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Foreword



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In 2019, the European Commission launched the most ambitious package of climate legislation ever seen. The European Green Deal – or EGD – straddles a vast range of business sectors and industries and is set to have a wide-ranging impact on the structure of our economies and societies, with the aim of making the European Union climate neutral by 2050. Since the EGD's inception, the EU has made great strides on its climate pledges, all while navigating complex challenges ranging from a global pandemic to a full-scale war of aggression against a neighbouring country.

With policy-makers, households and businesses grappling with elevated interest rates and price levels, the political foundation upon which the private sector's climate action depends is weakening. As the continent continues to struggle to contain the rising societal and political backlash to climate legislation, and with European elections set for June 2024, the EU faces the risk of losing momentum on the climate transition, falling behind other leading regions and slipping on its climate ambitions.

Under these circumstances, we strongly believe that the private sector should take a clear and decisive leadership role in propelling the green agenda forward. The CEO Action Group for the European Green Deal, established in 2020, is a clear example of how private-sector ambition is continuing to push towards the EU becoming climate neutral by 2050. This report, produced by the World Economic Forum in collaboration with Accenture ahead of the new European Commission's term, takes stock of private-sector efforts to align with, or even go beyond, the EGD objectives over the past four years, and considers where further action is needed.

The findings in the report are used to formulate recommendations for EU and national governments but also to indicate where the private sector can support policy-makers to help maintain momentum for the green transition in Europe.

Climate neutrality in Europe cannot be achieved without sustained public-private collaboration and joint action. The CEO Action Group is committed to continuing to drive positive change in Europe and across its supply chains in the coming years. As it does so, it also strives to act as an inspiration for other companies at the beginning of their journey towards climate neutrality.

Executive summary

Closer public-private cooperation is needed to deliver on the European climate transition.

The EU's bold ambitions, as outlined in the European Green Deal (EGD), require broad stakeholder participation. In particular, to drive effective joint action, it is necessary to actively include the private sector in dialogue and strategy formulation to ensure these goals are met.

Using examples and experiences from members of the World Economic Forum's CEO Action Group for the European Green Deal, this report examines the actions undertaken by member companies in various areas of the EGD, anchoring Groupspecific insights in a broader market context. The analysis for this report is based on a set of more than 50 publicly disclosed metrics, a survey of companies' alignment with the EGD, in-depth interviews conducted with members of the CEO Action Group and multiple online and offline feedback loops with the community.

The analysis reveals that members of the CEO Action Group actively take action when it comes to meeting the goals of the EGD. In the fields of climate and energy, 97% and 82% of the companies have set, respectively, measurable targets in these two categories, and the Group outperforms the European private sector in the field of R&D expenditure. On other areas of the EGD, including protecting biodiversity and increasing sustainable financing, companies are keen to do more but face challenges when taking measurable action. The overarching issues identified by businesses are rooted in the complex nature of the EU's governing structure, including the dynamic between EU-set goals and national-level implementation, and in particular the regulatory environment. The proposed areas for intervention specific to the CEO Action Group are

also reflected by broader market data on the EU private sector.

To overcome these challenges, a collaborative effort from policy-makers, the private sector and, sometimes, third-party stakeholders is essential. For policy-makers, the priority should be creating a clear and consistent regulatory landscape, providing forward guidance on targets and anticipated changes, and offering clarity when it comes to funding and permitting procedures. The private sector, on the other hand, should be allowed to innovate and direct investments to sustainable technologies and practices.

This report looks at the enabling factors that underpin continued progress towards climate neutrality. The findings have been used to formulate recommendations aimed at both national and European policy-makers, as well as the private sector. These recommendations cover: improving the predictability of sustainability reporting; improving access to financing (including optimization of the EU taxonomy); streamlining permitting processes for renewable energy projects; cross-functional sustainability skills development; optimization of energy taxation; grid infrastructure development; and setting up a reliable voluntary carbon-trading mechanism.

The CEO Action Group is a cross-sectoral community, spanning financial services firms, institutional investors and infrastructure, chemical and food and agricultural companies. The recommendations in this report are therefore aimed at supporting the broader private-sector environment in its efforts to make progress on climate neutrality.

Introduction

A significant economic transformation is needed to achieve climate neutrality by 2050.

The role of the private sector

The European Green Deal (EGD), while often primarily perceived through a sustainability lens, is fundamentally an economic strategy, designed to revitalize and transform the European economy by decoupling economic growth from resource depletion. However, the European Commission knows that it is not just about reducing Europe's carbon footprint or conserving resources; it is about fundamentally reshaping the economy to ensure long-term sustainability by harnessing low-emission technologies and bringing sustainable products and services to customers.

The importance of the private sector's role in this transition cannot be overstated. It is currently responsible for more than 80% of greenhouse gas (GHG) emissions in the European Union (EU) and its transformation to net zero is therefore essential to reaching the Commission's climate ambitions.² Companies play a vital role in achieving a sustainable future, not only through business decisions that affect their own operations but also by influencing stakeholders along the whole value chain - suppliers, customers and employees - and, "by developing environmentally sound solutions and offering more data about consumers' daily choices, [...] promoting sustainable practices within the communities in which they operate".3 The shift to a green, digital and circular economy depends

upon a significant economic transformation, one that is expected to create new industries and job opportunities and promote resilience against resource scarcity. Companies that lead the way can drive innovation, attract investments and create high-quality jobs, setting a model for others to follow.

Within the EGD, various sectors and aspects of the economy – for example, agriculture, energy, finance, innovation, research and transport – are intertwined. This comprehensive approach requires that companies in all industries adapt to new business models, adopt a forward-thinking and agile approach and align their operations with the goals of the EGD. The level of private-sector ambition is high, as demonstrated by initiatives such as the CEO Action Group for the European Green Deal.

However, the private sector faces multiple challenges in adapting to this new vision of the European economy. These challenges include regulatory hurdles, market and economic uncertainties, a mismatch between demand and supply, legal complexities and increased administrative and compliance costs. Such obstacles can hinder the full realization of the private sector's potential in delivering the goals of the EGD.

The CEO Action Group for the European Green Deal

In response to the need for enhanced public—private cooperation to ensure a climate-neutral and competitive future for the European economy, the World Economic Forum at its Annual Meeting in Davos in 2020 brought together leaders from industry and business with then Executive Vice-President of the European Commission Frans Timmermans to explore how the private sector could support the EGD. As a result, the Forum created a community in the form of the CEO Action Group for the European Green Deal, which serves as a high-level platform for businesses to step up their work on climate-positive action and demonstrate their commitment to the EGD agenda.

As of December 2023 the Group comprises 46 members from various industries, including finance, energy, retail, agriculture and investment management. These companies have an estimated combined contribution to the EU's GDP of approximately 0.8% and employ an estimated 1.2 million people across the continent, which corresponds to 0.6% of the European job market. They are responsible for 3.1% of total GHG emissions in the EU.6 The data available for 21 members of the CEO Action Group shows that in 2022 these companies spent more than \$8 billion on research and development (R&D), equivalent to 2.5% of total EU expenditure in this area.

These numbers demonstrate that the CEO Action Group for the European Green Deal makes an important contribution in helping to achieve the objectives of the EGD, setting an example for other companies to follow. By working together, these companies can help to create a climate-neutral and competitive future for Europe.

FIGURE 1

Essential data about the CEO Action Group members in the context of the EU economy



€125 billion

annual EBITDA in 20221

0.8% EU GDP

Contribution in 2022



1.2 million

employees in 2022²

0.6% share

of job market in 2022



90 million tons CO₂eq

annual scope 1 & 2 emissions in 20223

3.1% share

of emissions in 2022



€8 billion

annual R&D spend in 20224

2.5% contribution

to R&D spend in 2021/2022⁵

Notes: ¹ European earnings before interest, taxes, depreciation and amortization (EBITDA) estimate available for a subset of 27 companies; ² European employment estimate available for a subset of 25 companies; ³ European emissions estimate available for a subset of 27 companies; ⁴ European R&D estimate available for a subset of 21 companies; ⁵ Share of CEO Action Group R&D compared to 2021 aggregated Eurostat; data for EU as 2022 data is not available.

Source: Calculations based on Capital IQ data and annual reports of selected CEO Action Group member companies



From objectives to measurable targets

The introduction of the EGD has required businesses to reassess their business strategies to align with its objectives.

Among the surveyed companies,⁸ most required either significant or moderate adjustments to their commercial strategies⁹ and, as a result, these businesses now have strategic objectives that are in line with the EGD. In addition, the majority have accompanied their strategic objectives with measurable targets for reducing GHG emissions and increasing the use of renewable energy in their operations. Of the analysed companies, 97% and 82% have set, respectively, climate and energy targets.¹⁰

The clear and measurable targets that were put in place following the Paris Agreement have allowed companies to focus their efforts on these areas. Where such quantification is more complex, or

where common definitions are lacking, this is reflected in lower levels of target-setting in privatesector strategies.

As the EGD propels the continent towards a greener future, the private sector's understanding of sustainability must evolve in line with that of the public sector, and vice versa. As companies continue to reduce the EU's carbon footprint and to transition to renewable-energy sources, more guidance is required in other aspects of the EGD beyond climate and energy. For example, the introduction of the nature restoration law¹¹ is a clear step in the right direction and will help support more companies in aligning with all aspects of the EGD.

