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ESG Empowered Value Chains 2025

Global ESG Operations Survey

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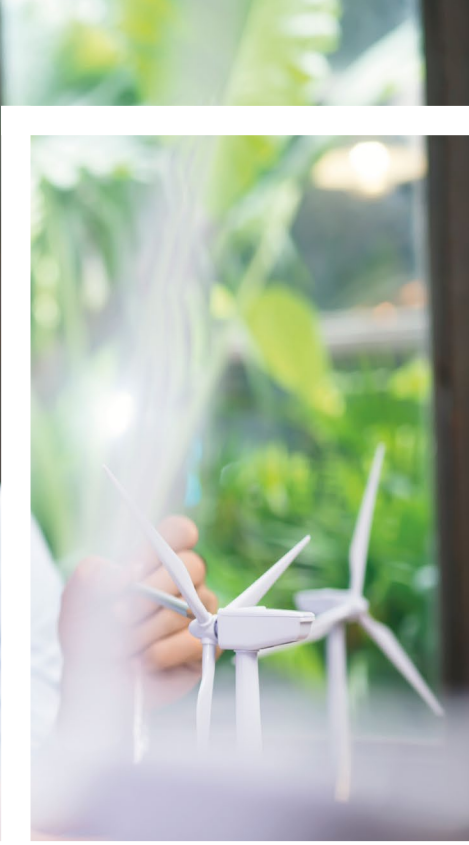

ESG Empowered Value Chains 2025: Global ESG Operations Survey

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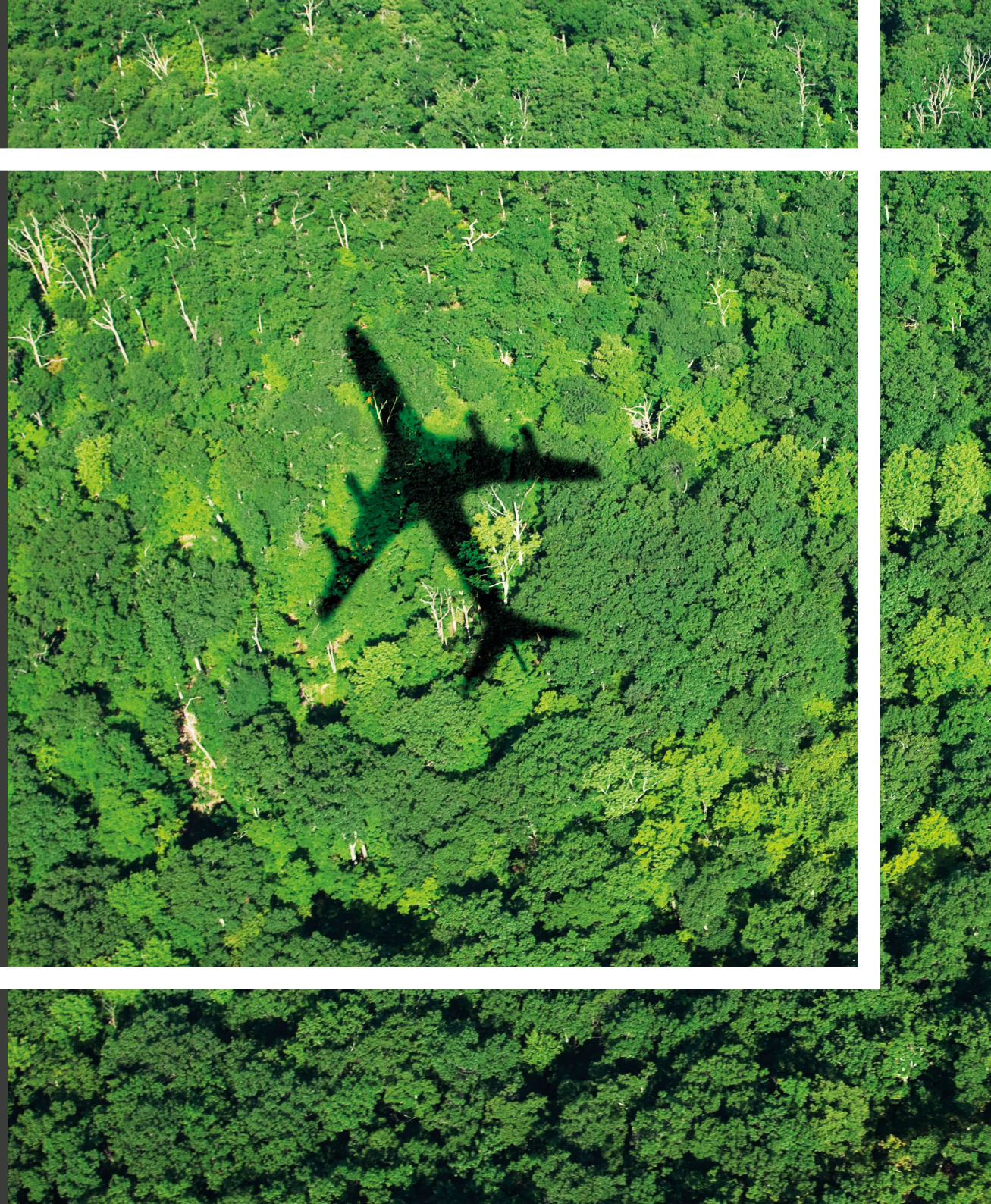


Environmental, social and governance (ESG) standards are not yet mandatory, but are becoming more and more a priority and essential for companies to compete in a global context. Consumers, investors, and regulators are demanding faster action – and greater transparency and accountability – on a host of ESG issues, ranging from climate change to worker diversity. Company leaders can no longer treat such measures as window dressing.

Many companies, in fact, are boldly committing themselves to act. Yet often good intentions are hamstrung by economic realities such as rising energy costs, supply chain disruption and inflation. At the same time, we've witnessed a fundamental shift in the thinking of global company leaders. Increasingly, they see their operations as strategic assets, which will become more resilient and competitive if transformed to meet ESG standards.

Now seems the right time to ask executives about their ESG transformation efforts. This year, we conducted our biggest study to date on ESG in operations. We surveyed 900 C-level executives, senior managers and sustainability division leaders from mostly €1 billion-plus businesses. These companies are from nine key industries – from the automotive sector to medtech – and are based all over the world. Our goal was to understand how far companies have progressed with setting ESG targets and implementing strategies. We wanted to know how well they are tracking, measuring and rewarding these efforts, and how deep into their value chain implementation goes. We asked leaders about challenges holding them back and about future plans to succeed.

More talk than action

Our main findings are these: ESG is officially in full swing and very much on leaders' agendas. However, there is often more talk than action. Company leaders across the board generally shared ambitious plans with us. Three out of every four companies are planning to reach net zero by 2050, for example. Yet our data shows that, in many cases, companies have not yet implemented measures to support these targets in their own operations, let alone across their entire value chains.

Companies are starting by focusing on easy-to-implement initiatives such as CO_2 certificates for compensation. While this is not a bad start, we generally sense a lack of urgency to embrace more far-reaching and also more sustainable measures – even though they are more difficult to measure. These include initiatives such as redesigning products or industry collaboration to meet ESG expectations.

High performing companies are the exception

At the same time, our study discovered a subset of mature ESG performers (ESG Champions). Such companies represent 6% of respondents, and most of them have revenues of over €3bn. The higher the sales, it seems, the more likely it is that a company is advanced in ESG. These ESG Champions have moved beyond internal operations to implement measures across their entire value chains. They have thorough short- and long-term roadmaps covering most of their value chains, as well as oversight on human rights risks and robust, product-specific standards for areas including animal welfare and raw material sourcing. More than 70% of their products and services are in line with ESG objectives.

Our research showed an emerging gap between those companies that are acting quickly to broadly implement ESG standards and those that aren't. As ESG-mature companies focus on areas such as advanced tracking and collaborating with suppliers, they increase the competitiveness of their entire value chains, potentially locking companies out of the market that are less advanced (see Chapter 8). While ESG transformation can make companies less competitive in the short term as costs rise, the long-term benefits will be greater.

What ESG champions sets apart

Our survey also revealed some similar key attributes among ESG-advanced companies, which could provide a roadmap for those organisations following on behind. First, they enjoy top management buy-in and support. Second and in consequence they are better at making plans, supporting them with concrete measures and following up on them. For example, a large proportion of their products and services are already in line with ESG objectives. Third, companies most successful at implementing ESG standards also demonstrate higher levels of digitalisation and data transparency. These findings may not be surprising, but they are good reminders of the absolute necessity to digitalise, create transparency and gain leadership support.

Interestingly, the challenges that are getting in the way of ESG transformation differ between more ESG-mature companies and those in earlier stages. Less ESG-mature companies cite costs and insufficient budgets as most problematic; ESG-mature companies point to inadequate access to data as the biggest problem. Both types of companies list unclear business impact as the second-biggest challenge.

Those that act fast are more likely to be rewarded

In our study, we are talking about ESG transformation of the entire value chain. These changes are costly, challenging and complex, and often without obvious bottom-line benefits. What's more, regulations are changing all the time. The EU Directive on Corporate Sustainability Due Diligence is just one example. This new directive will oblige companies to ensure that human rights and environmental standards are upheld and protected throughout value chains.

But such pressures – not just from regulators, but from investors, consumers and companies' own employees – aren't only a stick; they can be a carrot as well. Yes, companies will be forced to act, but those that act fast by reengineering value chains, including revising business models and product designs, are more likely to earn big rewards: lower energy costs, less waste, more innovation and investor interest. Meanwhile, those companies that lag behind may get left behind.

Fig. 1 ESG Empowered Value Chains 2025 – Key findings

1. **ESG is a competitive imperative for companies with recognized impact on their operations –** the majority of companies have set clear targets along all areas and almost all companies (99%) consider ESG criteria in future investments (page 29)

2. **Current focus is on the environment –** 80% of companies have clearly defined long-term targets for emissions, while only 60% have social and governance targets (page 16)

3. **Big intentions and little realisation –** only one third of companies have implemented measures for emission reduction covering Scope 1 and 2, and only 21% have implemented Scope 3 measures (page 8)

4. **ESG leadership starts at the top and filters down –** ESG Champions enjoy top management support, integration of ESG into their operational strategy and vision, short- and long-term targets by function and balanced focus on all ESG areas (page 12)

5. **ESG Champions have implemented twice as many measures –** reengineering of supplier network, and own footprint, product design, and adjusting business models towards circularity (page 11)

6. **Majority of champions have revenue greater €3 billion –** smaller companies have to catch up to not lose competitive grounds and increase resilience for future challenges (page 14)

7. **ESG maturity varies by region and industry –** Comparing the relative share of ESG Champions, North America and Asia are ahead of Europe and the industrial manufacturing and retail/consumer goods industry is leading, whereas the process and service industry are lagging behind (page 15)

B Study Results

1 High ambitions with little realisation

Many company leaders share ambitious goals and rate themselves as ESG advanced, but the data shows that we are still in the early days. For example, more than half of respondents say that they are planning to reduce Scope 2 emissions (indirect greenhouse gas emissions associated with the purchase of electricity, steam, heat or cooling) by more than 40% by 2025, and yet only 30% have considered changing the types of energy they use.

