

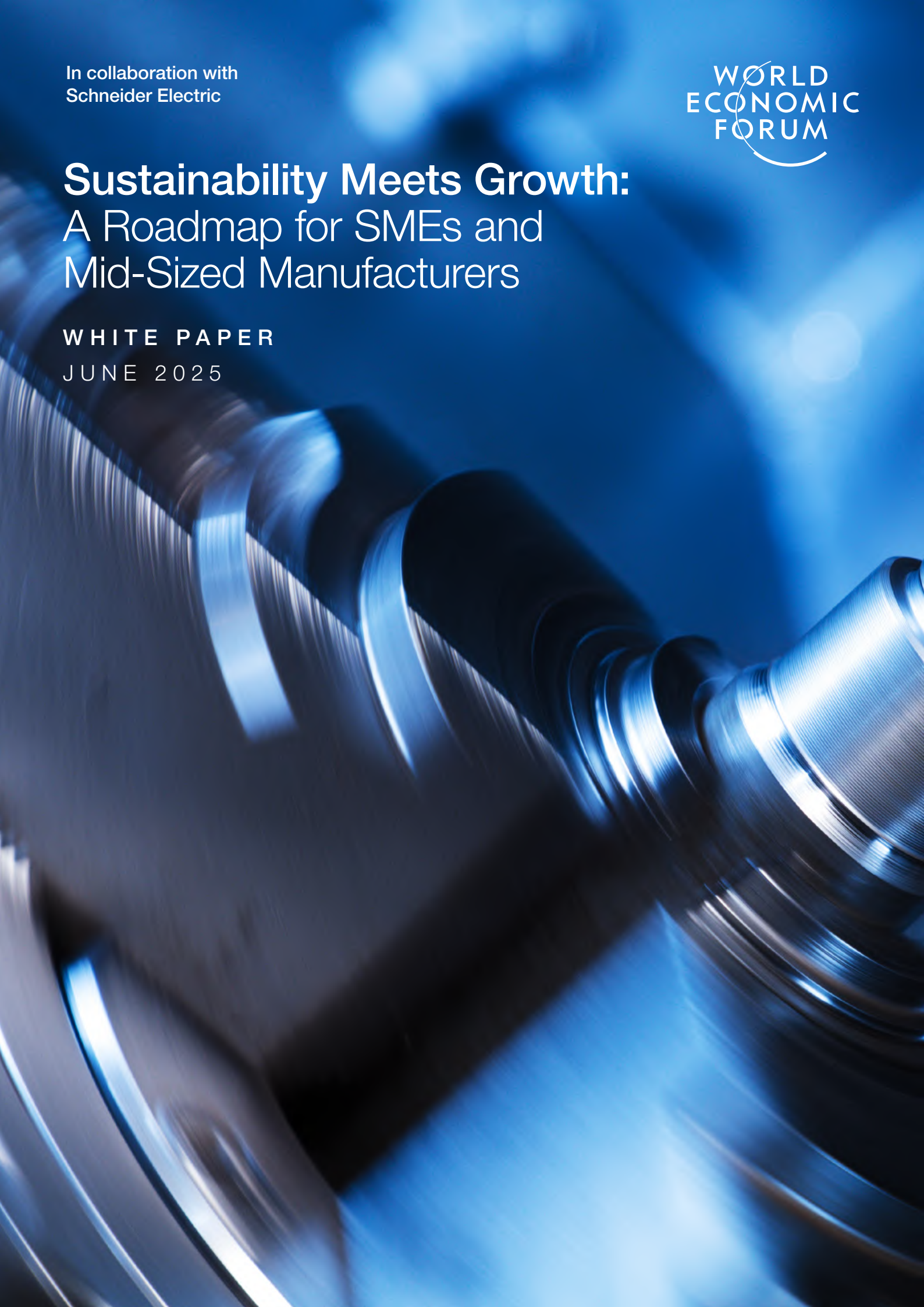
In collaboration with
Schneider Electric



Sustainability Meets Growth: A Roadmap for SMEs and Mid-Sized Manufacturers

WHITE PAPER

JUNE 2025



Contents

Foreword	3
Executive summary	4
Introduction	5
1 Boosting economic and environmental impact: Sustainability as a business enabler	7
1.1 Reducing costs and emissions through operational efficiency	7
1.2 Strengthening talent attraction and retention	7
1.3 Unlocking new business models and revenue	8
2 Manufacturing SMEs and mid-sized companies' perspectives on environmental sustainability	9
3 An actionable sustainability roadmap for SMEs and mid-sized manufacturers	11
4 Supporting SMEs and mid-sized manufacturers to advance their environmental sustainability goals	17
Conclusion	22
Appendix	23
Contributors	24
Endnotes	26

Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

© 2025 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, or by any information storage and retrieval system.

Foreword



Kiva Allgood
Managing Director,
World Economic Forum



Esther Finidori
Chief Sustainability Officer,
Schneider Electric

Environmental sustainability has become a cornerstone of the global agenda, and the need for collective action has never been more urgent, as the opportunity to cap global warming at 1.5°C above pre-industrial levels is rapidly escaping. Governments and industry both play a crucial role in this transition, whether through policy or corporate sustainability efforts aimed at reducing carbon footprints. In parallel, rising geopolitical tensions and growing supply chain complexity highlight the urgent need to support and empower smaller businesses, whose resilience and adaptability are essential to economic growth and societal well-being.

Small and medium-sized enterprises (SMEs) and mid-sized companies¹ risk being left behind in this critical transition, not because they lack potential to benefit from it but because the current sustainability agenda often overlooks their unique realities. Unlike large corporations, SMEs and mid-sized manufacturers face distinct challenges: tighter cash flow that makes upfront investments daunting, less bargaining power to influence green procurement throughout supply chains and limited capacity to navigate complex reporting frameworks. Yet excluding these businesses from the sustainability transformation is not only inequitable but also economically and environmentally unsustainable given that they represent 90% of all businesses and account for nearly 70% of global jobs² and 40% of industrial pollution across OECD countries.³

This raises a critical question: what are the most effective levers that SMEs and mid-sized companies can adopt to accelerate change? As humanity strives to address climate change, it is time to rethink traditional approaches and explore innovative, scalable solutions as well as collective actions in the public and the private sectors and for companies of all sizes to deliver a positive environmental impact while promoting economic growth.

Although SMEs and mid-sized companies face distinct challenges, they also possess the agility and potential to drive meaningful change when equipped with the right tools and support. By aligning sustainability with business strategy – not as a cost but as a competitive advantage – they can contribute significantly to global climate goals while securing long-term economic growth.

It is time to mobilize collective action in the public and private sectors to equip companies of all sizes in the manufacturing ecosystem with the knowledge, resources and roadmaps needed to thrive in a rapidly evolving world, ensuring that no one is left behind in the transition to a more sustainable future.

Executive summary

Sustainability is more than just a responsibility – this paper looks at how SMEs and mid-sized manufacturers can turn it into a strategic growth opportunity with the right support and a clear roadmap.

Small and medium-sized enterprises (SMEs) and mid-sized companies form the backbone of the global economy, accounting for approximately 70% of employment and 90% of businesses worldwide.⁴ However, despite their collective impact, they often face unique challenges in adopting sustainability practices, ranging from limited resources to a lack of knowledge and expertise. This has resulted in a slower integration of sustainability practices among SMEs and mid-sized companies in the manufacturing and supply chain ecosystem compared to large multinational corporations (MNCs), which have started to embrace the benefits and potential of sustainability in areas such as low-carbon product innovation, circular supply chain models, green procurement and enhanced sustainability reporting to meet investor and regulatory expectations.

Sustainability Meets Growth: A Roadmap for SMEs and Mid-Sized Manufacturers challenges the mindset that sustainability is merely a cost by reframing it as an inclusive opportunity, aligned with the realities and needs of SMEs and mid-sized companies. To drive an inclusive and scalable sustainability transformation of industries, the World Economic Forum, in collaboration with Schneider Electric, has launched the SME Sustainability Accelerator, building on the meaningful impact of the [Industry Net Zero Accelerator](#) initiative and shared expertise developed within its scope, and the work of the Forum's global [Chief Operating, Supply Chain & Procurement Officers Community](#) on supporting the digitalization of SMEs for supply chain resilience, sustainability and competitiveness.

The SME Sustainability Accelerator aims to strengthen the business case for sustainability among SMEs and mid-sized companies, equip them with actionable roadmaps and mobilize targeted support from both public and private sectors. By mapping the current landscape, identifying important barriers and enablers and articulating the needs of this community, it enables smaller manufacturers to embed sustainability as a core driver of long-term growth and competitiveness.

Based on insights from a global survey of 60 manufacturing SMEs and mid-sized companies from diverse geographical areas and sectors, along with consultations with industry and policy experts, this paper introduces a roadmap with five key stages for incorporating environmental sustainability into a company's strategy and implementation, tailored for the SME and mid-sized manufacturer community. It also includes a summary of key support mechanisms and existing resources that can best enable them to be successful in this transition.

Industries stand at a pivotal moment where sustainability is not just a choice but rather a strategic imperative for long-term competitiveness. Manufacturing SMEs and mid-sized companies can emerge as powerful drivers of a more sustainable and resilient global economy. With tailored support and applying an actionable roadmap, they have the potential to lead the transformation towards a sustainable future for manufacturing.

Introduction

The important part SMEs and mid-sized companies play in industrial supply chains means their role is crucial in reducing emissions and the environmental footprint.