Image credit: fokkebok, @Gettylmages



1.1 Climate and energy

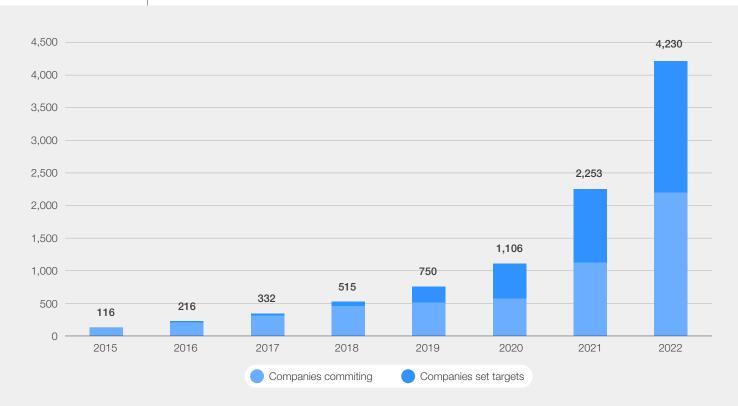
The latest insights show that although global progress in reducing GHG emissions is insufficient, nevertheless it remains a key priority for both EU policy-makers and the private sector. Globally, GHG emissions have been rising by 1.5% every year since 2011, 12 and the heavy industrial and transport sectors that account for more than 40% of global GHG emissions are not aligned with the trajectory of reaching net zero by 2050. 13 In comparison, the EU has decreased its emissions by 1.4% per year since 2011, 14 and the high priority assigned to reducing GHG emissions is reflected in the climate and energy areas of the European Green Deal where the objectives, strategies and targets of the CEO Action Group are already aligned.

European companies are leading the way in setting Scope 1 and 2 GHG emissions-reduction targets. Following the Paris Agreement, adopted by governments in 2015, the private sector has been setting GHG emissions-reduction targets that are approved by SBTi (the Science Based Targets initiative; Figure 2). Those commitments are growing and have significantly picked up since the EGD was announced in 2019. The EU (442 companies) and the UK (340 companies) are leading the way, collectively covering 54% of companies with approved targets.¹⁵

Of the CEO Action Group's 33 publicly listed companies, 97% have set 2030 interim targets and 79% have committed to reaching net zero no later than 2050. The numbers are lower for SBTi-approved targets, with 74% of the 33 companies either setting or committing to set such targets. Small and medium enterprises (SMEs), while currently not represented in the CEO Action Group, also play an important role in the green transition and have started setting targets; however, more needs to happen. 17

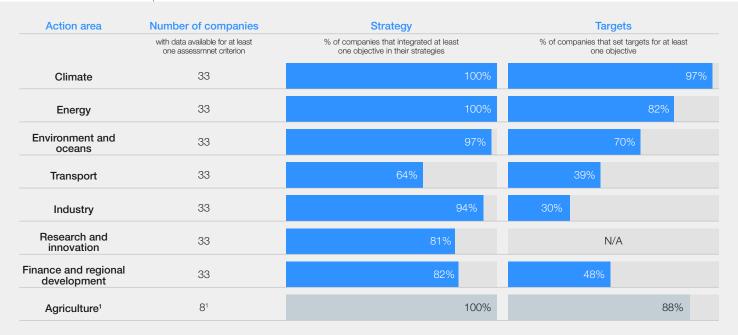
FIGURE 2

Annual cumulative number of companies with SBTi-approved targets and commitments, 2015–2022



Source: Science Based Targets, SBTi Monitoring Report 2022: Looking Back at 2022 and Moving Forward to 2023 and Beyond, August 2023: https://sciencebasedtargets.org/resources/files/SBTiMonitoringReport2022.pdf

FIGURE 3 | CEO Action Group assessment framework – strategic objectives and targets for selected EGD action areas



Note: 1 Subset of companies analysed in the Agriculture area is limited to Agriculture, Food & Beverages industry and, therefore, is too small to be considered statistically significant.

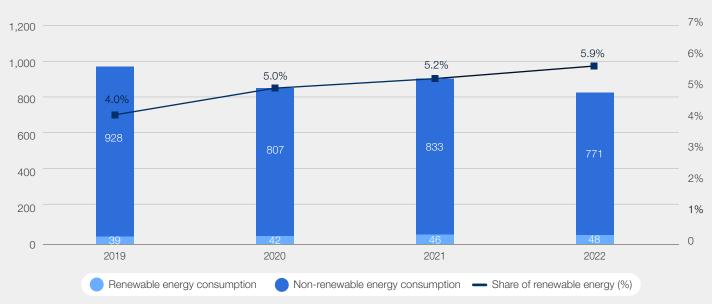
Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"

In recent years, the Group's efforts to increase energy efficiency and the use of renewable energy have been paying off, as evidenced by the Group's reduction in Scope 1 and 2 emissions, which have decreased by 26% since 2019. This is largely driven by lower energy consumption, which decreased by 15% (Figure 4) combined with a higher uptake of renewable energy, which on average increased by 14 percentage points in share of total energy consumption (Figure 5). The higher uptake of renewable energy by the private

sector is paired with significant acceleration in the pace of renewable installations throughout Europe, which is supported by the RePowerEU plan. A total of 16 gigawatts (GW) of wind power and 41GW of solar power were installed in 2022, representing an increase of 46% and 47% respectively compared to 2021. Executives from the Group highlighted the importance of increasing low-carbon energy capacity further and point to a lack of infrastructure as one of the essential challenges in reaching the objectives linked to energy in the EGD. 19

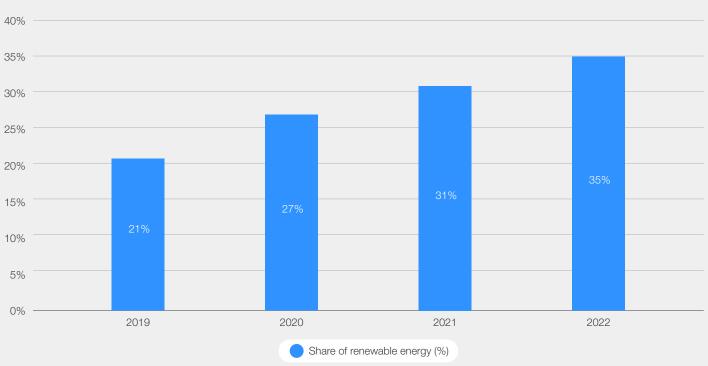
FIGURE 4

CEO Action Group aggregated energy consumption (TWh), 2019–2022



Note: TWh = terawatt hour.

Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"



Note: TWh = terawatt hour.

Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"

↓ Image credit: fotokostic, @Gettylmages

In their 2022 manifesto, members of the CEO Action Group highlighted the importance of accelerating Europe's energy transition, including by speeding up hydrogen uptake across industries.²⁰ As the energy sector makes up 77% of the EU's GHG emissions,21 this will be critical in further reducing the EU's carbon footprint. In this vein, energy companies that are

members of the CEO Action Group are actively investing in clean hydrogen and offshore wind energy to help the continent reach its renewableenergy target as well as energy storage capacity, which is crucial to avoid fossil fuel dependency.²² In addition, as electricity demand is increasing, to meet this demand, networks must grow accordingly.23



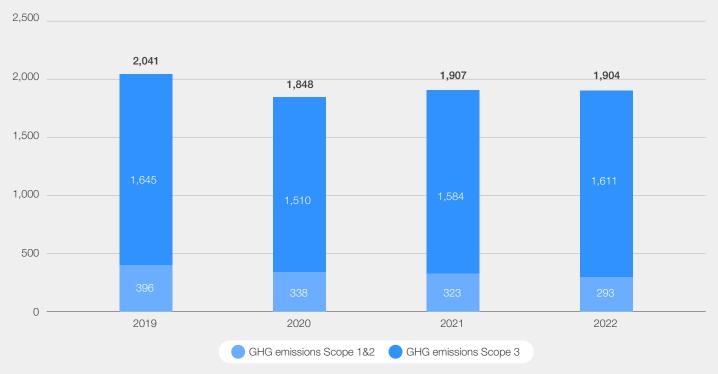
1.2 | Scope 3 emissions

While the CEO Action Group's Scope 1 and 2 GHG emissions and energy consumption are gradually decreasing, reducing Scope 3 emissions remains an essential challenge. Since 2019 the Group's Scope 3 GHG emissions have remained stable (Figures 6 and 7). Scope 3 emissions are far more complex to reduce than Scope 1 and 2 and pose a risk to the feasibility of reaching the EGD's net-zero target.²⁴

Despite some companies making good progress in reducing Scope 3, both SMEs and large companies are facing obstacles in decarbonizing their value chains. Of the 33 analysed companies, seven have made substantial progress since 2019 in reducing their Scope 3 emissions (between 15% and 40% reduction in absolute GHG emissions) despite the aggregated emissions for the Group being stable.

FIGURE 6

CEO Action Group aggregated global GHG emissions (million Mt CO_eeq), 2019–2022



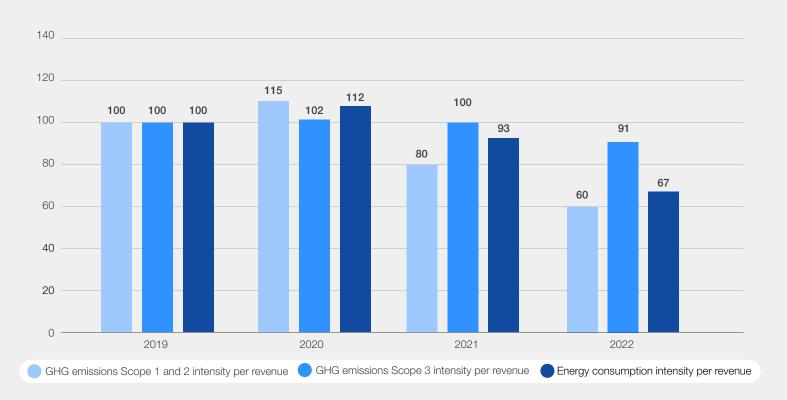
Note: Mt CO₂eq = metric ton CO₂ equivalent.

Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"

> While most of the surveyed companies have implemented measures - including compliance audits, training and codes of conduct, as well as collecting and sharing data with digital solutions to progress the harmonization of sustainability standards among suppliers²⁵ – they could take a more active role in driving the net-zero transition and building initiatives that support suppliers and consumers in making the necessary changes. This is particularly true in the agriculture industry, as the sector is one of the largest contributors to the EU's GHG emissions.²⁶ Farmers have been slow

to adopt regenerative agriculture due to the costs of changing existing practices, lack of knowledge on regenerative practices and the misalignment of value-chain drivers (Box 1).27

Although this section highlights how the ambitions of the private sector are aligning with the Paris Agreement targets and how European companies are paving the way, corporate climate action remains too slow, with major challenges persisting in scaling green technologies and infrastructure and measurable target-setting.



Note: The GHG emissions and energy consumption intensity by revenue over 2019-2022 is presented as values indexed to 2019, where 2019=100.

Source: Accenture and World Economic Forum analysis based on publicly available company reports

BOX 1 Accelerating progress towards EGD in agriculture

The agriculture industry is one of the largest contributors to the EU's GHG emissions. Farming practices contribute to the Scope 3 emissions of companies in the food system value chain. Yara, a fertilizer company, identified improving efficiency in the use of nitrogen as an essential decarbonization lever, as such usage accounts for 30-60% of the total emissions-reduction potential of its mineral nitrogen fertilizers.²⁸ Achieving this would require changes in farming practices, so Yara focuses on optimizing farmers' fertilizer use with digital solutions. However, this is not currently counted as a climate solution, even though the EGD aims to improve soil health and sets targets for the EU to limit nutrient losses by at least 50%.

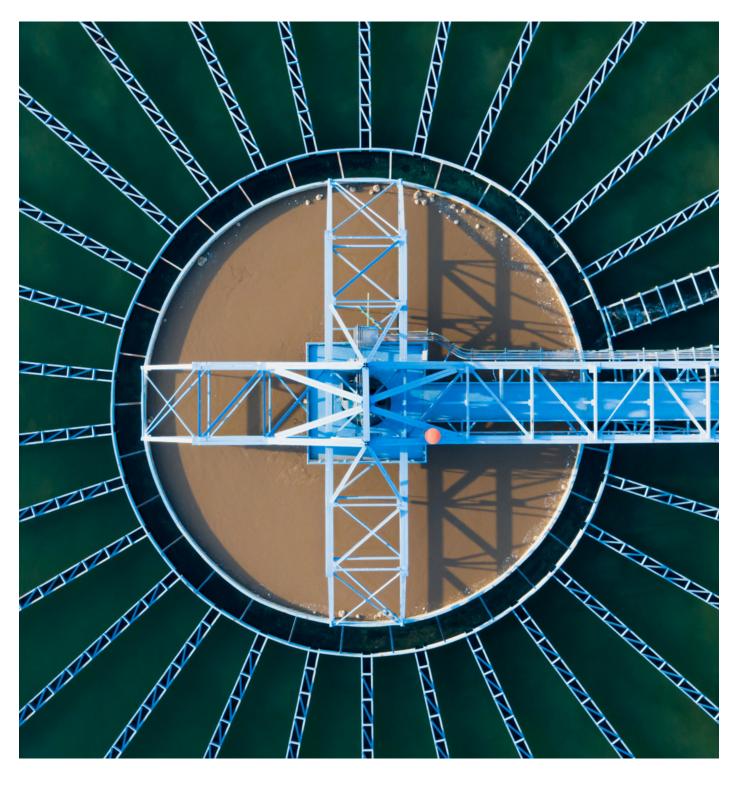
To overcome these challenges, several companies in the agriculture, food and beverages industries are involved in initiatives that focus on helping

farmers apply regenerative farming practices. A flagship initiative of the CEO Action Group, the European Carbon+ Farming Coalition, is a farmercentric initiative that aims to accelerate progress towards EGD carbon-neutrality goals. In parallel, individual companies initiate action to increase the adoption of regenerative practices among farmers.²⁹ Nestlé, which has a target to source 50% of its key ingredients through regenerative methods by 2030, launched the Nestlé Agriculture Framework in 2022.30 One of the guiding principles of the new framework is that it must be beneficial to farmers and tailored to smallholders' needs. Where introducing regenerative agriculture practices generates initial risks or costs for smallholder farmers, Nestlé stated that it may provide technical (training and innovative technical solutions), collaborative or financial assistance to support a just transition.



Emerging areas for additional efforts

↓ Image credit: Wannaludee Usanakul, @Gettylmages Greater collaboration is needed on building circular-economy models, developing biodiversity targets, managing water resources sustainably and decarbonizing transport.





Water management 79%

of companies have strategic objectives to improve water resource management

58%

of companies set measurable targets in that domain



Circularity

92%

of companies have strategic objectives to develop circular economy solutions

46%

of companies set measurable targets in that domain



Biodiversity

73%

of companies have strategic objectives to minimize the impact on biodiversity

15%

of companies set measurable targets in that domain

Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"

Collaborating towards a circular economy

As the generation of waste continues to increase and the scarcity of critical raw materials grows, implementing circular-economy models is a central objective of the EGD. The analysis conducted shows that the private sector is taking active steps to implement new business models based on circularity, with 92% of analysed companies working to develop new business models and 46% setting measurable targets (revenue targets, for example).31

The recent political agreement reached on the Critical Raw Materials Act - with agreed benchmarks specifying that the EU should have the capacity to extract 10%, process 40% and recycle 25% of its annual consumption of strategic raw materials by 2030 – demonstrates the importance that EU policy-makers are placing on ensuring the sustainable use of materials and enhancing the continent's strategic autonomy.32 To further support private-sector alignment with these objectives, initiatives such as the Circular Economy Monitoring Framework are key.33

Interviews with CEO Action Group members revealed that there is potential for public-sector

intervention to support circularity further throughout supply chains by supporting traceability practices.34 Moving towards circularity requires cooperation from all value-chain players rather than solely focusing on the actions of individual companies. For this to be effective, such efforts will require a complete redesign of existing business models and value-chain systems. The work led by Arup Group is an example of this in practice, as the company put circular-economy principles at the heart of its 2019 strategy and is engaging multiple actors to define a new circular system for the built environment sector.35

By conducting interviews with their stakeholders, collaborating with BAM (a Dutch construction company) to define value propositions, exploring policy options with policy-makers and entering into new forms of partnerships with clients and suppliers, Arup Group has demonstrated that circularity in buildings is a value-creating business model (for example, one of the new circular business models - flexible spaces - can improve financial performance by up to 18% over 12 years) and is one that can be replicated in other industries.

Umicore: Recycling batteries to enable eMobility

Challenge

The surge in uptake of electric vehicles (EVs) will increase the demand for batteries, with timely electrification of mobility requiring rapid and massive growth in the supply of metals. It will be a struggle to source the amounts needed of critical raw materials such as nickel, cobalt and lithium.

From a recycling-industry perspective, business will intensify, too: over the next decade increasing numbers of lithiumion batteries from EVs will reach the end of their lives, and significant amounts of production scrap from cell and battery-pack manufacturing will be generated.

The challenge of securing sufficient volumes of metals is exacerbated by the synchronous need to lower the overall environmental impact of the metals supply chain. How well the electrification challenge will be mastered also depends on whether it will be possible to enable an efficient circular material model. The recycling of production scrap and endof-life batteries reclaims the valuable metals, which can be used again as building blocks for new cathode materials, the essential component of an EV battery.

Approach

Circularity is essential to resolving the challenge, as it serves to ensure the supply of metals and lowers the environmental footprint of battery raw materials considerably. Novel technologies to recycle EV batteries are available, have been validated and now need to be deployed at scale.

Based on its extensive experience of recycling precious metals from very complex materials including electronic waste, Umicore pioneered the industry by developing unique battery-recycling technology. In 2010 it invested in an industrial demo installation at its recycling plant near Antwerp, Belgium.

Umicore combines a high-temperature treatment (pyrometallurgy), which melts the recyclables in a first process step, followed by a refining process step (hydrometallurgy), which extracts the valuable metals and brings them back in their pure forms so they can be reused in the manufacture of new cathode materials. Umicore is now planning to further scale up its battery-recycling technology.

Results

Building a new battery-recycling industry is challenging not only from a technological point of view but also a business environment.

Umicore is seeking to kick-start the batteryrecycling industry, having spearheaded technology development and piloted a closed-loop business model, captively transforming recycled metals back into battery materials.

The EGD foresees rules to strengthen the measures to guide production waste and end-of-life batteries to recycling facilities. Decades of experience co-creating with automotive and consumer electronics original equipment manufacturers to design recyclability into their products is now being transferred to the design of EV battery systems.

To ensure transparency in circular metals supply, Umicore has established robust supply-chain due diligence processes and is contributing to the development of a battery passport, a global reporting framework to govern rules about measurement, auditing and reporting of ESG parameters across the battery value chain.

2.2 | Biodiversity targets

Protecting biodiversity is a key factor for businesses today and, following the outcomes of the United Nations Biodiversity Conference (COP15) in 2022, is increasingly being reflected in the private sector's strategic objectives and measurable targets. Of the companies analysed for this report, 73% have strategic objectives to minimize adverse impacts on biodiversity, 48% have programmes to protect or restore habitats and 15% have set measurable targets in the domain of biodiversity.³⁶ This discrepancy between strategic objectives and measurable targets can be attributed to an uneven understanding of the scope of biodiversity and the difficulties in quantifying the impact of industry on biodiversity.