The good news is that our survey's top performers are embracing aggressive ESG goals and are in advanced stages of ESG transformation. They are implementing and integrating a wide range of measures across their entire value chains.

To assess where companies stand, we ranked maturity levels on a scale (Figure 2) from Beginners to Champions, with Contenders (2nd place) and Followers (3rd place) in between.

The ESG maturity scale examines how well companies are performing in the following areas:

- **ESG operations targets and KPIs:** Long-term ESG targets and measurable KPIs; corporate ESG targets tied to operational targets and KPIs; monetary incentives
- **ESG operations strategy and measures:** a comprehensive ESG strategy; short- and long-term roadmaps across the value chain
- **Products and business model alignment:** products and services in line with ESG objectives; sustainability as a core target within product development; a product roadmap; redesigned products to meet ESG criteria; a realigned business model
- **Value chain engineering:** Changed footprint to be more local; mid- and long-term measures in the value chain; a risk-based process for social and human rights; circular supply chain considerations at scale

Those scoring above 75% earned the title of Champions; 50%–75% were considered Contenders, 25%–50% were Followers, and under 25% were Beginners. Participants who were interviewed and indicated that they had no knowledge of their company's ESG strategy were excluded from the survey.

Applying our metrics, we found that only 6% of interviewed companies qualify as ESG Champions, while 7% are considered Beginners. Beginners are in the early stages of transformation with no comprehensive roadmap for implementing ESG strategy, only one or two actions taken in their supply chain or procurement, and no ESG targets and objectives defined.

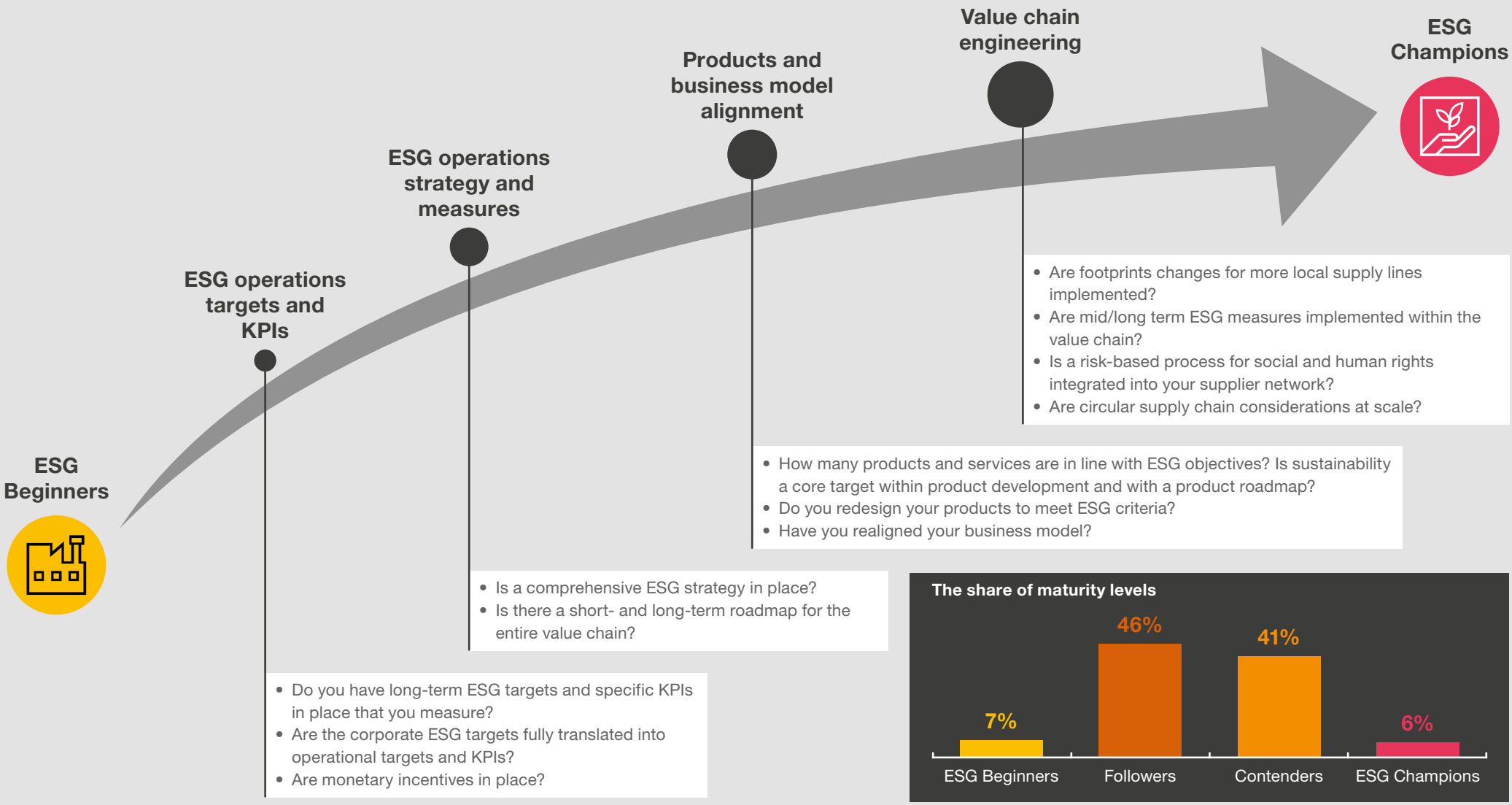
46% are at the Follower stage, meaning that they're not absolute beginners, but it's still early days. These companies typically have a detailed roadmap for a few areas of their value chains, and due diligence on new and existing suppliers based on risks, including those related to human rights. They have corporate ESG targets broken down into some operational functions, but less than 30% of products and services are in line with ESG objectives.

41% are at the Contender stage, i.e. in second place after the Champions. They have detailed roadmaps in more than a few areas of their value chains, but not as many as Champions. They assess risk beyond their tier 1 suppliers, articulate standards and monitor adherence. Corporate ESG targets and KPIs are at a fairly advanced stage, and up to 70% of products and/or services are in line with ESG objectives.

Champions are in the advanced stages of ESG transformation, with robust oversight on human rights risks throughout their value chains, most products and/or services in line with ESG objectives, and ESG targets and KPIs tied to corporate targets. These are broken down into operational functions and subject to regular monitoring.

Regardless of where companies stand, however, what seems clear from our study is an overwhelming commitment to improvement in the near future.

Fig. 2 From strategy to execution: our road from Beginner to Champion achieving ESG maturity



2 What ESG leaders do differently

What sets ESG Champions apart? Our data shows that Champions are better at creating comprehensive plans, supporting them with concrete measures, and following up on them. All companies, for example, say they have short- and long-term roadmaps in at least one strategic area, but most Champions have roadmaps in all areas of their operations and are supporting them with effective measures.

Champions are faster to act, having implemented ESG measures at twice the rate of non-Champions. Most non-Champions remain focused on internal operations, with primary emphasis on environmental issues. Most Champions, by contrast, are equally focused on social and governance issues, and, in fact, 81% say they have wide coverage and oversight of all primary human rights risk areas through their entire value chains.

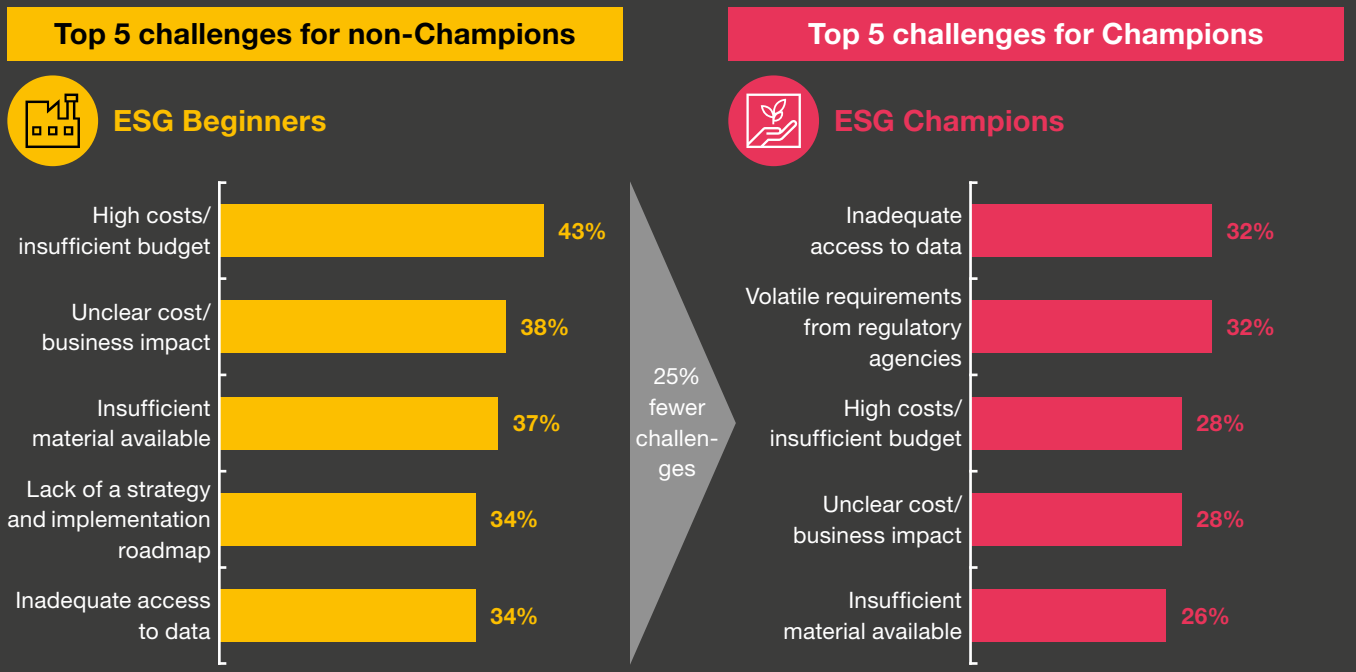
Champions have advanced to reengineering products, business models and entire value chains. In supply chains and logistics, 93% of Champions have implemented measures to support their goals – demonstrating a progression to Scopes 2 and 3 – compared to just 53% of non-Champions. Most Champions (81%) are significantly realigning their business models – e.g. towards a circular business model or adjusting their product portfolio to match ESG targets – while only 15% of non-Champions are doing this (see Figure 3).

Fig. 3 One third of Champions and Contenders have already started to realign their entire business models

Champions are better at translating corporate ESG goals into operational targets and KPIs: 79% of Champions have set ESG targets and KPIs (derived from corporate targets) and broken them down into operational functions, which are motivated by financial incentives and monitored. Only 13% of non-Champions have done the same.

These top performers seem to be significantly less bothered by issues of greater concern to non-Champions, such as insufficient top management support, a lack of ESG strategy and unclear responsibilities – just 13% of Champions cited these challenges, compared to around a quarter of non-Champions. It may be that companies that are further along on their journeys have already overcome these obstacles, and now view them as less challenging (see Figure 4).

