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MORE PRAISED THAN PRACTISED

Sustainable innovation needs more
businesses on board

SUSTAINABLE INNOVATION IS TWO FOR THE PRICE OF ONE

Faced with repeated disruption in global and domestic markets, companies that can engage in constant innovation will be the ones that thrive. Meanwhile, ever-evolving reputational and regulatory requirements have made sustainability essential for ongoing success.

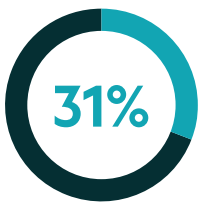
Sustainable innovation responds to both trends. It is the development of environmentally and socially positive products and services and the use of sustainable processes within research and development (R&D). And it is not a new idea — as early as 2011, the EU launched an Eco-Innovation Action plan — but over the past decade discussions in business journals of sustainability, innovation and the links between them have grown exponentially.¹

Now, sustainable innovation is making it into a (slender) majority of boardrooms. In an FT Focus survey of 300 corporate leaders worldwide, supported by Dassault Systèmes, 56 per cent say: “We know the importance of integrating sustainability principles into product and service development.”

¹ Maier, et al, 'The Relationship between Innovation and Sustainability: A Bibliometric Review of the Literature', Sustainability 2020 12(10) <https://www.mdpi.com/2071-1050/12/10/4083/htm>



BUT ADOPTION HAS BEEN LIMITED



of respondents' businesses include environment and/or social-related metrics when they look at the value of their product and service development.

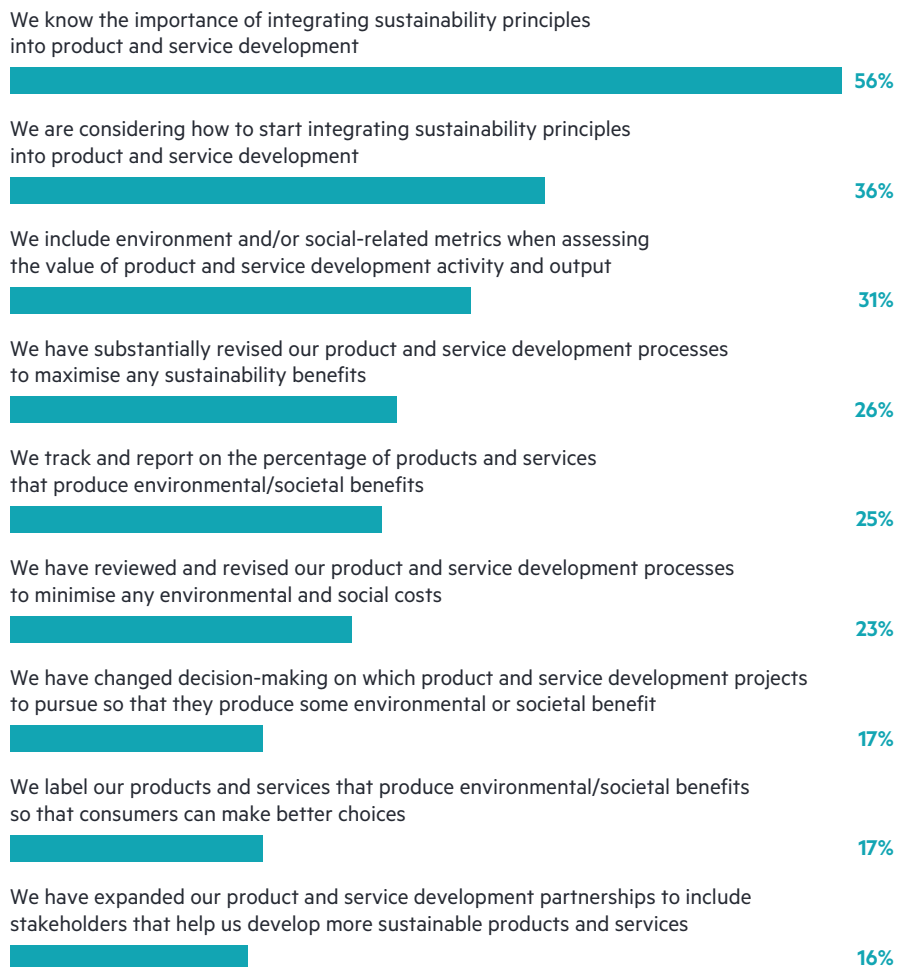
One big surprise from the survey is just how little progress companies have made toward sustainable innovation. Less than a third of our respondents' businesses, for example, include environment- and/or social-related metrics when they look at the value of their product and service development (see chart on right). Just 26 per cent say they have substantially revised their product and service development processes to maximise sustainability benefits. Even fewer (17 per cent) have changed decision-making to consider environmental or societal benefits.