However, obstacles remain in setting measurable biodiversity targets, ranging from a lack of corporate awareness to economic constraints and the complexity of supply chains. Measures to mitigate these challenges could start with supplier education,37 but for global companies,

monitoring and ensuring biodiversity-friendly practices along entire supply chains can be challenging. Additionally, quantifying the impact of biodiversity initiatives and reporting them in a standardized manner is challenging because there are no commonly accepted or applicable external benchmarks and measurable targets in place to monitor the impact on biodiversity.38

Following the landmark agreement on a set of goals to guide global action through to 2030 to halt and reverse nature loss agreed at the UN Biodiversity Conference (COP15), the private sector will have an essential role in contributing to the 30-by-30 target.39 As the European Parliament and Council continue working on the nature restoration law and revised rules for the sustainable use of pesticides, the interviewed executives in the Group called for more guidance from regulators, including measurable targets to support private-sector alignment with these goals.

2.3 | Sustainable water-resource management

In the European Commission President's 2023 State of the Union Address, and in the Commission's 2024 work programme, the EU announced its intention to put forward "a non-legislative initiative on water resilience, with the aim to ensure access to water for citizens, nature and the economy, while also tackling catastrophic flooding and water shortages". 40 The private sector's engagement in sustainable water management is as much a response to regulatory pressures as it is a matter of mitigating business risks.

An analysis of CEO Action Group members reveals that 79% of companies have incorporated strategic objectives into their commercial strategies to enhance water-resource management,41 indicating a growing recognition of its importance, and 58% of the companies analysed have established measurable targets in water management.⁴² This shift towards quantifiable goals is crucial for several reasons, as it allows companies to track progress and make informed decisions, and it demonstrates to stakeholders a commitment to transparency and accountability. This is a critical development, since water is a fundamental resource that affects

nearly every aspect of business operations, from manufacturing processes to supply-chain stability.

Effective water management can also lead to significant cost savings, particularly for companies in water-intensive sectors. 43 The potential savings companies can achieve through effective water management can vary widely depending on several factors, including the nature of the industry, its location, current water usage and specific watermanagement strategies and solutions implemented (fixing leaks, installing water-efficient fixtures and recycling water, for example). Additionally, efficient water management may lead to energy savings,44 which, depending on the solution, might lead to noticeable savings over time.45

CEO Action Group members have harnessed these benefits, as is indicated by their collective 13% reduction in water withdrawal between 2020 and 2022.46 This reduction reflects a tangible outcome of the strategies and targets set by companies and illustrates the potential impact the private sector can have on resource conservation and environmental sustainability.

2.4 Transport decarbonization

With the upcoming phasing out of internal combustion engines in the EU by 2035,47 the transition to electric vehicles (EVs) is increasingly important. Transport decarbonization is embedded in the strategies of 64% of the CEO Action Group companies, and 39% have set specific targets in that area.⁴⁸ For the professional-services sector, the successful electrification of its fleets could remove as much as 40% of its emissions.⁴⁹ A recent survey of 450 executives indicates that 54% of them expect full fleet electrification to be achieved by 2030, and that 70% of fleets in Europe already comprise some fully batterypowered electric vehicles.50

Despite active efforts made by the private sector to increase the uptake of EVs in their operations, several challenges are impeding a complete roll-out of decarbonized transport. These include:

- 1. High upfront cost and an unclear business case
- 2. Difficulty in installing the necessary infrastructure
- 3. Poor/insufficient public EV charging infrastructure⁵¹

Infrastructure challenges have been echoed by executives interviewed for this report, who identified a potential for public-sector intervention, including a more complete EV charging infrastructure in urban as well as in rural and remote areas (having a charging station every 60-100 kilometres) and investing in R&D to increase battery storage capacity to allow EVs to travel greater distances and shorten charging times. Infrastructure development was also flagged as a potential area for developing practical technical skills and reskilling the existing workforce.⁵²

3 Spurring innovation for the green transition

Accelerating progress to reach climate

neutrality requires an environment in

which there are incentives to innovate, and solutions can be scaled to reach the market effectively.

↓ Image credit: Anton Zubchevskyi, @Gettylmages

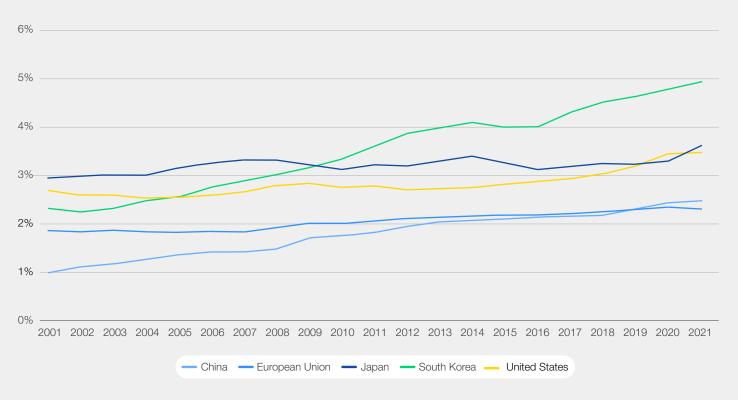


While innovation in the EU has been lagging other regions, including both North America and China (Figure 9), some recent studies show that the gap has been closing.53 On an EU level, there is a target for R&D spending for national governments of 3% of

GDP to be reached by 2030.54 The target was initially set for 2020, and before that for 2010, but most member countries failed to deliver on the set timeline. In 2020, the EU spent only 2.3% of its GDP on R&D, compared to 3.4% in the USA (Figure 9).

FIGURE 9

R&D expenditures as a share of GDP, 2001-2021

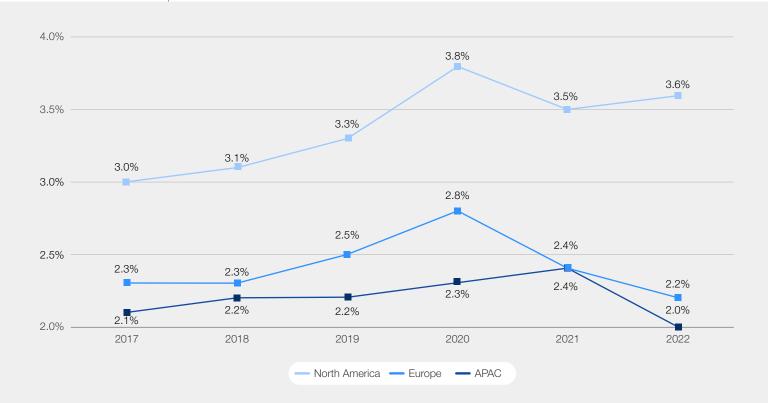


Source: Chart prepared based on Eurostat data

Looking at the private sector, there is also a significant gap between European and North American companies' expenditures as a percentage of revenue for R&D. If European companies matched North American levels, they would have invested \$388 billion more over the past five years. Even though the spending on R&D as a percentage of sales by the CEO Action Group members has decreased slightly during the past four years (a drop from 5.2% in 2019 to 4.8% in 2022),55 it is still relatively high when compared to the overall private

sector in Europe, which spends, on average, 2.2% of revenue on R&D.56

While members of the CEO Action Group clearly do not hold back spending on R&D, reaching the desired investment levels for innovation is challenging. Due to higher risk when investing in emerging technologies and the difficulty of scaling successful solutions to reach the market, developing solutions for financial risk-sharing could help bring up investment levels.⁵⁷



Source: Accenture, Innovate or Fade: European Businesses Need to Address the Technology Deficit to Turn the Tide, July 2023:

There are two clear drivers for the low investment levels in innovation in the EU: (1) a significantly higher regulatory burden compared to other developed markets; and (2) financing, including uncertainty regarding access to public funds and fragmented capital markets.58 Other important

factors, such as the high cost of energy, skills and innovation partnerships, also contribute, playing into lagging innovation levels. The next section looks more closely at the enabling factors that could help accelerate the path to climate neutrality.



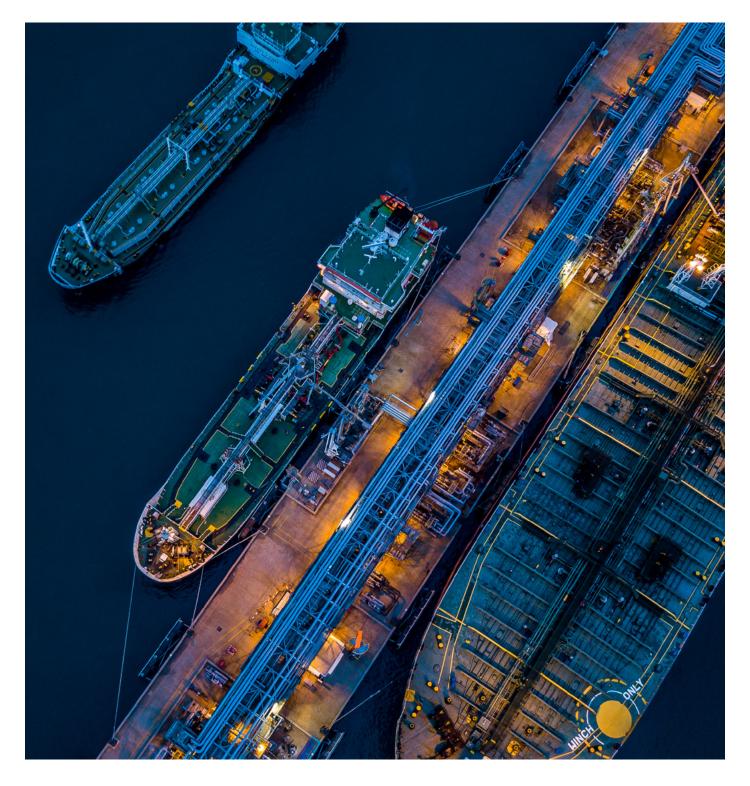
Enabling factors for accelerated action

↓ Image credit:

AvigatorPhotographer,

@Gettylmages

While European businesses are on the right track towards climate neutrality, accelerated progress hinges on the enabling environment.



