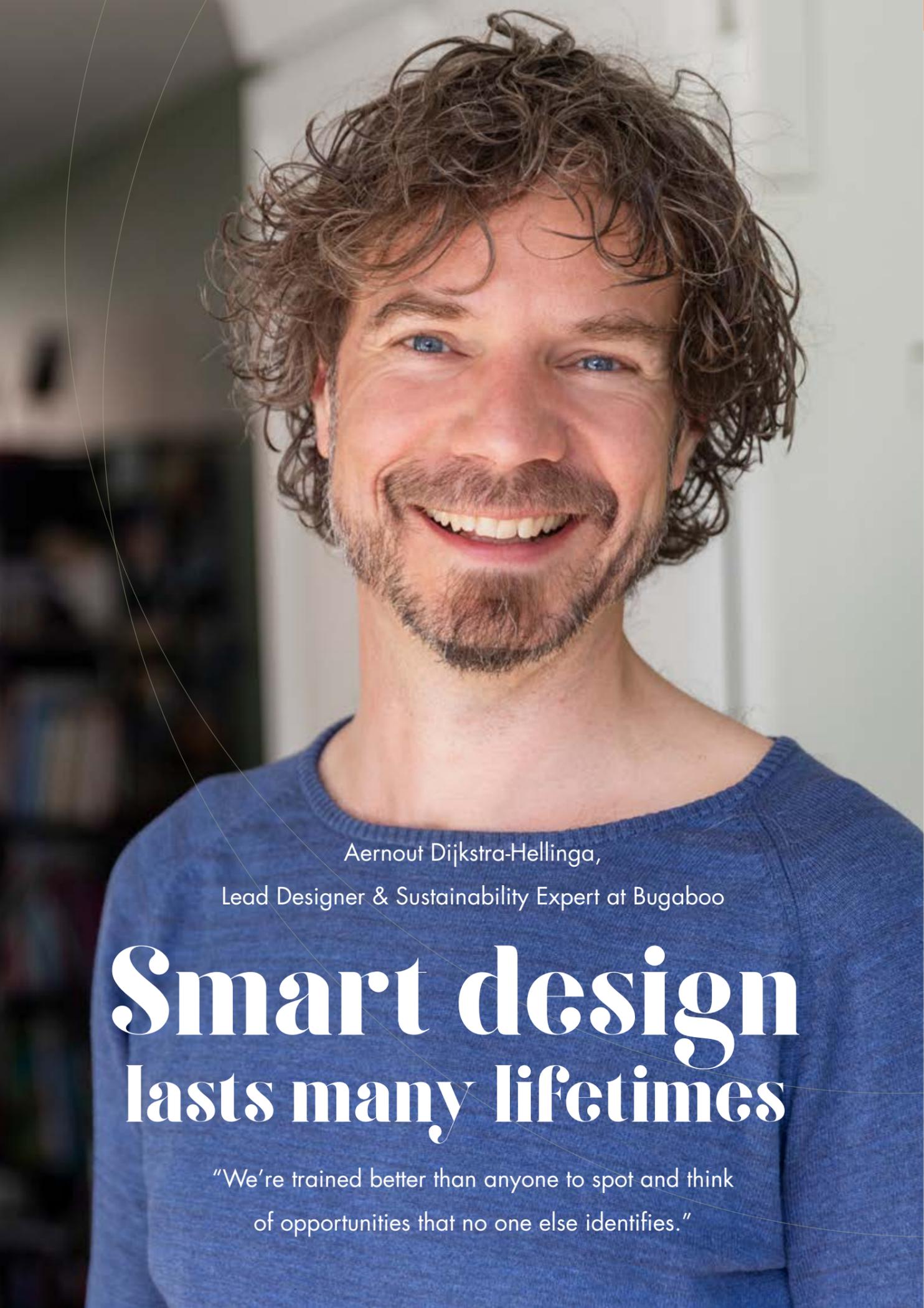


Want to know more? Submit your question to the [Impact Institute](#).

The designer

Product development and R&D





Smart design lasts many lifetimes

Aernout Dijkstra-Hellinga,
Lead Designer & Sustainability Expert at Bugaboo

“We’re trained better than anyone to spot and think of opportunities that no one else identifies.”

At Bugaboo, they understand that product sustainability begins with smart designs. Pushchairs are often passed from family to family. The longer they remain in use, the more circular they become. So Lead Designer Aernout Dijkstra-Hellinga doesn’t just consider the environmental impact of the materials and the production process, he also ensures that his pushchair designs can last many lifetimes with only a few minor adjustments.

How do you apply circularity to your designs?

We design durable, multifunctional products that are easy to repair: for example, a seat that can be used standalone or on an infant pushchair or a frame that can serve as both a cradle and a seat. We’re aware that certain parts will undergo greater wear and tear, so they have to be easy to replace. Moreover, our pushchairs are easy to adapt to the user’s taste. Whether it’s their first purchase or their next: a different colour and material for the handles or wheel covers will give the pram a new look, making it attractive over a longer period and reducing the overall number of pushchairs produced.

Which design principles do you employ, and how do you arrive at this decision?

Where possible, our designs feature click and screw connections, and we avoid the inseparable bonding of different materials, such as two-component injection moulding or sealing parts together. Using these screws really simplifies the product maintenance for the retailer and the user.

Parts that mainly determine the appearance and style, such as wheel covers and upholstery, must have a lower environmental impact than those that have an ‘infinite’ life span. We try to avoid new materials, opting instead for materials that can be reused. That’s why we try to clearly indicate on each part what it’s made of. We avoid using black plastic for the parts

¹ Recycling facilities use light to identify the various types of plastic. However, because black plastic absorbs light, it’s impossible to identify it, and is therefore still burned.

that are not as visible so they are easier to recycle.¹ Our next step will be to reduce the number of different types of plastics we’re allowed to use as the designers and engineers at Bugaboo: larger volumes per plastic type will result in cheaper purchasing and also facilitate more recycling. Having fewer types of plastic in greater volumes makes it easier and more financially attractive to separate them for recycling.

Examples are choosing polypropylene instead of polyamide. Applying the right finish to the structure creates outstanding quality and saves no less than 60% on the environmental impact because it requires less energy to produce. What’s more, it’s easier to recycle.

For our latest pushchair’s product packaging, we’ve replaced all the foam and loose plastic bags with cardboard and a single plastic bag in which all the textiles are packed. The next step will be to analyse the inks we use, so we can replace those that are oil-based. This is better for the environment and, in the near future, it will also be compulsory in countries such as France, for example.

How do you calculate the environmental impact of your products and parts? And do you let that inform your decisions?

With the help of the [Eco Costs Value database from the Delft University of Technology](#) and the [Ansys Granta database](#), I perform a life-cycle analysis (LCA) that I then use to calculate a product’s CO₂ emissions. For

“Review the entire life cycle, see the possibilities, make your decision and then onboard your colleagues.”



the time being, these are only approximate assumptions that do not include such things as the emissions from transporting the product to the customer. Our Bugaboo Donkey emits approximately 140 kilograms of CO₂. Giving pushchairs a second life with new fabric rather than buying a new one prevents 100 kilograms of CO₂ emissions.

In my designs, I do take the lowest possible CO₂ emissions into account, but this is not yet a set target. However, we're currently collaborating with the company [Science Based Targets](#) to develop more numerical targets that businesses can use to help guide their decision-making.

How do you persuade your colleagues to opt for circular solutions that may be more expensive or possibly less attractive? What is the role of the circular designer?

The designer plays a decisive role. After all, he or she determines the design of the product, including the choice of materials etc., that meets the various requirements of the stakeholders. And a designer is trained to skilfully see and think of opportunities that no one else identifies and to integrate colleagues into his or her vision of the future.

I try to get colleagues on board by combining various advantages. For example, apart from the environmental aspects, screw and click connections allow us to produce a special product version in a special colour.



In the future, designers will have to be even less product-oriented, needing to consider the convenience, experience and solution they can offer users. That can be done just as well, if not better, with a service rather than a product. The designer must develop a holistic vision that encompasses the entire life cycle of the product or service: from the extraction of the raw material, and the conditions under which this occurs, to what happens with the materials once their (extended) lifespan has ended. And they must then convey that story to purchasing, management, marketing and sales, and convince and motivate them.

What sort of challenges do you and your colleagues face in circular design?

Together with technicians, buyers, legal experts and marketers, we determine the functionalities and the look and feel of the product. Then we design a pushchair that complies with the technical requirements and rules and regulations. When choosing materials, I also have to work with the purchasing department and the suppliers. They indicate the possibilities regarding which new, circular materials we can use and which we cannot. In practice, I'd like to use even more recycled consumer plastic, but this isn't always possible. Due to its unknown composition, this plastic's quality can vary, and it sometimes contains chemicals that make it unsuitable for all the parts of a pushchair. In consultation with colleagues and the supplier, we then investigate in which parts of the product this type of plastic can be used.

Our Compliance Department also looks at rules and regulations and risk mitigation, which sometimes has a direct consequence for a design. One of our pushchairs had a removable canopy above the suspension that was designed to snap off. This presented a risk for which the legal expert offered the solution of an extra canopy. However, that creates an even bigger environmental impact. As designers, we developed a new design that minimised the risk and reduced the additional environmental impact.

Bugaboo has tried to lease pushchairs and even considered a refurbished line. Why did these ultimately not work out?

Our organisation was not designed to enter into long-

Bugaboo has been at the forefront of stroller innovation and continues to invent, develop, test and manufacture products that combine beautiful design with long-lasting functionality and sustainability.

term financial relationships with multiple individual clients. One example involved arranging monthly payments. Now, we would make the decision to engage a service organisation to handle this.

Taking back and exchanging pushchairs and dispatching and receiving accessories or parts presents a major logistics challenge. And it is a challenge that is not constant but is unpredictable. Moreover, inspecting the pushchairs, replacing parts and storing and identifying which parts (new, old, how often used) are still in which pushchair is both labour- and administration-intensive. That's an expensive proposition given the current tax on labour rather than on raw materials and capital.

I was also unpleasantly surprised by the users' rough handling of the pushchairs, despite the high deposit. That's why I'm not entirely convinced that such a business model necessarily offers environmental benefits for a product like a pushchair. It probably works better with more robust products, highly expensive appliances or services such as washing or lighting. A business-to-business market might be more suitable for pushchairs.

Do you have any advice for other designers?

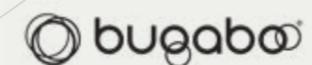
Processes of this kind take time, and you'll face resistance to change. Stay optimistic and don't lose sight of the bigger picture. Make sure that every step, no matter how small, is heading in the right direction.

Seek out inspiration from other companies and designers. I always find the information presented on the [Ellen MacArthur Foundation website](#) to be very clear and inspiring. Their 'learning hub' contains all kinds of tools to apply circularity in your organisation and in various sectors. And remember to work together. You may want to solve everything on your own, but it's too difficult. A handy app that will give you a feel for the environmental impact of materials is [IdematLightCA](#). This app helps you quickly find more information about materials, eco-costs and CO₂ consumption, and enables you to visually compare different materials.

Never focus on sustainability alone. For many people, customers and users, this is not a decisive reason to



purchase or use the product or service. It's more about the bigger picture, and sustainability and circularity form a vital part of this.





Mirjam van Laarhoven, Philips Senior Design Strategist

Circular design for healthy people and a healthy world

“For me, circular design is primarily about developing something that’s good for the user and the planet.”