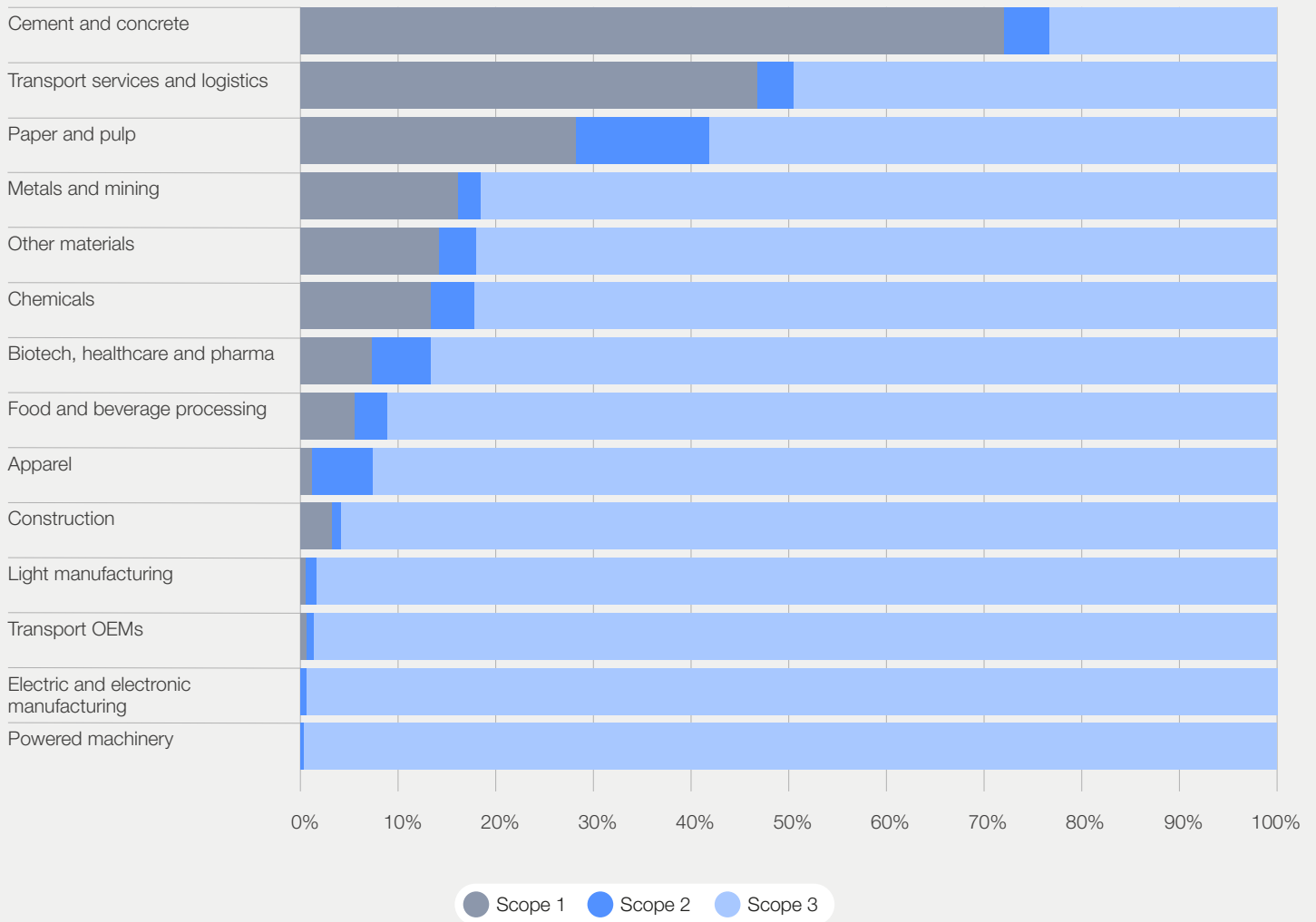


Industrial operations are central to the climate challenge, as direct and indirect emissions from industries accounted for 34% of global emissions in 2019.⁵ Manufacturing SMEs and mid-sized companies constitute a significant portion of these emissions, as research estimates show that SMEs alone represent roughly 40% of industrial pollution in Organisation of Economic Co-operation and Development (OECD) countries.⁶ (Note that [for the purposes of this paper](#), SMEs are defined as companies with approximately €10 million–€50 million in annual turnover, and mid-sized companies as approximately €50 million–€1.5 billion [up to \$1.75 billion] in annual turnover.)

To better understand how SMEs and mid-sized companies fit into the overall industrial emissions picture, a review of Scope 1, Scope 2 and Scope 3 emissions distribution across industries is helpful.

Figure 1 shows the estimated Scope 1, Scope 2 and Scope 3 emissions breakdown in a number of industries based on CDP (formerly the Carbon Disclosure Project) data.⁷ With the exception of the cement and concrete and transport services industries, all of the listed sectors have the majority of their emissions stemming from Scope 3.

FIGURE 1 | Scope 1, 2 and 3 emissions for selected industries



Source: Extracted from CDP and Capgemini Invent. (2023, July). [From stroll to sprint: A race against for corporate decarbonization](#); CDP. (2022). CDP, [CDP Technical Note: Relevance of scope 3 categories by sector](#).

An important takeaway is that to reduce industry emissions effectively, companies must address their Scope 3 emissions. For those with the majority of emissions in the Scope 3 upstream category, this will require active engagement with their suppliers. SMEs and mid-sized companies play a significant role in the supply chain of many large corporations, making it essential for those aiming to reduce their carbon footprint to integrate SMEs and mid-sized suppliers into their decarbonization strategies.

In 2024, the World Economic Forum launched the SME Sustainability Accelerator in collaboration

with Schneider Electric to support manufacturing SMEs and mid-sized companies in accelerating the sustainability transformation.

Drawing on insights from a global survey with 60 SMEs and mid-sized companies and interviews with industry and policy experts, the following sections outline an SME's roadmap for integrating sustainability into corporate strategies as well as key support mechanisms and resources to help SMEs and mid-sized manufacturers succeed in this transition.

1

Boosting economic and environmental impact: Sustainability as a business enabler

Companies are using sustainability initiatives to streamline operations, attract talent and drive innovation and growth.

Manufacturers across sectors face a common challenge of managing cost pressures while continuing to drive business growth. This task has become increasingly complex amid ongoing supply chain disruptions, geopolitical and trade uncertainties, and growing resource constraints. For SMEs and mid-sized manufacturers, these challenges are often amplified by their limited scale

and resources, which constrain their bargaining power and operational flexibility throughout the value chain. In the face of these challenges, there is an opportunity for SMEs and mid-sized manufacturers to use sustainability as a strategic lever to unlock an array of benefits that can help them drive growth and strengthen long-term resilience.

1.1 Reducing costs and emissions through operational efficiency

Viewing manufacturing operations from a sustainability perspective can unlock substantial cost savings, directly enhancing a company's bottom line. One example is the Jiangsu plant of the Yunzhibao Foodstuff Company.⁸ Yunzhibao Foodstuff is a manufacturer and exporter of confectionery goods, and its Jiangsu plant is one of the largest facilities producing sweets and confectionaries in China. When initially commissioning the plant to respond to rapidly growing consumer demand, the company knew it needed to build an operation that made the most of innovative automation technologies to maximize process efficiency. Working with factory

design experts and automation solution providers, Yunzhibao incorporated sensors, power meters and data analytics software into its production process to ensure that its use of energy and raw materials was as efficient as possible. These solutions enabled the company to eliminate product deviations due to operator error and gain process traceability from raw materials to finished product. This enabled the Jiangsu plant to realize a 10% increase in operational efficiency and a 5% decrease in production costs compared to other Yunzhibao Foodstuff facilities that do not use digitalized automation.

1.2 Strengthening talent attraction and retention

Data from a 2021 IBM Institute for Business Value study⁹ shows that 69% of global respondents would be more likely to accept a job with an organization they consider to be environmentally sustainable. Embedding sustainability can help SMEs and mid-sized companies gain a competitive advantage in the job market to attract and retain top talent. One such example is Brewery Vivant, a craft

brewery in the United States that has incorporated sustainability into its recruitment and employee training strategies.¹⁰ Brewery Vivant encourages all new employees to complete a sustainability class and highlights its sustainability-related initiatives in its recruitment and promotional materials, helping it to stand out from its competitors in a crowded craft beer market.

1.3 Unlocking new business models and revenue

Sustainability can also serve as a catalyst for innovation, enabling SMEs and mid-sized companies to unlock new business models and revenue streams. For instance, some companies are re-evaluating their production and operating models to identify overlooked opportunities in materials previously considered as waste. Ananas Anam, a UK-based start-up that produces Piñatex – an alternative to leather used in the fashion and apparel industry – has gone down this route.¹¹ The company was inspired by traditional garments made with plant-based fibres in the Philippines and sought low-cost, natural materials to develop a more sustainable substitute for leather. This

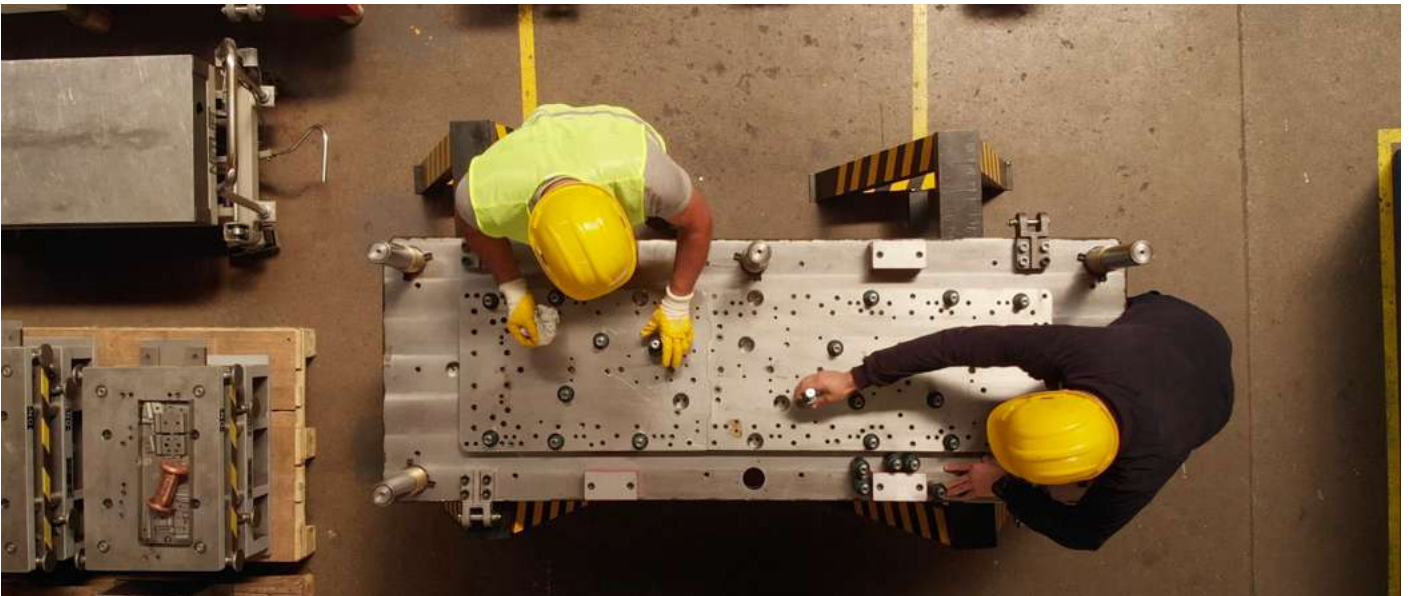
led to the creation of Piñatex,¹² a textile made from pineapple leaves – a waste by-product of pineapple harvesting. Today, Piñatex is used by major fashion brands such as Hugo Boss and Paul Smith, transforming a waste stream into a profitable product.

