



Principles for an ambitious EU Green Industrial Strategy

A CLG Europe position paper

The University of Cambridge Institute for Sustainability Leadership

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Introduction

While it is a welcome sign of progress that international competition in the 'race to net zero' is increasing, it also clearly poses a challenge to the EU's ability to attract investment and innovation in its own industrial ecosystems. Recognising the growing urgency of ambitious action on climate change and environmentally sustainable development, and convinced of the economic and social benefits this will bring, CLG Europe has therefore welcomed the Green Deal Industrial Plan (GDIP) and key associated initiatives, notably the Net Zero Industry Act (NZIA) and the Critical Raw Materials Act (CRMA).

While these have been positive developments, the EU's approach to industrial policy remains relatively narrow in its aims, lacks new resources and is not yet sufficiently connected to the EU's other wider approaches, such as its economic security strategy and wider approach to sustainable development. The NZIA proposal for example focuses on a limited number of energy technologies, even though there are many more smart, clean products and services that can enable, accelerate and deliver the wider industrial economic transformation we need in all manufacturing value chains for buildings, mobility, food, health and many other ecosystems.

CLG Europe believes that the EU needs a broader rethink of its approach that is more ambitious, both broader in scope and better supported by new EU tools and financial resources. The EU needs a bold, forward-thinking and integrated strategic response which builds on the success and resilience of the European Green Deal by extending and mainstreaming it still further into the wider economic strategy of 'competitive sustainability' (see below) that has also been its compass since 2020.

This position paper outlines the main principles that we believe should underpin the EU's green industrial strategy and policies. It identifies the main barriers to achieving the EU's 'competitive sustainability', as defined in the next section, and outlines key proposals for lifting them. It is based and builds on the previous positions developed by the Corporate Leaders Group (CLG) Europe¹ and the Taskforce for climate neutral and circular materials and products² over 2019–23.³

CLG Europe's key principles for the EU's industrial policy

CLG Europe believes that the EU needs to adopt the following **key principles** as the base for its net zero transition and the EU's industrial policy:

• The strategy of Competitive Sustainability, defined as "the ability of an economy, companies and industrial ecosystems to excel relative to international competitors in their transition to a sustainable economy, with climate neutrality at its core — through investment in the necessary innovation". Domestically, the EU should adopt common definitions and metrics for keeping track of its performance, prioritising key opportunities, anticipating and fairly managing the social impact of any changes, and leading the industrial transition. The Competitive Sustainability Index, developed by the University of Cambridge Institute for Sustainability Leadership (CISL), provides the basis for an evidence-based competitive sustainability approach and can be used to plan and execute a range of EU and national policies: from the European Semester to the national smart specialisation strategies. Internationally, the EU must seek to prevent offshoring of its key innovative industries, and to lead on the low carbon and circular solutions and on sustainable finance. And the sustainable finance.

- Promotion of upwards convergence of sustainable business practices within and beyond its borders,
 making sure that less sustainable companies jump on the bandwagon of the net zero transition and do
 not unfairly compete with the progressive businesses that face high upfront investment costs or EU
 Emissions Trading System (ETS) benchmarks that put them at a competitive disadvantage.⁸
 Greenwashing must be prevented.^{9,10}
- An even higher priority on climate neutral and circular material production, replacing the current linear model of 'take-use-dispose' with the circular model of 'reduce-reuse-recycle' until now, this goal has not been addressed by the GDIP in a strategic way. We need a holistic approach to decarbonisation that embraces the circular economy "a system where products are reused, repaired, remanufactured or recycled." According to the Ellen MacArthur Foundation's calculations, transition to renewable energy can only address 55 per cent of global emissions, while we must also tackle the remaining 45 per cent which derive from land use and the production of buildings, vehicles, electronics, clothes, food, packaging, and other goods and assets we use every day. Exey policy actions here include mandating environmentally friendly design covering the entire lifecycle of products, with the Ecodesign for Sustainable Products Regulation at the centre, and promoting efficient use (including demand reduction), reuse, upcycling and recycling of materials and products, and the use of renewable and low carbon materials.
- A society-wide approach to greening the industry, engaging consumers and businesses across the value chains and making sure they have the knowledge, willingness, confidence and ability to make more sustainable choices. ^{14,15} Currently, a constellation of contextual factors such as access to information and infrastructure, income levels and social norms plays a major role in adoption of more sustainable practices. Climate policies will only operate effectively if linked to the broader policy and societal context. ¹⁶ This whole-of-society approach should be facilitated by solid stakeholder involvement ¹⁷ and increased public and private funding that will stimulate innovation, research and development, business activity, and support consumers in accessing climate-friendly solutions.
- An EU industrial policy that better reflects the latest scientific evidence. This conclusively demonstrates that the net zero transition will have a hugely positive impact not only on the climate, but also on the economy and society. Investments in net zero will bring major direct economic gains, generate new jobs and prevent pollution-related deaths, substantially outweighing the costs of decarbonisation. There is scientific and business evidence alike showing that circular measures will lead to substantial savings in emissions depending on the specific material, the decrease in energy consumption can range between 10 and 95 per cent. Moreover, according to the evidence quoted in the 2020 Circular Economy Action Plan, circularity can increase EU gross domestic product (GDP) by an additional 0.5 per cent by 2030 and create approximately 700,000 new jobs. 22