Mirjam’s sustainable design career began when she was young in her father’s shed jam-packed with old materials. Later at Philips, she discovered the ‘golden system’ of the circular economy and, with that, became a believer. Nowadays, she ensures that the materials in all her designs can be used for as long as possible while preserving the highest quality.

How and why did Philips get started with circularity?

Years ago, Philips identified a market for large second-hand medical devices, which prompted us to launch a line of refurbished MRI and CT scanners. Scanners back then were not developed according to circular design principles, but they did meet several preconditions for a successful circular business model. Firstly, they have a high purchase price and financial (residual) value. Secondly, we know where they are physically and the group of people that need to be persuaded to opt for a renovated product is relatively limited.

The challenge is to design scanners that are increasingly circular because that is what allows you to meet the demand for the best of the best given that the equipment is easy to repair and update. As a designer, you can certainly take the initiative to tackle this challenge. But in a major company, you’ll have a greater impact if circularity is embedded in the processes and systems.

The Philips CEO has set targets that are significantly benefiting circularity. From 2020, we started repurchasing all the large Philips systems that are offered to us, and 15% of all sales must come from circular products. This is just one of the targets for the ‘Healthy People, Sustainable Planet Programme’ developed by Philips. This programme means that everyone will be involved with circularity, not just the pioneers and enthusiasts. The spirit of the times also helps. Today’s clients and employees expect circularity from a company.



In your view, what is circular design?

For me, it is designing products where materials are used for as long as possible while still preserving their quality. The fact that the product will be used multiple times must be taken into consideration during the design process. The product is designed to be returned, reused and recycled.

For me, circular design is primarily about thinking ahead logically to develop something that is good for the user and the planet. Philips has created an internal



Headquartered in the Netherlands, Philips is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as consumer health and home care. Its products range from MRI scanners to hair



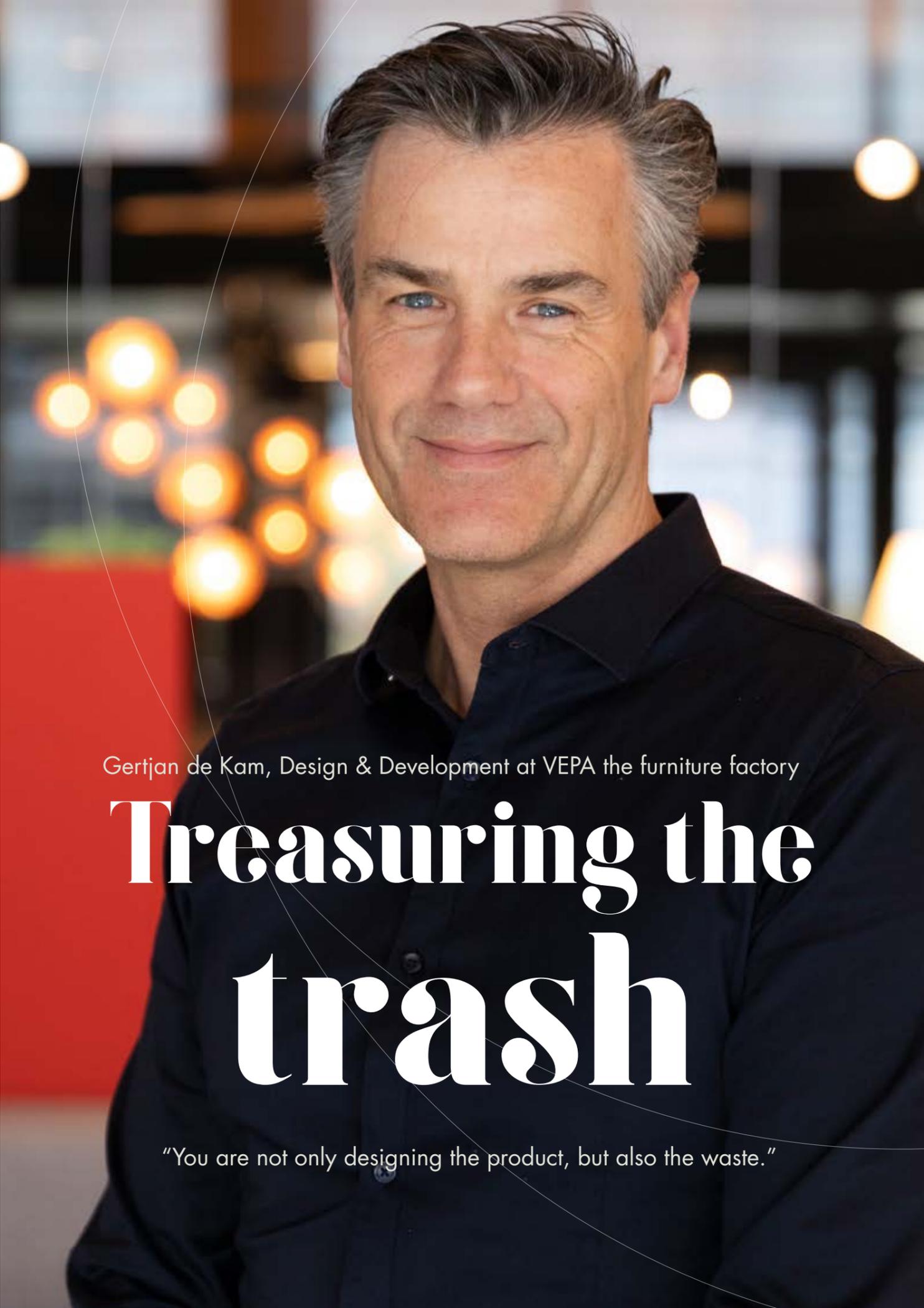
Circular Design training course to raise awareness and promote a sense of responsibility. This course helps designers automatically factor circular decisions into their design process.

What is the designer's role and responsibility? Designers should not only take advantage of their freedom to make decisions about sustainability, they also should explain these decisions. For example, if, as a designer, you opt for 100% mono-materials and one type of screw, then explain why you made this choice. Invite your colleagues throughout the chain to be part of your story, inspire them and teach them to think and act differently. The designers are perfect for this role. They have the space to look beyond a marketer or a client, for instance. Therefore, they have the responsibility to seek out model propositions and to translate these into an individual design while asking questions, such as: "Why do we deliver a scanner that has a specific warranty term?" or "Why not provide an unlimited warranty?"

Which circular design principles do you employ, and how did you decide on these?

We routinely hire graduates of technical universities and one of the projects resulted in a [circular decision tree](#). Among other things, this decision tree ultimately resulted in eight circular business models and eight circular-ready design strategies that are currently being rolled out via training sessions at Philips and will soon be mandatory.

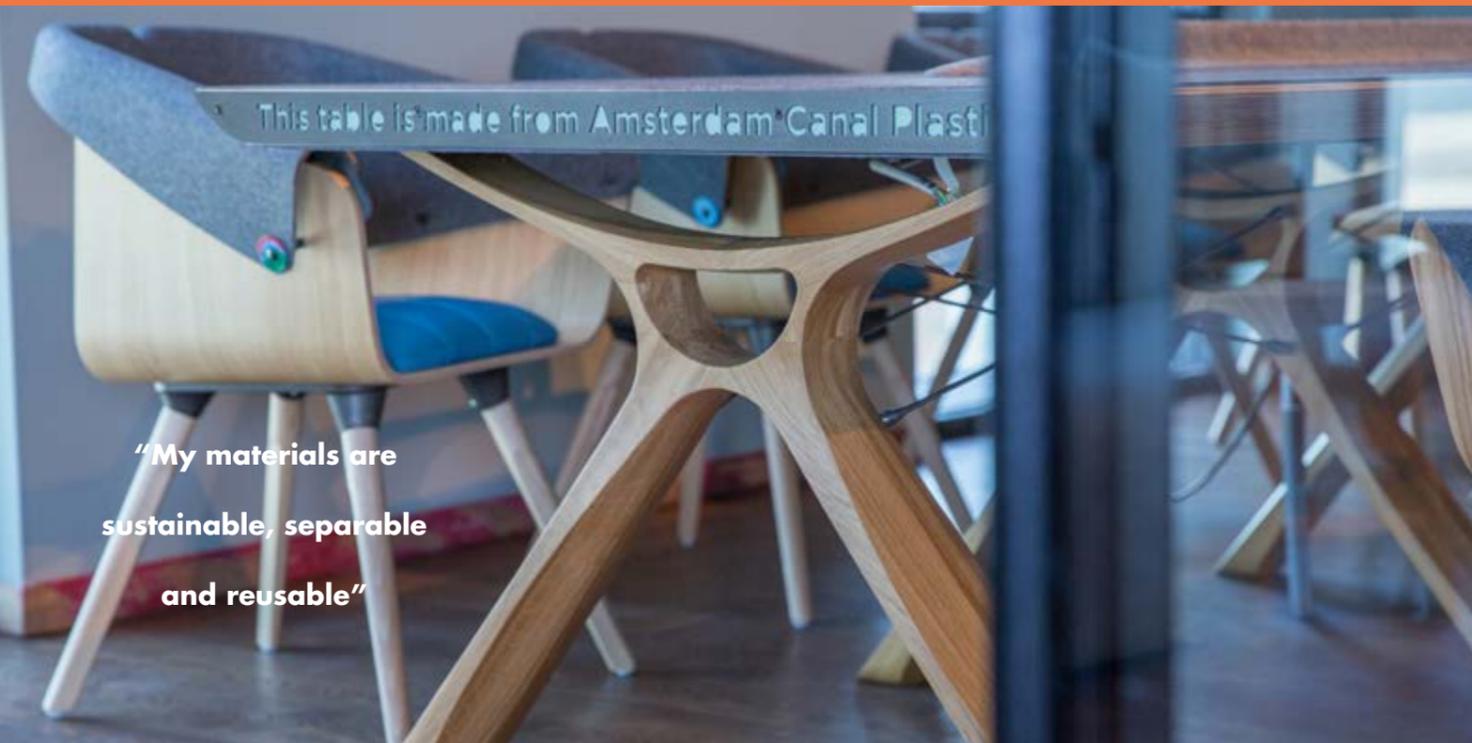
For a particular business model, one design strategy may be a better fit than another. Our [decision table](#) helps designers choose the right strategies. For example, to reuse goods that were returned while still under warranty, it's important that they be easy to clean, whereas this is not a consideration for software propositions or recycling.



Gertjan de Kam, Design & Development at VEPA the furniture factory

Treasuring the trash

"You are not only designing the product, but also the waste."



“My materials are sustainable, separable and reusable”

When Gertjan saw all the amazing waste being thrown out each day, he thought ‘there must be another way.’ He began to study circular design and learned how to creatively reuse the remaining waste. Fast forward to 2020 and circularity is now the core business of VEPA the furniture factory.

In the past, wonderful new materials at VEPA were being discarded. The wood, textiles and metal left over from the production process were considered waste due to a lack of application for them. The metal, for instance, was being remelted in Asia and then, via a detour, repurchased by us. An absurd situation of which hardly anyone was aware.

Our first step was to reduce the waste stream by redesigning existing products. After going through our waste bins, we used what we had discovered as our basis for finding new applications for our products. For instance, we now use our leftover textiles as sound-proofing for our walls, we process PET bottles into our chairs and we’ve designed new products made from residual materials that are sold under the brand name ZOOI.

How do you go about your work as a circular designer?