Fig. 4 Champions see 25% fewer ESG challenges, being more externally driven



It is worth adding that many companies will struggle to meet their ambitious emissions reduction targets. More than 75% of companies have said that they will cut their Scope 1, 2 and 3 emissions by roughly 90% by 2050 for their entire value chains, but our data shows that only 37% of non-Champions are taking meaningful measures to support targets to reduce directly controlled emissions (i.e. Scope 1).

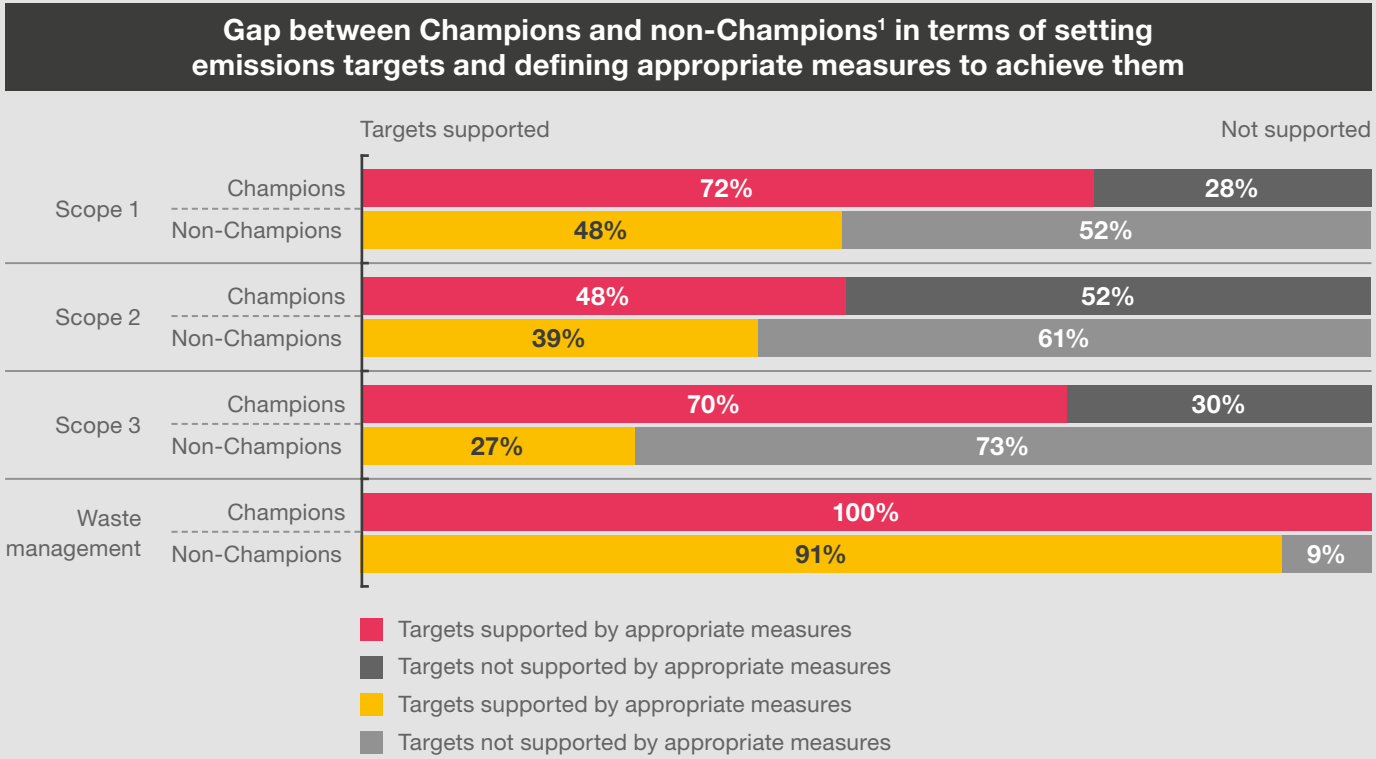
Even Champions which have proactively implemented more measures will probably find it challenging to achieve these aggressive goals. Only two thirds of Champions say they will have put in place measures to meet targets set for Scope 1 (directly controlled emissions) and Scope 3 (indirect emissions such as purchased goods and services) within the next two years; one third of non-Champions will have done the same. 70% of companies are failing to implement measures to support reaching Scope 2 targets (indirect emissions from acquired energy) (see Figure 5).

Scope 1:
direct emissions from owned or controlled sources

Scope 2:
indirect emissions from the generation of purchased energy

Scope 3:
all indirect emissions not included in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions

Fig. 5 There is a gap between companies' emissions and waste reduction targets and actual measures to achieve them



[1] All companies with clear targets of more than 90% until 2050 are included.

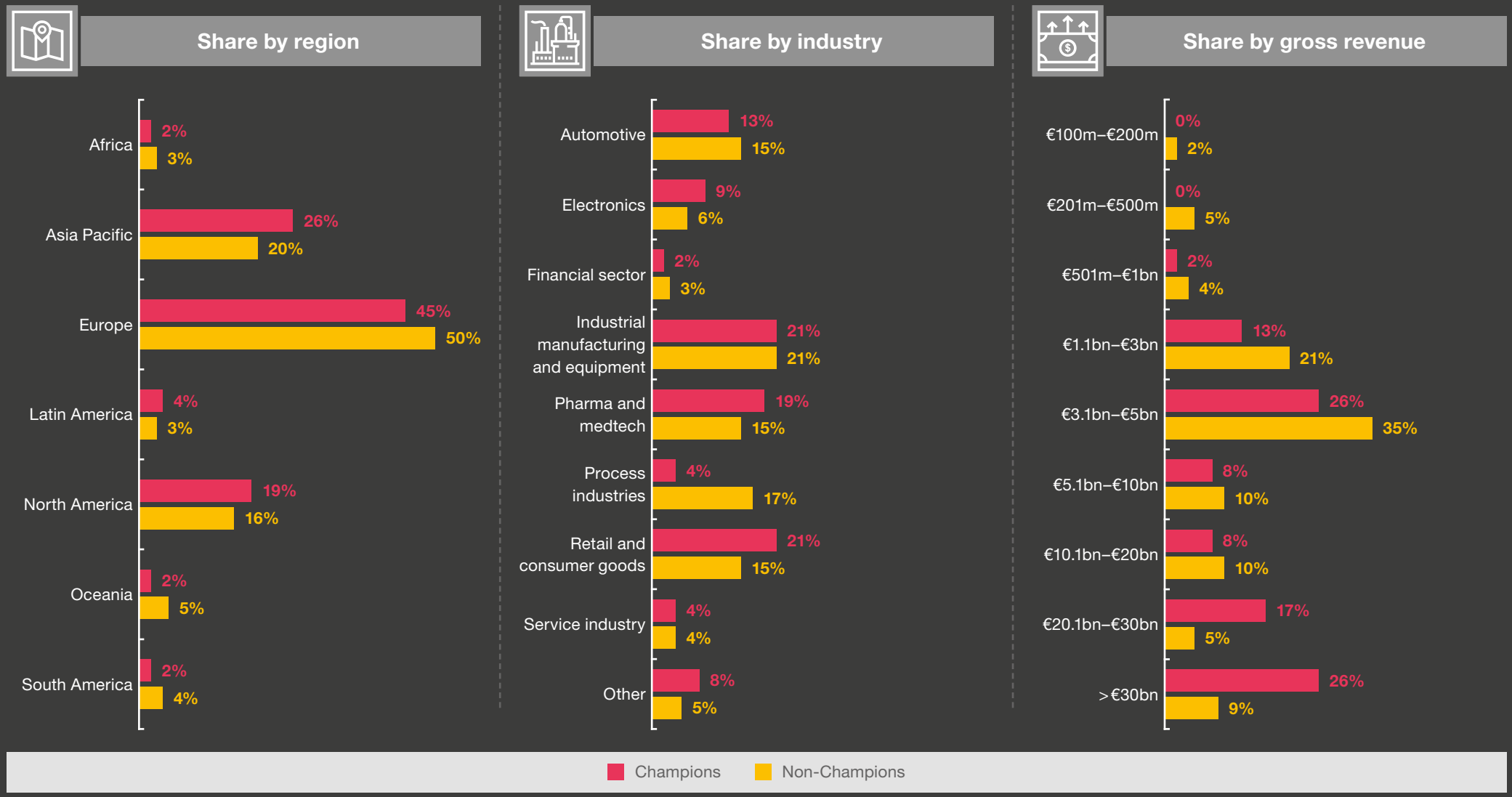
A Snapshot of Champions by industry and revenue

Industry (Figure 6)
Champions are primarily found in the retail and consumer goods, pharma and medtech, and industrial manufacturing and equipment industries. This isn't surprising: companies such as retailers (closely linked to human rights and environmental issues) and manufacturers (closely linked to greenhouse gas emissions) are under pressure to act. Governments are ramping up regulatory efforts, and consumers are increasingly likely to choose sustainable, fair-trade and local products (assuming no dramatic cost differences). For these companies, ESG measures offer a competitive advantage.

Among Contenders, we found more retailers and consumer goods companies met our criteria than any other industry. The story here is much the same. Retailers are being scrutinised not just by regulators, but also by the public and by their own employees. Finally, there were noticeably fewer Champions among the financial sector and service industries.

Gross revenue (Figure 6)
Most Champions have revenues of more than €3 billion. Indeed, the higher the sales, the more likely it is that a company will be ESG advanced. 43% of Champions have gross revenues greater than €20 billion. Companies with high gross revenue are more likely to be under scrutiny, and so are responding by implementing ESG measures more quickly.