The private sector is an essential actor in moving the EU towards climate neutrality, while also ensuring that the continent remains globally competitive and innovative. There are several

indispensable enablers that underpin the ability to accelerate action towards climate neutrality for which a public-private approach could be used to spur progress.

4.1 Affordable energy

Since the start of the war in Ukraine, energy prices in the EU have doubled (Figure 11).59 High energy costs directly affect the competitiveness of companies and indirectly affect the availability of financing for productivity-enhancing investments, including for skills development and innovation. CEO Action Group members have specifically highlighted unstable markets and price volatility as a top economic challenge when delivering on EGD objectives. 60 From a competitiveness perspective, securing affordable sources of energy is therefore key.

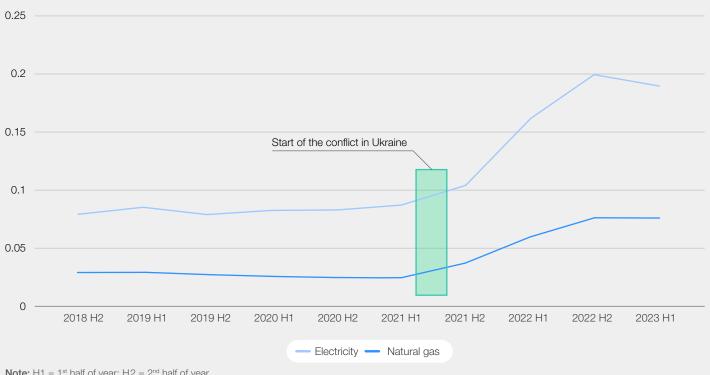
Energy taxation accounts for a large share of the final price that businesses and households pay. While the tax on energy is set by national governments – something that increases the complexity of the European energy market - the EU-wide energy taxation directive sets out to create incentives for buyers to move to greener, more sustainable energy sources.⁶¹ The directive specifies minimum tax levels on all types of energy, ranging from transport and heating fuels to electricity. The Fit-for-55 package proposes a revision to increase taxation on fossil-fuel energy and include previously excluded sectors such as aviation and maritime.⁶² However, progress on those discussions is stalling, as it is politically difficult to implement broad-based tax increases that will hit businesses and consumers. At the same time, because almost three-quarters of primary energy consumed in the EU still comes from fossil fuels (Figure 12), the availability of affordable renewable-energy sources becomes critical. If it is not feasible to scale renewable capacity fast enough, then a mechanism to offset the high cost of energy for production might be needed through incentives for businesses

to ramp up renewable alternatives. While in the USA the Inflation Reduction Act (IRA) introduces significant tax credits for green investments instead of increased carbon taxation, the EU is proposing subsidies and to potentially loosen the criteria for state aid.63

In general, however, studies show that the electrification of the economy would be the cheapest solution to achieve Europe's carbonreduction objectives. Lowering taxation primarily on electricity is potentially a concrete way to accelerate the path to climate neutrality. 64 Electricity taxation is on average about nine times higher in the EU than in the USA,65 accounting for 34-38% of the final price of electricity.66 In other words, a revision to energy taxation would facilitate the creation of incentives for further reductions to electricity costs together with other targeted investments to develop the electrical-grid infrastructure.

Considering the long-term nature of the energy transition, as well as the ongoing high usage of fossil-fuel energy in Europe, the question of voluntary carbon-trading mechanisms becomes critical to offsetting emissions, especially during the transition period. Emissions offsetting is especially important for industries in which emissions reductions are not technologically viable. However, the quality of the carbon credits issued in the voluntary markets has been disputed, based on the insufficient transparency of these markets and the lack of sufficient standards.⁶⁷ Another important issue is that carbon markets can allow developing countries to advance their socioeconomic development,68 which is aligned with the EU's principle of ensuring a just transition.

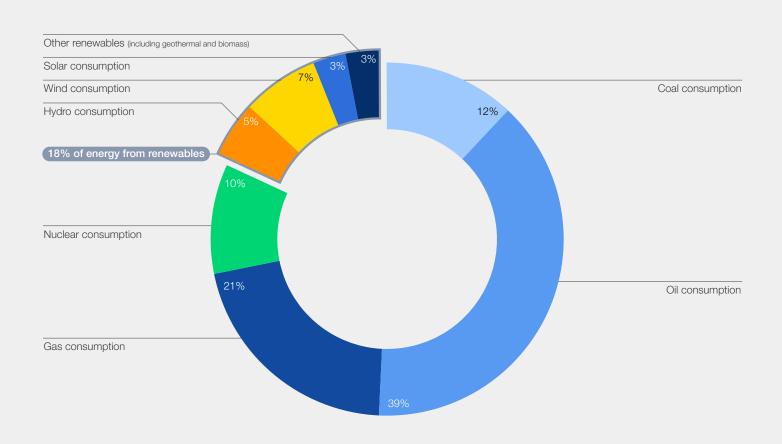
FIGURE 11 | Average six-month non-household energy prices in the EU (excluding tax, €/kWh)



Note: $H1 = 1^{st}$ half of year; $H2 = 2^{nd}$ half of year.

Source: Eurostat data

FIGURE 12 Primary energy consumption in the EU27 in 2022



Source: Our World in Data, "Primary Energy Consumption by Source, 2022": https://ourworldindata.org/grapher/primary-energy-source-bar

4.2 | The regulatory and reporting environment



"The EU's ambitions towards a climate-neutral, circular, digital and resilient economy cannot be delivered without European standards."

European Commission in its 2023 Annual Single Market Report⁶⁹

The EU's approach to standard-setting is based on promoting European values and a resilient, green and digital single market. While the strategy explicitly seeks to encourage innovation through "standardization activities and anticipating early standardization needs", the reality for market participants is that they usually face legal complexities, red tape and high costs associated with administrative and compliance hurdles.⁷⁰

The issue of regulatory complexity is not new and can, in part, be explained as a by-product of the complex structure of the EU, and of the implementation of EU policy falling on national governments, which makes progress uneven. Over the past 20 years, the private sector has called for a more harmonized and predictable regulatory environment, but the issue remains.⁷¹

It is important, however, to distinguish what the root cause of the problem is. From interviews with CEO Action Group members it became clear that the standardization of sustainability regulation would be a positive development, as inconsistency between frameworks and standards is a clear challenge, resulting in a high reporting burden that directs funds away from core areas of the business, including spending on R&D.⁷²

One of the cornerstone directives of the EGD is the Corporate Sustainability Reporting Directive (CSRD), which entered into force on 5 January 2023.⁷³ This directive unifies the rules on what social and environmental information companies have to report within the EU. Companies must evaluate how their actions affect people and the environment and how sustainability issues affect them financially. Starting from January 2024, large companies in the EU previously obliged to report under the Non-Financial Reporting Directive (NFRD) will have to comply with the CSRD. The reporting requirement will gradually be extended to other large companies and to SMEs by 2028.

This move to unify standards is a positive one. However, the technical standards became available only in June 2023, and they are complex in nature and require a large number of compliance officers to know how to report on them. Because of the short period between the time when the

standards were sent out for public consultation and their enforcement, companies are deeply concerned about the feasibility of being able to find people with the necessary skills quickly. Hence, there have been strong voices urging for a more gradual enforcement of the CSRD.⁷⁴

The impact of European standard-setting on non-European companies and trading partners is another important factor. The International Monetary Fund (IMF) noted in its last Euro Area Article IV report that EU "authorities should resist calls to use such tools to provide a competitive advantage to domestic industries", ⁷⁵ something being echoed by companies in the CEO Action Group. Non-European companies in the Group emphasize the need for a value-chain perspective when implementing new policies, ensuring that important partner countries are well equipped to remain part of EU value chains.

For example, the EU's Carbon Border Adjustment Mechanism (CBAM) aims to place a fair price on the carbon emitted during the production of carbon-intensive goods entering the EU and to encourage cleaner industrial production in non-EU countries. CEO Action Group members have raised concerns that its potential impact remains unclear and that it could lead to cost-push inflation, and are urging the EU to act with caution.⁷⁶

For the private sector, including large as well as small companies, the best solution would be to have an even playing field when it comes to reporting requirements. Harmonizing standards within Europe is a first step – for which careful guidance and adequate time for enforcement is needed. But even more important is to agree on a global set of sustainability standards. Maintaining and accelerating current efforts to harmonize global standards would therefore allow companies to focus on innovation.

In addition, reaching climate neutrality requires bold actions that will transform European industry and the European economy, but it is also crucial that such actions are implemented with caution and that adequate time is given to gauge the full results of the many recent legislative proposals.

4.3 Financing



"Additional investments of over EUR 620 billion annually will be needed to meet the objectives of the Green Deal and RepowerEU. By far the greatest part of these will have to come from private funding."