The above examples highlight how sustainability can affect operational efficiency, attract talent and create business models and revenue. While they demonstrate the business case for sustainability, the greater challenge lies in effectively integrating it into a company's operational and corporate strategy, which is explored in the sections that follow.



2 Manufacturing SMEs and mid-sized companies' perspectives on environmental sustainability

What are the attitudes, concerns and challenges for SMEs and mid-sized companies in advancing sustainability?



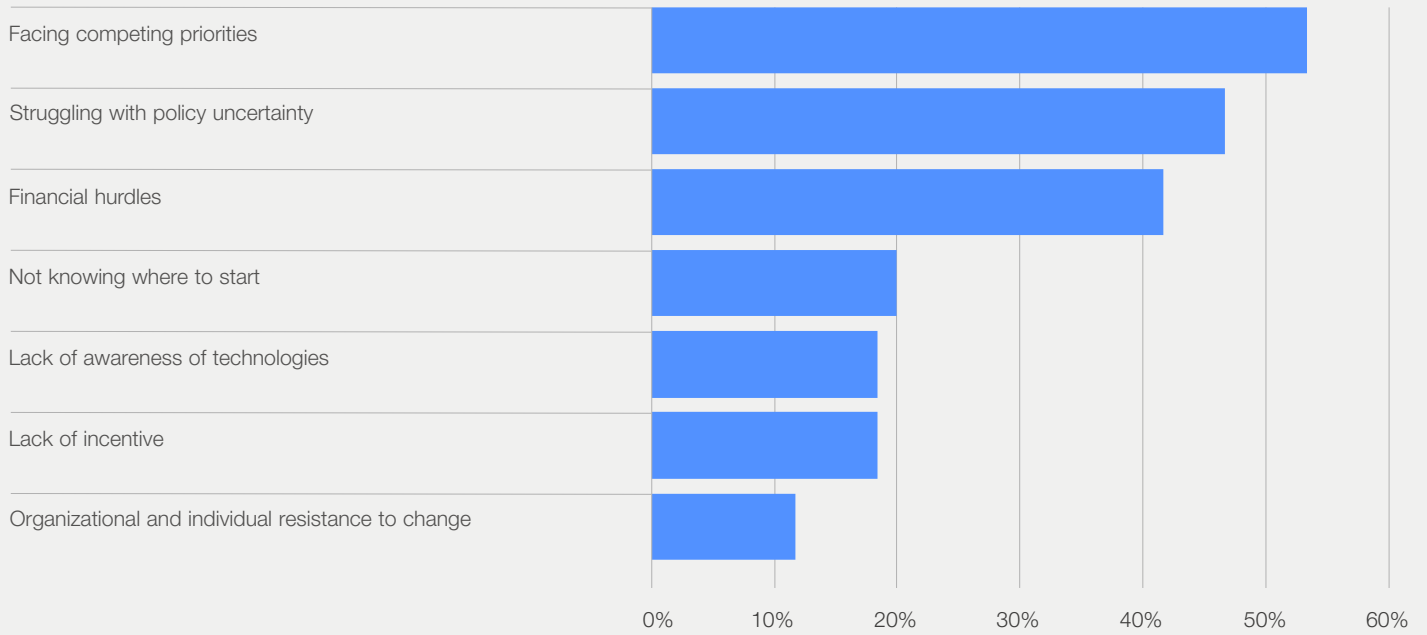
To identify the roadmap and supporting mechanisms most relevant to the context and needs of manufacturing SMEs and mid-sized companies, the SME Sustainability Accelerator conducted a global survey from September 2024 to February 2025, which received valid responses from 60 SMEs and mid-sized companies in diverse sectors (including manufacturing, automotive, chemicals, information technology, retail and consumer goods and agriculture) and geographical areas (Europe, the Middle East and North Africa, East Asia, North America, South-East Asia, Africa and South America) to understand their perspectives, approaches taken, challenges faced and key needs (see Appendix).

Some 68% of survey respondents indicated that their organization has a positive perspective on

sustainability, with 38% of respondents viewing it as a business opportunity. Only 17% of respondents indicated that their company had minimal or no sustainability strategies in place, highlighting that the majority of SMEs and mid-sized firms are exploring ways to integrate sustainability into core business practices. Additionally, only 18% reported that their companies are trending away from their sustainability targets or had none in place. While it is important to acknowledge the self-reported nature of the survey, the findings nonetheless indicate that SMEs are aware of the importance of sustainability and of taking initial actions towards it.

When it comes to what drives such action, 60% of respondents cited customers and market demand as the primary driver for engaging in sustainability initiatives, followed at 23% by regulatory requirements.

FIGURE 2 | Top hurdles identified by surveyed SMEs and mid-sized manufacturers in setting up and advancing sustainability goals

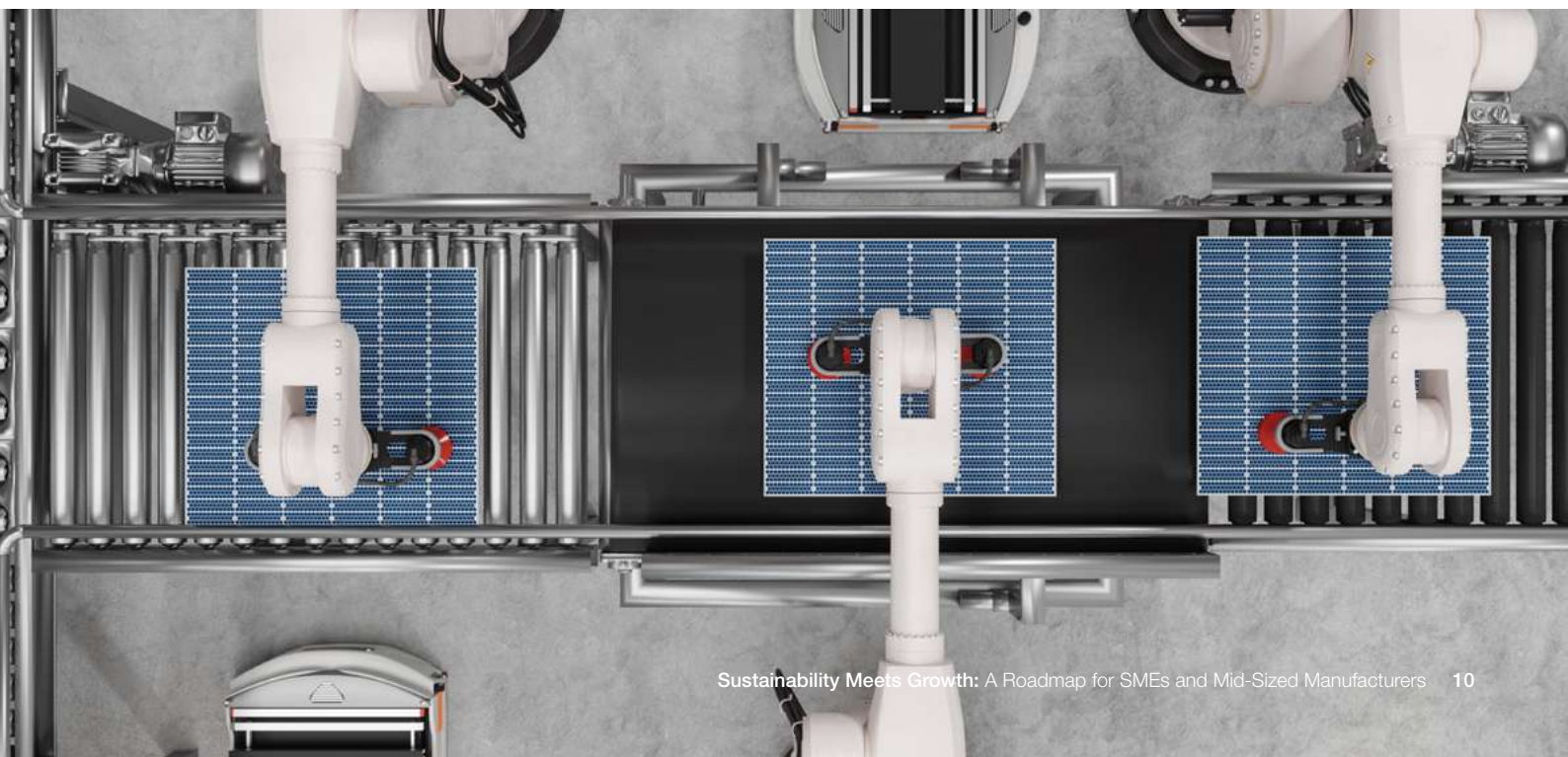


Source: Survey conducted by the SME Sustainability Accelerator of the World Economic Forum

Figure 2 highlights the main challenges faced by SMEs and mid-sized companies in setting and/or advancing their sustainability goals. Competing priorities – such as cost-cutting or business expansion – were cited by 53% of respondents as the most significant obstacles, keeping in mind that the current geopolitical tensions might further increase the complexity of decision-making processes and shift business priorities. The result suggests that sustainability is often seen as a task to be traded off against other priorities. However, it is important to stress that sustainability enables key business objectives rather than competes with them. A

well-integrated sustainability approach can reduce operational costs and generate revenue, which can be reinvested to support other business goals.