At the start, I always ask myself: “Why am I designing this? What is the goal?” Then, for every product I design, I apply the following principles:

- *Produce local*: to prevent pollution created by transport.
- *Buy local*: I prefer European FSC or PEFC wood to bamboo from China.
- *Choose sustainable materials*: the use of wood rather than steel results in a smaller direct footprint and, for us, the products last at least as long.
- *Design for a long life cycle*: the energy and materials necessary for the product must be retained for as long as possible.
- *Design in a modular fashion with maintenance in mind*: a part must be easily replaceable for maintenance, repairs or an upgrade. Maintenance is better than repair, repair is better than recycling.
- *Design timeless*: trends come and go in rapid succession, and products quickly go out of fashion. Products should retain their value for as long as possible or even become more valuable with the passage of time. And this can be done if you only have to replace one part rather than having to purchase an entirely new product.
- *Design with aging in mind*: consider how a wear pattern or erosion might add value to the design. A sanded vintage table or a table made of scrap wood, for example, gains added value through its worn appearance and patina.

VEPA is one of the most sustainable manufacturers of office and contract furniture in the Netherlands. As the only manufacturer in the sector, they construct all their products in their own domestic factories. VEPA is part of the Fair Furniture Group, a family of like-minded brands and people who share the same ambition: to continuously strive for new circular and sustainable solutions.

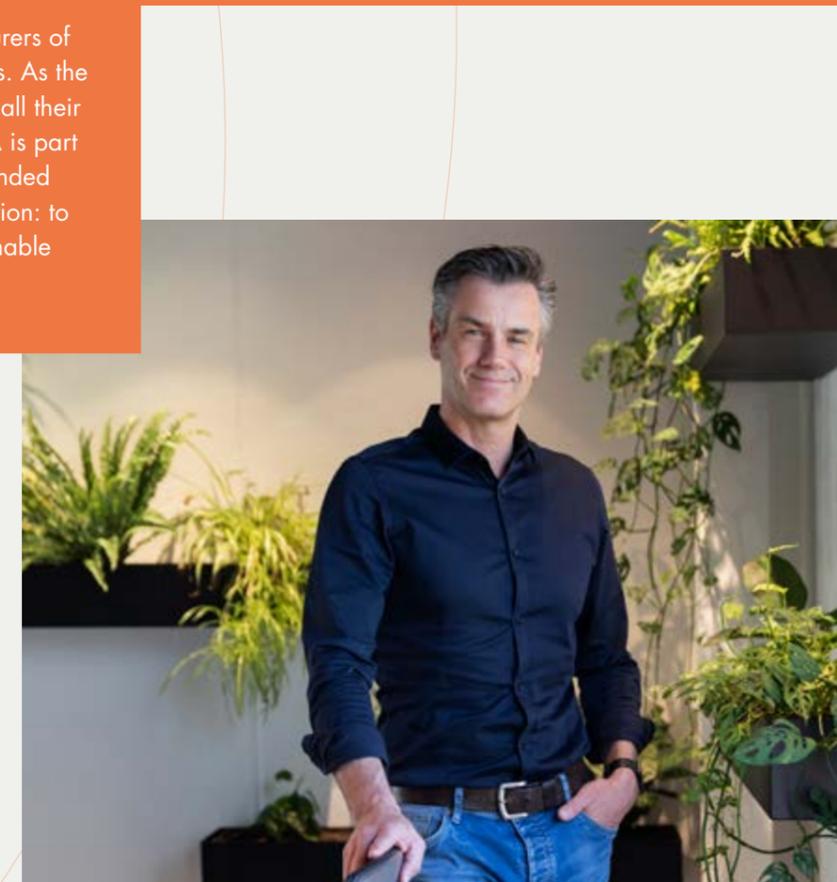
I see designers as ‘knowledge brokers’. For a good design, they will combine their knowledge of the market, standards, materials and production processes. The design is the link that forges a connection between demand and need.

Choices are made during the design process that determine the entire product life, including the end. Think about the choice of material, production method, cost, lifespan, functionality, modularity and so forth. You are not only designing the product, but also the associated waste. Imagine if every producer was responsible for his or her own product and got it back once it had reached the end of its lifespan. The world would be a very different place. I regularly review all the existing products and ask myself if I would be pleased if all our products were returned. The answer is yes. All the materials in our products are sustainable, easy to reuse and/or to separate after the end of their useful life.

Isn't it more expensive to produce locally?

In the Netherlands, it's mainly the labour that's more expensive. The costs can be compensated by smart production methods. We have an ultramodern factory in Hoogeveen where automation, robotisation and craftsmanship go hand in hand. Materials and machines cost about the same everywhere. Taking out the transport piece offsets the labour costs and saves time. What's more, you know that local production means production under good working conditions.

At VEPA, we don't just make money by selling products. We use our production process to profit from the refurbishment and modification of existing products, including non-VEPA products. Knowledge is the key to success here. Because we design, develop and manufacture products in the Netherlands, we can directly apply our in-house knowledge and experience to create new products: whether making a client-specific product or modifying an existing one.



While working to become more circular, which obstacles do you encounter during the design process and how do you resolve them?

The lack of objective information about the sustainability of raw materials remains a stumbling block. In practice, “facts” often turn out to be pure marketing or mere half-truths. You can only figure this out by doing your own research. Whenever possible, I check with the supplier myself. But a lot of information about processes and materials can also be found objectively via the internet. In addition, it's never desirable to glue or bond components together. You should always be able to separate materials after their use. Coming up with alternative methods can prove difficult and is often more expensive. You have to be able to explain this to clients who purchase your product while not necessarily benefiting at all from this.

Why has VEPA set up collaborations with other furniture manufacturers?

We've joined [INSIDE/INSIDE](#) to jointly achieve sustainability for our products. Applying the same standards as our industry peers facilitates product comparisons. It allows clients to choose products objectively, and you stimulate one another. Scoring lower than your competitor really encourages you to innovate and improve.



At the research lab Green Furniture Circle, everyone contributes case studies and we conduct research into such things as new materials and production techniques. Using this approach, we achieve results in areas that would not be addressed as a stand-alone production company because we're fully committed to producing furniture, not to developing materials and production techniques. For example, felting our upholstery waste resulted in an excellent acoustic mat that absorbs sound far better than the polyether foam we had been using.

What would you like to pass on to other designers?

I think it's critical as a designer to familiarise yourself with the production process: walk into the factory, talk to the employees and understand what's happening around you. This prevents you from designing things that are impossible or difficult to make, such as products that are overly complicated or just not fit for purpose. In my view, a beautiful chair that doesn't sit comfortably and for which no afterlife has been designed doesn't make sense. It just stands abandoned in a corner until it's thrown out.

The distance from origin to end product is increasing. I look at a lot of products and then play a little game, asking myself which products I would be able to repair. You'll be amazed by your findings. Have



you ever tried replacing a light bulb in your car? It's hopeless! But really, we have all kinds of devices that are impossible to repair: TVs, telephones, drills, washing machines, coffee machines, etc. They're no longer designed to be taken apart. We buy them with the sole intention of using them before tossing them out. I once spent six hours replacing a simple slide bearing on a tumble dryer. The whole machine had to be disassembled, and a lot of plastic click connections snap off when you try to remove them. Trying something like this gives you insight and the goal of doing a better job with your own designs. You have to be able to repair products if they break down.

Do you have any tips, tricks, tools or useful websites for other designers?

'Products that last', 'Design of sustainable product life cycles' and the 'Routledge handbook of sustainable product design' are all books every designer should read. I find the storyofstuff.org site to be inspiring. It provides clear and simple explanations for how chains work, where decisions are made and the role that each link plays.



Miquel Ballester Salvà, Fairphone Circular Innovation Lead

The circular designer as a life cycle

coach

"The most sustainable product is the one you don't buy."

Designer Miquel has always been interested in the power of sustainable design. He now views himself more as a coach. Fairphone's modular phones are not only designed and produced according to circular methodologies but are aimed at changing behaviour among consumers and in the industry.



"The circular designer is a life cycle coach who not only deals with the user's customer journey, but also with the life cycle of a product's materials, including the re-use, recycling, and so forth."

Which circular design principles do you apply? And how does this work in practice?

The circular economy often entails looking at the preservation of raw materials, recyclability and the end of a product's useful life. Our guiding principle is an economy that takes account of environmental and social sustainability, namely the people and the working conditions. For Fairphone, this approach has led to the following four design principles:

- *Use eco-friendly materials*
We use materials whose extraction benefits local communities and/or materials that are biobased or recycled. So long as we all continue our patterns of consumption, it will be impossible to use 100% recycled materials. The global demand for materials far outstrips the supply of recycled materials. We will, for example, have to mine increasing amounts of cobalt. We are therefore also working on mining projects that will help the local population develop. Our focus is not on finding the perfect mine – that's a utopia – but on setting up an effective improvement project.
- *Design for the longest possible use*
Our phones are both easy to repair and update; they're worth holding onto. By adding a new back cover, we make the phone feel like new again, and we provide long-term software support and updates.
- *Design for reuse and recycling*
Reusing materials without having to recycle them is ideal because it saves time, energy, CO₂ emissions and money. That's why we use modular design. With modular design, the phone is not only easy to dismantle, but the materials can also be recovered and reused. For each type of material, we carry out research to see how recyclable it is for a second, third and even fourth life.



"So long as we all continue our patterns of consumption, it will be impossible to use 100% recycled materials."

- *Design with respect for good working conditions*
Visit the factory and inquire about the conditions. We partner with our suppliers to improve the salary and employee representation. When you do that, it has a positive knock-on effect on things like working hours. Another advantage of an in-person visit is that you learn how a product is made. I was surprised at what I learned just by asking simple questions like: 'What is easy and what is difficult to assemble?' This always leads to improved designs.

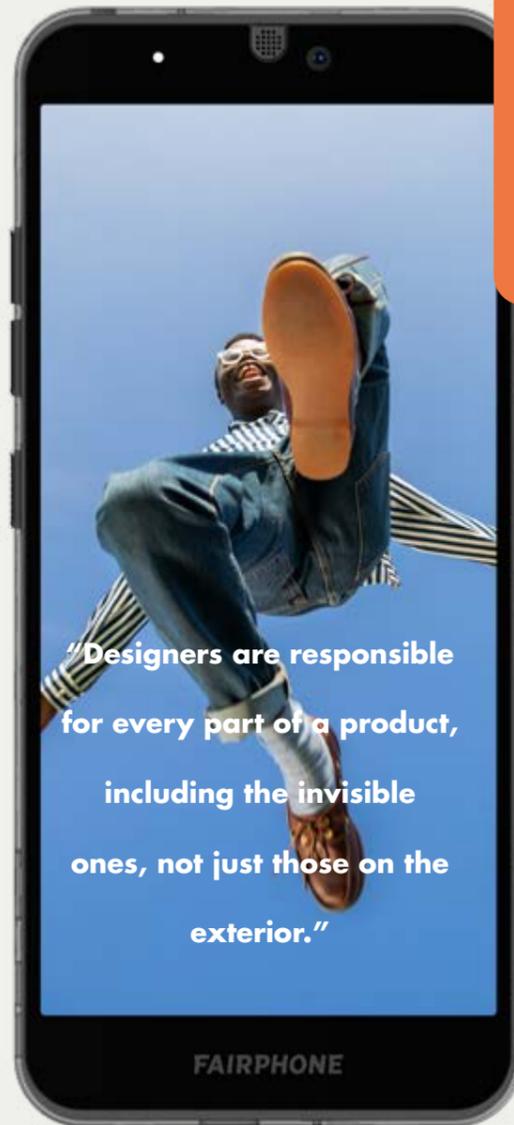


You've done a lot of research into materials: how, why and what has been the benefit?