European Commission in its 2023 Annual Single Market Report⁷⁷

The European Commission has committed to mobilizing at least €1 trillion for sustainable investments through its European Green Deal Investment Plan (EGDIP). Allocating additional funds to support the EGD objectives was expected to attract private funding. While the value of cleanenergy investments in the EU reached €220 billion in 2021,⁷⁸ this is far from the estimated need of €620 billion annually to meet the EGD's objectives.⁷⁹

The EGDIP allows for the relaxation of state-aid rules, including permitting member states to grant subsidies or tax incentives to match what is being offered by other countries. The main vehicle for facilitating private investments linked to the EGDIP is the InvestEU Programme, which uses public funds and guarantees to reduce the costs and risks for private investors willing to invest in netzero technologies. ⁸⁰ CEO Action Group companies also see potential for the EU to create incentives for financing institutions in a way that will lead to lower green premiums and thus drive the supply of green financing higher. ⁸¹ A method for sustainability-proofing investments will progressively integrate the technical-screening criteria of the EU taxonomy.

Even though more capital is being made available for green investments across EU countries, businesses throughout Europe still see permitting and funding procedures as bottlenecks for investments. In some member states, permitting processes for renewable energy projects can take up to 7–10 years 82

The main concern, according to surveyed CEO Action Group members, relates to public funding, namely "complex application processes and long approval timelines", while for private funding it is a "lack of a clear framework for investors to evaluate financial materiality of climate- and nature-related risks". By They also point to the fact that simplifying the funding procedures for SMEs is vital, and creating innovative funding structures tailored to

SMEs represents a pivotal step towards encouraging their transformation.⁸⁴ The CEO Action Group members also see greater potential in allocating revenues generated by solutions such as Emissions Trading Systems (ETS) and CBAM directly to support green and digital transformation initiatives.⁸⁵

There are additional challenges linked to the importance of the EU taxonomy, the cornerstone of the EU's sustainable finance framework. The taxonomy was created to set a common definition of economic activities that can be considered environmentally sustainable for financial and non-financial companies. As part of this work at an EU level, a list of environmentally sustainable activities was defined. Be If activities are not part of the taxonomy – as is the case with biotech solutions, for example – this can directly constrain or even prevent financing by financial institutions.

Beyond eligibility, the strict alignment criteria of the EU taxonomy can further limit the support of transitional investments. Looking at the CEO Action Group, among 16 companies that have eligible capital expenditure, only six report more than 50% of that eligible investment activity as taxonomy-aligned. This challenge was further highlighted in a case study conducted by four European Green Building Councils and 23 financial and real-estate organizations. Out of 62 buildings analysed in the study, only one was rated as fully EU taxonomy-aligned, although 41% of the analysed buildings were either sustainably certified assets or were in the process of obtaining such certification.87 This means that companies can have investments that fulfil climate, waterresource management, circular economy, pollution prevention and biodiversity objectives, but only part of these investments would meet the strict criteria of the EU taxonomy. The strict application of the taxonomy criteria raises questions about the efficient financing (or availability of investments) of emerging technologies to support the climate transition.

BOX 2 Explainer: EU taxonomy-eligible and aligned business activities

EU taxonomy-eligible economic activity

Taxonomy eligibility defines only that an activity is within the scope of the taxonomy, irrespective of whether that economic activity meets any or all the technical screening criteria. So far, eligible activities have been decided for two of the objectives – climate change mitigation and climate change adaptation – and a list for the other four objectives will be finalized in the future.

EU taxonomy-aligned economic activity

Taxonomy alignment defines that eligible activities meet the technical screening criteria to substantially contribute to at least one of the taxonomy's six objectives, do not significantly harm any other objective and meet the minimum safeguards.⁸⁸

4.4 | Skills

The EGD's ambitious targets hinge on the development of green jobs and green skills. ⁸⁹ The International Energy Agency (IEA) has estimated that 30 million new jobs will be created for the green transition, while 13 million jobs in fossil-fuel-related industries are at risk. ⁹⁰ In order to ensure parts of the labour force are not left behind, it will be essential to facilitate a smooth transition between jobs.

The European Skills Agenda, launched in 2020 to support sustainable competitiveness, social fairness and resilience, aims to ensure that people have the necessary skills to thrive in the labour market. One of the dozen of actions included in the agenda covers skills to support the twin transition, acknowledging that green and digital skills must be tackled jointly to build a future-proof workforce.

Up to now, the skills that companies have been building to deliver on the EGD objectives are primarily linked to low-carbon and renewable-energy sources and companies' net-zero strategies. ⁹² This may not come as a surprise as this finding aligns with the current focus on climate and energy targets. Skills linked to environmental, social and governance (ESG) reporting are also at the forefront of companies' priorities. The World Economic Forum's Future of Jobs report⁹³ shows that the hiring rate for green skills now outpaces overall hiring rates.

Some companies are already looking beyond their current needs and considering developing skills for green IT and sustainable education. ⁹⁴ Members of the CEO Action Group are acutely aware of the skills dilemma, and many of them have built programmes for green skills – some even complement these programmes with specific metrics to measure the progress on skills development or plan to implement such metrics within the next one to two years ⁹⁵

Furthermore, there is a misalignment between investments in technology and investments in people's skills. While companies plan investments in technology – modernizing manufacturing plants, for example – they do not always anticipate the talent, specific green jobs and skills required to manage that technology, often facing shortages when it comes to the staffing process. ⁹⁶ Research by ManpowerGroup shows that the talent scarcity has grown to 77% – four out of five employers globally are struggling to find the talent they need. In EU member states this percentage falls to between 66% (Czech Republic) and 86% (Germany). ⁹⁷

Since demand for green skills is strong, the supply of workers with the right skills becomes contingent on high-quality upskilling and reskilling programmes. The main obstacle facing companies is the shortage of talent with proficiency in both green and financial skills. The second observation is that the balance between formal and informal education, including vocational training, affects workers' readiness to deal with fast-paced changed in green transformation.⁹⁸

Collaboration between the private and public sectors is necessary to develop educational programmes fit for the sustainable future the EGD envisions. Executives have highlighted specific challenged that need to be overcome; for example, a lack of cross-functional, compound skills, including green finance and green digital competences. 99 This mismatch between labour demand and currently available skills, and between private-sector expectations and the focus of the education system, calls for multisectoral efforts to equip the workforce with a more comprehensive and diverse green-skills portfolio.

↓ Image credit: Eloi_Omella, @Gettylmages



BOX 3 | Stakeholder engagement for the green transition

Engaging different communities is vital as Europe moves towards climate neutrality. Within the CEO Action Group, engagement takes the form of not only collaboration with others to spur innovation but also engagement with the communities affected by business operations. Based on the surveyed companies in the CEO Action Group, these organizations achieve stakeholder engagement through existing or newly formed partnerships with industrial clusters, start-ups or innovation hubs, the public sector, academies, nongovernmental organizations and civil societies. 100 Such collaborations are seen as clearly supporting companies to advance the EGD objectives.

For example, Mastercard's City Possible partnership with HSBC is bringing the two companies' collective resources and expertise together to connect and enable local and regional leaders to take action on climate change and promote inclusive economic

development. The two are initially focusing on greater interaction between business clients and government entities to drive innovation and spur demand for green financing for sustainable-infrastructure projects in net-zero cities across the world. HSBC has also partnered with a diverse group of academic and industry leaders from around the world, including the Technology and Entrepreneurship Center at Harvard University, several large corporations and more than 180 cities. These partnerships aim to promote sustainable and inclusive communities by making use of the expertise and resources of their members. ¹⁰¹

Collaboration between the private sector and local universities and schools can be essential. By working together with the public sector and local communities, private-sector companies can employ their expertise and resources to create positive change and make a meaningful impact on the environment and society of the EU as a whole.

CASE STUDY 2

Net-zero future accelerated by upskilling

Challenge

The green transition drives demand for millions of new roles, and competition for green talent is expected to escalate.

The percentage of managers looking for employees with green skills is as high as 81% in the energy and utilities sector and 73% in transport, logistics and automotive.

Offering upskilling in a certain field helps meet market expectations and drive progress towards the European Commission's goal of having a skilled workforce to support the FGD.

Approach

The key is an effective partnership.

ManpowerGroup – with expert knowledge of the labour market and workforce trends – collaborates with InnoEnergy's Skills Institute, which offers flexible training that includes online courses and a combination of virtual and in-person lab experiences. 102

The partnership will provide virtual and in-person training for 70 in-demand roles including battery technicians, electric vehicle (EV) charger maintenance operators, production engineers and others.

Results

The initiative was launched in October 2023. ManpowerGroup and EIT InnoEnergy plan to train and upskill 800,000 workers in the battery value chain across Europe by the end of 2025.