Barriers to greening the EU's industrial policy

At the moment, multiple **obstacles** still exist for the transition to climate neutral industry in the EU on the supply, demand and regulatory sides. These include:

• Linear thinking in politics and economics, and linear economic models and value chains, which inhibit the transition to a more circular, regenerative and resilient system. We need progressive policies and

- collective, collaborative action across the value chains to overcome the inertia behind linear thinking on climate, and to increase the pace and depth of the transformation.
- Incoherent, overly complex, inflexible and sometimes outdated regulation, which stymies innovation and investment in decarbonisation and circularity.²³
- A lack of regulatory direction and certainty for businesses, which must carry out major investments in innovation in the next investment cycle – if the EU is to achieve domestic climate neutrality by 2050.²⁴
- Lack of available, reliable and comparable data on the green properties of materials or intermediate inputs. This is probably the biggest non-cost barrier which impedes green investment, purchasing of sustainable materials and products, and circular use of materials.^{25,26 T}his lack of data also means that some players on the market may be able to use green claims that are not properly substantiated.²⁷
- Lack of financial support and regulatory measures that would build investor confidence. The upfront
 cost of climate neutral technologies, and of co-ordinating new climate neutral material solutions
 across complex value chains, is often high and thus may inhibit their competitiveness in the short
 term.^{28,29,30} Measures such as more flexible financing rules or incentivising VAT reductions on
 renewable infrastructure and technologies can reduce upfront investment costs for green transition
 projects and facilitate uptake of green technology.³¹
- **Difficulties in sourcing the right skills and expertise**, which are a major barrier for the green transition.³² There is also a need to upskill/reskill workers who will potentially lose their jobs in carbonintensive sectors in order to prevent negative social repercussions.
- No or very weak demand for climate neutral and circular basic materials and final products in many EU product markets, which further disincentivises the transition.

CLG Europe's key proposals for the green EU industrial policy

The EU needs to work on an ambitious regulation that delivers. This entails:

- A joined-up green industrial strategy that is ambitious and coherent across policies and across Member States. It must identify the common European industrial interest not what is in the interests of individual Member States, but the EU as a whole. Subsequently, the EU needs to develop a coherent and joined-up green industrial strategy that will ensure regulatory coherence in the universe of the EU's climate-, nature-, industry- and energy-related legislation and with other policies, for example on fiscal matters, housing and transport. In parallel, we need to improve policy coherence across Member States to prevent unwelcome fragmentation and loopholes in policy measures and reporting systems. 36,37,38
- Ensuring that the joined-up green industrial strategy is underpinned by ambitious funding that is conditional on businesses adopting decarbonisation measures. Green transition requires financing, and this is the time for a genuinely European approach and a significant increase in public financing available at the EU level. The EU should launch an EU Climate Investment Plan 2025–35 that builds on GDIP, and provide a committed investment roadmap to align finance and funding from all sources, in alignment with the Do No Significant Harm principle: EU, Member State and the private sector in EU taxonomy eligible sectors to bridge the sizeable EU climate investment gap. At the EU level, we can

use the Stability and Growth Pact reform³⁹ to support public Research & Innovation (R&I) funding with climate mainstreaming provision, as well as the Recovery and Resilience Facility⁴⁰ and other EU funding instruments.⁴¹ The European Semester can be used as a tool for policy co-ordination among the Member States. The EU should also ensure that all new draft National Integrated Energy and Climate Plans have a clear National Climate Investment Plan (NCIP) with committed funding. Circular and low carbon public procurement is another major instrument to support business investment.