Fig. 6 ESG maturity varies by region and industry

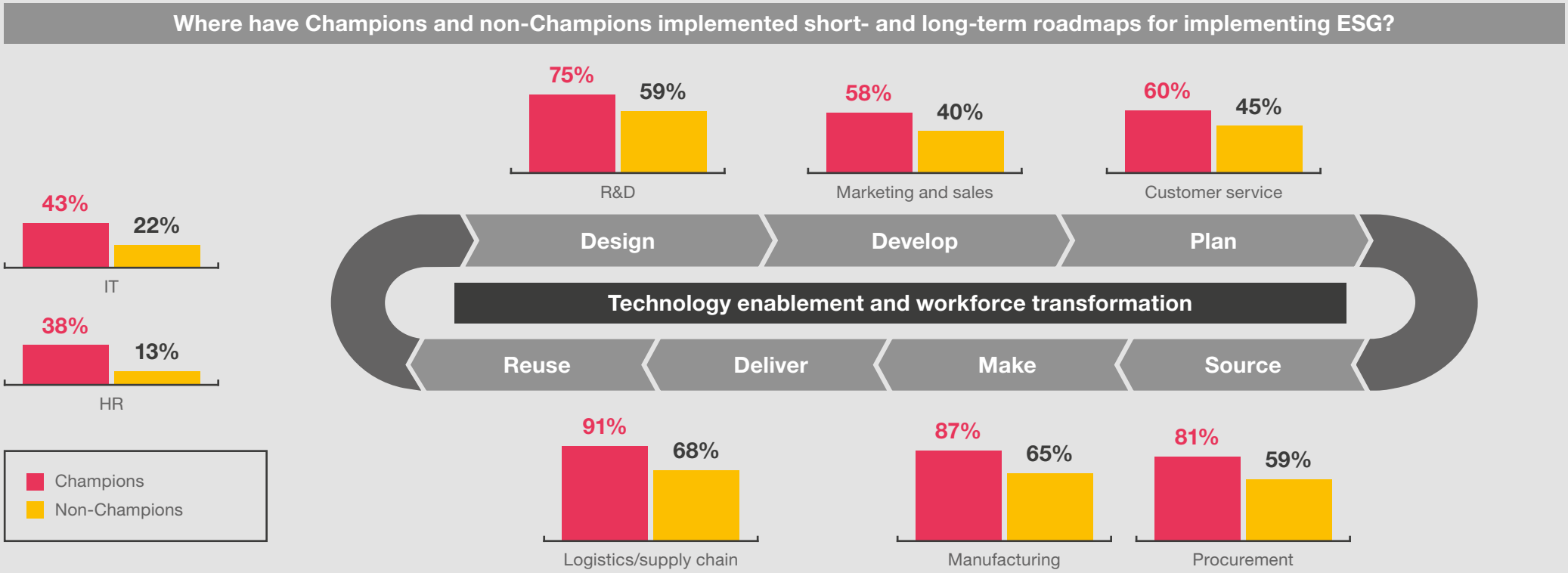


3 ESG high impact areas

Going forward, in which area do top managers embrace the majority of ESG-related business transformations? We found that while companies are creating concrete short- and long-term ESG roadmaps and measures across entire value chains, they are primarily focused on operational fields including supply chains and logistics, manufacturing, procurement, and R&D (see Figure 7). Unsurprisingly, in supply chains, company leaders are prioritising emissions reduction in transport and improving network design; while in procurement, leaders are focusing more strongly on cross-functional collaboration such as joint R&D training and the use of recycled materials.

Our data shows that companies are far more likely to set environmental targets (81%) than social targets (59%). A potential explanation is that there is increasing pressure from governments to achieve climate neutrality by 2050, with clearly defined targets and penalties for non-compliance.

Fig. 7 **Companies are focusing on their supply chains, manufacturing and procurement for their short- and long-term roadmaps for implementing ESG**



Environment

Companies are focusing on net carbon neutrality first and on meeting net zero goals later. The former is easier to achieve by compensating for emissions, while the latter involves actual emission reductions (see Incentives for Scope 3 supply chain decarbonization).

In both cases, nearer-term targets appear modest. Just 11% of companies surveyed aim to be carbon neutral by 2030, while only 3% aim to be at net zero by 2030 (see Figure 8).

Already 77% of companies surveyed have stated net zero goals for 2050 (matching the climate-neutral goals of the EU, US and many other countries). This goal is underpinned by targets for CO_2 reduction in all Scopes – 1, 2 and 3. Nearly 80% of companies aim to reduce their Scope 1, 2 and 3 emissions by at least 90% by 2050 (see Figure 9). It's worth noting that more than 18% of companies have no target at all for either carbon neutrality or net zero by 2050.

Fig. 8 **Companies target to achieve net carbon neutrality earlier than net zero, hence focus is first on emission compensation, later on reduction**

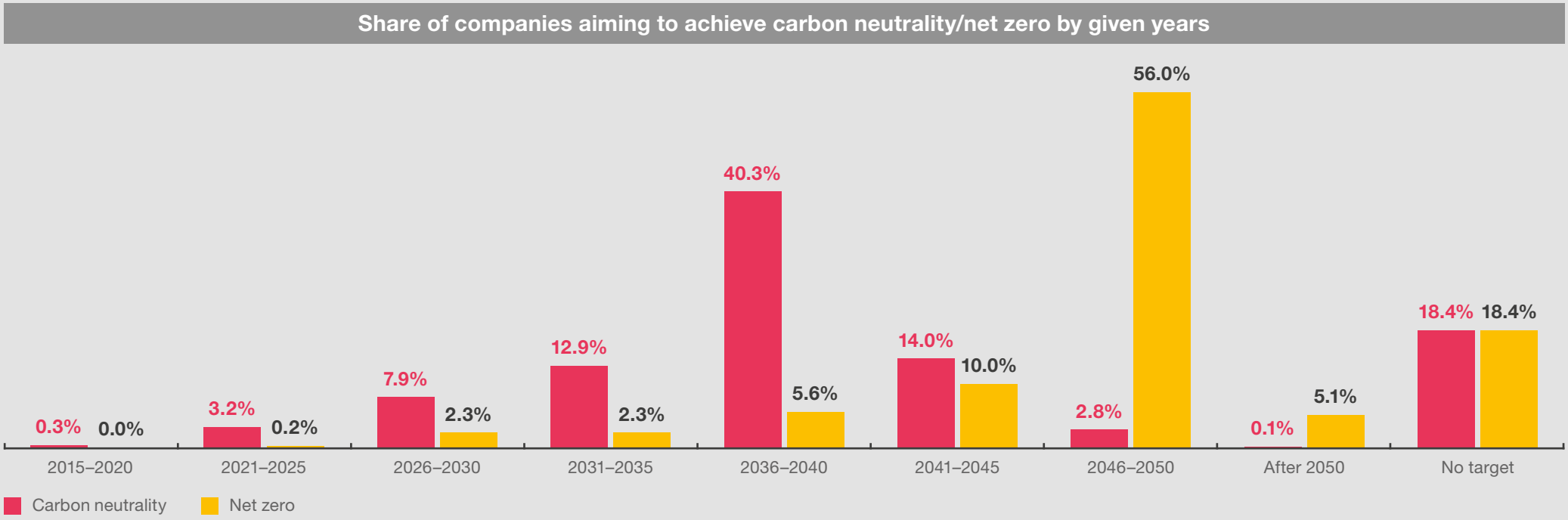
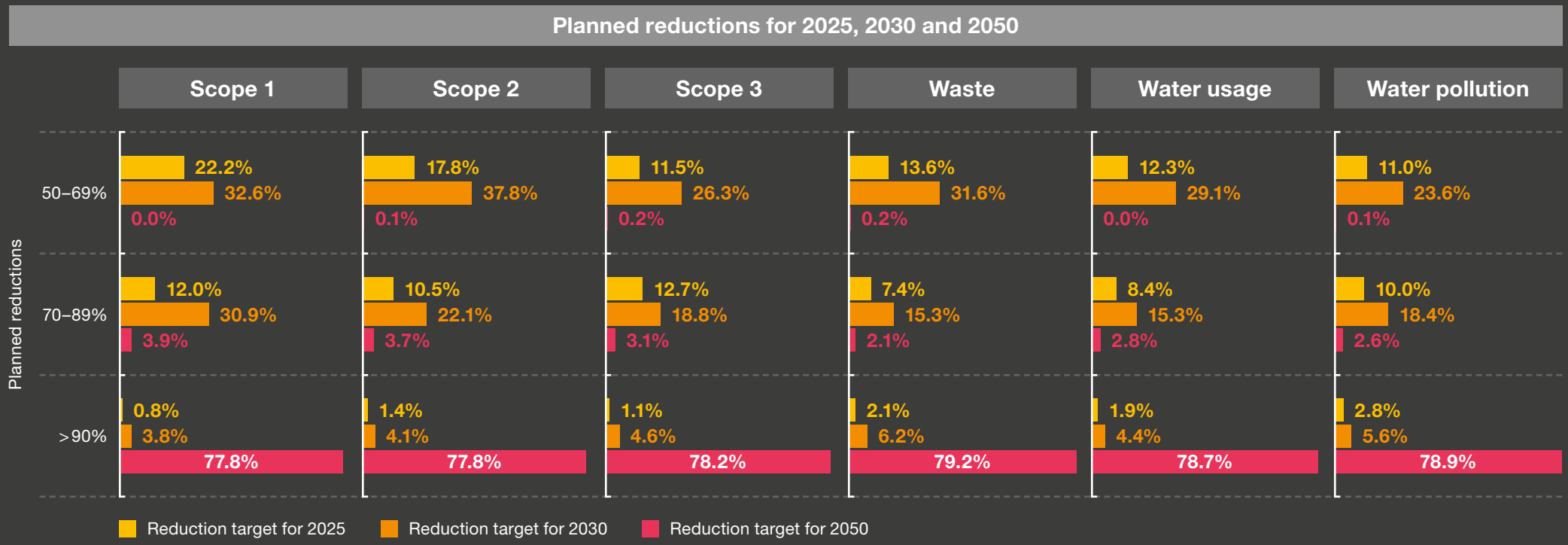


Fig. 9 **A high proportion of companies aim to reduce emissions by 50–69% by 2030; reduction targets of over 90% are set for 2050**



Clearly, some industries find meeting targets easier than others. Service industries without production processes or facilities, such as banking or advisory services, can reduce energy use by turning off lights and asking staff to travel less, while manufacturers may have to redesign the way they make their products.

Carbon neutrality allows compensation for emissions, typically using offsets, while net zero requires curbing emissions through increased efficiency, electrification, use of renewables and other means.

Fig. 10 Our seven steps to achieving net zero

1

Vision and strategy
- Translate corporate net zero strategy into specific goals
- Achieve transparency on emissions generated
- Identify operations areas with GHG reduction potential along the value chain

2

Product design
- Translate net zero goals for product portfolio
- Consider alternative plans and materials or production processes
- Assess GHG emissions for developed products; prioritise and derive measures
- Conduct life cycle assessments

3

Optimised supply chain
- Translate net zero goals into supply chain planning guidelines
- Consider supply chain planning and transport plans
- Translate net zero goals into transport guidelines
- Modify procurement strategies to align with net zero goals
- Set up GHG-driven supplier network management
- Implement, track and optimise supply chain network, supplier measures and transport management

7

Operating model
- Translate net zero goals into job descriptions and derive required roles and competencies
- Implement change management and training

4

Manufacturing
- Design factory with reference to net zero; carry out, track and optimise factory construction
- Align factory infrastructure regarding construction materials, energy supply, IT and internal logistics
- Translate net zero goals into KPIs for production
- Operational excellence for net zero, focusing on energy efficiency and in-house logistics in production
- Set up predictive maintenance to enable energy efficiency

6

IT/OT infrastructure
- Set up IT infrastructure to achieve transparency on generated emissions according to product portfolio and production footprint
- Set up IT/OT infrastructure to collect and aggregate GHG data from all relevant areas (2–7), starting from shop floor level
- Enable analytics-based and data-driven decision making in operations

5

Reuse processes
- Translate net zero goals into reuse guidelines
- Set up net zero reuse processes
- Implement, track and optimise reuse processes

Corporate GHG reporting
Align top-down SBTi targets and EU regulations with operational emissions reduction measures