The proportion of companies that have adopted important elements of sustainable innovation — such as life-cycle considerations, circular design, relevant key performance indicators and collaboration with external partners — also remains small. In each of these cases, it is less than 20 per cent of respondents. Fewer than a quarter of those surveyed, meanwhile, are putting a greater focus on producing their existing goods and services in more sustainable ways (see chart on next page).

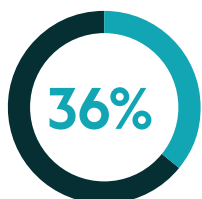
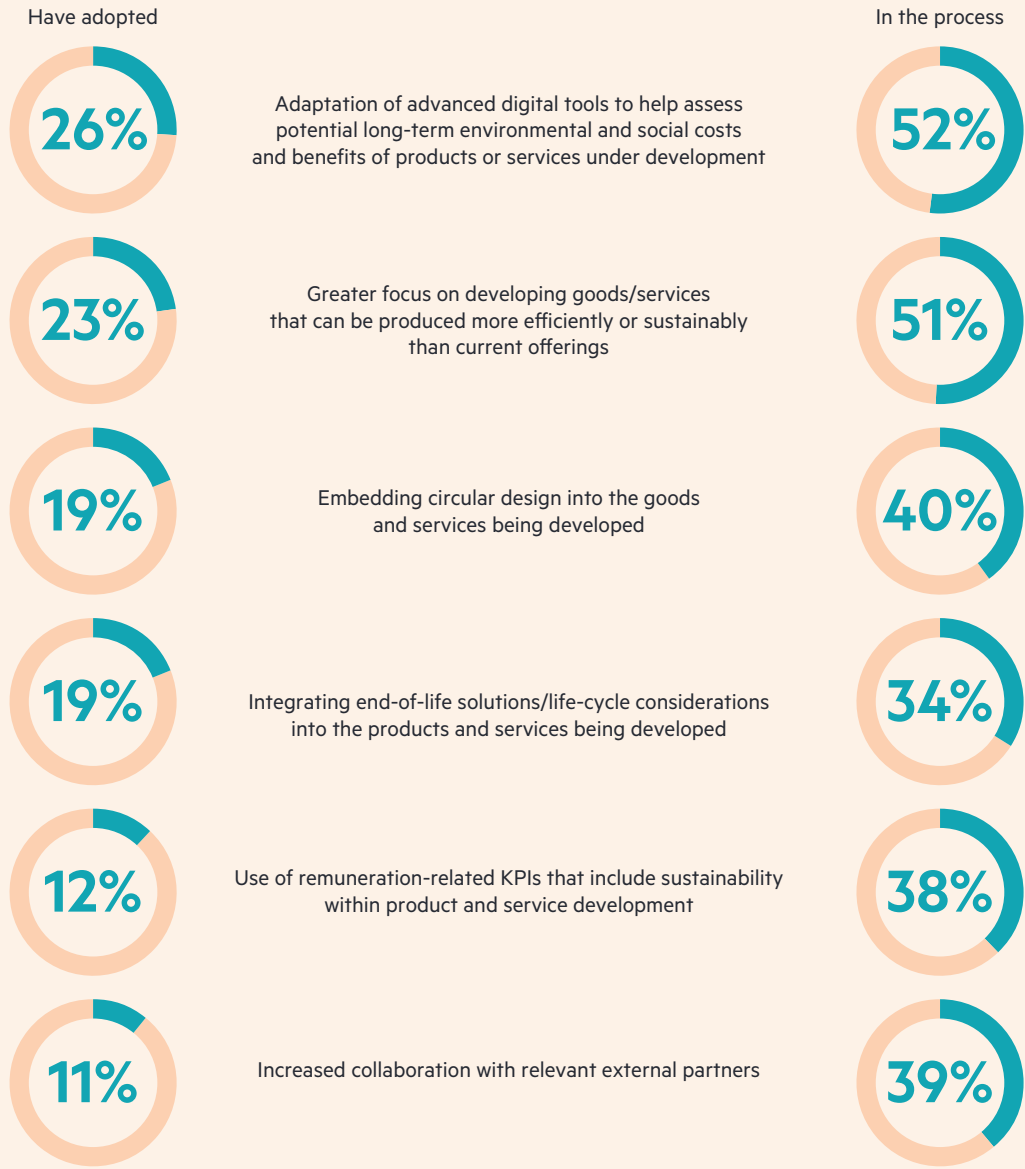
So some companies are pursuing sustainable innovation, but far fewer than those where executives say it is important.