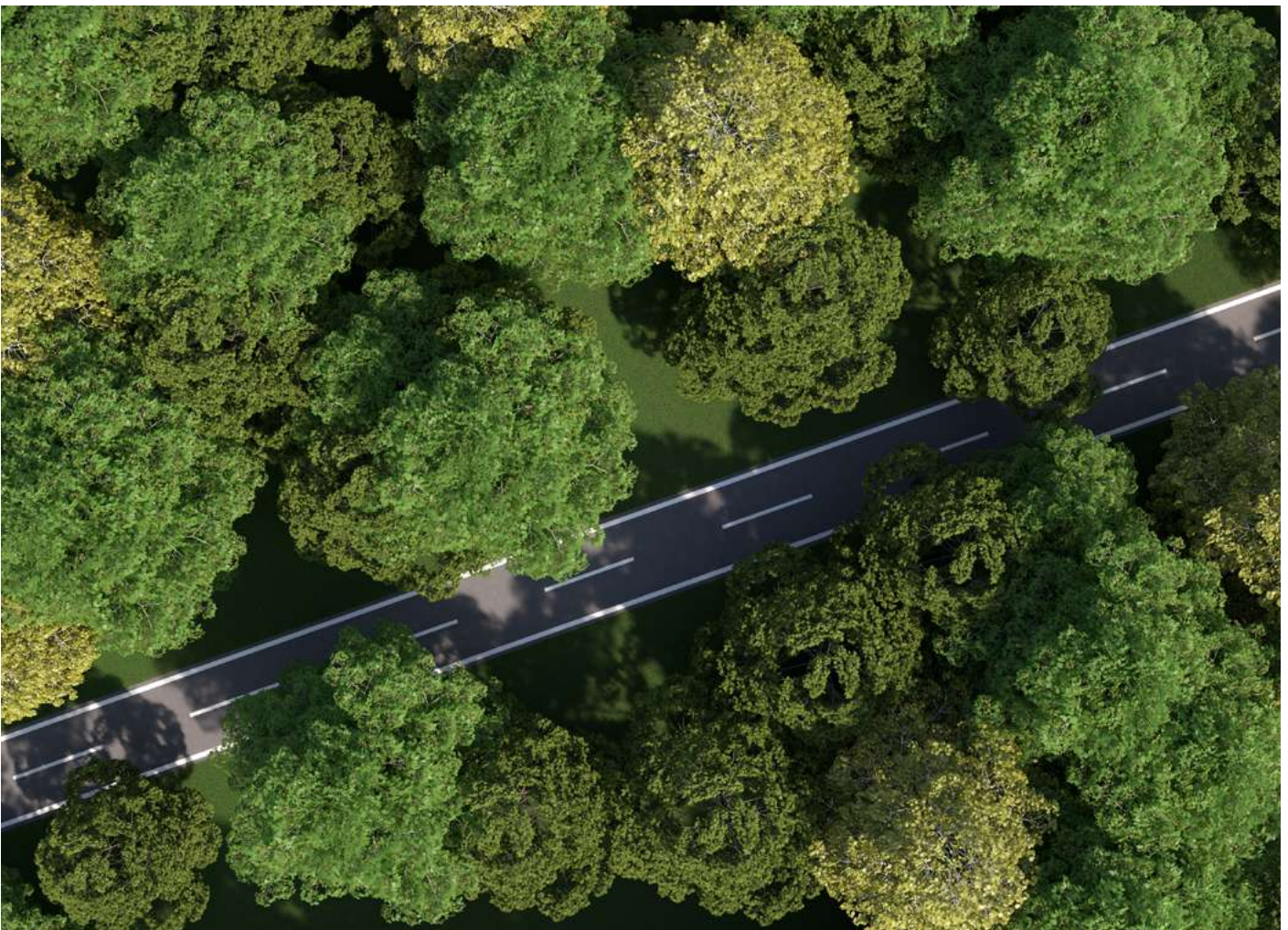
Additional challenges include policy uncertainty (47%) and financial constraints (42%). It is noteworthy that financial constraints did not emerge as the only barrier when it comes to hurdles to advancing sustainability goals. Education and awareness about how sustainability can drive core business value – along with consistent and transparent policy and regulatory frameworks – are also critical pillars for accelerating sustainability progress.



3

An actionable sustainability roadmap for SMEs and mid-sized manufacturers

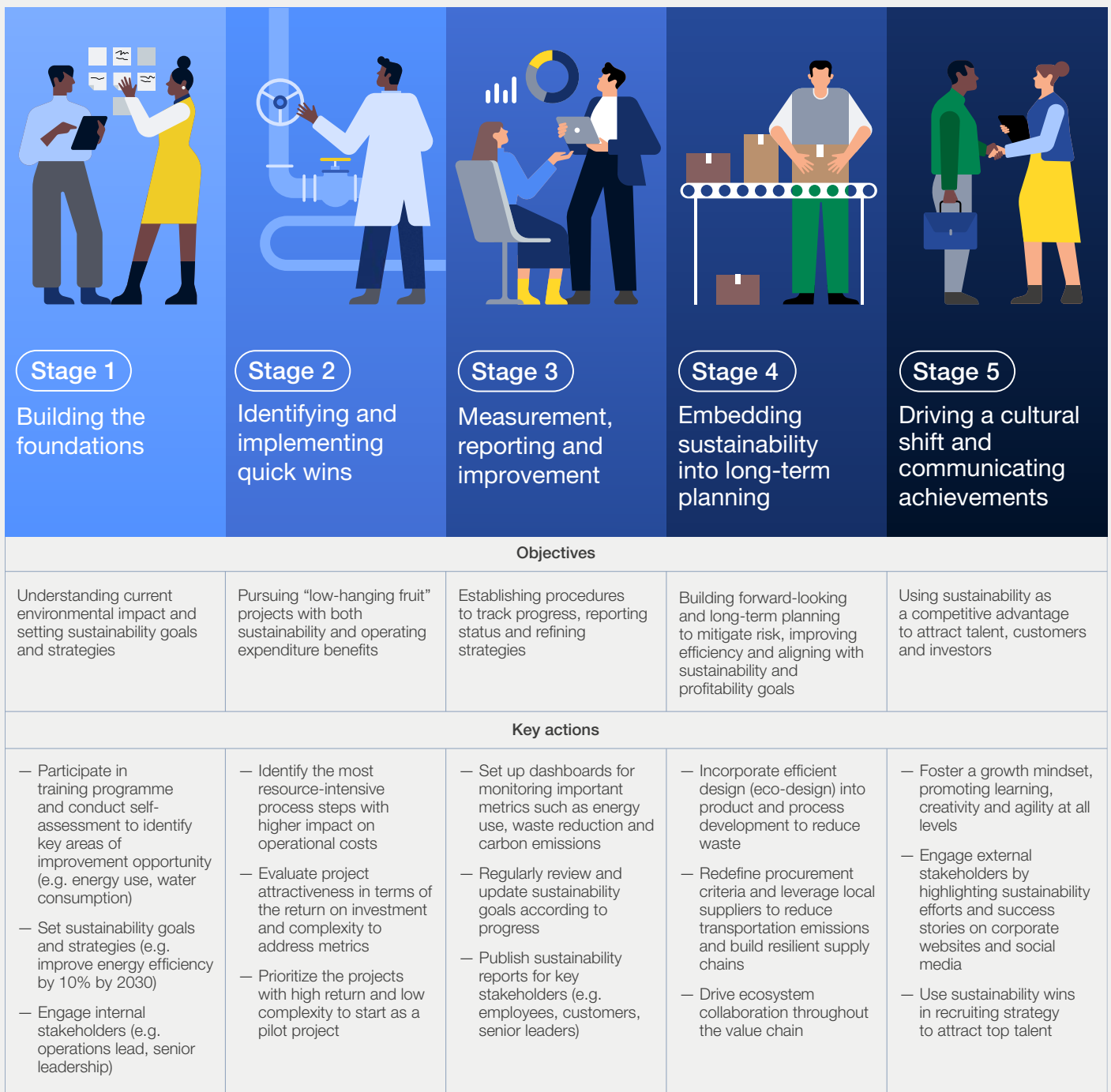
The five-stage roadmap aims to help smaller manufacturers embed environmental sustainability into their operations and strategy.



Drawing on insights from the survey and consultations with stakeholders in the SME and mid-sized manufacturing ecosystem, the SME Sustainability Accelerator has developed a five-

stage roadmap to guide SMEs and mid-sized manufacturers in effectively integrating sustainability into their operational practices and corporate strategy (Figure 3).

FIGURE 3 | Sustainability meets growth: A roadmap tailored to SMEs and mid-sized manufacturers to embed sustainability into their operations and strategy



Source: SME Sustainability Accelerator, the World Economic Forum

To establish an environmental sustainability programme effectively, manufacturers need to assess their starting point and build an understanding of sustainability principles and methodologies.

In an ideal scenario, companies would train dedicated staff in the Greenhouse Gas (GHG) Protocol, the leading framework for corporate

carbon accounting. In reality, limited time and resources often prevent smaller firms from forming full sustainability teams. Despite these challenges, such companies can designate a “sustainability lead” within their operations teams to receive targeted training on key environmental metrics and the basics of Scope 1, 2 and 3 emissions.