Social

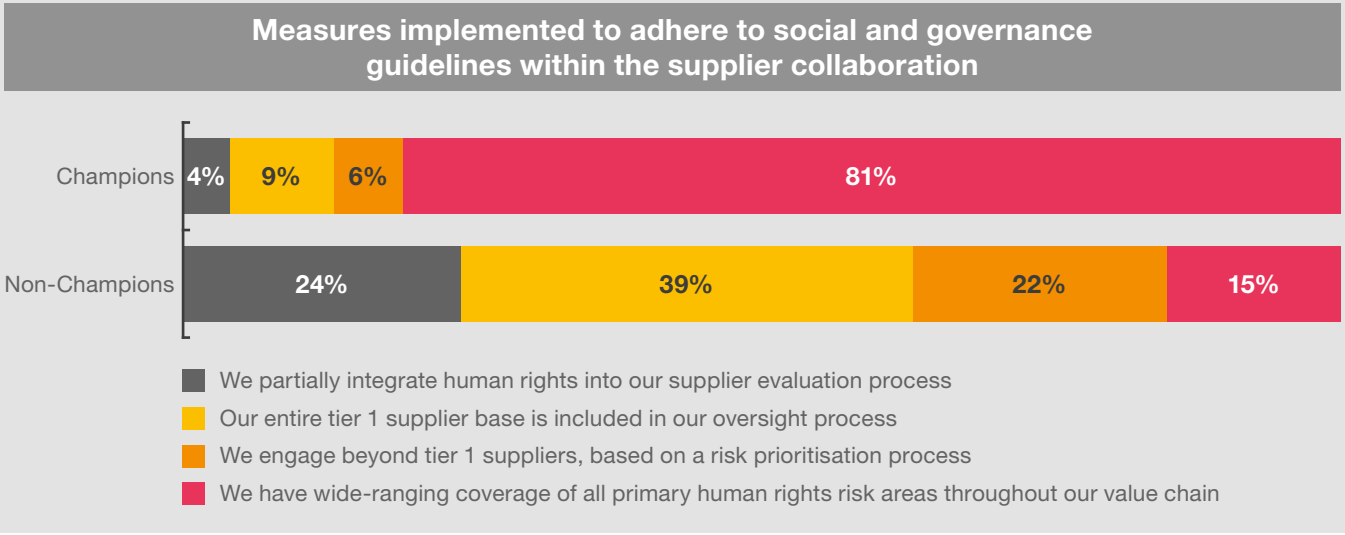
On social measures, nearly 100% of companies are collaborating with suppliers to assess social risks such as human rights violations. Of these, 75% have an oversight process involving all tier 1 suppliers, and almost 20% say they have a process involving their entire value chains.

Contenders and Champions have moved on to integrating ESG screening into supplier selection, and running ESG supplier training.

In the short term (between now and 2025), companies are mainly focused on health and safety, diversity and inclusion and reducing child labour. Diversity is a hot topic, and it's more than just a political issue: the focus on diversity reflects a tight job market, with companies competing to fill jobs. Child labour is another issue under increasing public scrutiny, with regulations in countries such as Australia, France, Germany, the Netherlands and the UK prohibiting companies to maintain supply chains that violate child labour laws.

Up to 2030, attention is set to shift to pay equality and wage levels. In the long term (up to 2050), the focus is once again on eliminating child labour and on supplier training programmes. Target areas do not differ significantly between maturity levels. However, the higher the maturity level, the more likely it is that companies will have set targets. All Champions identified (in this study), for example, have long-term social targets in place.

Fig. 11 **81% of Champions already have wide-ranging coverage of all primary human rights risk areas throughout their value chains**



Governance

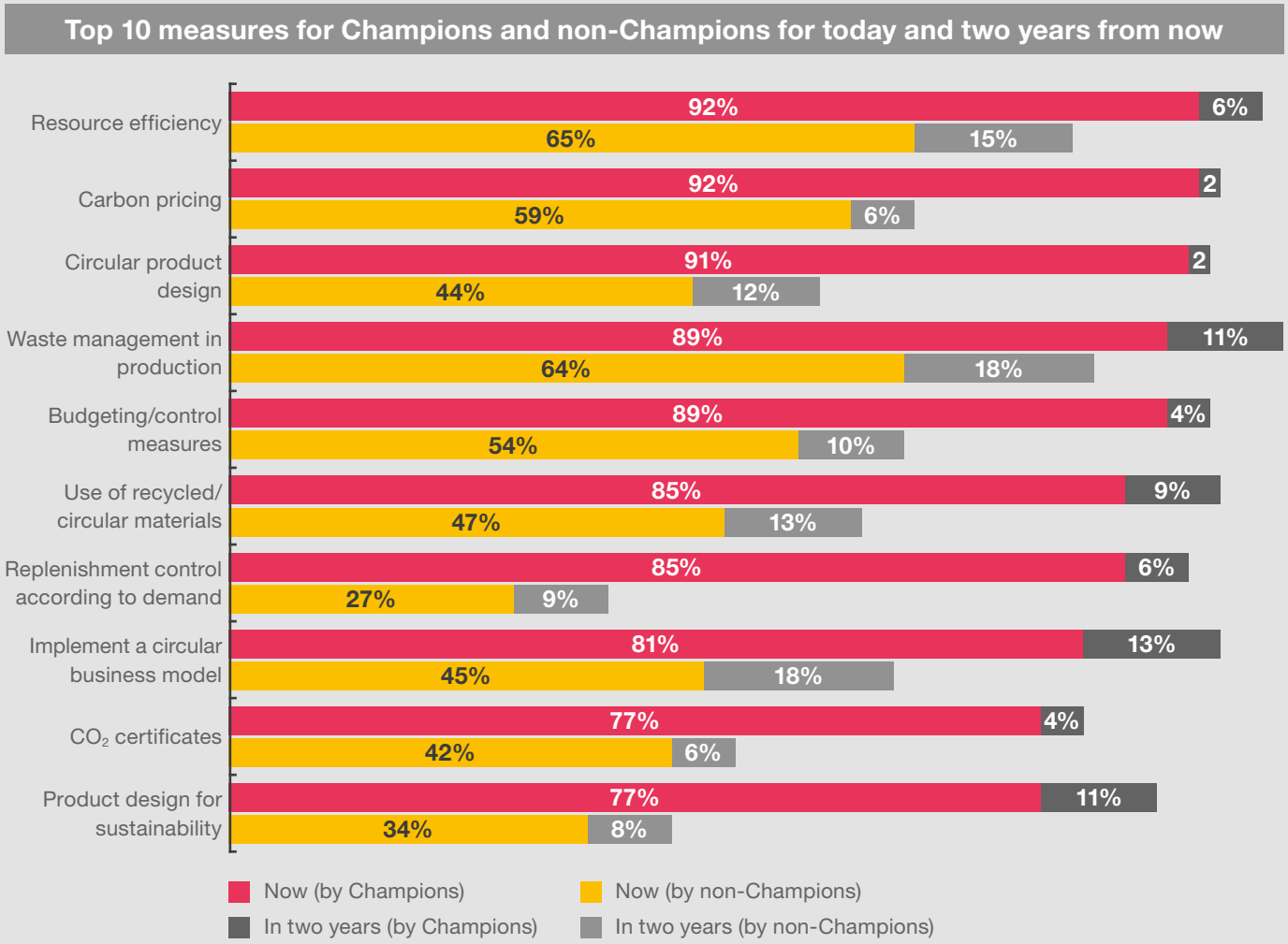
Among Champions, 79% of companies have measures tied to clear targets and KPIs across all operational functions, with financial incentives such as bonuses in place. This compares to 13% of non-Champions. Sound corporate governance goes hand in hand with sound leadership – and particularly with leadership marked by solid oversight, clear procedures, transparency and rewards for compliance. As expected, we found stronger leadership among more ESG-mature companies. Only 13% of Champions mentioned that a lack of leadership held back ESG efforts, while a quarter of non-Champions identified this as a problem.

Governance is an often-overlooked ESG area, and there can be confusion about the role it plays. But sound governance is fundamental to successful ESG transformation. Facilitating appropriately implemented human rights and environmental standards requires sound governance with practices and policies that are ethical, transparent and motivating while holding people accountable and avoiding exposing the company to unacceptable levels of risk. One explanation for this could be that when a company fails to meet its environmental and social commitments, it can be the result of poor corporate governance. These include weak anti-corruption practices or poor processes in place to monitor targets, or badly designed incentive structures – i.e. poor leadership.

4 What companies are really doing – tangible ESG measures

Raising environmental standards is foremost on top managers' minds. They are concentrating on three environmental measures: resource efficiency, waste management in production, and carbon pricing, with efforts well underway. In fact, many companies have already started implementing waste management and resource efficiency measures independently of ESG goals. Such measures not only meet ESG criteria, but also reduce costs.

Fig. 12 **The top 10 measures are almost the same in terms of content for Champions and non-Champions, but Champions are significantly ahead of the game**



Four key areas

1 Resource efficiency

Our data: 66% of companies say that resource efficiency is currently their top measure. Within two years, 80% of all companies will have implemented measures to improve resource efficiency.

What's driving companies: This is a huge ESG area for all companies. The use of raw materials affects the entire value chain and has big environmental impacts, including the release of greenhouse gases and other pollutants into the air, water and soil. It also affects ecosystems and biodiversity. The use of natural resources already significantly exceeds Earth's regenerative capacity. Resource efficiency aims to address these impacts by reducing the use of resources, while also strengthening resilience, innovation and competitiveness. Ultimately, by using resources more efficiently, supply chains are less likely to be adversely affected by challenges such as carbon taxes and regulatory changes.

2 Waste management

Our data: Many companies are ambitious about cutting waste. 45% of all companies plan to reduce waste by more than 40% by 2025; 100% of Champions have a waste reduction target of 100% by 2050. When asked which initiative has been the most successful at driving ESG results, most Champions mentioned a mix of better waste management, water management and emissions management. Types of waste cited particularly included water waste and plastic waste, and some leaders also specified implementing training related to waste. One leader said that by "minimising carbon footprints and reducing waste in our company, we are attempting to create a sustainable and healthy future for all individuals and communities."

What's driving companies: Managing waste efficiently is fundamental from both a cost perspective and an environmental one. By using raw materials, packaging and equipment more efficiently, companies have less waste to dispose of, which saves money. Handling waste in an environmentally friendly way such as by separating waste, or handling hazardous waste correctly, reduces toxins which contaminate the air and water, and erode soil and increase pollution. These pollutants contribute to an unstable environment with more flooding, fires and storms. Efficient waste management goes a long way to helping companies meet their ESG goals, not to mention saving money and enhancing competitiveness.

3 Carbon pricing

Our data: 60% of companies have implemented carbon pricing measures, with nearly all Champions – 92% – having done so. Companies with high emissions, such as those in the process industries, the industrial manufacturing industry and the electronics sector have been particularly quick to adopt this measure.

What's driving companies: Emissions trading systems and carbon taxes penalise sources in proportion to their carbon content. These measures are popular. Although buying offsets is typically expensive, it's easier than cutting emissions via other costly measures or having to undertake reengineering of products or even the entire company.

Carbon pricing is consistent with the "polluter pays" principle (i.e. polluters pay for their own damage) and has another advantage: as prices fluctuate, companies constantly have to consider the environmental costs of carbon emissions (direct and indirect) and are more likely to take measures to curb them.

From a societal standpoint, carbon pricing systems have advantages because they force companies to pay the full social costs (including direct and indirect carbon emissions) generated at every stage of a product's life cycle, from resource to waste (see paper 'Seven reasons to use carbon pricing in climate policy').