SUSTAINABLE INNOVATION IDEAS ARE NOT YET WIDELY EMBRACED

Which of the following accurately describe the integration of sustainability principles into product and service development at your company?



ONLY A MINORITY OF BUSINESSES HAVE ADOPTED NEW WAYS TO DESIGN AND BUILD SUSTAINABLE PRODUCTS, BUT MANY MORE ARE IN THE PROCESS



are considering how to start integrating sustainability principles generally into product and service development.

But businesses are making progress. About half of the surveyed companies say they are integrating sustainability-related elements into their R&D activities, and 36 per cent say they are considering how to start integrating sustainability principles generally into product and service development. The question is how quickly they will do that.

STILL ONLY A NICHE INTEREST

Sustainable innovation's low position on corporate agendas suggests that progress will not be rapid. According to our survey, commitment to sustainable product and service development remains constrained within silos at most companies.

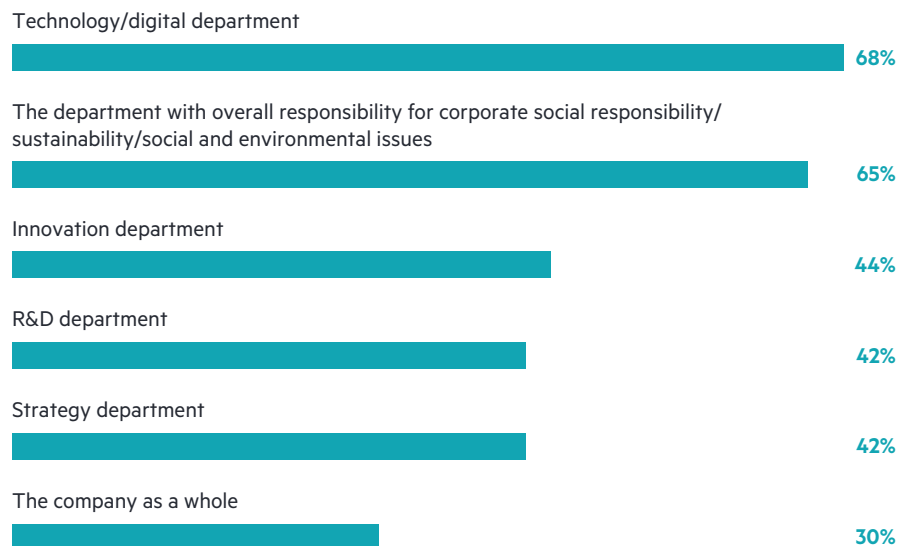
Perhaps unsurprisingly, it is a high or leading priority for 65 per cent of departments responsible for social and environmental issues, but is a lower priority within innovation, R&D and strategy departments (see chart on right). IT departments are the exception: among those executives who report increasing alignment between sustainability and IT functions, 74 per cent say that sustainable innovation is a leading or high priority in technology departments. Where there is not that alignment, the figure drops to 49 per cent — similar to the other individual functions in the survey. IT's greater interest in this field, then, probably reflects its work with sustainability functions rather than something inherent to its own field of responsibility.