Together with [The Dragonfly Initiative](#), we've developed criteria for prioritising which of the 38 metals used in a phone we want to take action on to make the chain more sustainable. We've examined how essential the materials are for a Fairphone, how polluting their extraction is and how recyclable the materials are. For example, a significant percentage of the cobalt used in our phones comes from our mining project based in Congo. In the future, we'll increase the percentage of cobalt that's recycled, and we're also working on projects for tin, gold, plastic, etc.

From your perspective, what is the role of the circular designer?

The circular designer is a life cycle coach who not only deals with the user's customer journey, but also with the life cycle of a product's materials, including the re-use, recycling, and so forth. The designer understands the environmental and social consequences of every decision he or she makes about the materials. This means you have to explore the impact of the material extraction, the impact of the production and transport, the lifespan of the product and the options for the materials after their use phase. All of which is relatively easy to figure out through a so-called life cycle analysis (LCA), which lists all these elements so you can make your own assessment. This type of analysis is a powerful tool for designing life cycle strategies. With the aid of this tool, we know that the production of the phone's plastic back cover generates 0.3% in CO₂ emissions. Ordering a new back cover results in a small additional emission, but it makes your phone feel new again, which hopefully stimulates a customer to keep the phone longer. If you use a phone for five years rather than three, you save as much as 30% in CO₂ emissions. Designers are also responsible for every part of a product, including the invisible ones, not just those on the exterior.



Fairphone is building a market for ethical phones while motivating the industry to act more responsibly. It designs, produces and sells smartphones, making the supply chain behind the phone transparent, raising awareness of the most urgent issues, and proving it is possible to do things differently. Fairphone is working to make caring for people and the planet a natural part of doing business.

“Designers are responsible for every part of a product, including the invisible ones, not just those on the exterior.”

FAIRPHONE

Designers no longer focus solely on the first user of their product, but on the end of the product's use period. The end of the useful life should be just as exciting as the beginning. Even when you design for the long term, products age and wear out; it's inevitable. When designing a product, we need to keep in mind both the aging process and the end of its life. The conclusion of the product's useful life should involve an interesting experience, a positive end ritual. This could include dismantling instructions for the customer for better recycling or receiving a gift when you return your product to the supplier.

Finally, a circular designer must also design services. If we truly want to use fewer raw materials, we need to consume less and, as product producers, we need to make the switch to services. After all, the most sustainable product is the one you don't buy. So at Fairphone, we're researching whether it's profitable to offer our phones in a service model, by designing a

more robust phone for instance. This requires a designer to think more strategically and integrally, to take more account of the rest of the organisation and the client, and to design processes while keeping product returns and repairs in mind.

Can you identify a dilemma you've encountered during the design process?

Due to its circular design, our phone emits 12% more CO₂ because it requires additional parts. We compensate for these extra emissions by ensuring the device lasts longer, because it is easier and cheaper to repair. Therefore, the emissions are 30% lower for the entire service life of the product. You have to embrace dilemmas like these, make them explicit and then share them with your customers by telling an honest story.

What are your ambitions for the future?

Our goal is not to create a 100% fair phone, and our ambitions are not limited to developing a phone that's modular, repairable and recyclable. We want to inspire the industry and change it. We typically start with a single supplier with whom we set up innovative improvement projects that can be replicated by the rest of the industry. The aim is for the electronics to last longer, so they will not have such a detrimental effect on our environment.

What tips can you offer other designers?

As a designer, I think the two most important books to read are 'Products that last' and 'Managing Obsolescence'. One interesting tool is the [Ecolizer](#) from OVAM (Openbare Afvalstoffenmaatschappij voor het Vlaamse Gewest). This handy guide for designers contains hundreds of eco-indicators that illustrate the scope of the environmental impact of the materials, treatment processes, transport, energy, recycling and waste processing. The higher the score, the greater the environmental impact.

FAIRPHONE

The life cycle analysis

You can't manage what you can't measure

Globalisation and specialisation have made it increasingly difficult to determine the exact origin of the materials and products you need as a company and under which social and environmental conditions they were produced. For example, how do you find out where the cotton from your product was grown, whether pesticides were used to cultivate it and whether the workers are adequately paid?

There are countless examples of companies that suffered reputational damage after paying insufficient attention to these matters. What's more, companies like Unilever and DSM have noted that their more eco-friendly products also perform better in the market than the 'grey' variant, due to a higher margin and increased growth. Finally, in the future, the polluter will increasingly have to pay more, partly due to the CO₂ tax applied throughout the chain. Investors also recognise this fact and take it into account. See, for example, [the letter from Larry Fink](#) of BlackRock, a global investment manager, to CEOs.

With a chain analysis (life cycle analysis, LCA) you map out the environmental impact of the entire chain of a product or service: from extraction through the end of the product's useful life. The LCA provides directors with the environmental intelligence to introduce better products onto the market and to ascertain whether circular business models are having the desired effect. A shirt, for instance, involves producing cotton, spinning yarn, weaving cloth, transportation and, ultimately, washing and ironing while

the product is still in use, as well as the recycling or incineration of the product once it has been discarded.

It is important that organisations examine the entire life cycle and not just the environmental impact of their own production process. Staying with the example of textiles: companies directly decide on the environmental impact of a product through their choice of design. A wrinkle-free shirt can only be produced using chemical treatment, which requires additional chemicals that impact the environment. However, a wrinkle-free shirt does not require ironing, which saves money during its period of use. Which way does this tip the balance and what decision do you make as a company?

For many companies, the greatest environmental impact takes place at the suppliers or during the use of the products. This impact is usually much greater than the company's 'own' footprint. As a buyer, you have considerable influence over the life cycle impact of the suppliers; as a designer, you can influence the impact of the users. Both buyers and suppliers hold the key to sustainability.



There are various instruments and standards available, such as [ISO 14040/44](#), which you can use to draft a chain analysis (see also in the back of this magazine). In doing so, it is important that everyone plays by the same rules so that if you ask suppliers for a chain analysis, for example, you are able to make an accurate comparison.

[Ecochain](#) provides environmental information on the product and the organisation, which provides managers with the environmental intelligence they need to bring better products onto the market and to determine whether circular business models are having the desired effect.

The buyer

Supply chain management and procurement



Evelien van den Bossche,
KPN Sustainable Procurement Compliance Officer

The power of procurement

"The environmental impact of raw materials,
electricity and water consumption requires
the telecom sector to become more sustainable."

The infrastructure we rely on for endless streaming has a major impact on the environment. According to Evelien, the key to making the telecom sector more sustainable lies in procurement. By incorporating circularity into our procurement policy, KPN is working on major sustainable ambitions.

People often do not view the telecom sector as an industry that significantly impacts the environment. In that context, their minds tend to go to factories with smoking chimneys, not data centres. But we're seeing an exponentially increasing demand for data due to all the music and video streaming as well as meetings that are now held via video conferencing. KPN meets

this demand through data centres full of electronic equipment, towers and thousands of kilometres of underground cables. The environmental impact of all these raw materials and the consumption of electricity and water compels us to reflect and take steps to make the telecom sector more sustainable. KPN's ambition? To reduce our total energy consumption, use more green energy and virtually eliminate our waste.

"Buyers are able to translate the circular ambitions and business strategy for the chain."

What is the buyer's role in circular procurement?

In practice, we've noticed that success is usually achieved by bringing the various parties in the chain into contact. The buyers have a pivotal role here. Given their advisory role, they can discuss circularity within the company and with the external suppliers. The buyers are aware of the social trends and market developments, know their suppliers' circular ambitions and are familiar with the questions and wishes of internal clients. By asking the right, critical questions and actively engaging in conversation, buyers are able to translate the circular ambitions and business strategy for the chain. For us, this has resulted in contracted products that not only meet our financial and technical requirements, but that also contribute to our sustainability ambitions.

What knowledge and information do buyers need to accomplish this?

For training purposes, we sought cooperation with the Dutch procurement knowledge network NEVI and our buyers completed the [ISO 20400 Sustainable Procurement training course](#), among others.

For the most accurate information about suppliers, we use the [EcoVadis](#) CSR assessment. This independent party has collected and verified sustainability information from approximately 50,000 suppliers worldwide. This way, we know whether we're dealing with a sustainable party at the level of the company. The next step is to create material passports for products — the modems, remote controls, transmission towers, but also those grey boxes on the street — so we can measure in detail and improve the (material) composition and environmental impact. These are important steps to boost our circular target for 2025: that 100% of all the parts and raw materials of the consumer equipment network can be reused or recycled.

Our next step is to work in a more data-driven way. To this end, we use publicly accessible data, such as data on the water or air quality of a particular region, as well as data on breaches of the working conditions. These data assist us with the supplier selection. Linking the data with the analyses gives us considerable insight into our sustainable footprint, which can incite us to make other decisions about suppliers. This requires different competencies in a buyer: more advanced 'soft' skills along with the ability to analyse, advise and bring parties together.

Initially, you did not include any strict circular requirements in your contracts for suppliers. How did you address this?

In partnership with our suppliers, we drafted a circular

"We publicly accessible data assist us with the supplier selection."



manifesto. This manifesto highlights our mutual commitment to examining where and how we can increase our sustainability, within what timeframe and which chain partners are needed.

Think of improvements in the reduction, reuse and recycling of materials and energy efficiency. A manifesto like this does not contain strict, unilateral requirements, but it does have firm ambitions, and it ensures that suppliers are willing to collaborate.

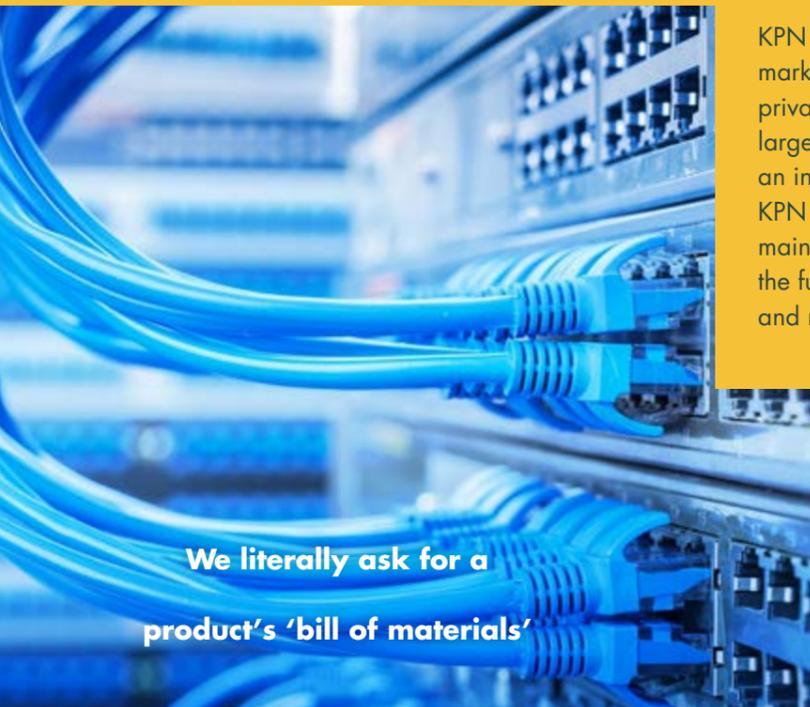
Another thing that helps here is including a research institute in the manifesto, so that the mutual efforts for sustainability remain in the research sphere. Together with the Delft University of Technology, we organise workshops with suppliers from a range of sectors to promote knowledge transfer, which makes the chain more sustainable. KPN is a relatively small party, and this makes it easier for large suppliers to jointly research sustainable solutions under the radar.