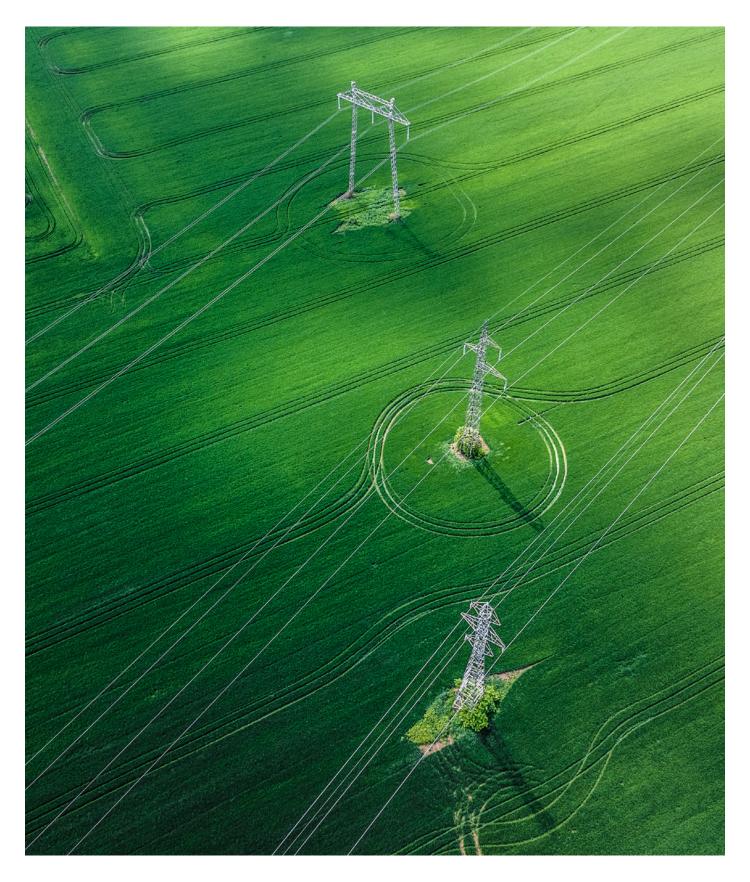
The target is to build a pipeline of skilled talent that will support Europe's transition to a net-zero future.



5 Recommendations

↓ Image credit: Daniel Balakov, @Gettylmages

Delivering on the EGD requires requires steadfast implementation and momentum across stakeholders.



To deliver on the EGD objectives, collaboration between the private sector and policy-makers is needed to create an environment that supports the sustainability agenda while ensuring the competitiveness of European businesses. Based on the analysis presented in this report, there are eight recommendations that will accelerate Europe's path to climate neutrality as well as delivering stronger

competitiveness. The recommendations cover areas of innovation, energy, standards, financing and skills and are aimed at national as well as EU policy-makers. For each recommendation the private sector has a constructive role to play. The recommendations are mutually reinforcing and may overlap due to the intertwined nature of the challenges they aim to resolve.

5.1 Improve forward guidance on regulations and standards

The EU is a regulatory powerhouse and sets standards that, through its strong position as a trading bloc, radiate throughout the world. However, disharmony among member states on regulation and standards risks upsetting its current role as global regulatory trendsetter. As such, sustainability frameworks and regulations require better harmonization across member states.

- The CSRD is a step in the right direction. Due to its condensed implementation timeline, adequate resources to ensure its successful implementation must be made available, including clear guidance and training for compliance professionals.
- While acting on the climate demands urgency, new EU directives require forward guidance and sufficient time for public consultation to avoid unpredictability and the resulting inability of market participants to adjust successfully.
- Where possible, the regulatory landscape must continue to be simplified and standardized

within the EU. Through more streamlined regulations that are internally consistent and deployed in a centralized way, businesses will have more leeway to innovate and develop green industries of scale. This will also create incentives for investors to put their money into cutting-edge European industries through gaining access to a single regulatory market without needing to adjust to country-specific frameworks and regulations.

- For national governments, speedy implementation of EU-wide standards and regulations would help the private sector navigate the business environment within the single market.
- At the same time, continued discussions between the EU, the International Sustainability Standards Board (ISSB0) and the Securities and Exchange Commission (SEC) must continue with the aim of globally harmonized sustainability standards.

5.2 | Secure easier access to public financing

To finance the structural changes that must take place for Europe to become climate neutral, significant investments are needed. Delivering these funds will require both public and private capital. The role of public capital is to guide the market and help companies de-risk climate- and sustainability-related investments. It is also a significant contributor to promoting much-needed European innovation. An increase in the available amount of financing can further stimulate market growth.

To improve access to capital, policy-makers need to:

- Ensure a simple set of evaluation criteria and a fast-tracking system for application processes, including for decisions on applications that aim to use public funding for sustainability-related investments.
- Prioritize sustainable products and services in public procurement in line with uniform procurement guidelines for the entire EU.

5.3 | Streamline permitting for renewable energy projects

Simplifying permitting processes is key to accelerating the energy transition. Developing uniform standards across member states for permitting procedures, and setting deadlines for permitting decisions to be made, would help increase access to public financing and facilitate the

development of renewable energy. To speed the development and deployment of renewable energy across Europe, mechanisms and clear guidance should be put in place as soon as possible to help member states adopt and operationalize streamlined permitting processes.

5.4 | Refine the EU taxonomy

The EU taxonomy is a powerful tool for privatesector investors to engage in funding that supports the objectives of the EGD. Its complex nature and strict application principles, however, may constrain access to capital for some technologies. Refining the EU taxonomy to include emerging technologies – including, but not limited to, the green-tech and bio-agricultural industries – will be critical as technological developments often outpace regulatory ones.

5.5 | Promote education focused on market-ready skills

The demand for the skills needed in green industries will continue to accelerate in coming years. As such, it is critical for the private and public sectors to cooperate on education.

- Businesses should support policy-makers by identifying the skills needed for the green transition, and there should be institutionalized mechanisms in place for feeding this back into the education system to inform future curricula. This becomes even more important in the context of rapid structural changes.
- The private sector is well placed to advise on the balance of practical and academic skills

- needed to meet future labour demand. The education sector can, in its turn, support the private sector by providing access to primary research, data and analysis that can help spur green innovation and R&D.
- Businesses should promote the in-house development of cross-functional sustainability skills. Sustainability should be a central component in the development of digital and finance skills, as green-finance skills can support companies to, for example, secure green financing and develop sustainability standards.

5.6 | Optimize energy taxation

Energy taxation is often perceived as a barrier to European competitiveness. First, in order to move towards greater electrification, taxes on electricity generation should be lowered. At the same time, policy-makers should

consider an appropriate offsetting mechanism for companies that invest in renewable-energy generation. Such a mechanism would benefit Europe by releasing more capital for innovation-enhancing investments.

5.7 | Ramp up the development of grid infrastructure

EVs are one of the main means of decarbonizing corporate transport, but they require a robust charging infrastructure and need to be supported by a reinforced high- and medium-voltage grid. There is potential for public-private partnerships to support the development of such grid

infrastructure – the public sector can establish the financing and regulations required to support this infrastructure development, while the private sector can commit to supplying a qualified workforce to fulfil the demand for its development.

5.8 Create a reliable voluntary carbon-trading mechanism

Achieving net zero can be both supplemented and accelerated by a reliable carbon-offsetting mechanism. To ensure that voluntary carbon credits have their intended impact, the private sector can provide technology that helps track the quality of nature-based solutions and commit to using credits generated by these solutions. For this to be effective, however, policy-makers

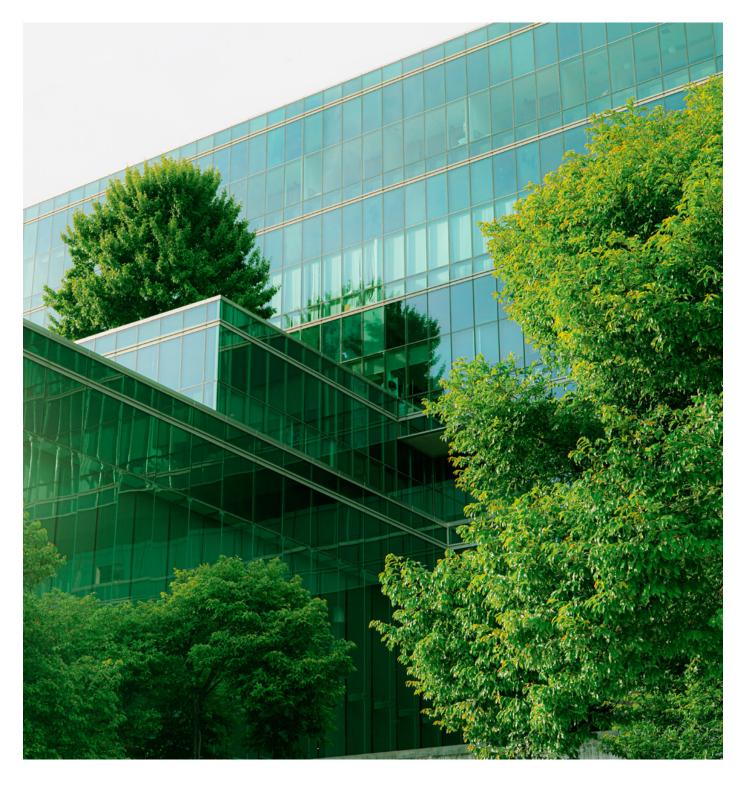
must set global and verifiable standards for the voluntary trading market. As developing economies tend to benefit particularly from issuing these types of credits, reliable mechanisms can support their just transition by generating revenue from nature-based solutions placed in these countries and purchased by businesses from developed economies.



6 The future role of the **CEO Action Group**

The CEO Action Group provides a forum for open public-private dialogue, fostering initiatives that will help achieve the goals of the EGD.

↓ Image credit: Fahroni, @Gettylmages



The many policy packages of the EGD aim to improve European competitiveness through policy initiatives covering climate, environment, energy, transport, industry, agriculture and sustainable finance. Achieving this transformative agenda cannot be done by policy-makers alone; it requires all relevant stakeholders to work collaboratively, including representatives from governments, business and expert communities. The private sector has a special part to play due to its fundamental role in the economy as well as its contribution to EU-wide emissions. As these initiatives move from ambition to implementation, the private sector can be an essential player in driving these policies forward.