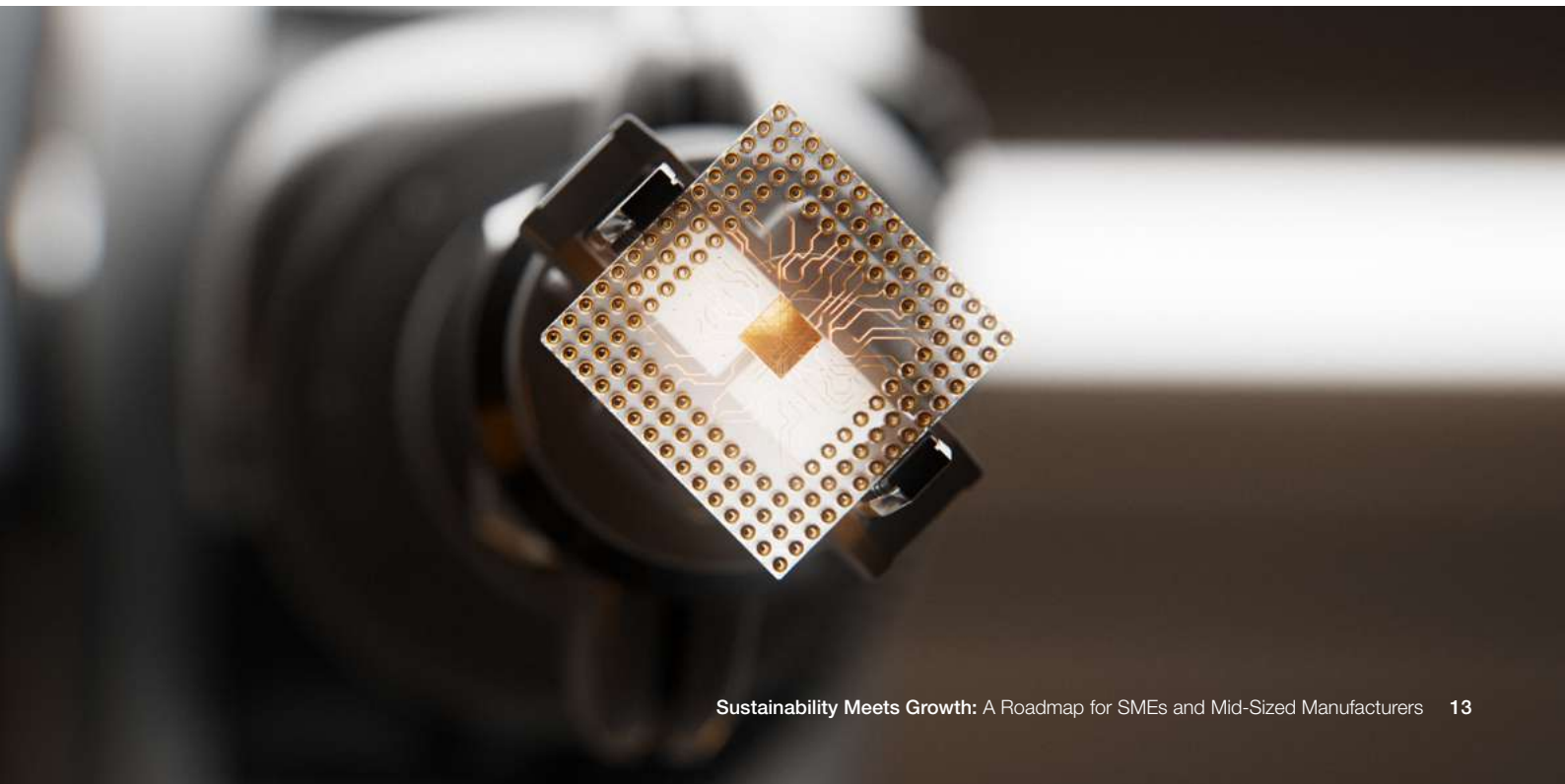
BOX 1 Examples of tailored training platforms for SMEs and mid-sized companies

Several initiatives have emerged to support smaller businesses in building foundational knowledge and an understanding of environmental performance metrics. Here are some examples:

- The **Green Industry Platform’s SME Support Centre**¹³ provides smaller firms and supporting organizations with easy access to knowledge to enhance material efficiency, energy and waste management and water saving and implement targeted measures towards achieving a sustainable and resource-efficient business.
- The **SME Climate Hub**¹⁴ offers free, accessible training modules on measuring and reducing emissions, including practical guidance on Scope 1, 2 and 3 emissions.
- The **United Nations Global Compact SPARK Programme**¹⁵ empowers smaller businesses through practical sustainability training and peer learning, helping them integrate responsible business practices into operations and scale their impact in environmental, social and governance areas.

Once a baseline understanding is established, sustainability leads can assess the company’s value chain to identify the most important opportunities for improving eco-efficiency. Are operations energy-intensive, and if so, have potential efficiency improvements been fully explored? Do the materials used in products constitute a significant proportion of operating expenses? When was the last time product-design teams were tasked with optimizing the use of costly materials in the end product? Such questions help prioritize areas for deeper analysis.

In addition, internal sustainability goals and strategies should be set at the corporate level. For example, if a value chain review reveals fresh-water usage as a vital area for improvement, a bold yet achievable goal might be to improve water efficiency per unit produced by 15% by 2030. This would reduce the environmental footprint while increasing profit margins. Companies should not spend an inordinate amount of time to determine the “perfect” target, as goals may evolve with deeper insights and evolving processes. Targets should be made based on logic and experience: setting targets is a flexible process, instead of a fixed milestone.



Stage 2

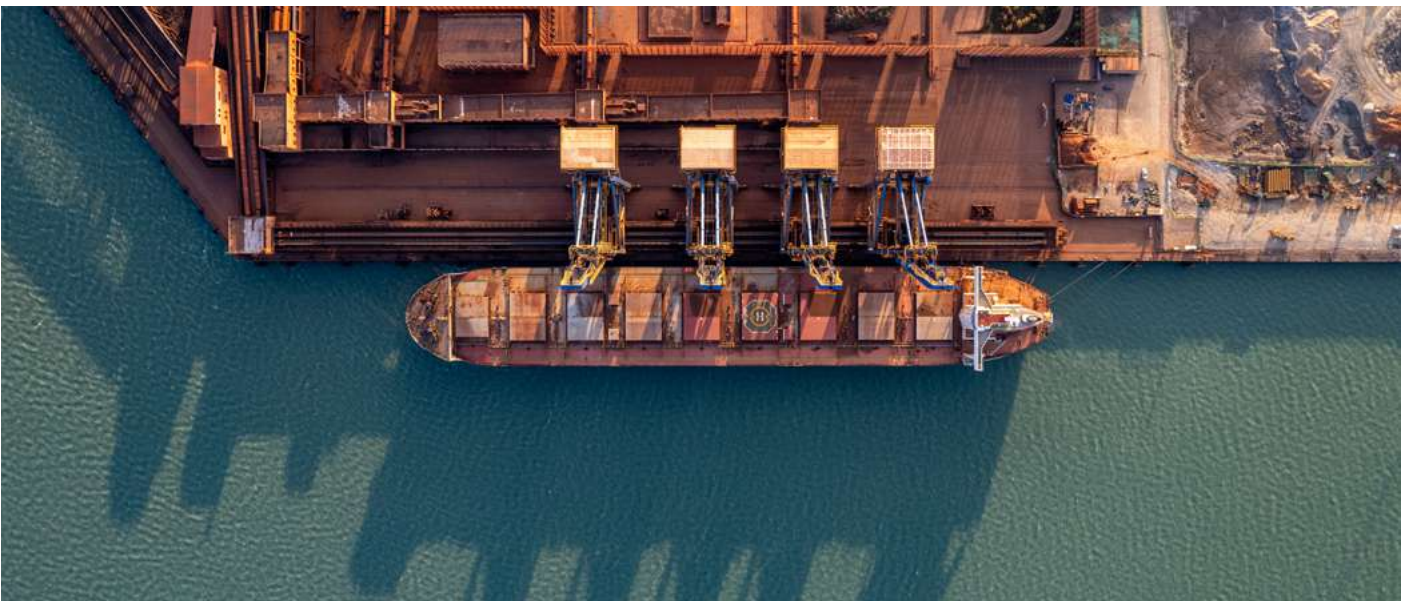
Identifying and implementing quick wins

Once companies have completed a high-level review of the business areas that present the greatest opportunities for efficiency gains, specific initiatives and projects need to be prioritized. One method of prioritization, identified through consultations and review of implementation frameworks, is to evaluate potential projects in terms of two primary metrics: return on investment (ROI) and complexity to address.

While the ROI aims to accurately assess the economic value a project can bring through channels such as cost savings or additional revenue realized, the complexity to address metric requires assessing the difficulty in planning and implementing the project. To ensure consistency

and credibility in the assessment, organizations should engage process experts – both internal stakeholders with operational knowledge and external specialists where required. Adopting a clearly defined evaluation framework at the outset, including standardized scoring criteria and complexity indicators, is essential.

When all identified projects have been evaluated using these two metrics, those with high ROI and low complexity can be prioritized to start with as they can help to establish early wins and the principal learnings in a sustainability programme, which can also serve as pilots to be scaled in multiple facilities or process stages.



Stage 3

Measurement, reporting and improvement

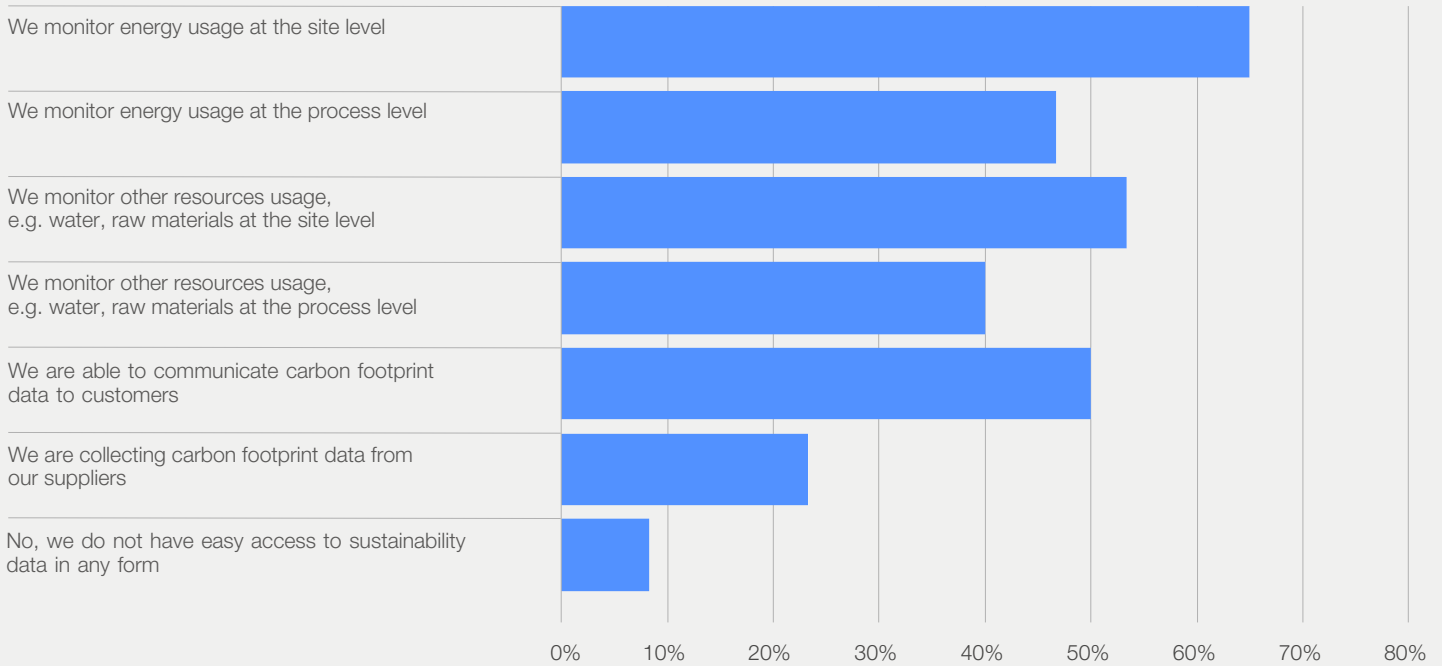
Once the project(s) to start with has/have been identified, the next stage involves execution, management and reporting. At this stage, standard project management best practices apply, including but not limited to alignment and communication with senior leadership, measurement of progress against predefined project milestones and documentation of the main successes and challenges encountered for future reference.