- Quick adoption of ambitious green regulation which offers certainty for businesses. Businesses need regulatory decisions to be taken quickly and to give a clear direction, so that they can invest with confidence and on time to achieve the 2030, 2040 and 2050 targets. The EU must have clear targets, clear sector goals and a clear definition of what is 'green'. Policies promoting decarbonisation should consider time limits when those are needed to minimise the risks of undue distortions of competition while early on, material- or technology-specific support policies may be needed, after some time, policies may become technology neutral (without a specific preference on how exactly decarbonisation is to be achieved) and let the demand pull drive the investment. Policies must also avoid placing constraints on scarce resources in unrealistic timeframes.
- **Keeping its regulation agile.** Overall policy goals are best achieved when specific policy instruments can be tailored to individual circumstances and new technological developments. Agility is necessary to enable timely uptake of innovative technologies;⁴⁵ tailor policy instruments to the local environments, in particular at the municipality level;⁴⁶ and to adopt product-specific decarbonisation and circularity standards.^{47,48,49}
- Simplification of planning and permitting rules⁵⁰ and the regulatory and legal framework more broadly.⁵¹ Having a sole point of contact (one-stop shop) where businesses and investors can deal with all the required technical and administrative procedures would be a helpful first step.⁵²

Supply- and demand-side policies

The transition to a low carbon industry will only come with a credible business case for low carbon products and services. This requires a combination of both supply and demand policy measures.

On the supply side, the following policy tools are needed:

- Support for an increase in the supply of climate-neutral, low carbon or fossil-free products and services through policies such as innovation funding, financial support for commercialisation of key technologies, investments in infrastructure (eg for collection), and the removal of regulatory constraints on the marketing of certain low or high carbon materials.⁵³
- Easy access to investments for innovation, industrial transformation and circular practices.

 Investments are required on the side of both businesses and governments, and it is important that the companies involved in the green transition can be easily matched with appropriate sources of financing. In particular, to support scale-ups, the EU should co-develop a 'one-stop shop' for organisations seeking to access EU funding to build industry-scale first-of-a-kind facilities in Europe, so that it is simpler and quicker to find and apply for the support.⁵⁴
- Convincing financial and other incentives and disincentives for companies and investors supplying green technologies, especially in cases when high-potential solutions face high barriers to enter the

- market.⁵⁵ These can include more flexible financing rules for green transition projects; Carbon Contracts for Difference; incentives based on carbon accounting, for example for more demanding recycling; ambitious revision of the Energy Taxation Directive; use of state aid; and use of EU funding including the Recovery and Resilience Facility.^{56,57}
- Ramped-up upskilling and reskilling as well as investment in science, technology, engineering and mathematics (STEM) education, as lack of skills remains a major obstacle on the way to the net zero transition and can diminish the EU's global competitiveness.^{58,59,60}

On the demand side, the EU needs to implement the following policies:

- Promoting increased demand for climate neutral or low carbon products and services through encouraging a leading share of market participants to adopt new sustainable practices (lead markets).⁶¹ This can be done through policies which may include product labelling, standards or certification benchmarks, public procurement requirements, ecodesign or embedded emissions requirements on final or intermediate products in the value chain, quota obligations, or other financial incentives for purchasers of such materials.⁶² It is vital that these products minimise environmental impact and support a wider nature positive approach. Increased demand will incentivise business to invest in climate neutrality.
- Introduction of circular procurement as a strategy to guide public procurement decisions to support lifetime economics, carbon and material efficiency, and to impose low carbon material obligations in public procurement. This is especially relevant for key sectors such as buildings, vehicles, public works and infrastructure. Public procurement is a very powerful but currently underused tool to create markets for low carbon / fossil-free goods that can be used strategically, for example, aiming for a significantly better performance than the market standard.^{63,64}
- Preference for technological neutrality in the longer term when it concerns decarbonisation solutions, with a caveat that material- or technology-specific solutions may be necessary in the early stages of product decarbonisation or in cases where technology needs to meet specific requirements.⁶⁵
- Quality data provision and exchange mechanisms across value creation networks, such as the Digital Product Passport (DPP). Such mechanisms offer benefits for consumers, businesses and policymakers; enable sustainable investment decisions; support substantiation of green claims; and facilitate recycling. They can also address issues related to intellectual property rights (IPR) protection and support the creation of green markets.⁶⁶
- Financial and other incentives for buyers (individuals, companies, municipalities, etc) to invest in sustainable solutions and to adopt sustainable behaviours.^{67,68} These can include, for example, purchase subsidies, tax credits and favourable financing terms.⁶⁹ Technical assistance is one of the important components in facilitating demand.⁷⁰
- An integrated and more ambitious approach to clean energy, energy efficiency, energy performance of buildings and mobility, given these sectors' important role in creating jobs, reducing costs and accelerating decarbonisation. It must aim at accelerating the 'renovation wave' to at least twice the current rate, supporting faster deployment of renewable energy and shifting towards electric mobility as well as supporting active travel (walking and cycling).⁷¹ This may involve, in particular, joining up