The challenges faced by the private sector outlined in this report risk being compounded, as political headwinds continue to grow in the run-up to the 2024 European elections. At the same time, the report has demonstrated the potential of public—private cooperation and of joint-action partnerships in driving European climate action. Supported by the World Economic Forum, the CEO Action Group for the European Green Deal serves as a high-

level platform for businesses to step up their work on climate-positive action and demonstrate their commitment to the EGD agenda.

By providing both a dedicated forum for public—private policy dialogue and an incubator for joint-action initiatives exclusively focused on the EGD, the CEO Action Group is uniquely positioned to help drive private-sector alignment with the EU's net-zero target. At the same time, through the Forum's network of global communities, the work being done by these leading companies will be used to inspire similar action around the world.

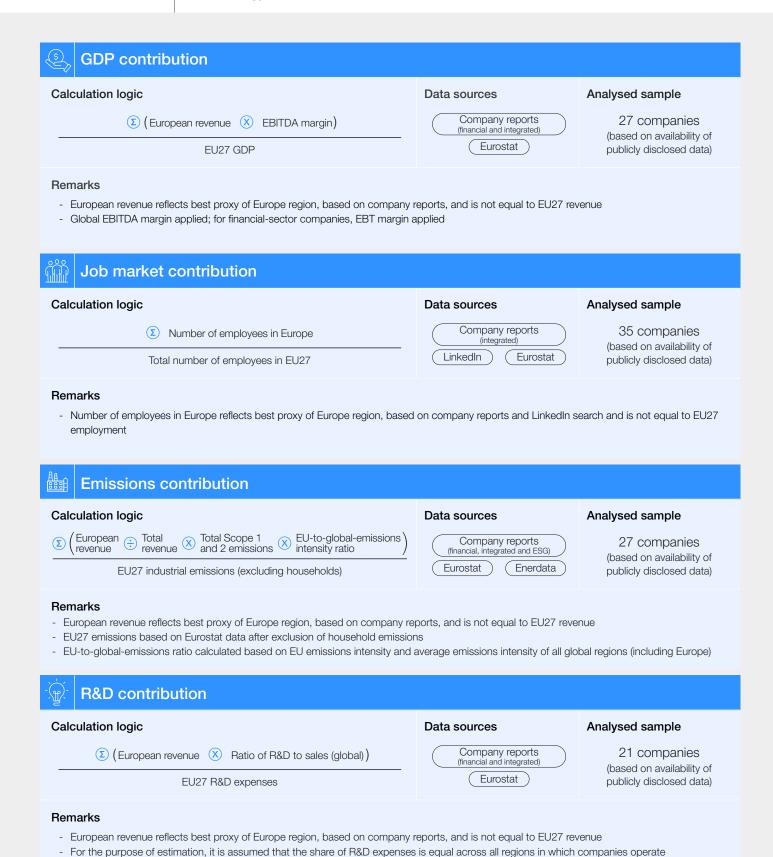
The membership of the Group will continue to broaden and will ensure that companies publicly commit to climate neutrality by 2050, in line with the objectives of the EGD. To build on this momentum, the findings and recommendations from this report will be used to both inform and guide the future work of the community. This will ensure that the European private sector continues to be the global leader in supporting the creation of a sustainable, competitive and just economy.

Appendices

CEO Action Group contribution estimation

FIGURE 13

Methodology of contribution estimation



Assessment framework of companies' alignment with the **European Green Deal**

FIGURE 14

Baseline and logic of the assessment framework of companies' alignment with the European Green Deal



| Assessment criteria | Data sources | Analysed sample | Remarks |
|---|--------------------------------|-----------------|--|
| GHG emissions Scope 1 and 2 | ESG book Company reports CDP | 22 | Scope 2 emissions are based on location-based emissions unless unavailable, in which case market-based emissions were taken1 Analysed sample consists of companies that have reported GHG emissions data during 2019–2022; selected companies were excluded due to changes in methodology or data missing for min. 1 of the reporting periods, which made their data uncomparable over time |
| GHG emissions Scope 3 | ESG book Company reports CDP | 21 | Analysed sample consists of companies that have reported GHG emissions data during 2019–2022; selected companies were excluded due to changes in methodology or data missing for min. 1 of the reporting periods, which made their data uncomparable over time |
| Share of renewable energy in total energy consumption | CDP | 27 | Analysed sample consists of companies that have reported consumption of renewable energy and total energy data during 2019–2022; selected companies were excluded due to data missing for min. 1 of the reporting periods, which made their data uncomparable over time |
| Total energy consumption | CDP | 27 | Analysed sample consists of companies that have reported consumption of renewable energy and total energy data during 2019–2022; selected companies were excluded due to data missing for min. 1 of the reporting periods, which made their data uncomparable over time |
| Total water consumption | Company reports | 19 | Analysed sample consists of companies that have reported water consumption data during 2020–2022; 2019 data was excluded from the analysis due to a limited subset of companies with available data over 2019–2022 compared to availability over 2020–2022 |
| Total water withdrawals | Company reports | 15 | Analysed sample consists of companies that have reported water withdrawals data during 2020–2022; 2019 data was excluded from the analysis due to a limited subset of companies with available data over 2019–2022 compared to availability over 2020–2022 |
| % of key ingredients sustainably sourced | Company reports | 4 | The subset of companies includes four companies from the food and beverage industry |
| CapEx/sales | Capital IQ | 32 | |
| EU taxonomy-aligned and eligible CapEx | Company reports | 16 | The subset of companies includes 16 companies that report any taxonomy-eligible CapEx from the 33 companies that are large publicly listed companies |
| R&D/sales | Capital IQ | 26 | |
| Total value of sustainable financing | Company reports | 5 | The subset of companies includes financial companies that have set targets for sustainable financing |

Notes: 1 Location-based Scope 2 emissions: the location-based method reflects the average emissions intensity of grids on which energy consumption occurs. The location-based method follows the basic allocation approach (section 1.2) and uses mostly grid-average emissions factors that are based on statistical emissions information and electricity output aggregated and averaged within a defined geographical boundary and a defined timeframe; market-based Scope 2 emissions: the market-based method reflects emissions from the electricity that companies have chosen in the market or their lack of choice. Under this method of Scope 2 accounting, an energy consumer uses the GHG emissions factor associated with the qualifying contractual instruments it owns.

Source: World Economic Forum in collaboration with Accenture, analysis of a set of more than 50 publicly disclosed metrics forming an "Assessment Framework of Companies' Alignment with the European Green Deal"

Company reports used

TABLE 1

Company reports used as primary sources of data (non-exhaustive)

| Company | Report | |
|---|--|--|
| ABB | Sustainability Report 2022 | |
| ArcelorMittal | Fact Book 2022 | |
| ArcelorMittal | Integrated Annual Review 2022 | |
| AXA | 2023 Climate and Biodiversity Report | |
| BASF | BASF Report 2022 Integrated Corporate Report on Economic, Environmental and Social Performance | |
| BASF | BASF Factbook 2023 | |
| Bayer | Sustainability Report 2022 | |
| Coca-Cola HBC | The Coca-Cola Company 2022 Business and Sustainability Report | |
| Deutsche Bank | Non-Financial Report 2022 | |
| ENGIE Group | 2023 Integrated Report | |
| Eni | Eni for 2022 Sustainability Performance | |
| HSBC Holdings | Annual Report and Accounts 2022 | |
| Iberdrola | Statement of Non-Financial Information. Sustainability Report - Financial Year 2022 | |
| Koç Holding | Koç Group Sustainability Report 2022 | |
| ManpowerGroup | Working to Change the World: 2021–2022 ESG Report | |
| Mastercard International | Mastercard 2022 Environmental, Social and Governance Report | |
| Merck | Sustainability Report 2022 | |
| Natixis | TCFD Report 2021 | |
| Nestlé | Creating Shared Value and Sustainability Report 2022 | |
| Nokia | People and Planet 2022 | |
| Novozymes | The Novozymes Report 2022 | |
| PepsiCo | 2022 ESG Summary | |
| Procter & Gamble International Operations | 2023 Annual Report | |
| Royal Philips | Annual Report 2022 | |
| Sanofi | ESG Event Play to Win Presentation | |
| Sanofi | Registration Document 2022 - Chapter 4 Corporate Social Responsibility | |
| Schneider Electric | 2022 Sustainable Development Report | |
| Signify | Annual Report 2022 | |
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| Unilever | Unilever Annual Report and Accounts 2022 | |
| Xylem | 2022 Sustainability Report | |
| Yara International | Yara Integrated Report 2022 | |
| Yara International | Yara Sustainability Report 2022 | |
| Zurich Insurance Group | Annual Report 2022 | |

Source: Company websites

CEO Action Group members

TABLE 2

List of CEO Action Group members

| ABB | Heathrow Airport Holdings | Procter & Gamble International Operations |
|---------------------|---------------------------------------|---|
| Algebris (UK) | HSBC Holdings | Roland Berger Holding |
| ArcelorMittal | Iberdrola | Royal Philips |
| Arup Group | Ingka Group (IKEA) | Sanofi |
| AXA | Koç Holding | Schneider Electric |
| Bank Julius Baer | ManpowerGroup | Signify |
| BASF | Massellaz | SONAE |
| Bayer | Mastercard International Incorporated | Swiss Re Management |
| Canica Holding | Merck | TotalEnergies |
| Coca-Cola HBC | Natixis | Umicore |
| Covington & Burling | Nestlé | Unilever |
| Deutsche Bank | Nokia | Xylem |
| DTEK | Novozymes | Yara International |
| ENGIE Group | OVG Real Estate | Zurich Insurance Group |
| Eni | PepsiCo | |
| HEAD | Planet Labs | |

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Endnotes

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