To encourage ourselves and the suppliers to put these good intentions into practice, we turned the launch of the manifesto into a press event. This meant we created external pressure that would motivate us to achieve our targets. More and more suppliers are now

able to make circular deliveries and receive product returns. So, we're now ready to include circular requirements in the contracts. As a result of this intensive cooperation among the chain parties, we've already achieved several successes. One example is the latest television receiver and remote control. The cover of the receiver is made of nearly 90% recycled plastic, while the remote control's black underside is 100% recycled plastic. Last year, together with our partner, we reused and/or recycled 76% of all the modems and cable boxes. This not only has a less negative impact on the environment — we have yet to do a precise CO₂ calculation — but it also saves costs because the return and repair process is cheaper than manufacturing a new product.

How have you embedded circularity in the procurement process?

Suppliers who want to work with us must start by meeting our requirements in terms of corporate social responsibility, such as environmental requirements, human and labour rights and sustainability. We've drawn up the CSR requirements together with other telecom parties according to international standards and guidelines from the International Organization for Standardization, the core conventions of the Interna-



We literally ask for a product's 'bill of materials'

KPN is a leading telecommunications IT provider and market leader in the Netherlands. KPN focuses on both private customers and business users, from small to large, and is connecting everything and everyone in an innovative, simple, reliable and sustainable way. KPN is one of the world's greenest companies. To maintain this position, they've set far-reaching goals for the future, as they see it as their duty to use less energy and raw materials.

tional Labour Organisation and the Charter of the United Nations, among others. All of the requirements are in our Supplier Code of Conduct, which suppliers must sign. To get a better feel for the suppliers, we ask them about their environmental policy, whether they measure CO₂ emissions, etc.

It is essential that we understand how circular the products are that we purchase. As part of the tender process, the parties complete a circularity questionnaire including questions about the materials used in the products, how easy it is to repair the products, whether the supplier provides spare parts and the recyclability of the materials. To verify the responses, we literally ask for a product's 'bill of materials'. In addition, we ask questions about the product's life cycle. We want to postpone the end of a product's useful life for as long as possible, or preferably prevent it. But at some point, for example, a modem becomes outdated and is returned to us. Before we enter into business with a supplier, we ask about their return policy and have them report their figures for what has actually been returned and recycled. This allows us to be reasonably sure that everything we return is actually reused or recycled, instead of being tossed onto the rubbish pile. Finally, we ask suppliers questions about their energy consumption and the energy efficiency of their equipment. The answers to all the questions are converted into a circular score, and we can enter into a relationship with the supplier if the score is sufficiently high. This process is not yet automatic. For each project, a steering committee carefully weighs the

qualitative and quantitative score and the underlying evidence.

How can you be sure your suppliers are actually meeting the standards and requirements?

We've joined forces with several international telecoms in the [Joint Audit Cooperation](#), a partnership in which we jointly audit suppliers. On behalf of our competitors, we perform sustainability audits on our shared suppliers and vice versa. This enables us to further enhance our impact. In this context, we also exchange knowledge and experience in the field of corporate social responsibility and collaborate with groups like the Ellen MacArthur Foundation, the ISO and the ITU sector association to make the chain more sustainable. Together, we've crafted a set of criteria for sustainable telecom tenders. These criteria provide clarity for telecom suppliers worldwide and, as far as we're concerned, they will become the global standard.

What obstacles do you run into during the procurement process while working to become more circular?

We need to evolve from a linear to a circular model. This requires the cooperation of all the parties in the chain, which is a challenge. But this is particularly helpful for gaining a better understanding of where all raw materials and parts come from. Rather than talking to each individual supplier, it's important that everyone shares their knowledge and experiences in order to jointly develop more sustainable solutions throughout the chain.



Lise Hordijk, Bugaboo Sustainability Manager

Keep on moving and improving

"We opt for long-term collaborations and the lowest possible footprint."

Together with Bugaboo's buyers, Lise is making every effort to reduce the company's social and ecological impact. The biggest difference stands to be made with the procurement of production materials. So Bugaboo has high standards for this process when it comes to quality, sustainability and working conditions. Suppliers must continue to challenge themselves. You won't succeed without that drive for innovation and sustainability.

"The conversation goes beyond questions about roof-based solar panels."



Why is sustainability important for Bugaboo?

The qualitative and social production aspects have always been important. In recent years, the focus has shifted to ecology because we can now see even more clearly around us the impact we have on the world. That's why the product designer opts for materials with the lowest possible impact, and the buyer looks for the most sustainable supplier.

As a buyer, how do you select the most sustainable suppliers?

The buyer enters into a dialogue with suppliers based on the designer's overview of materials and our sustainability checklist. This checklist is based on the Ten Principles of the United Nations Global Compact and the guidelines from [the Higg Index](#). We review the quality of the materials and examine issues such as working conditions, energy consumption and options, waste processing, water consumption, CO₂ emissions and so forth. The conversation goes beyond questions about roof-based solar panels. We really want to know how the materials are developed and how the company will produce increasingly sustainable materials. This provides an impression of the company's vision and their drive for innovation and sustainability, but it also arms us with input to take back to the designers who, for example, may not yet be familiar with a new type of material.

We've calculated the footprint of all our products and materials using the Delft University of Technology's online database [Eco Costs Value](#). Our focus is mainly on material suppliers with the highest footprint, because that's where the greatest chance lies for achieving

environmental gains through innovation. Fortunately, we see that suppliers who have premium materials are typically also the most sustainable and that the rest of the suppliers are receptive to our questions.

To optimise the procurement process, buyers incorporate environmental impact data from areas such as logistics and (reusable) packaging into the life cycle analysis previously carried out by the designer and product developer for a particular product. We do not purchase materials based on price alone; instead we try to strike a balance between price, quality and sustainability.

Does the approach differ between office and production procurement?

For both types of procurement, we opt for long-term collaboration and the lowest possible footprint. We can make the biggest difference in production procurement because of the higher volumes, the higher footprint of the materials we purchase and because suppliers in non-Western countries can often improve even more than those in the Netherlands, for example. We know that the working conditions here are in order, whereas forced labour still exists in China, where environmental requirements are less stringent. We believe we're responsible for the impact we make elsewhere in the world.

For our office procurement, we request CO₂ reports and include a sustainability clause in contracts for the entire chain in which we set out what we, as a company, value with regard to sustainability. This applies whether we're purchasing fruit for our office or selecting logistics partners. As a buyer, you're tasked with translating the company's strategy into practical purchasing conditions. We are still figuring out the kind of company we want to be and how far we're willing and able to go. On a practical level, that makes it difficult for us to set priorities. Due to changes in management, it has sometimes been difficult to prioritise sustainability projects. We're currently sharpening our sustainability strategy so that we have the right focus and direction.

The [Green House Gas Protocol](#) gives us insight into the amount of CO₂ our company emits. At present,

we're working with the [Science-Based Targets Initiative \(SBTi\)](#) on other numerical reduction targets. These targets are also being transferred to the procurement process. Our largest footprint happens to be in our scope 3 — value chain emissions — where significant reduction can be achieved through procurement.

How can you be sure that a supplier is actually sustainable?

We have two local teams, for product quality and supplier quality, that verify the supplier's sustainability through telephone conversations or on-site audits. And these teams do this for our factory in China as well as for our suppliers. Should the supplier not meet the requirements — we had a case where employees' passports were confiscated and staff were being forced to work overtime — we enter into discussions, make agreements on improvements and pay multiple visits for monitoring purposes in the short term. The ultimate consequence would be to terminate the cooperation.

Sometimes, you may have to adapt your product. We were very eager to work with a recycled polyester and had a supplier who scored well on all points. Unfortunately, the quality of the raw material proved inadequate, and a lot of the polyester that had already entered the production phase ended up as waste. So, even with the best of intentions, you might have to source another supplier or use a different raw material, depending on the nature of the problem.

"It's important to take the time to research which tool provides the information your organisation can use to improve and not just obtain certification."



Bugaboo has been at the forefront of stroller innovation and continues to invent, develop, test and manufacture products that combine beautiful design with long-lasting functionality and sustainability.

tor. However, platforms such as Blue Sign, Fair Wear Foundation, the Bangladesh Accord and Roadmap to Zero were too specific for our objectives. The Higg Index of the Sustainable Apparel Coalition proved widely applicable, including for our suppliers that are not part of the textile industry. The organisation behind the index is undergoing considerable development, actively sharing knowledge with all its members about things like the EU's 'The Green Deal' as well as new legislation and regulations, and generally keeping us on our toes.

We joined the coalition in 2017 after having completed a full year of research. We perform an annual self-assessment and, now that we've gathered data for several years, we can finally implement improvements.

You use the Higg Index to measure the sustainability of the suppliers. How does that work?

To continuously monitor ourselves and our suppliers, we use an audit platform. Since 2017, Bugaboo has been a member of the Sustainable Apparel Coalition, whose participants aim to measure and improve the social and environmental aspects of their company. We also use the Higg Index, the audit platform developed by the Sustainable Apparel Coalition. In particular, we use the Facilities Environmental Module and the Facilities Social & Labour Module. Along with our suppliers, we're asked to supply data on such aspects as our waste management and energy consumption, but also on our working hours and safety provisions. The data are subsequently verified by an independent third party, such as TÜV Nederland or SGS. We use the data to identify and capitalise on opportunities to make improvements. At our own factory, we discovered that we need to collect better data and set better targets to achieve more sustainable water consumption. Our suppliers will soon be audited, and then we'll be able to use the verified data to make more improvements there as well.

Have did you choose an audit platform?

There are numerous existing initiatives and certifications, so it's important to take the time to research which tool provides the information your organisation can use to improve and not just obtain certification. We began by looking for a platform that would make our entire supply chain transparent. In doing so, we take responsibility for more than just making our own suppliers more sustainable.

We were unable to find a suitable platform in our own sector, which prompted us to look within the textile sec-

Why is a long-term relationship with suppliers important for sustainability?

Because change takes time. You can achieve far more as a company by entering into long-term partnerships, which make it valuable to dialogue about adjustments that will make the process more sustainable. For instance, after consulting with a supplier, we replaced the disposable packaging for our parts with reusable crates. That saves a mountain of plastic. Moreover, long-term relationships also foster trust and increase transparency. That's important when you want to monitor sustainability by, for example, using an audit platform and requesting data from your suppliers, like we do with the Higg Index.

My tips to colleagues?

For inspiration and guidance, I recommend visiting the websites of the [UN Global Impact](#), the [Science Based Targets Initiative](#) and the [Green House Gas Protocol](#).



Rapid Circular Contracting

From CONTRACT management to CONTACT management

With the Rapid Circular Contracting (RCC) procurement method, the most suitable (coalition of) suppliers enter into a partnership during the initial phase of a tender. As a result, the best solutions can be developed, realised and operationalised, in close consultation, after awarding the tender. The tender is awarded on the basis of a programme of ambitions rather than a programme of requirements, thereby giving the tendering parties room to profile themselves in terms of their craftsmanship, capacity

for innovation and circularity. The principal and the contractor then collaborate on solutions, and this alternative contract process ensures there is room to continue to learn, innovate and improve while the project is still underway. Unexpected stumbling blocks, such as PFAS (per- and polyfluoroalkyl substances) and the nitrogen dossier, can be resolved together. With the RCC approach, we are therefore no longer concerned about 'contract management', but rather 'contact management'.