- energy efficiency and circular economy policies, scaling up investments in charging infrastructure, improved CO_2 emission performance standards and increased demand for electric vehicles. In parallel, subsidies for high carbon technologies must be eschewed.^{72,73}
- Phase-out of fossil fuels and fossil fuel subsidies, and a robust 2040 target to clarify its fossil fuel phase-out ambitions and charter the trajectory for a fossil-free economy. CLG Europe advocates an emissions reduction target of at least 90 per cent net reduction in greenhouse gas emissions compared to 1990 levels.⁷⁴
- Speedy implementation of the EU's sustainable finance taxonomy and creation of a 'brown taxonomy' to identify and disincentivise harmful investments.⁷⁵
- **Protection of consumers from greenwashing** and early obsolescence practices, and promotion of genuine improvements in repairability of products.⁷⁶

In what concerns social sustainability, the EU must:

- Develop social compliance reporting. Poor working conditions are often overlooked in the linear economic model, and it would be advisable to simultaneously monitor environmental and social compliance.⁸³
- Promote transparency on social and environmental standards in supply chains to prevent the relocation of production away from the EU and to countries with lower standards.⁸⁴

In its international co-operation, the EU must rely on the following principles:

- A climate-friendly trade policy that achieves the right balance between 'open' and 'strategic' autonomy. It must promote diversification and transparency of the EU's supply chains and prevent unfair competition from foreign companies which disrespect environmental and social standards while recognising that trade can be mutually beneficial for the EU and its partners alike. The EU Carbon Border Adjustment Mechanism is one of the EU's tools to offer incentives for its trading partners to adopt the highest standards of climate and environmental protection.
- A more active push towards global phase-out of fossil fuels and fossil fuel subsidies. It is in the EU's interests to strengthen the international regulatory framework on climate change, and so the EU must step up its investment in supporting the Paris Agreement and further emissions reduction through global phase-out of fossil fuels and fossil fuel subsidies.⁸⁶

- Stronger EU–US co-operation. It is in the EU's interest to promote global net zero transition while ensuring fair market competition. Sectoral Climate Alliances can be used to ensure mutual public incentive eligibility, for example, to allow European firms to participate in the Inflation Reduction Act (IRA), and US firms in the GDIP.⁸⁷
- Stronger co-operation at the global level. International Climate Alliances and the Global Gateway Initiative can be used to strengthen partnerships with other countries, and to ensure that emerging and developing economies are supported.⁸⁸

Finally, the EU must transform its relationship with nature:

- The EU must change its approach to land use in order to align its nature, climate, energy transition and industrial objectives and to ensure long-term quality of land and sustainable food production systems. This would contribute to cutting emissions and enabling natural CO₂ removals, while putting an end to polluting activities. The gradual and complete integration of nature considerations in the broader European sustainability agenda, today dominated by climate concerns, is unavoidable if we want to succeed in climate change mitigation, and will be direly needed for adaptation purposes. As the industrial production and service infrastructures will be increasingly exposed to extreme weather events and environmental damage, nature-based solutions will be central for the future resilience of the European economy.
- This paradigm shift will require change in both production and consumption patterns, for example, promoting more sustainable production and land use; being mindful of land-use efficiency of different dietary options; mainstreaming reporting on biodiversity and environmental health indicators, in connection with the existing green conditionalities to access EU support schemes; reversing global deforestation; and using the bio-economy to decarbonise other sectors, such as construction, as well as a carbon sink.⁸⁹

Conclusions

CLG Europe urges EU legislators to incorporate a holistic approach: a climate neutral, nature positive, circular and competitively sustainable economy. This should be the guiding principle for the files currently on the agenda, including notably the Net Zero Industry Act, the Critical Raw Materials Act, as well as the Green Claims Directive, the Regulation on the Ecodesign Requirements for Sustainable Products, the European Performance of Buildings Directive, the Proposal for a revision of EU legislation on Packaging and Packaging Waste, the Nature Restoration Law, and others.