4 Circularity

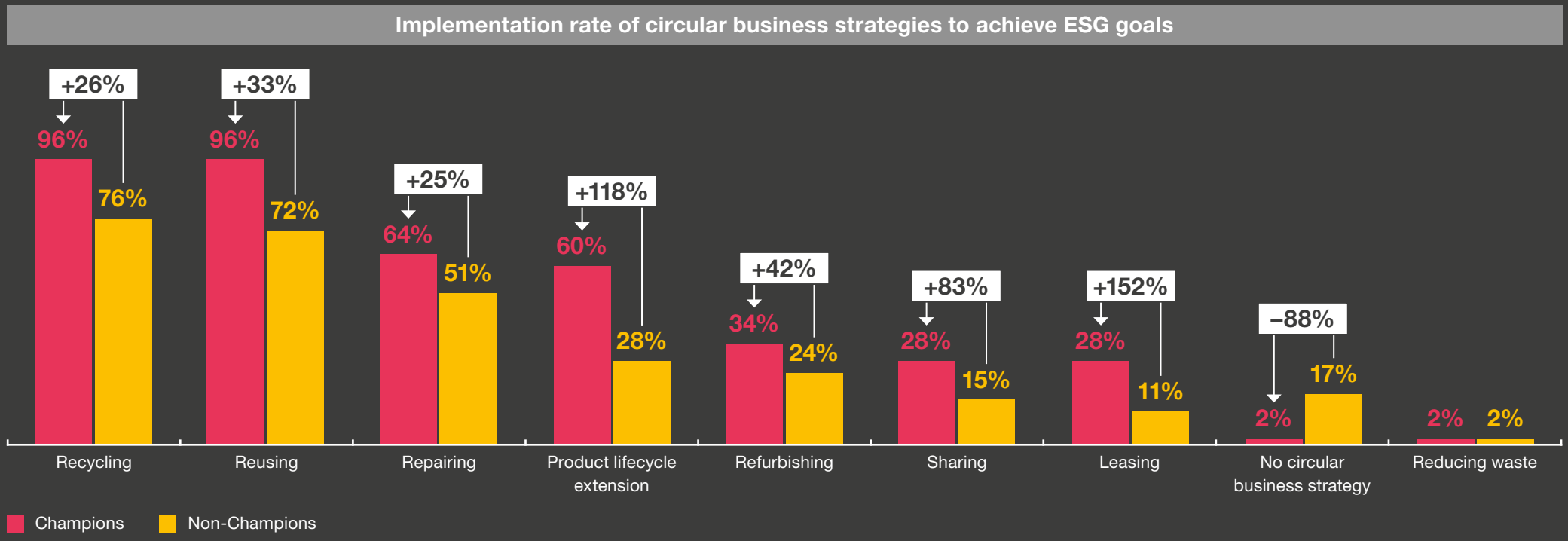
Our data: Circularity is increasingly popular. 44% of non-Champion companies say they have adopted circular product design measures; 56% will have done so in two years – compared to 93% of Champions. 81% of champions have a circular business model. This will increase to 94% in two years, compared to 63% of other companies (page 23).

Circularity

Circularity appears to be growing in appeal. 47% of the companies we surveyed have adopted measures to support a circular business model – using circular materials – to reduce waste. 64% plan to have a wholly circular business model in two years. Many more companies have implemented measures (see Figure 13) to enable a fully circular business model in the future. The next step is, of course, more complicated, requiring reengineering of the entire value chain. Overall, three quarters of companies are recycling and reusing materials, half of companies repair their products, and at least a quarter are refurbishing products.

Measures like these require product reengineering, rethinking manufacturing processes and redesigning entire value chains, and are expensive. But like measures related to resource efficiency, circular business models deliver additional benefits, and not just to the environment. They also increase competitiveness, stimulate innovation and boost growth for companies and the economy. By one estimate, moving towards a circular economy could add 0.5% to the EU's gross domestic product and create 700,000 jobs by 2030 (see article 'Circular economy: definition, importance and benefit').

Fig. 13 Champions have implemented significantly more specific circular business strategies than non-Champions



5 Industry specific ESG measures

Champions are leading on implementing ESG measures. Some measures are consistent across industries – carbon pricing, resource management, waste management and circularity (see Chapter 4). Others are tailored to address specific industry needs (see Figure 14).

Here are some highlights:
Automotive industry Champions most frequently mention the integration of an ESG supplier screening process and ESG supplier development such as training and joint R&D.

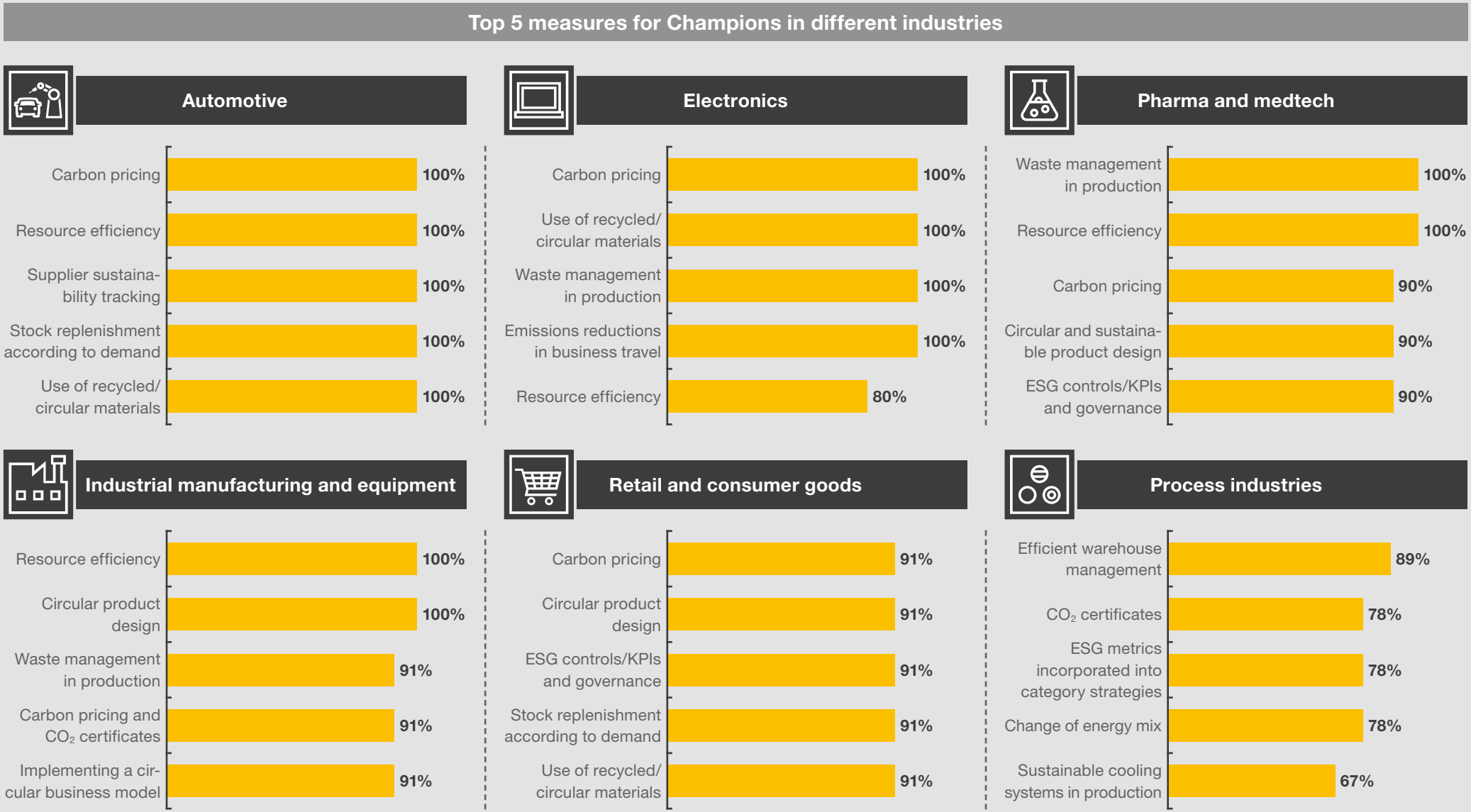
Electronics industry Champions highlight emissions reduction from business travel and integrating functions, i.e. integrating and making staff aware of ESG goals and plans across every part of the organisation.

Retail and consumer goods Champions are most focused on budgeting and control measures, as well as other obvious measures such as waste management, carbon pricing, circular product design and CO_2 certificates.

Pharma and medtech leaders are currently concentrating most on measures related to resource efficiency. This focus is set to remain a priority in two years' time, but other measures will become more important such as circular product design and more efficient management of supply based on demand.

CO_2 certificates have a high implementation rate across all industries.

Fig. 14 **For Champions, the top five measures across industries are carbon pricing, resource management, waste management and circularity; different measures for process industries**



6 ESG challenges and company constraints

Company leaders feel pressure to act on ESG, but corporate, strategic, technological and operational challenges are holding them back. Topping the list of the biggest challenges in implementing ESG strategy are high costs and insufficient budgets: 42% of companies (of all sizes) listed these as significant challenges. Budgetary constraints present an even greater problem for relatively small companies (those with revenue of less than €5 billion), with 18% more of them noting this challenge than larger companies.

Interestingly, ESG Champions didn't mention costs as a main challenge. Instead, inadequate access to data was at the top of their lists: 32% of Champions cited this issue. In fact, most companies mentioned struggling with inadequate IT, digital solutions or data access as key ESG challenges. These findings are predictable given that many companies' digital capabilities are still evolving. A PwC study from earlier this year found that 64% of industrial manufacturing companies remain in the early stages of digital transformation.

Digitalisation is vital to implementing ESG measures, as Champions confirmed by reporting high levels of digitalisation and data transparency, which is key for decision-making. Having quality, reliable data that is easy to access is fundamental to enabling monitoring, tracking and management of impacts and activities. In each part of the value chain, there are multiple sustainability levers, many of them enabled by digital solutions. In plants themselves, for example, environmental KPIs on inputs, operations and products can be automatically recorded, made transparent and consequently optimised.

Champions leverage the latest IoT solutions to measure environmental KPIs in real time, enabling them to determine the environmental footprint of their entire factories, as well as individual machines and individual products. Adding analytics can help to predict power consumption.

Technology is key to successful ESG cooperation with suppliers and customers along the entire value chain. Data availability is essential for meeting increasing reporting requirements. If it seems like we are emphasising this issue very strongly, this is because the main problem our work with clients shows is too little investment in digitalisation, which is causing companies to fall behind.

For all companies, including Champions, unclear business impact was the second-most frequently stated challenge. Convincing company leaders, stakeholders and shareholders that an ESG strategy is economically worthwhile in the long term – and indeed indispensable – is a challenging process. What's more, the opportunity costs of not making ESG changes are hard to quantify, but certainly significant for most companies.