Rapid Circular Contracting in a nutshell

1 Procurement is a powerful tool for attaining sustainable objectives; the SGDs (sustainable development goals) can help in the selection of a sustainable partner.

Ensure room for development and innovation in your contract

2 The buyer does not need to have all the knowledge, selecting instead the most appropriate and suitable (coalition of) partner(s).

3 The buyer creates professional scope for co-creation: learning from each other and taking mutual responsibility for developing and deploying solutions.

4 The buyer does not take on the role of an expert: he or she creates space for professionals to distinguish themselves in terms of their expertise and capacity for innovation.

Steek in op contactmanagement in plaats van contractbeheer

5 De inkoper koopt in op basis van ambities en niet op basis van een (te) strak programma van eisen waardoor innovatie mogelijk is;

6 De inkoper maakt impact inzichtelijk zonder van tevoren alles te kwantificeren, dat leidt tot de beste innovaties en hoogwaardige resultaten;

7 De inkoper biedt samenwerkingsmiddelen zoals afwegingsprincipes in plaats van lijsten met regels en voorschriften.

Rapid Impact Contracting process



Co-creation: Rapid Impact Contracting



The marketer

Business development, sales and marketing



Charlotte Adriana Mostert, Philips Global Business
Market Manager of Circular Equipment

The future is refurbished

"It's up to us, the marketing professionals,
to change the mindset of our customers."

Thanks to her colleagues at Philips, Charlotte has learned that innovation does not automatically mean new. Working with the marketing team, she coaxes customers into the world of circular economy in health care. By opting to purchase refurbished equipment, hospitals not only save on indispensable costs, they also drastically reduce their footprint.

My colleagues were working passionately on the transition to a circular economy and helped me understand what a wonderful challenge the refurbishing process is. I've now become just as passionate! This is really how we should work in the future; this is where the real innovation lies. And I see how it can help the care sector.

The care sector has to do more with less budget. By opting for our circular propositions — e.g. leasing a refurbished CT scanner instead of buying a new one — a hospital will save money while using scarce resources far more efficiently because refurbished parts have a much longer life. Circularity contributes to affordable health care thanks to the more efficient use of the available products. But there's no doubt that it's also the right choice for our planet because the raw materials can remain in circulation longer.

How do you promote a circular economy in your daily work?

In concrete terms, we're collaborating with clients and a multidisciplinary Philips team on 'closing the loop': an initiative to use all materials as effectively and responsibly as possible. Actively approaching customers with favourable propositions will mean far more materials can be returned to us that we can then put to use in a new product life cycle.

We help our customers spot and seize new business opportunities that ultimately result in cost savings and smarter handling of raw materials and inventory. Our marketing team creates effective instruments that help

us explain these opportunities to our customers. These instruments include presentation materials on the circular economy in health care, a digital 3D tool that fully explains the refurbishment process and stories from customers who use our refurbished solutions.

Why do you see it as your task to proactively inform customers, even if they're not inquiring about sustainability?

Firstly, it's our task because we have clear circular targets at Philips — by 2020, 15% of all our revenue must come from circular business models and, by 2025, all our large (medical) devices must be retrievable for reuse. And secondly, we believe in the benefits of sustainability for our customers and society at large. The service model is the only way to preserve the value of raw materials. Philips is aiming to make its operations CO₂-neutral and to obtain all of its electricity from 100% renewable sources by the end of 2020 and we want to recycle 90% of our industrial waste this year. To accomplish this goal, it's important that we demonstrate the benefits of this approach using concrete examples.

Refurbished products are often thought to be lower quality than new ones. How do you tackle this as marketing professionals?

While persistent, that impression is wrong, particularly in Africa and Asia where the West used to dump a lot of discarded items. It's up to us as marketing professionals to change the mindset of our customers. Our refurbished systems differ from regular second-hand systems in that every single part is tested, they are entirely tailor-made to the customer's specifications and they come with a new warranty, which eliminates the risks for the customer. We show that there are refurbished solutions that have the same



“It's a common misconception that refurbished items are inferior in quality.”

“The second-hand market is a hotbed for innovation, and the marketing professional is the driving force.”

quality as new products. It's a common misconception that refurbished items are inferior in quality. That's why our programme slogan is 'Rethink what new means'. For this programme, we work closely with hospitals who then show others that refurbished systems perform just as well in practice. We're also looking to collaborate with researchers who use our renovated equipment for their high-level research. After all, it's the technical functionality of the devices that's at stake. In this way, we try to change people's preconceptions about refurbished products.

When do you propose refurbished equipment?

Our refurbished systems occupy an integral role in the portfolio. We work with our customers to find the solution that meets their clinical, operational and financial

needs. We then research whether a circular model is feasible. During this process, the health care facility essentially becomes our partner, and we benefit equally from the solutions. Potential solutions could be a 'pay-per-scan' model, including trade-in systems with guaranteed reimbursement, structured upgrades and refurbished products that are as good as new, but at a lower price point.

The margin can be lower for such proposals, but because we have specific KPIs for circular turnover, it's still an important objective for us. Moreover, this kind of proposal is future-proof. Both parties benefit from the partnership, and we prefer to build long-term relationships with our customers rather than opting for a one-off sale that has a higher margin. ▶



Headquartered in the Netherlands, Philips is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as consumer health and home care. Its products range from MRI scanners to hair dryers.

rate on circular solutions, such as how to arrange our service so that we can respond more quickly when one of our systems at a hospital requires repair.

As marketing professionals, how and why do you map out the entire chain?

We do this using a circular design process that we created along with a multidisciplinary team of marketing, sales and design professionals, business leaders and production managers. It functions as a blueprint for all our future projects. For this process, we first conduct dozens of in-depth interviews to gain a better understanding of the entire chain of goods and services. We then identify both the circular gaps and the opportunities. We map out where there is a loss of value in the data systems, goods logistics or downcycling, for example. This process also provides the life cycle experience flow that includes all the instances when non-medical personnel deal with a device, which gives us useful insights for future circular design. If marketing professionals are interested in this, they should feel free to contact me.

Can you name a product in which you, as a marketing professional, played a role to make its design more circular?

The modular design of our ultrasound system. This system now has a longer lifespan and can be upgraded with a minimal amount of materials. Due to the modular design, it's easier to refurbish or replace the various parts and components. On average, this system is comparable to a laptop. The hardware it uses becomes outdated at some point and requires an upgrade to meet the high technological software requirements. The remaining 90% of the components can be reused, provided the material for this has been developed. We managed to achieve that and now it's (partly) up to us to establish a successful circular user model for this.



What do you see as the role and qualities of marketing professionals in the circular economy?

The role of the marketing professional is to inform customers and establish partnerships. Besides creating sustainable awareness and demonstrating the financial benefits of circularity in the short term, it's also important over the long term to measure and explain the impact of circular business models. This can be explained in terms of the environment, the people, the materials used, the customers or the suppliers with whom we work. The more transparent we can be in mapping out the impact of the circular business models and the better we can explain this impact, the faster the transition will be made.

That's why the circular marketing professional needs particular qualities. Above all, a marketing professional is someone who's incredibly curious. And he or she must have advanced problem-solving skills and technical knowledge about such aspects as the use of materials and logistics processes to feed R&D and to make the product roadmap more circular. The marketing professional is also a networker and initiator who can implement improvement projects while drumming up support at every level of the organisation.

For example, we organise co-creation sessions with customers, the sales department and R&D to collabo-

"The circular marketing professional needs particular qualities and different skills."



Bram van der Sanden, Marketing Manager of Mitsubishi Elevator Europe

How to market a circular alternative

"As marketing professionals, we're good at getting people on board."

Is selling a circular alternative in a sector where customers base their choice mainly on price simply a pipe dream? Not for Mitsubishi Elevator Europe. Marketing professional Bram van der Sanden gives potential customers new insights and demonstrates how a circular lift is actually more profitable in the long term. This is sustainable for the environment and good for the budget.



“Circularity distinguishes us from competitors.”

As a marketing professional, what drives you personally?

I don't believe in an economy that can only function through growth expressed in monetary terms. Certainly not given the rapid global population growth and the resulting patterns of consumption. My motivation in life is to contribute as best I can to a more sustainable society and associated economy. In my own life, this means making conscious decisions, such as flying less, changing my consumption habits and following a vegetarian diet. In terms of my work this means, among other things, helping raise awareness among our stakeholders (e.g. fellow employees and clients) through marketing communications and establishing new business models that are geared towards circularity.

How did you begin working with the circular economy at Mitsubishi Electric?

In 2013, our lift sales were flagging. The most common lifts that were sold then (and now) were inexpensive models with a short lifespan and a high turnover rate. Suppliers make money on after sales: repairs and parts sales. Though our lifts are more expensive, their high quality means they're cheaper over the length of the product life cycle. For the vast majority of buyers in the market, the lowest purchase price is the decisive factor, yet we didn't want to compromise on our quality. All this meant a new proposition was needed. Together with our managing director, sales manager and lead engineer in R&D, I – as the marketing manager – began to devise a new proposition. In those days, we didn't know much about the circular economy but we learned as we went along. During this process, we learned that we could derive greater value from our

higher quality by applying circular strategies. And not only for ourselves, but also for our customers and the environment. So circularity also distinguishes us from competitors.



At our company, the whole process began with the [True Value Case Study](#) we carried out in partnership with KPMG. Together, we calculated the true value impact – i.e. the use of materials, CO₂ emissions, logistics process and usage – of a standard lift and compared this with the use of our lift over a thirty-year period. This study demonstrated that our lifts had fewer malfunctions, for example, but also that a smarter design for reassembly and shorter logistics processes offered prospects in terms of the environmental impact and more efficient maintenance. Next, we prioritised these opportunities and linked them to several strategic projects, such as designing for reassembly or the option to relocate our production facilities. As the marketing manager, I took the lead on this project: from the cooperation agreements with KPMG and the other parties involved to the data analysis and design of the report. In addition, we focused on making the components transparent at the level of materials. We did this initially with Life Cycle Analyses and for the past two or three years, we've also been using material passports that indicate precisely which materials our products contain. I worked with our managing director to set up this collaboration.

What did you settle on as your circular proposition?

Our new proposition was M-Use®. We've advanced the development of this lift to such an extent that it will last at least twice as long as the average lift. The user pays annually for its use, i.e. for the number of vertical movements. For that amount, we provide the brand-new lift, assembly, all the maintenance, lift inspections by third parties and even repairs in case of vandalism. We make an estimate of the expected lift usage and, at year-end, the customer either gets money back or pays an additional amount, depending on the actual usage. It's the same as your energy bill. We retain ownership of the lift. We deduct the residual value of the lift, particularly the steel, from the purchase price and, over time, re-introduce it into our production process. And we pass on these lower costs to our customers. Taking all these costs into account, throughout

the usage phase, ensures that we can now compete on price in a customer's procurement process.

What is your role as a marketing professional in informing customers about the circular option, even if they don't ask about it themselves?