Meanwhile for the C-suite as a whole, sustainable innovation is an important consideration at only a minority of companies. Just 30 per cent of respondents describe it as a significant priority for their firms overall.

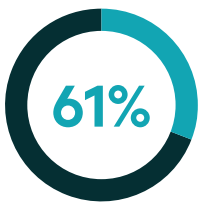
Among surveyed executives who have formal sustainability roles, only 24 per cent say that it is a priority for the company as a whole, and just 43 per cent say that the company knows how important the issue is. And more respondents say that the development of more sustainable products and services at their company lacks urgency as an issue among senior executives than say the opposite (42 per cent compared with 33 per cent).

SUSTAINABLE INNOVATION RARELY TOPS THE PRIORITY LIST

How much of a priority is sustainable product and service innovation to the following departments and the company? (Respondents who selected "One of a handful of priorities" or "Single biggest priority".)



WHAT IS STOPPING THEM?



say that increased development of sustainable products and services would require substantial business-model change.

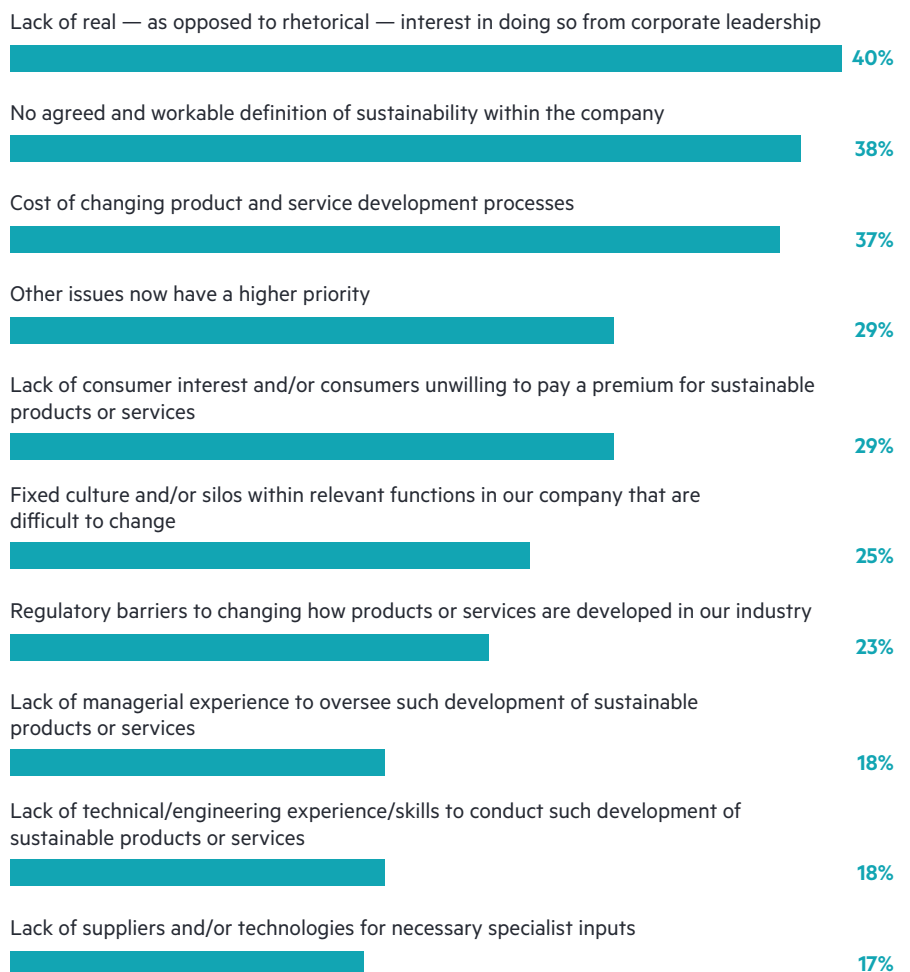
Many executives believe that these improvements come with high costs and that the potential gains are advantages they already have. Sixty-five per cent of respondents say that the size of the environmental and social footprint associated with their products already represents a competitive advantage; just 16 per cent disagree. Meanwhile, 61 per cent say that increased development of sustainable products and services would require substantial business-model change.