A third of companies say a lack of ESG-compliant goods and supplies hampers progress. This problem is not likely to disappear any time soon. We remain in a time of severe crisis with shortages of key materials such as microchips and steel – never mind more sustainable steel. So-called green steel remains expensive and is difficult to source, as about 75% of all steel is still made in coal-fired furnaces.

Nearly a quarter of companies cite insufficient top management support as a main challenge for implementing ESG strategy, compared to 13% of Champions. Like any significant strategy change, it's not going to happen without a push from the top.

Finally, many companies state they have yet to embrace ESG and its opportunities because they are too busy trying to stay afloat – their survival is being put to the test by the Covid-19 pandemic, rising supply chain costs and cost pressures from customers. Others are not acting because of a lack of knowledge, and some simply do not know where to begin.

7 External pressures

ESG is a necessity. Customers want it; investors require it; regulators are writing it into law. Pressure is mounting, largely from consumers, investors and regulators:

Consumers
Consumers (and employees) want companies to do more ESG. Our 2021 Consumer Intelligence Series Survey on ESG shows that an overwhelming majority of consumers and employees are more likely to buy from, or work for, companies that share their environmental and social values. Underscoring this point is PwC's 25th global CEO survey, which reveals that most decisions to make net zero commitments are customer influenced.

Investors
Investors are under pressure to back more sustainable companies. There's booming demand for ESG investment classes – the first quarter of 2021 saw all-time high inflows of €120 billion for sustainable EU funds, an 18% increase from the previous quarter.

Meanwhile, PwC's most recent ESG Investor Survey, which surveyed 325 investors globally, revealed that nearly 80% see ESG as a key factor in deciding investments. Almost 70% think meeting ESG targets should be factored into executive pay, and half of those surveyed would consider divesting from companies that weren't acting fast enough to implement ESG measures.

Regulators
Governments are getting serious about ESG. The EU's Corporate Sustainability Reporting Directive (CSRD), which obliges large companies to publish regular reports on their activities with environmental and social impacts, will affect more and more companies in the future. Earlier this year, the EU introduced the Sustainable Finance Disclosure Regulation to prevent greenwashing and increase transparency surrounding sustainability claims. Financial firms, advisers and other companies that market to EU investors must report on the sectors they invest in, and on their portfolio companies.

In the US, the Biden administration is planning to make climate change reporting mandatory for companies; while in China, officials are collaborating with the EU to create green investment standards.

Companies can't lag behind. The time to act is now.

> "Sustainability is no longer merely a 'nice to have' – it's a must have. That's because customers, employees, investors, governments and society nowadays judge companies by how their business activities influence the environment and society."

Rainer Kroker,
Partner, ESG Leader,
PwC Germany

8 Time to act

Companies can no longer afford to delay ESG implementation. Pressure from consumers, employees, local communities, investors and governments will only increase in coming years. Energy and material costs will also continue to rise – and the costs of not complying with a growing body of ESG regulations will be significant.

At this stage, ESG transformation is a business imperative. And yet, our data shows that companies have generally been slow to act. Company leaders say that this is typically because the cost of ESG transformation is high, and the benefits unclear. While we appreciate these arguments, we believe – like with digitalisation, a period of massive transformation characterised by huge costs and high uncertainty – that there are also big opportunities with ESG. Companies that started digitalising early learned from their mistakes and moved forward. Those that delayed are now having to invest heavily to catch up. We think it's better to be an ESG pioneer than a follower.

Among our Champions, we see many ESG pioneers. These companies are taking crucial steps towards green growth – to ensure their long-term development is economically and environmentally sustainable – while also seeking new opportunities, such as in the Baker Hughes case study. This company's pioneering experience shows that environmental measures can lead to improved competitiveness.

In fact, a major finding of our research is that ESG Champions are so far advanced at this stage that non-Champions will have to work hard to catch up. Nearly 100% of Champions recycle and reuse to achieve ESG goals, compared to 76% for recycling and 72% for reuse among non-Champions. 60% of Champions are already extending product life cycles, which requires quality and reengineering of products but is also likely to be rewarded down the road. This is only done by 28% of non-Champions.

Our data shows that while most companies will be implementing basic measures in their own operations – such as waste management and resource efficiency – over the next two years, Champions will have moved on to implementing more sophisticated measures that go beyond their own operations. Popular areas of focus include lower-emission transport modes and nearshoring (i.e. moving operations to a closer country). They will also increasingly be using ESG as metrics in tenders, and screening to make sure suppliers have good ESG practices before hiring them, enabling them to monitor supplies using ESG criteria. These more advanced practices won't just improve the overall quality of Champions' value chains; they could also help them stay a step ahead of non-Champions for a long time to come. By comparison, one third of non-Champions – 350 of the 900 companies surveyed – will have implemented few if any of the top ten measures to be enacted by Champions over the next two years.

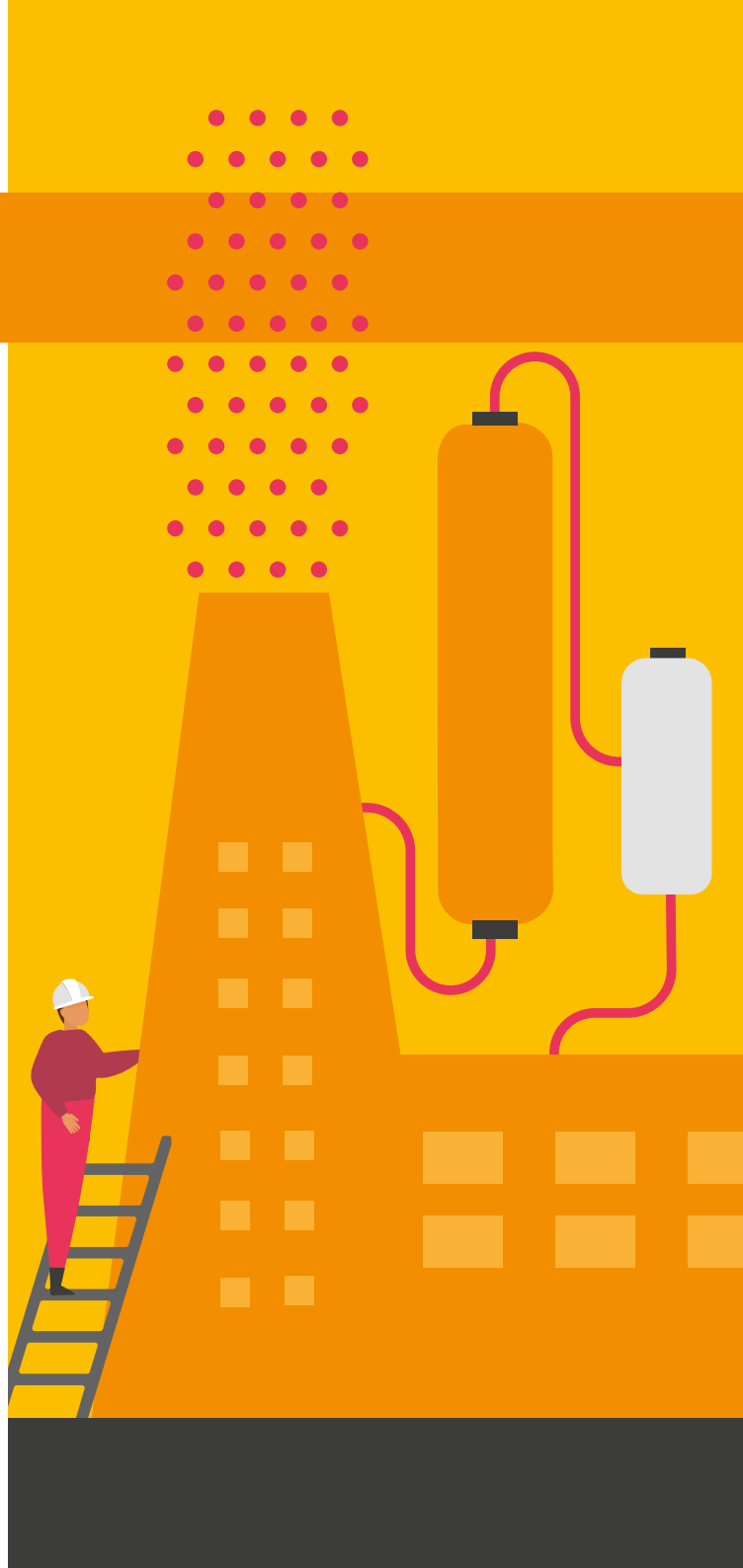
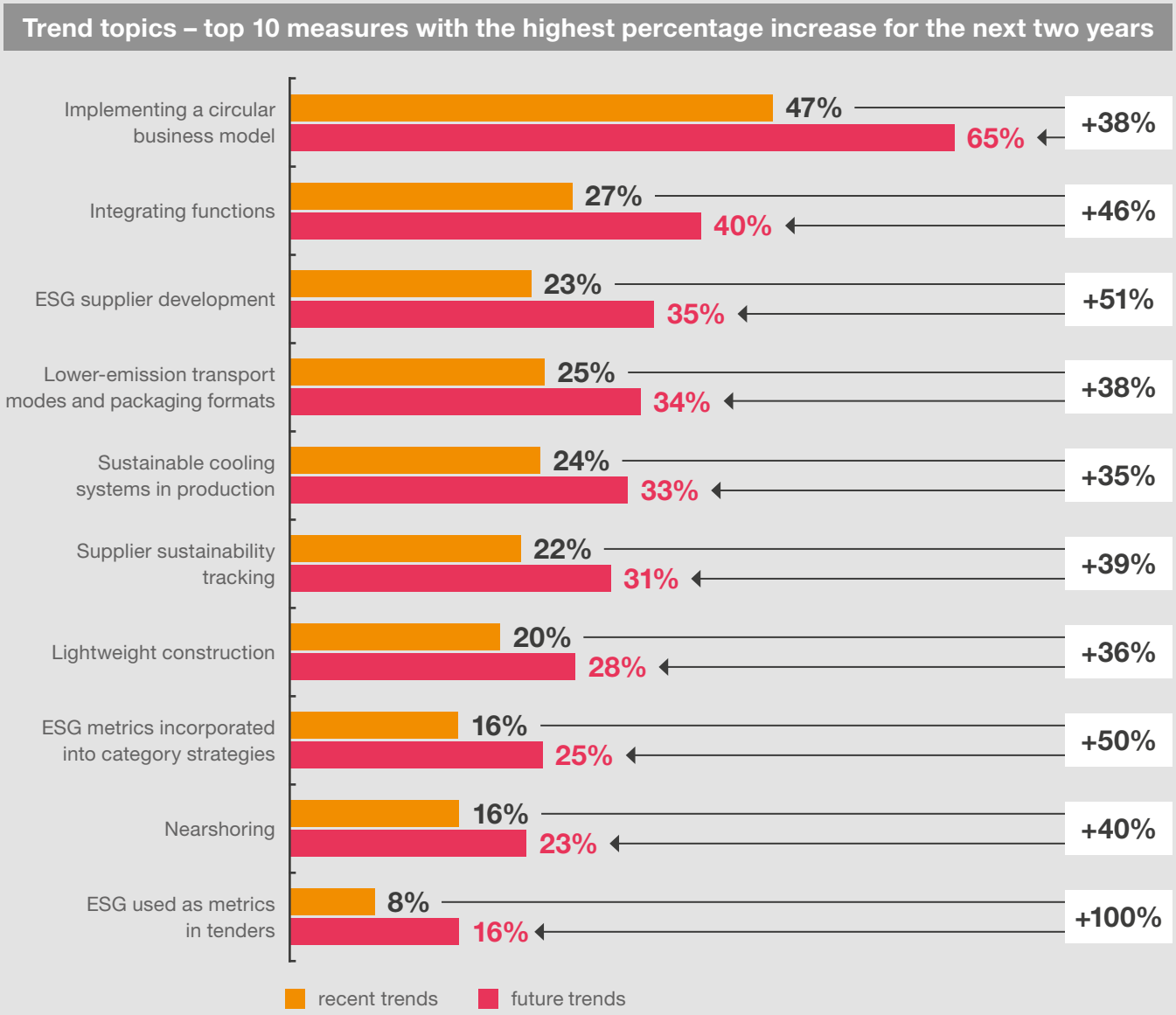


Fig. 15 **Implementation of a circular business model will be a central measure for 65% of companies in the next two years**



99%

of companies are considering ESG criteria in future investments

Working with clients globally, we appreciate this is a complex transformation process that is being carried out under intense public scrutiny. But the time to act is now. The good news is that many leaders told us they are laying the groundwork to speed up implementation. Consider this final, telling statistic: 99% of companies say they are applying ESG criteria to future investments. This is welcome news. We believe these investments will help companies become carbon competitive, spur innovation, and create opportunities that are currently unimaginable.