We view it as our duty to raise our customers' awareness about the raw materials we consume, but we're also a commercial company that can only survive by making a profit. Still, that does not relieve us of our responsibility to make conscious decisions in this area. Nor are we saints when it comes to this, because the shareholders' interests also weigh heavily in our boardrooms, but we also do our best to take the long view within a changing world in which climate change and scarcity of materials are a given. The vast majority of our customers still just want to have the most affordable lift at the time of purchase. Sustainability may be that final push that encourages customers to choose our company. So as marketing professionals, we've thought about why it's more beneficial for all our stakeholders to use our lift instead of buying it: [the developer](#) of the building where the lift will be installed has no initial investment, [the contractor](#) no longer has to buy the lift and, for housing corporations and other [building owners](#) like investors, the service costs they charge per square metre are lower. We've targeted our communications with all these stakeholders to ensure that, from the perspective of their own interests, they're open to the impact on the larger system. Our proposition was not the result of endless considerations before finally discussing it with our customers. Instead, we approached our customers with the idea of offering them a circular service and presented the idea to those who highly value the circular economy. We further designed the lift with Delta Development, and shared data with them in good faith. We provided information about the costs and margins of the lifespan of a lift, lift usage, maintenance methods, the risk of components malfunctioning and so on. In short, we developed the

“We've thought about why it's more beneficial for all our stakeholders to use our lift instead of buying it.”





Mitsubishi Elevator Europe is specialised in offering high-quality elevators and escalators as well as related services (i.e. maintenance and modernisations). Mitsubishi Elevator Europe is part of the Mitsubishi Electric Group, which, in turn, is part of the Japanese Mitsubishi conglomerate.

“I don’t believe in an economy that can only function through growth expressed in monetary terms.”

model of a circular lift together with partners throughout the chain. We also worked with ABN AMRO and BAM to see how a circular lift might work for them. Success depends on finding partners you can trust and who return that trust and starting with clients who share the same values.

Within your own organisation, what is your role as marketing professional in advancing the circular economy?

I believe that ‘External success starts internally.’ You can only propagate something after you have experienced it internally. That certainly applies to the circular economy. The circular economy requires a different culture; people need to learn to think in systems. When it comes to the external piece, we marketing professionals excel at bringing people on board. We need to do a good job of that within our own organisation as well.

What helped us tremendously were the breakfast sessions we organised as a marketing department. Everyone attended, from the factory employees to the directors. And under the heading of ‘continuous improvement and innovation’, we’ve repeatedly invited external speakers. This has not only helped us to persuade everyone to get on the same page, but has also really helped us improve our products. It’s been a fun way to interact dynamically and to come into contact with others. It has also led to extensive participation from people from the factory. You could see that they immediately got to work figuring out how they could reuse more, avoid or better exploit residual flows and adapt production processes.

I think that, as a marketing professional, your job entails more than just communications or market research. You also need to do a lot more with innovative business development. This means you have to collaborate with different disciplines: external customers and stakeholders and of course salespeople, buyers and internal R&D. Our marketing and communications express a more **holistic message**. We emphasise systems thinking and make connections between sustainability and the greater business story. We’re also transparent

and clear about what exactly we’re doing about recycling and reuse, and their impact. Along with sales, the marketing professional acts as the eyes and ears in the field for the customer’s (circular) wishes. You have to actively gather this information. We regularly hold multidisciplinary meetings with various departments to incorporate the requests for circularity into our innovations. For years, I didn’t know much about the technical product and the process. But in order to properly do your job as a circular marketing professional, you need to know a lot more about the entire chain. That begins with talking extensively to your colleagues and customers.

Selling a service over its entire life cycle instead of a one-off product is truly a different profession. You have to think from a systems perspective and link wide-ranging interests. In this capacity, an M-Use® salesperson must therefore not only be able to tell his or her story about a lift, but must also be able to discuss circularity including the legal or financial aspects. This demands far more diverse knowledge. We have therefore worked with various commercial disciplines to ensure that the customer journey and the associated tone-of-voice and tools are correct.

As a marketing professional, how can you ensure that circularity becomes a business strategy and not just a marketing strategy?

At the World Economic Forum 2018 in Davos, our company officially committed to the tough objectives in the circular field by signing the **PACE pledge**. The Platform for Accelerating the Circular Economy initiative is co-sponsored by ASML, Cisco, HP Inc., Dell, KPN, Vanderlande and Philips. We’re committed to the goal of achieving 50% of our income from M-Use lifts in the Benelux region by 2021. This objective means that a significant portion of our company will only offer circular lifts. In addition, we want to be able to close the loop entirely by 2021. We’ll ensure the

responsible 100% recycling and/or reuse of all the components in the returned M-Use lifts. These measures will ensure that the circular economy is a serious business strategy.

How do you ensure that the (sustainable) marketing claims are valid?

By continuing to innovate, making them tangible and communicating clearly. You need to honestly show where you’re at in the process, what you still need to achieve and how you will continue to innovate. We often also say, ‘This is a first step for us, but we can do much more.’ We are currently working on six of the ten R’s (reduce, reuse, recycle, etc.). We need to achieve 100% circularity. In my opinion, you should not make claims if you’re not actually serious about the circular economy.

How can marketing professionals get started within their marketing role? Embrace your multidisciplinary and connecting role. So make sure you also participate actively in business development. Focus on a sensible and cohesive message. Too many marketing statements focus on form but are meaningless in terms of their content. Focus on the facts and make the message tangible, with figures included. Underpin sustainability with clear figures and be honest about where you are and where you’re going, even if it’s sometimes stressful.

“In order to properly do your job as a circular marketing professional, you need to know a lot about the entire chain.”





Wouter Reedijk, Marketing Professional at Sympany

Building a better world together

“The circular economy is all about innovation. This innovation may require time and money now, but this is where our future opportunities lie.”

Inter-chain cooperation is vital in a circular economy, especially in a sector as polluting as the textile industry. That’s why Sympany marketing professional Wouter Reedijk firmly believes in the power of collaboration. Alongside the communication tasks inherent to his role, he’s also involved in data management and setting up collaborations to make the clothing industry more circular.

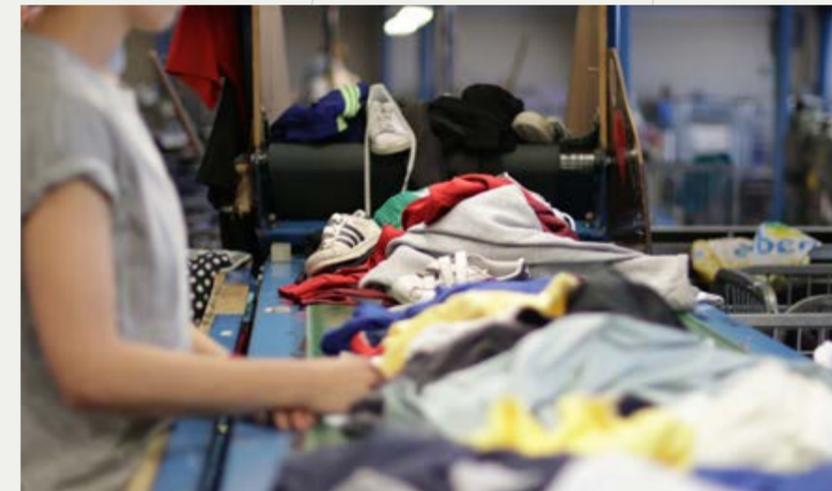
What is Sympany’s role in the circular economy?

We collect textiles in order to repurpose them. We sell the good quality clothing so it can continue to be worn. After reducing consumption, this is still the most sustainable option in the product life cycle. Approximately 70 to 80% of what we take in is suitable for second-hand shops in countries located in Eastern Europe and Africa, for example. 20% is recycled before being used as insulation material or cleaning rags.

We invest our profits in innovations that make the textile chain more circular. One example is making new yarn from old cotton. These innovations are desperately needed, both for the chain and for us. The textile industry is highly polluting, and the quality of the textiles we collect is declining sharply. Clothing is practically no longer wearable after just one wash. As a result, the quantity of reusable textiles is becoming ever smaller and the number of kilograms we have to recycle is increasing. All this while there are only a few ways to solve this on a large scale. That literally puts pressure on our revenue model. And sales are also lacking. In order to achieve a circular economy, the links in the chain must be prepared to invest in and pay for recycling.

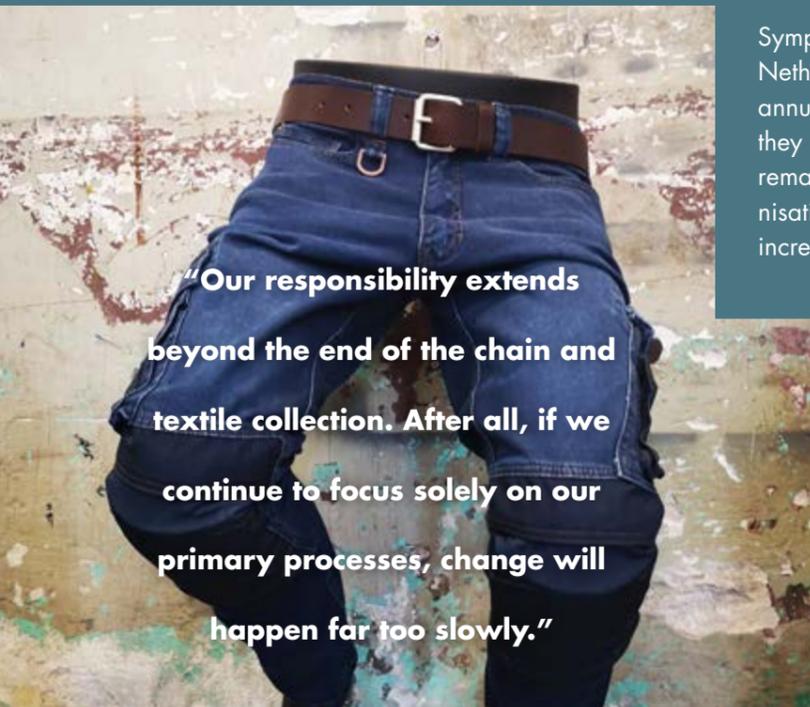
What role do you play in your own organisation to advance the circular economy?

I’m involved in more than just communications and data management. I’m also always on the lookout for opportunities for inter-chain collaboration, because that’s the only thing that will make the circular economy viable. I do this externally but certainly also internally, through innovation, communication and sales. All this helps ensure we can keep our own business up



and running. I sometimes feel like a kind of connection agent between the departments. As a marketing professional, you have to bring the outside world in, identify trends and help the organisation change with the times. We can’t keep doing what we’ve always done. We need to invest and innovate to make the textile chain more circular and to capitalise on our own business opportunities arising from circularity.

Every organisation has conventional thinkers who want to continue doing things the way they’ve always been done, assuming that the money will continue to flow. As a marketing professional, I try to bring people closer together internally. The circular economy is all about innovation. This innovation may require time and money now, but this is where our future opportunities lie. I try to show people that higher purpose. But this takes baby steps. Rather than focusing on the sale of a product, I focus on our company’s vision. Textiles are widely considered to be an environmentally harm- ▶



“Our responsibility extends beyond the end of the chain and textile collection. After all, if we continue to focus solely on our primary processes, change will happen far too slowly.”

Sympany is one of the largest textile collectors in the Netherlands, amassing 25 million kilos of textiles annually. Sympany’s aim is to repurpose all the textiles they take in. The reusable textiles are sold, and the remaining materials are recycled. As a non-profit organisation, Sympany invests its turnover in innovation to increase the circularity of the textile chain.

up to take responsibility, the textile industry alone will account for 25% of global CO₂ emissions by 2050.

How do you ensure that your marketing communications are valid?