So the main barriers to developing more sustainable products and services are those that tend to come with any idea that has not yet gained any traction within a company (see chart on right). These include a lack of real — rather than just rhetorical — leadership interest (40 per cent); no agreed and workable definition of sustainability within the company (38 per cent); and the perceived cost of changing product and service development processes (37 per cent).

As sustainable innovation becomes more widespread, the number of companies struggling with foundational issues such as leadership and cost is likely to decline. The number wrestling with practical matters, meanwhile — such as finding technical and managerial skills — is likely to rise.

THERE IS A LEADERSHIP GAP ON SUSTAINABLE INNOVATION

What are the biggest obstacles at your company to developing and providing more sustainable products and services?



IS SUSTAINABLE INNOVATION REALLY WORTH IT?

Businesses may not be paying much attention to sustainable innovation, but how much of a problem is that? Does it deliver returns in practice? Our data suggests it does.

To answer this question, we began by looking at the roughly 10 per cent of companies that reported the greatest progress in incorporating seven sustainability-enhancing attributes into how they design, build and deliver products and services.² We then compared this 'leader group' with one of similar size comprising the businesses that acknowledged the least progress.

There is one difference between these two groups that is particularly striking. Of the leader group, 81 per cent believe that the size of the environmental and social footprints associated with the production and use of their output is a competitive advantage, compared with 40 per cent of the other group. Only 6 per cent of the leader group disagree, compared with 31 per cent of the other group. So the firms that are moving ahead fastest are doing more than burnishing their ESG credentials — they are pushing to outperform in the marketplace.

² The seven sustainability-enhancing attributes:

1. Some form of sustainability calculator/assessment tool to quantify potential environmental and social benefits
2. A greater focus on developing goods/services that can be produced more efficiently or sustainably than current offerings
3. Embedding circular design into the goods and services being developed
4. Integrating end-of-life solutions/life-cycle considerations into the products and services being developed
5. Increased collaboration with relevant external partners
6. Use of remuneration-related KPIs that include sustainability within product and service development
7. Adaptation of advanced digital tools to help assess potential long-term environmental and social costs and benefits of products or services under development



Two lessons from the sustainable innovation leaders

1. Expand the definition of sustainability within innovation

The idea of sustainability came from concern about environmental issues, and then it evolved to include social ones as well. For sustainable innovation, this evolution appears to still be in its early stages.

By far the most frequent way that those surveyed assess whether sustainable innovation investments are worthwhile is by looking at whether they reduce environmental footprint (44 per cent). The second is lower production cost (34 per cent) — a result of lower use of resources and, therefore, of reduced environmental footprints. But social returns are a less common metric. Only 25 per cent say they consider reduced social costs when they assess success in sustainable innovation, and just 21 per cent consider improved stakeholder relations.

Encouragingly, the data suggests that greater use of sustainable innovation will drive a change in understanding. Among our leader group, the same proportion (42 per cent) use improved environmental footprint and reduced social costs as metrics of success.

On the other hand, any kind of innovation is about creating new products and services, but only 24 per cent of those surveyed say their companies measure success in sustainable innovation in terms of improved sales. This figure is about the same (23 per cent) for our leaders.

For sustainable innovation to endure as a strategy, the financial bottom line will need to matter as much as the environmental and social ones. The figures cited above on competitive advantage (see 'Is sustainable innovation really worth it?') suggest that it can deliver there too.