Before execution, a post-implementation measurement process with clear key performance indicators (KPIs) should be planned to align with sustainability goals. For example, if the project involves installing variable speed drives (VSDs) on pumping motors to save energy, energy savings from VSDs can be tracked and translated into cost

savings and Scope 2 emissions avoided. Results can be recorded digitally and visualized using a dashboard for regular updates.

As part of the measurement process, improving access to accurate, real-time sustainability data is critical for businesses to set meaningful targets, track progress and respond to growing regulatory and customer expectations. However, many SMEs and mid-sized manufacturers still face challenges in systematically gathering and using data related to their environmental impact. While some of them have begun monitoring key areas such as energy consumption, water use and raw material inputs at the process or site level (Figure 4), comprehensive data collection – especially regarding carbon footprint throughout the supply chain – remains limited.

FIGURE 4 | A detailed look at sustainability data collection with respondents, exploring the extent to which the surveyed companies have used data and digitalization



Source: Survey conducted by the SME Sustainability Accelerator of the World Economic Forum

Building the capability for automated data collection is an important enabler, as the principle that “you cannot improve what you do not measure” remains particularly true in manufacturing. Connecting power meters to data aggregation software is one illustration of how digitalization enables more efficient and accurate data capture. By integrating sensors, edge-layer controls and manufacturing software, businesses can automate data collection across almost any process, leading to improved production oversight and operational performance when deployed effectively.

The path to digitalizing operations varies by process, with different variables and data collection methods.

Solution providers often offer free learning resources to guide the modernization of systems through digitalization.¹⁶ Once a digitalization strategy is in place, SMEs can work with distributors and system integrators to select and implement solutions, using preferred partner lists or peer networks for recommendations. In Section 4, examples of network resources are highlighted for reference.

Following post-implementation monitoring and incorporating lessons learned, companies can scale successful projects across additional operations to drive further process improvements.

BOX 2 Carbon calculators and the reporting tool designed for SMEs and mid-sized companies

The SME Climate Hub offers smaller firms a suite of free, user-friendly tools to help SMEs begin measuring their carbon emissions across Scopes 1, 2 and 3 in various scenarios and create annual GHG emissions reports with the tailored template originated from CDP’s framework. The tools include:

- A **Small Business Carbon Calculator** for businesses with 1–50 employees at a single site, enabling emissions estimation with basic operational data
- An **Advanced Business Carbon Calculator** for companies with multiple sites, providing a detailed and auditable emissions measurement tool

- A **Scope 3 Specific Calculator** converting procurement data into accurate Scope 3 emissions information, helping businesses address supply chain emissions
- The **SME Reporting Tool** as a free online platform to enable smaller businesses to create annual climate reports, with a template tailored for them and originated from CDP’s *Climate Disclosure Framework for Small and Medium-Sized Enterprises*

Source: Consultation with SME Climate Hub; SME Climate Hub. *Calculate your business emissions.* <https://smeclimatehub.org/start-measuring/>; SME Climate Hub. *Report your progress.* <https://smeclimatehub.org/report-your-progress/>

Stage 4

Embedding sustainability into long-term planning

Building on the impact achieved and derived learnings from initial quick-win sustainability projects, organizations can shift to embedding sustainability in their overarching operational and corporate strategy. SMEs and mid-sized manufacturers can consider tackling longer-term high ROI initiatives that were previously set aside due to moderate-to-high complexity to address.

Examples could include incorporating efficient design or “eco-design” principles into product

development, or redefining procurement strategy and working with supply chain leads to identify additional suppliers that may be closer to the company facilities and could be integrated into the existing supply chain to increase operational resiliency and reduce emissions. These types of projects may take longer to execute and require the establishment of new processes or standard operating procedures, but they can lead to long-term value while also reducing a company’s carbon footprint.

Stage 5

Driving a cultural shift and communicating achievements

The transition to environmental sustainability is not merely a technical challenge; it requires a cultural and organizational transformation. This transformation should involve everyone in the business, from leadership to front-line teams and extend across supply chains and customer relationships.

Common cultural barriers include a lack of shared vision, limited incentives and sustainability not being deeply embedded into the company’s DNA. Overcoming these challenges starts with creating a compelling and inclusive vision for sustainability. This vision should be integrated into day-to-day operations, performance metrics and reward systems so that sustainability becomes integral to how people work. At the same time, investing in

green skills is essential, especially through upskilling current teams and attracting new talent equipped to lead the transition.

Finally, to maintain momentum, the journey should be kept exciting and purposeful by developing a culture of continuous learning and celebrating milestones. Recognizing both big and small wins – whether it is reducing emissions, completing a training programme or adopting new practices – helps maintain engagement and reinforce a sense of progress. When sustainability becomes embedded in a company’s culture and daily actions, it evolves from a distant objective into a driver of innovation and long-term growth.



4

Supporting SMEs and mid-sized manufacturers to advance their environmental sustainability goals

In building and consolidating sustainability in their operations and strategies, SMEs and mid-sized manufacturers would benefit from help and guidance.



To inform private- and public-sector actions in supporting the sustainability transition, this paper has identified the most effective support mechanisms that can be deployed to help SMEs and mid-sized manufacturers establish and advance sustainability (Figure 5). These are based

on the survey results on the needs expressed by smaller businesses as well as consultations with operations and sustainability executives on best-practice mechanisms that have demonstrated positive impact.

FIGURE 5 | Key support mechanisms from the public and private sectors to help SMEs and mid-sized manufacturers advance environmental sustainability goals



Source: SME Sustainability Accelerator, the World Economic Forum



Finance

While funding is not the sole support mechanism needed, it is emerging as a key priority to overcome the capital expenditure (capex) barrier that challenges many SMEs and mid-sized players from the outset. Grants and tax breaks are traditional examples of funding initiatives but are not the only types of financial support that can have an impact.

Governments can offer “matching” grants, where the funding amount corresponds to the cost savings identified through efficiency projects undertaken by SMEs and mid-sized companies. This approach encourages accountability and amplifies impact. The Energy Trust of Oregon¹⁷ exemplifies such an approach in its commercial incentives programme.

Another area of support needed is in applications for funding. Of the companies surveyed for this paper, 69% have not obtained external funding, primarily due to unsuccessful efforts in searching for and applying for it. Governments can also provide financial assistance in the form of loan application support specialists. Loan application specialists with sustainability expertise can help translate efficiency project data into formats that align with banking requirements, thereby increasing the likelihood of loan approval. The Green Industry Platform demonstrated the effectiveness of such support with a Kenyan tea leaf co-operative. Without loan application support, the co-op had only a development bank willing to fund a part of the project. With the application support, the co-op received approval from three traditional banks.¹⁸



Knowledge

Identifying high-impact and scalable projects to prioritize can be a challenging task even for experienced operations leaders, especially if they lack a background in managing eco-efficiency or sustainability-focused initiatives. This challenge is even more pronounced for SMEs and mid-sized companies, which often operate with limited

resources and internal expertise. To bridge this gap, support from both the public and private sectors is essential. Governments, industry associations and larger corporations can play a critical role by providing access to knowledge, tools and best practices.

BOX 3

Examples of tailored tools for SMEs and mid-sized companies

There are several practical tools that can help SMEs and mid-sized companies understand how to approach the sustainability endeavour.

- **Energy Kaizen**¹⁹ is a platform offering a free Energy Savings Insight Report tool that recommends energy-saving projects for SMEs, tailored by industry sector, with average energy savings data.
- **EvanAll**²⁰ provides videos, webinars and a Brains Not Wallets Accelerator that offers workshops and peer-to-peer learning on integrating sustainability into operations to unlock savings.

- The **I-GO Tool** provided by the **Green Industry Platform**²¹ suggests key focus areas for companies to set or advance sustainability goals by completing a quick evaluation form, with recommendations based on industry sector knowledge.
- The **World Economic Forum's Alliance of CEO Climate Leaders**²² developed a guided net-zero journey for SMEs, covering internal alignment, climate targets, systemic mitigation actions and engaging suppliers and stakeholders.

Many large corporations are training smaller manufacturers in their supply chains on sustainable practices, focusing on energy efficiency, waste reduction and green technologies. Through collaboration, they help smaller manufacturers adopt eco-friendly operations, enhance cost savings and strengthen supply chains for a greener future. Schneider Electric launched the Zero Carbon Project²³ in 2021 to help its top suppliers reduce operational emissions (Scope 1 and Scope

2) intensity by 50% by 2025 – a critical step towards its broader goal of net-zero emissions by 2050. Through training, digital tools and tailored support, the initiative helps suppliers measure emissions, set targets and implement reduction strategies. More than 1,000 suppliers have joined, achieving a 42% operational emissions intensity reduction by Q1 of 2025, with 70% assessing their carbon footprint for the first time.



Network

Networks – including those formed among SMEs and mid-sized companies as well as broader ecosystems of public institutions, corporates, financial institutions and solution providers – play a critical role in advancing environmental sustainability. By connecting with peers, SMEs and mid-sized companies can learn from real-world case studies, exchange methodologies and collaborate on shared challenges. At the same time, being part of a wider ecosystem enables SMEs to tap into support from government programmes, sustainability experts, investors and technology partners. Together, these networks create an enabling environment in which SMEs are empowered to take meaningful action and scale their impact.