C Case Studies

Case study

Baker Hughes

Baker Hughes' path to net zero

Baker Hughes, one of the world's largest oil field service providers with sales of $20.5 billion in 2021, is committed to slashing emissions by half by 2030 and achieving net zero Scope 1 and 2 emissions by 2050. In pursuit of these goals, the US Fortune 500 company recently turned to PwC to help it map out a complex energy transition programme that delivers on net zero ambitions across a global business.

Baker Hughes' aggressive goals weren't set in response to pressures from its industry. The net zero decision was motivated more by a sense that the oil and gas industry had a critical role to play in solving the world's most serious global challenge. The company wanted to become a pioneer and role model in driving the energy transition.

Yet putting carbon reduction at the heart of a complex energy business is not just a matter of switching technologies. It is also a challenge for people management: getting employees and suppliers to agree to the scale and timeline of the company's ambitions was always going to be difficult. But today, the company has successfully put in place a net zero strategy with an agreed roadmap, covering the transformation of the enterprise to cut waste and emissions, and the implementation of a thorough sustainable supply chain framework backed by increased R&D work on low-carbon technologies.

The Vice President of Energy Transition at Baker Hughes says that the key to success was developing an ESG reporting system to transparently and accurately calculate the carbon footprint of the company's value chain, and show progress and risk related to its net zero commitment. To achieve this, PwC worked with the company to develop a net zero strategy supported by measurement tools and performance criteria that could demonstrate tangible progress towards net zero, and also to model both the physical and transition risks that come with an entirely new way of working.

Using the PwC-developed reporting tool, 350 calculations for Scope 1 and 2 emissions were performed to help inform strategic direction. Calculations were completed for hundreds of people, environmental data points and other key metrics. As a result, it was established that 95% of emissions were coming from the supply chain, rather than from the internal operations and energy supply covered by Scope 1 and 2 definitions.

This data enabled the steering committee to accelerate the net zero strategy through tools that enable manual and digital production of Scope 1 and 2 emissions data, as well as delivering an accurate and reliable emissions accounting structure.

The overall Baker Hughes emissions reduction programme – known in the company as "Carbon Out" – was supported by a coordinated global team of consulting and assurance professionals built by PwC, capable of collaborating across functions. The company also brought in external industry leaders to make recommendations, while PwC's sustainability professionals worked with Baker Hughes' in-house energy transition team and with the company's internal enterprise excellence organisation: this collaboration was to set up and tailor tools and reporting systems capable of driving the net zero strategy throughout operations.

The company says that these ESG efforts have benefitted not just the environment but also Baker Hughes' bottom line. More than 200 "people, planet and principle" metrics have been implemented in operations, and ESG-related investments – such as in R&D – have helped the company develop new technologies to help energy industry customers reduce their own carbon footprints. It's a win for the company, its customers, and the planet.

Case study

Aerospace company

An aerospace company converts to cleaner energy

An aerospace group with global operations is in the process of embedding tough new emissions standards in its operations. The company has set itself the target of reducing its Scope 1 and Scope 2 emissions by more than half before 2030, and reaching net zero by 2050. It turned to PwC for help with constructing a consistent global plan for sourcing renewable fuels throughout its operational network, including the creation of a future-proof sourcing strategy.

A renewable power strategy may be simple in outline but complex in practice. For this aerospace company, with plants spread across continents, the planned shift to primarily using biomass and biogas/biomethane fuel sources for heating was a clear win in terms of reducing greenhouse gas (GHG) emissions in line with the company's Science-Based Targets for overall GHG reductions in operations. However, there are considerable practical problems in creating a biomass fuel strategy that meets stringent ESG standards.

Biomass is one of the renewable fuels of the future. Although it accounts for only 10% of primary energy demand today, it is likely to play a critical part in the transition to zero-carbon energy. Biomethane is of particular interest – this is a processed and cleaned derivative of biogas extracted from biomass feedstocks like waste wood and agricultural by-products, which has exceptionally low carbon emissions when used as fuel. It has the additional benefit of reducing environmental emissions of pure methane, which is a potent greenhouse gas.

These are the fuels that the company targeted as key emissions-reducing fuel sources. However, all biofuels are subject to intense regulation designed to ensure that products such as biogas and biomethane are genuine contributors to overall GHG emissions targets, and are not generating their own hidden carbon emissions at some point in the production cycle.

The company needed to support its renewable energy investment decisions with a comprehensive understanding of the biomethane and solid biomass markets where it operated. It needed to develop a long-term view of these renewable fuel markets, including the regulatory environment, long-term fuel sustainability criteria, emissions data and total life-cycle impacts, as well as fuel availability and pricing forecasts. Each individual country of operation required its own analysis.

Future-proofing a renewable energy strategy requires more than just calculating the carbon reduction potential of alternative fuels plant by plant, and establishing that fuel sources like biogas and biomethane will pass regulatory tests and carry robust Guarantees of Origin. It also requires a sophisticated analysis of carbon transition policy and the political environment in relevant markets.

With the help of PwC, the company ranked individual energy markets in terms of alternative fuel availability, as well as current and forecast prices: these may be influenced by changing incentives and tax regimes. This was a market-oriented approach – building a low-carbon fuel strategy in China is very different to building one in the UK or EU, for example, and all markets and regulatory environments are subject to continual evolution.

By the end of this process, PwC had helped the company develop a clear vision of the current market fundamentals and the direction of travel in each relevant country. Having a clear understanding of real-world fuel performance, regulatory requirements and the capabilities of potential suppliers meant that the company understood renewable fuel technologies and the duration of contracts needed. At this point, it was ready to issue supplier RFIs and move towards achieving its exceptionally ambitious GHG reduction targets.

Case study

Food & beverages giant

How one food and beverages giant embedded regenerative agriculture

A global food and beverage group that sources agricultural products in more than quarter of the countries of the world is on a path towards fostering regenerative agriculture throughout its supply chain as part of a programme to reduce environmental impacts and cut carbon emissions. The company turned to PwC to help it develop a supplier playbook for leading practices, and then help roll out the programme in a way that encourages farmers to take ownership of the regenerative agriculture initiative.

Regenerative agriculture is a set of food and farming techniques designed to deliver broad social and environmental benefits. It includes ecosystem management through stewardship of soil, water use management, biodiversity protection and measures to improve financial rewards and quality of life for farmers across the world.

For this food and beverage giant, regenerative agriculture is part of a decade-long sustainable farming initiative, designed to make the company's agricultural sourcing 100% sustainable and improve the livelihoods of at least a quarter of a million farmers worldwide.

In the latest phase of its sustainable agriculture programme, the company decided that the principles and practices of regenerative agriculture needed to be developed in a supplier-first manner. This would be done by creating a playbook and associated learning materials that would allow farmers to bring their own knowledge and experience into the programme, and eventually to create their own regenerative agriculture initiatives.

The programme began with the creation of a supplier-specific playbook designed to facilitate exchange of knowledge between the company and its farming partners. In the first iteration of the document, PwC researched past sustainability initiatives to determine leading practices and spark innovation. A profile was created for the "average supplier" with minimal specific knowledge of regenerative agriculture, together with interactive materials to help suppliers set goals and adopt strategies, and a supplier registration and feedback process was also prepared.

With the core playbook in place, the second rollout phase began. This included an intensive programme of workshops on the client side to promote a common understanding of regenerative agriculture practices and targets among the procurement and sustainability teams, while the playbook was expanded with a library of real-world examples for suppliers to use, and the reporting template was fine-tuned for easy analysis of real-world impacts.

The development of case studies was particularly important in creating a dynamic programme: focusing on different crops and different regions, the case studies developed a thorough picture of regenerative agriculture in action, and of the benefits and targets achieved. This knowledge was then used to maintain the playbook as a living document.

The final deliverable included a thoroughly launched supplier-facing regenerative agriculture playbook with global relevance, the training of more than 50 corporate buyers on regenerative agriculture in the real supply chain, and the translation of the English playbook and supporting documents into six key languages.

But throughout, the overall mission remained the same: to disseminate practical knowledge of regenerative agriculture in a way that allowed suppliers themselves to begin to take ownership of the process, creating a dynamic that would make corporate targets on environmental and social impacts everybody's business.

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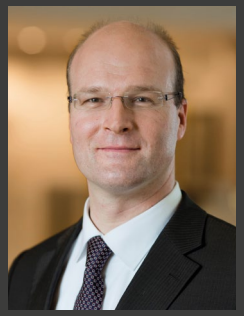

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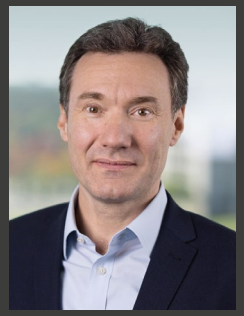

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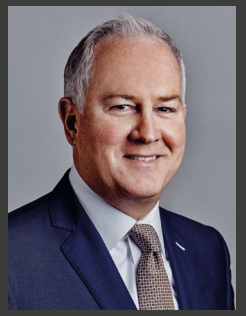

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About the study

Methodology

We ran in-depth interviews between 2 August and 13 September 2022 with 900 senior executives at mostly large companies. 89% reported revenues of over €1 billion. Industries included the automotive, electronics, and industrial manufacturing industries, the process industries, retail and consumer goods, medtech and pharma, the financial sector, and service industries. Half of the companies are based in Europe, but companies on every continent were included. Potential participants who said they had no knowledge of their company's ESG strategy were excluded from the survey.

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About us

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 152 countries with over 327,000 people who are committed to delivering quality in assurance, advisory and tax services.

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