2. Advanced technology is a key step

Given the complexities of assessing the environmental, social and economic benefits of a new product or service, it is essential to find ways to measure them.

To do this, companies are looking into a range of technologies, from 3D printing and virtual reality to the use of blockchain and so-called digital twins (virtual counterparts of physical products), to name just a few. These can also sharply accelerate the speed of sustainable innovations (see "Wunda: Another step towards net zero for Nestlé").

Once companies can use advanced digital tools to better understand where they are, they will be able to see both where sustainable innovation can take them and how to get there.



CASE STUDY:

WUNDA: ANOTHER STEP TOWARDS NET ZERO FOR NESTLÉ

Few companies have more potential to bring sustainable products into the lives of consumers than Nestlé, the world's biggest food company. From KitKat chocolates to Nespresso coffee, it sells more than 2,000 brands, which generated nearly €80bn in revenues in 2020.

One of Nestlé's latest products is Wunda, a plant-based, carbon-neutral milk alternative made from yellow peas, which launched in May 2021. New launches like this help the company towards its 2050 [net zero sustainability pledge](#), while appealing to the growing numbers of consumers who are looking for more plant-based products.

Plant-based milks have enormous potential to reduce emissions. According to the [Food and Agriculture Organization of the United Nations](#), cattle raised for either milk or beef account for about 65 per cent of the agricultural sector's 7.1 gigatonnes of annual carbon dioxide emissions. "Interest [in alternatives like Wunda] is high, and demand is increasing," says Nestlé chief technology officer

Stefan Palzer, who helped to support the product's development. "The more people switch, the better it is for them, but also for the planet."

Despite Nestlé's size, Palzer says it is capable of innovating rapidly, and Wunda's journey from idea to launch took just six months. One driver of this innovation was the company's [new R&D Accelerator](#), which launched in late 2020 to support innovation in sustainable dairy and plant-based products.

Nestlé's sustainability efforts are steered by its global head of ESG strategy and deployment, Antonia Wanner, but related work spans every part of the business — from supply chain to packaging. Developing a product like Wunda taps into

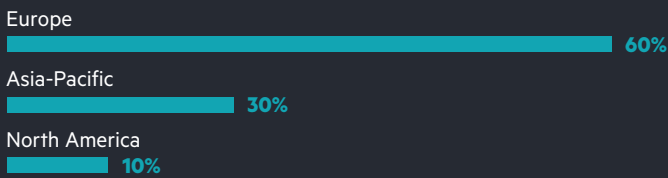
the company's wide range of expertise, from plant science to nutrition.

Another driver of Nestlé's innovation has been digital technology, which supports everything from product development to food safety, to supply chain management and marketing. In its supply chain, for example, it is now using blockchain and satellite monitoring to track raw materials. So technology and research are helping to drive new product development while helping towards net zero goals.

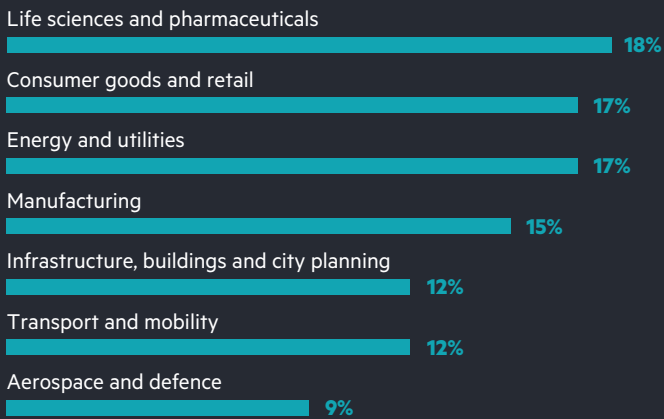
ABOUT THE RESEARCH

The survey polled 300 senior R&D, sustainability and technology executives during June and July 2021.

RESPONDENTS WERE LOCATED IN



THE SURVEY TARGETED SEVEN CORE INDUSTRIES



ALL OF THE ORGANISATIONS HAD AT LEAST