The SME Climate Hub²⁴ has a regional hub network through which SMEs can connect with peers who are working on sustainability in their region. The Circular Economy Leaders' Community,²⁵ established by the Green Industry Platform, enables businesses to connect with others that are either launching circular business models or offering circularity-related services. Vital activities include mapping and connecting circular initiatives to clarify who is doing what and how, co-developing a shared circular economy language through a common knowledge taxonomy and building a digital system to integrate and streamline circular economy knowledge platforms and hubs.



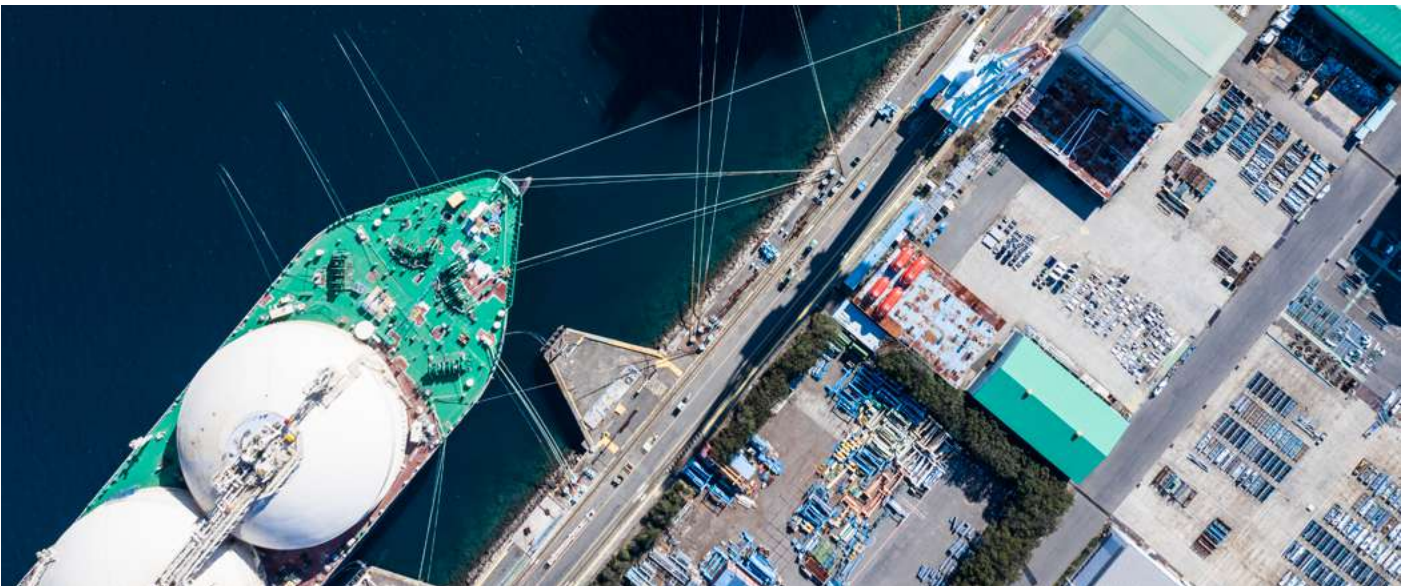
Policy

Similar to large corporations, SMEs and mid-sized companies are looking for clearer guidance from governments regarding environmental and climate policies and how best to align with evolving policy expectations. In many cases, existing policies and regulations may not fully reflect the practical realities faced by smaller businesses and often lack the consistency and stability needed for long-term planning. There is an opportunity for governments to further outline their climate ambition and policy trajectories in the short, medium and long terms, while also considering how to design policies that are both effective and proportionate to the capacities of businesses of varying sizes.

Harmonizing sustainability standards requires strong policy support to align national regulations with international frameworks, ensuring consistency across markets. Governments can play a key role by facilitating cross-border collaboration, incentivizing adoption and embedding SME-friendly

pathways into sustainability policies. This enables smaller firms to comply more easily, participate in global value chains and contribute meaningfully to sustainability goals.

Furthermore, governments should use incentive-based approaches rather than relying primarily on penalties. Positive policy incentives can encourage smaller businesses to invest proactively in sustainable technologies, improve energy and resource efficiency and adopt cleaner production practices. China has introduced policy measures²⁶ to support SMEs in transitioning to greener operations, including financial incentives such as green loans, tax breaks for energy-saving and environmental protection projects and subsidies for adopting green technologies and digital solutions. The policy also promotes market-based incentives such as preferential government procurement for eco-friendly SMEs and facilitates their participation in carbon markets.



Implementation

Public- and private-sector support is essential for the successful implementation of sustainability initiatives among SMEs and mid-sized companies. As illustrated in the previous sections, governments can provide tailored financing, technical and policy guidance, while large corporations and industry associations can support SMEs by integrating them into sustainability efforts and sharing tools, data and expertise.

Successful implementation also depends on collaboration with local partners who possess strong manufacturing process proficiency, ensuring

that sustainability solutions are grounded in practical, operational realities within that region. Connecting with local manufacturers through the aforementioned networking resources (such as the SME Climate Hub's regional hub network) is a great way to learn of well-regarded local system integrators and process experts who can assist in an SME's specific region. These forms of support help SMEs move from commitment to execution – bridging capability gaps, reducing risk and ensuring that sustainability becomes embedded in everyday business operations.

Conclusion

The transition to environmental sustainability represents both a profound responsibility and a strategic opportunity for SMEs and mid-sized manufacturers. Collaboration is key to empowering them to lead the sustainability transformation.

As the backbone of global manufacturing ecosystems, SMEs and mid-sized manufacturers possess untapped potential to drive meaningful climate action while securing long-term growth. Their integration into the sustainability transformation is not merely advantageous, it is essential for achieving shared climate ambitions and prosperity.

The business case for sustainability is growing stronger. At a time when sustainability increasingly defines market leadership, early adopters stand to gain rewards. Forward-thinking companies are discovering that environmental stewardship creates value across their operations and growth opportunities – unlocking operational efficiencies and cost savings, creating new market opportunities and revenue streams, making it easier to attract and retain staff and future-proofing against climate and regulatory risks.

Yet significant barriers remain. Competing priorities, knowledge gaps and resource constraints continue to hinder progress. By adopting the five-stage roadmap outlined in this paper – building the foundations; identifying and implementing quick wins; measuring, reporting and improvement; embedding sustainability into long-term planning; and driving a cultural shift and communicating achievements – SMEs can transform sustainability from a perceived cost burden into a catalyst for efficiency, resilience and competitive advantage.

Critical to this transition is the collaborative effort of all stakeholders. Large corporations can engage their SME and mid-sized suppliers through training, knowledge transfer and shared goals for environmental sustainability. Governments can play a key role in providing clear policy guidance, financial incentives and streamlined regulations that lower barriers to green adoption. Meanwhile, industry networks, associations and regional platforms offer actionable tools, stakeholder communities, peer learning and technical support to bridge knowledge gaps.

The World Economic Forum's SME Sustainability Accelerator, a multistakeholder platform, is committed to supporting SMEs and mid-sized manufacturers in accelerating the environmental sustainability transformation while remaining competitive by providing implementable guidance to address their specific needs and challenges. Moving forward, the initiative will continue to drive collaborations with stakeholders across industrial sectors, governments, academia and civil society to ensure that no one is left behind in this transition by closing awareness and knowledge gaps, highlighting change stories, piloting and scaling best practices and celebrating achievements.

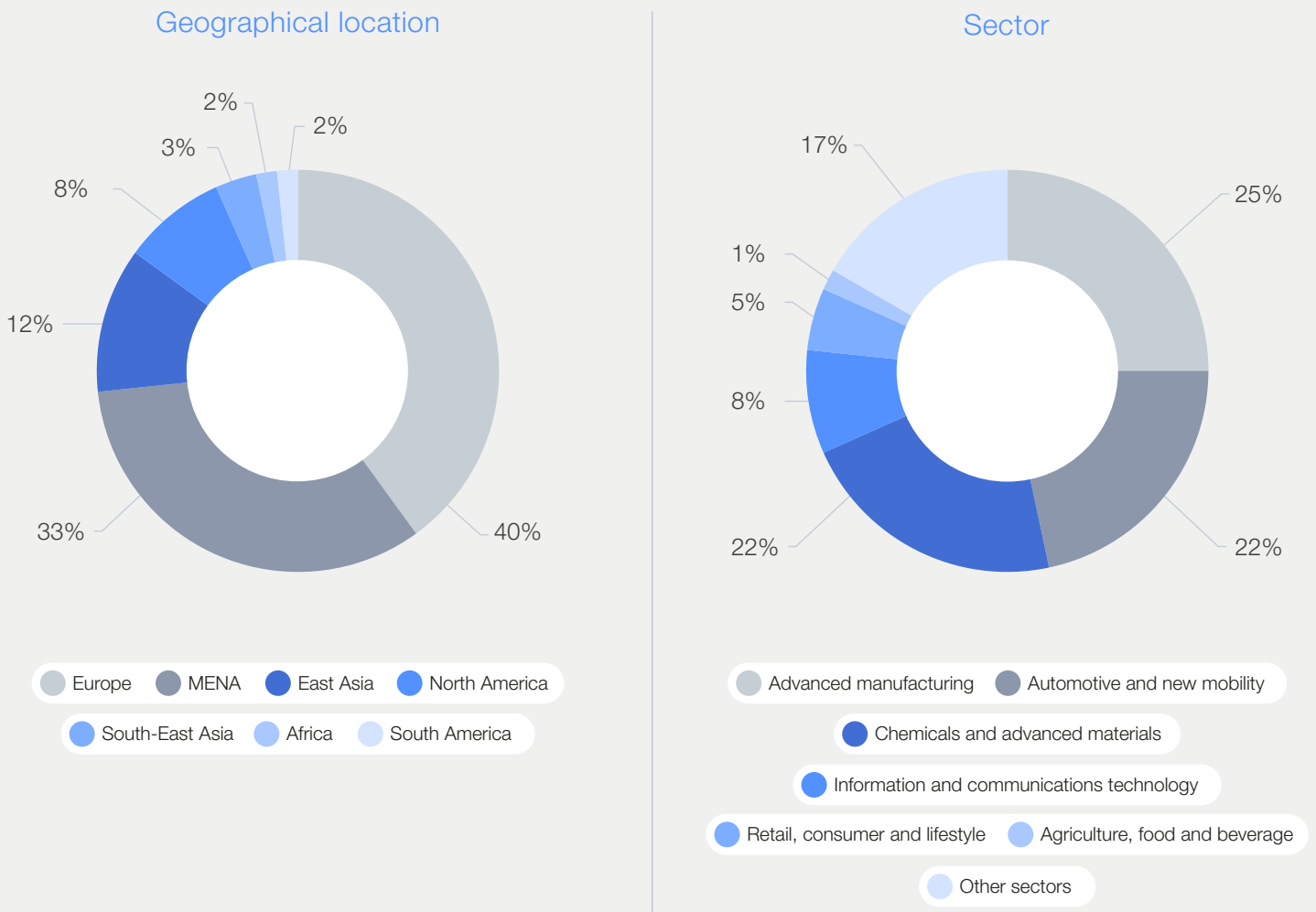
Through collective action and shared commitment, SMEs and mid-sized businesses can be empowered to become the architects of a sustainable industrial future – one that combines environmental sustainability with economic prosperity.