As the EU enters into a new institutional cycle, CLG Europe calls for an even more substantial revision of the EU's industrial policy, with the aim of making a truly European joined-up green industrial policy a reality. This will enable the EU to benefit from a competitive advantage, both through fostering greater innovation and attracting global investment. We remain ready and willing to engage in discussions to achieve this goal.

Bibliography

CLG Europe. "More than 150 Business Leaders Call on EU to Strengthen Energy Security by Accelerating Green Transition," May 11, 2022.

https://www.corporateleadersgroup.com/news/business-letter-ursula-von-der-leyen-ahead-eus-repowereu-plan.

CLG Europe Materials & Products Taskforce. "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package," June 1, 2022.

https://www.corporateleadersgroup.com/news/clg-europe-materials-products-taskforces-analysis-eus-march-circular-economy-package.

European Commission. "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Circular Economy Action Plan for a Cleaner and More Competitive Europe," March 11, 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.

McKinsey Sustainability. "How a Post-Pandemic Stimulus Can Both Create Jobs and Help the Climate," May 17, 2020. https://www.mckinsey.com/capabilities/sustainability/our-insights/how-a-post-pandemic-stimulus-can-both-create-jobs-and-help-the-climate.

The New Climate Economy. "The 2018 Report of the Global Commission on the Economy and Climate," 2018. https://newclimateeconomy.report/2018/key-findings/.

University of Cambridge Institute for Sustainability Leadership (CISL). A New Agenda for Europe: Business Priorities to Deliver a Prosperous, Climate Neutral Economy. Cambridge, UK: The Prince of Wales's Corporate Leaders Group, 2019. https://www.corporateleadersgroup.com/reports-evidence-and-insights/a-new-agenda-for-europe-business-priorities-to-deliver-a-prosperous-climate-neutral-economy.

———. Accelerating the Transition to a Climate Neutral and Circular Economy – How the EU Can Deliver through the Sustainable Products Initiative. Cambridge, UK: Taskforce for climate neutral and circular materials and products - CLG Europe, 2021.

https://www.corporateleadersgroup.com/accelerating-transition-climate-neutral-and-circular-economy-how-eu-can-deliver-through-SPI.

- ———. "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan and Call on Bloc to Increase Its Speed, Scale and Focus," February 8, 2023. https://www.cisl.cam.ac.uk/news/businesses-entrepreneurs-green-growth-groups-and-leading-climate-ngos-welcome-eu-green-deal.
- ———. Circular Savings: Business Perspectives on Energy Savings through Circular Practices. Cambridge, UK: CLG Europe, 2023. https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/policy-briefings/policy-briefing-circular-savings-business.
- ———. Context Is Everything: Insights and Lessons for Successfully Delivering the European Green Deal. Cambridge, UK: CLG Europe, 2022. https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/reports/report-context-everything-insights-and-lessons.

- ———. Forging a Carbon-Neutral Heavy Industry by 2050: How Europe Can Seize the Opportunity. Cambridge, UK: The Prince of Wales's Corporate Leaders Group, 2019. https://www.corporateleadersgroup.com/reports-evidence-and-insights/forging-a-carbon-neutral-heavy-industry-by-2050-how-europe-can-seize-the-opportunity.
- ———. Green Circularity: Advancing the EU's Climate Goals through a Circular Economy. Cambridge, UK: CLG Europe, 2022. https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/reports/policy-briefing-green-circularity-advancing-eus.
- ——. Raising European Climate Ambition for 2040: A CLG Europe Position Paper. Cambridge, UK: CLG Europe, 2023. https://www.corporateleadersgroup.com/reports-evidence-and-insights/raising-european-climate-ambition-2040.
- ———. The Competitive Sustainability Index: New Metrics for EU Competitiveness for an Economy in Transition. Cambridge, UK: Cambridge Institute for Sustainability Leadership, 2022. https://www.cisl.cam.ac.uk/competitive-sustainability-index.
- ———. The Green Deal and Europe's Recovery: Building a Prosperous, Resilient and Climate Neutral EU through Business and Political Action. Cambridge, UK: CLG Europe, 2020. https://www.corporateleadersgroup.com/reports-evidence-and-insights/the-green-deal-and-european-recovery.

University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende. Tomorrow's Markets Today: Scaling up Demand for Climate Neutral Basic Materials and Products. CLG Europe, 2021. https://www.corporateleadersgroup.com/tomorrows-markets-today.