We do everything we can to have a transparent chain. We accomplish by supplying reliable figures and engaging independent research parties. We’re also transparent about what we can improve in our chain and our role in that. Show your entire chain to all of your stakeholders and have the courage to think beyond your own context. I think you have to be honest and say, ‘as a company, we can’t yet be 100% sustainable, but we’re striving towards that in the following ways.’ If only 1% of your business is sustainable, and you flaunt that without a clear strategy to increase it, you’re really just greenwashing. As a company, you have to raise your ambitions. As marketing professionals, I think we should aim for more than just higher sales figures. We need to think about the added value we can offer our environment, and that will make the difference.

Where did you learn about circularity?

I studied Media & Communications, so I didn’t learn anything about the circular economy during my studies. I’ve been working at Sympany for eighteen months, and I already know a lot about this subject. If you think and act with the circular economy in mind, you automatically gain allies. Find the people inside and outside your organisation who share your values about sustainability. To use another marketing term, look for the ‘early adaptors’. That will propel you forward; the rest will follow. You can learn a great deal by talking to people and getting to know the processes. I’m curious about people, and I have an open mind. I’m not even sure exactly how I acquired my knowledge. Through extensive reading and listening, I secretly developed a passion for this subject.



ful raw material. We play an important role in the chain and feel responsible for bringing about change.

What role do you adopt outside your organisation to help advance the circular economy?

In the Netherlands alone, 145 million kilograms of textiles are discarded each year. Approximately 65% of these textiles are suitable for recycling. We can’t solve the waste problem on our own, so we seek out cooperation with other parties. These include municipalities who don’t just want to get rid of their textiles but also help ensure their citizens’ textiles don’t end up in bulky waste. We see ourselves as more than a ‘textile collector’. We also make municipalities aware that we want to close the textile loop and invite them to participate in this endeavour. We inform them about the polluting textile chain and, using data, show them how the entire chain works. Our efforts include independent research into producer responsibility. It’s my job to support my colleagues in relationship management to get this story across to the municipalities we work for.

Our responsibility extends beyond the end of the chain and textile collection. After all, if we continue to focus solely on our primary processes, change will happen far too slowly. So, despite our limited sphere of influence, we also want to motivate other parties in the chain to work together to improve recycling. Another option we’re considering involves motivating consumers with tips on how to use textiles for longer and to make more conscious purchases, possibly through podcasts. Unless everyone in the chain steps

How to integrate circularity into your brand

Marketers fulfil a vital role in the transition to the circular economy because they identify societal challenges while inspiring customers and colleagues alike to take responsibility. Heldergrøen explains how circular marketers can make a difference.

Begin inside, then win outside

The circular economy is forcing organisations to change. To get everyone in the internal organisation involved with your purpose - from the C-suite to operations - relay inspiring opportunities and stories and then turn your attention to the customer.

Three tips on how to facilitate the process

- Listen to everyone, acknowledge any cold feet, make an inventory and then fulfil people’s needs. Engage and activate people using internal campaigns, workshops or even games.
- Embed your brand manifesto within the organisation and incorporate it in your strategy
- Say what you do, do what you say.

Make a start, then build the ideal world

Fostering a strong purpose begins with identifying what your brand has to offer society. See where you can make a contribution. Explore how you can help your customers make commitments and conduct more sustainable trade. Establishing an ambitious and recognisable purpose will lead to precisely the right engagement with everyone.

Three tips on how to inspire your stakeholders

- A brand manifesto that has achievable steps creates a strong foundation for communication.
- Make sure that every marketing decision aligns with this purpose and developer marketing communications made of sustainable raw materials.
- Collaborate with chain partners and other sustainable brands. See also: circulairondernemen.nl.

Quantify progress in an inspiring way

You should measure whether you’re on course quantitatively, but this should also be inspiring and tangible.

Two examples of progress quantification

- Your impact should be both accessible and recognisable to people. For example, don’t talk about an x-percent decline in emissions. Tell us how many hours of showering these savings represent.
- Make your impact transparent and show what remains to be done. This way, you will highlight your ambitions, promote trust and encourage yourself to brainstorm with others.

Don’t be scared, be prepared

When your story makes sense, you don’t have to defend yourself. You only have to explain the details. On the other hand, it’s good to be receptive to making improvements. Listen to critical questions and use them to fine-tune your ambition.

Three questions you can expect

- ‘It’s great that part X is circular. But what about the rest of the chain, and what evidence do you have to prove this?’
- ‘How is your sales price structured?’
- ‘How and by whom is the certification verified?’



Want to know more? [Book an Ideal World session.](#)

Further reading and study

Publications, websites, tools and training courses.



General information



Material Matters
Thomas Rau & Sabine Oberhuber

📖 A must read when you are, or will be, delving deeper into the circular economy. Compact and clearly written, this book explains what the circular economy actually involves.



Impact Nation
ABN AMRO, Circl, Impact Hub, TNW

🎓 A [matchmaking programme](#) for sustainable innovation aimed at medium-sized and large companies. Impact Nation helps companies define the challenges and opportunities of sustainability and locate partners who can offer innovative solutions.



Circular Transition Indicators
World Business Council for Sustainable Development

⚙️ A report and tool to measure circularity consistently.



Circulytics
Ellen MacArthur Foundation

⚙️ This comprehensive circularity [measurement tool](#) goes beyond materials and products to show how far your circular economy has already been implemented into your business operations. You can take this measurement annually to see how far you've progressed.



Circle Economy - the writers responsible for the Circularity Gap Report, among others
Circle Economy

🌐 This website contains groundbreaking reports and [case studies](#) as well as a [database](#) with many practical examples.



Circular Economy: An Introduction
Delft University of Technology, Ellen MacArthur Foundation, Leiden-Delft-Erasmus Centre for Sustainability.

🎓 In this [free online course](#), you'll learn how your company can create value through reuse and recycling, which solutions you can apply as a business developer and designer, and how to contribute to the circular economy as a professional.



The Donut Economy
Kate Raworth

📖 In ['The Donut Economy'](#), economist Kate Raworth shows how mainstream economic thinking has led us astray. Raworth draws the roadmap that can lead us to the point where, thanks to an alternative and innovative economic model for the 21st century, everyone's needs can be met without compromising our planet.

Procurement



Circular IQ

⚙️ A [platform](#) that helps optimise the procurement processes through smarter data collection, reporting and analysis.



GSES System
Global Sustainable Enterprise System

⚙️ The [GSE-system](#) makes pragmatic use of standards, monitoring and certification tools and meta-data for companies so they can begin their journey towards responsible procurement and greater waste reduction.



PRP e-Procurement Rendemint

⚙️ This online [tool](#) provides answers to buyers' questions about circularity, and it takes the purchasing party step-by-step through the process from preparation to delivery. Rendemint makes it possible to achieve circular procurement and tendering.

Circular design



Products that last
Conny Bakker, Marcel den Hollander & Ed van Hinte

This book outlines the basic design principles and financing models for a circular economy. Specifically for products with a longer life cycle.



Products that flow
Siem Haffmans, Marjolein van Gelder, Ed van Hinte & Yvo Zijlstra

The follow-up to 'Products that last', 'Products that flow' is specifically for fast-moving consumer goods.



Designing for the Circular Economy
Martin Charter

In this book, Martin Charter offers a comprehensive overview from policy to design and development in a circular economy with many inspiring examples.



Learning path circular design
Ellen MacArthur Foundation

This [learning pathway](#) addresses the role of design in creating a circular economy, examines four phases of the circular design process and highlights six strategies for incorporating the principles of the circular economy in designs.



Routledge Handbook of Sustainable Product Design
Jonathan Chapman

This handbook provides a systematic overview of sustainable product design. It contains critical propositions, practical examples and rich analyses.



Design for Managing Obsolescence
Marcel den Hollander

In a circular economy, it is not always logical to focus only on products that last longer. Den Hollander describes design principles from a temporary dimension.



Design of Sustainable Product Life Cycles
Jörg Niemann, Serge Tichkiewitch & Engelbert Westkämper

In this book, Niemann et al. combine various life-cycle management methods and tools into an integrated planning approach.



Circular Design Guide
IDEO & Ellen MacArthur Foundation

This [guide](#) provides tools to get started with circular innovation based on four steps: discovery, definition, production and marketing. It contains several informative links for getting a grip on the circular economy.



Sustainable Design Cards
Design School Kolding, Denmark

There are currently 84 design strategies available. This [website](#) illustrates the design strategies on clear cards.

Life cycle analysis



Eco Costs Value Database
Delft University of Technology

The [Eco Costs Value Database](#) allows you to carry out life cycle analyses based on the materials used, energy, transport and treatment processes.



iPoint
iPoint

iPoint [software](#) supports data collection, analysis and reporting to assess the environmental, social and economic impacts of products and related processes.



Beginner's Guide Life Cycle Assessment
Ecochain

A guide for calculating the impact of your product (life cycle analysis). This guide also shows what you can focus on as a company, such as raw materials, production and transport.



Mobius
Ecochain

A [tool](#) to calculate the environmental impact of your product.



The LCA Centre

The [centre](#) specialises in providing environmental impact assessments for packaging and disposables.



Story of Stuff

An inspiring [website](#) that clearly explains how chains work, where decisions are made and the role each link plays.



The IdematLightLCA app
Joost Vogtländer / Delft University of Technology

A practical [tool](#) to get an impression of the environmental impact of materials. With this app, you can quickly find more information about materials, eco-costs and CO₂ consumption and also visually compare different materials.

CO₂ calculation



Green House Protocol
World Resources Institute & World Business Council for Sust. Development

The [Greenhouse Gas Protocol](#) provides standards, guidelines, tools and training for the business community and the government for measuring and managing climate change emissions.



Ecolizer 2.0
Openbare Vlaamse Afvalstoffenmaatschappij

With this [ecodesign tool](#), you can quickly and easily calculate the environmental impact of your product in terms of its CO₂ emissions. You can calculate both the total environmental impact and the impact per stage of the product's life cycle. This allows stakeholders to tackle a life cycle phase with a high environmental impact in a more targeted manner.

The change makers behind 'Change makers'

'Change makers' is an initiative of Circl and Circularities.

Opdrachtgever:

Niina Pussinen, [Circl](#) - Initiative of ABN AMRO



Klaske Kruk, [Circularities](#)



Design and realisation:

Klaske Kruk & Hylke Faber, [Circularities](#)

Translation:

Livewords

Photography:

Jurriaan Hoefsmit, Shutterstock

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'Change makers' you can read it online at www.circl.nl/?

Circularities - the circular economy in practice



Circularities translates circular economy theory into practice for companies and governments that want to make a difference. We believe that a circular economy is only attainable if all professionals have sufficient practical action perspectives to begin working on circular innovation, and if they are in-

trinsically motivated to work every day toward a more impactful job, company and world. With this goal in mind, Circularities has developed award-winning education and training courses. It also provides many companies and governments with guidance on strategic and practical issues regarding circularity.

Founder Klaske Kruk and her team have overseen hundreds of circular projects for companies, cities, regions and provinces, at home and abroad. She worked on the very first circular projects in the Netherlands with the pioneers of the circular economy.

www.circularities.com

CIRCL – Circular Economy platform ABN AMRO



At Circl, entrepreneurs, experts and finance professionals join forces to accelerate the transition towards a circular economy.

We believe in knowledge sharing - the right to copy rather than copyright - and in collaborative learning.



Circl is an ABN AMRO initiative that next to programming act as a living lab for circular innovation. You are warmly welcome to attend our off- and online guided tours, lectures, workshops and community-driven innovation programmes.

Visit us online: www.circl.nl or in the circular pavilion in the Zuidas financial district in Amsterdam.