Appendix

Conducted by the SME Sustainability Accelerator initiative team from September 2024 to February 2025, the global survey of SMEs and mid-sized manufacturers received 60 complete and valid

responses, which form the foundation of the analysis. The respondents represent a diverse range of sectors and geographies, with the distribution illustrated in Figure 6.

FIGURE 6 Breakdown of survey respondents by geographical location and industrial sector



Source: World Economic Forum

Contributors

Memia Fendri

Content Curation and Operational Excellence Lead,
Centre for Advanced Manufacturing and Supply
Chains, World Economic Forum

Alain Lefevre

Sustainability Strategy Director, Schneider Electric;
Project Fellow, Centre for Advanced Manufacturing
and Supply Chains, World Economic Forum

Xiaoming Zhong

Initiatives and Community Specialist, Centre for
Advanced Manufacturing and Supply Chains,
World Economic Forum

Acknowledgements

The World Economic Forum thanks the following individuals for their contributions to this white paper.

Ece Akin Armutak

Project Lead, Turkish Employers Association of
Metal Industries

Emilian Axinia

Director, Industry Management, Sustainability
Solutions, COPA-DATA

Ebru Bakkaloğlu Tüzecan

Sustainability Coordinator, Koç Holding

Janina Bauer

Global Head of Sustainability, Celonis

Lauren Dunford

Chief Executive Officer and Co-Founder,
Guidewheel

Eric Enselme

Executive Fellow (2022–2024), World Economic
Forum

Steve Evans

Professor and Director, Research in Industrial
Sustainability, University of Cambridge, Institute
for Manufacturing

Linn Fortgens

Senior Vice-President, Head of Communications
and Responsible Purchasing, AB Volvo

Noelia Garcia Nebra

Head of Sustainability, International Organization
for Standardization

Rana Ghoneim

Chief Energy Systems and Infrastructure Division
Department of Energy, United Nations Industrial
Development Organization

Rana Hajirasouli

Founder and Chief Executive Officer, The Surpluss

Burak Hucuptan

Chief Executive Officer, Chef Seasons

Pamela Jouven

Director, SME Climate Hub

Sevda Kayhanl Yılmaz

Board Chair and Chief Executive Officer,
Kayahan Hydraulics

Miriam Koreen

Senior Counsellor, Organisation for Economic
Co-operation and Development

Hannes MacNulty

Manager, Green Industry Platform

Alan McKinnon

Professor of Logistics, Kühne Logistics University

Johanna Pérez Alvins

Project Leader, Climate Change, Green Deal and
Sustainable Engineering, NTT DATA EMEAL

Erika Peters

Senior Vice-President, ESG Lead and Head
of Corporate Markets, Exiger

Jean-Pascal Riss

Vice-President, Strategic Partnerships,
Sustainability, Industrial Relations,
Schneider Electric

Katharina Tomoff

Senior Vice-President, Environment, Social and
Governance, DHL Supply Chains

Florian Vollmer

Vice-President, Head of Procurement Sustainability,
Bayer

Production

Bianca Gay-Fulconis

Designer, 1-Pact Edition

Tanya Kornichuk

Illustrator, 1-Pact Edition

Alison Moore

Editor, Astra Content

Endnotes

1. World Economic Forum. (2021). *Future readiness of SMEs: Mobilizing the SME sector to drive widespread sustainability and prosperity*. https://www3.weforum.org/docs/WEF_Future_Readiness_of_SMEs_2021.pdf
2. International Labour Organization. (2019, October). *The power of small: Unlocking the potential of SMEs*. International Labour Organization InfoStories. <https://webapps.ilo.org/infostories/en-GB/Stories/Employment/SMEs#power-of-small>
3. Wildnerova, L. W., Menon, C. M., Dehghan, R. D., Kinne, J. N., & Lenz, D. L. (2024). *Which SMEs are greening? Cross-country evidence from one million websites*. In OECD SME and Entrepreneurship Papers. https://www.oecd.org/en/publications/which-smes-are-greening_ddd00999-en.html
4. International Labour Organization. (2019, October). *The power of small: Unlocking the potential of SMEs*. International Labour Organization InfoStories. <https://webapps.ilo.org/infostories/en-GB/Stories/Employment/SMEs#power-of-small>
5. Dhakal, S., et al. (2022). Emissions trends and drivers. In P. R. Shukla, et al. (Eds.), *Climate change 2022: Mitigation of climate change*. IPCC. Contribution of working group III to the sixth assessment report of the Intergovernmental Panel on Climate Change. Cambridge University Press. doi: 10.1017/9781009157926.004
6. Wildnerova, L. W., Menon, C. M., Dehghan, R. D., Kinne, J. N., & Lenz, D. L. (2024). *Which SMEs are greening? Cross-country evidence from one million websites*. In OECD SME and Entrepreneurship Papers. https://www.oecd.org/en/publications/which-smes-are-greening_ddd00999-en.html
7. World Economic Forum. (2023, December 12). *The “no-excuse” opportunities to tackle Scope 3 emissions in manufacturing and value chains*. <https://www.weforum.org/publications/the-no-excuse-opportunities-to-tackle-scope-3-emissions-in-manufacturing-and-value-chains/>
8. Schneider Electric. (2020, April). *Yunzhibao Foodstuff customer story*. <https://www.se.com/ww/en/work/campaign/life-is-on/case-study/yunzhibao-foodstuff.jsp>
9. Orrell, G., Nowak, C., Gonzalez-Wertz, C., & Cheung, J. (2021, April 21). *Sustainability at a turning point*. IBM Institute for Business Value. <https://www.ibm.com/thought-leadership/institute-business-value/report/sustainability-consumer-research>
10. Brewery Vivant. (2024). *Beer the change: Brewery Vivant 2023 sustainability report*. <https://www.breweryvivant.com/beer-the-change-sustainability-page>
11. Hajirasouli, R. (2024, June 27). *How smaller companies can join the circular economy*. Harvard Business Review. <https://hbr.org/2024/06/how-smaller-companies-can-join-the-circular-economy>
12. Ananas Anam. (n.d.). (2017). *Ananas Anam: The pioneers of innovative natural textiles from waste pineapple leaves*. Retrieved May 2, 2025, from <https://www.ananas-anam.com/about-us/>
13. Green Industry Platform. (n.d.). *SME support centre*. Retrieved April 30, 2025, from <https://www.greenindustryplatform.org/sme-support-centre>
14. SME Climate Hub. (n.d.). *Join thousands of businesses tackling climate change*. Retrieved April 30, 2025, from <https://smeclimatehub.org/>
15. United Nations Global Compact. (n.d.). *Spark*. Retrieved April 30, 2025, from <https://unglobalcompact.org/take-action/action/sustainable-supplier-and-sme-programme/spark>
16. Schneider Electric. (2023, January 3). *How to modernize systems with software-centric digitization*. T. O'Brien & E. Thongphanith, interviewers. YouTube. <https://www.youtube.com/watch?v=ZtIM-aH3Gj4>
17. Energy Trust of Oregon. (2025, January 21). *Southern Oregon technology company saves big with strategic energy management*. Energy Trust Blog. <https://blog.energytrust.org/southern-oregon-technology-company-saves-big-with-strategic-energy-management/?category=industry-ag>
18. Consultation with H. MacNulty, Green Industry Platform. (2025, January 31).
19. Energy Kaizen. (n.d.). *Uncover energy savings and make them happen*. Retrieved May 2, 2025, from <https://energykaizen.io/>
20. Evans, S. (2024). *EvanAll*. Retrieved May 2, 2025, from <https://www.evanall.com/>
21. I-GO Assistant. (n.d.). *Welcome to I-GO*. Retrieved May 2, 2025, from <https://igosolution.org/>
22. World Economic Forum Net-Zero Value Chain – Support Hub. (n.d.). *The net-zero journey for small-and mid-sized companies*. Retrieved May 2, 2025, from <https://initiatives.weforum.org/net-zero-supply-chain-support-hub/4-4>
23. Schneider Electric – Global Supply Chain and Global Environment Team. (n.d.). *Striving for net zero supply chain with the Zero Carbon Project*. Schneider Electric. Retrieved May 2, 2025, from <https://www.se.com/ww/en/about-us/sustainability/zero-carbon-project.jsp>
24. SME Climate hub. (2025, March 26). *Join thousands of businesses tackling climate change*. <https://smeclimatehub.org/#>
25. Circular Economy Leaders Community Green Industry Platform. (n.d.). *SME Climate Hub*. Retrieved May 2, 2025, from <https://www.greenindustryplatform.org/initiatives/circular-economy-leaders-community>
26. State Council of the People's Republic of China. (2021, December 11). *14th five-year plan for promoting the development of small and medium-sized enterprises*. https://www.gov.cn/zhengce/zhengceku/2021-12/17/content_5661655.htm



COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

World Economic Forum
91–93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

Tel.: +41 (0) 22 869 1212
Fax: +41 (0) 22 786 2744
contact@weforum.org
www.weforum.org