University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute. Digital Product Passport: The Ticket to Achieving a Climate Neutral and Circular European Economy? Cambridge, UK: CLG Europe, 2022. https://www.corporateleadersgroup.com/digital-product-passport-ticket-achieving-climate-neutral-and-circular-european-economy.

Endnotes

- ¹ Corporate Leaders Groups, "About CLG Europe," accessed November 2, 2023, https://www.corporateleadersgroup.com/corporate-leaders-group-europe.
- ² Corporate Leaders Groups, "Taskforce for climate neutral and circular materials and products," accessed November 2, 2023, https://www.corporateleadersgroup.com/corporate-leaders-group-europe/taskforce-climate-neutral-and-circular-materials-and-products.
- ³ Please see bibliography for the full list of positions.
- ⁴ University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition to a Climate Neutral and Circular Economy How the EU Can Deliver through the Sustainable Products Initiative* (Cambridge, UK: Taskforce for climate neutral and circular materials and products CLG Europe, 2021), https://www.corporateleadersgroup.com/accelerating-transition-climate-neutral-and-circular-economy-how-eu-can-deliver-through-SPI.
- ⁵ University of Cambridge Institute for Sustainability Leadership (CISL), *The Competitive Sustainability Index: New Metrics for EU Competitiveness for an Economy in Transition* (Cambridge, UK: Cambridge Institute for Sustainability Leadership, 2022), https://www.cisl.cam.ac.uk/competitive-sustainability-index.
- ⁶ University of Cambridge Institute for Sustainability Leadership (CISL), *Forging a Carbon-Neutral Heavy Industry by 2050: How Europe Can Seize the Opportunity* (Cambridge, UK: The Prince of Wales's Corporate Leaders Group, 2019), https://www.corporateleadersgroup.com/reports-evidence-and-insights/forging-a-carbon-neutral-heavy-industry-by-2050-how-europe-can-seize-the-opportunity.
- ⁷ University of Cambridge Institute for Sustainability Leadership (CISL), *A New Agenda for Europe: Business Priorities to Deliver a Prosperous, Climate Neutral Economy* (Cambridge, UK: The Prince of Wales's Corporate Leaders Group, 2019), https://www.corporateleadersgroup.com/reports-evidence-and-insights/a-new-agenda-for-europe-business-priorities-to-deliver-a-prosperous-climate-neutral-economy.
- ⁸ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan and Call on Bloc to Increase Its Speed, Scale and Focus," February 8, 2023, https://www.cisl.cam.ac.uk/news/businesses-entrepreneurs-green-growth-groups-and-leading-climate-ngos-welcome-eu-green-deal.
- ⁹ University of Cambridge Institute for Sustainability Leadership (CISL), *Green Circularity: Advancing the EU's Climate Goals through a Circular Economy* (Cambridge, UK: CLG Europe, 2022), https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/reports/policy-briefing-green-circularity-advancing-eus.
- ¹⁰ University of Cambridge Institute for Sustainability Leadership (CISL), Accelerating the Transition.
- 11 "Circular Economy," EUR-Lex, https://eur-lex.europa.eu/EN/legal-content/glossary/circular-economy.html#:~:text=This%20means%20a%20system%20where,global%20efforts%20on%20sustainable%20development.

 12 University of Cambridge Institute for Sustainability Leadership (CISL), *Green Circularity*.
- ¹³ CLG Europe Materials & Products Taskforce, "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package," June 1, 2022, https://www.corporateleadersgroup.com/news/clg-europe-materials-products-taskforces-analysis-eus-march-circular-economy-package.
- ¹⁴ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything: Insights and Lessons for Successfully Delivering the European Green Deal* (Cambridge, UK: CLG Europe, 2022), https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/reports/report-context-everything-insights-and-lessons.
- ¹⁵ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today:* Scaling up Demand for Climate Neutral Basic Materials and Products (CLG Europe, 2021), https://www.corporateleadersgroup.com/tomorrows-markets-today.
- ¹⁶ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ¹⁷ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ¹⁸ The New Climate Economy, "The 2018 Report of the Global Commission on the Economy and Climate," 2018, https://newclimateeconomy.report/2018/key-findings/.
- ¹⁹ McKinsey Sustainability, "How a Post-Pandemic Stimulus Can Both Create Jobs and Help the Climate," May 27, 2020, https://www.mckinsey.com/capabilities/sustainability/our-insights/how-a-post-pandemic-stimulus-can-both-create-jobs-and-help-the-climate.
- ²⁰ University of Cambridge Institute for Sustainability Leadership (CISL), Forging a Carbon-Neutral Heavy Industry.

- ²¹ University of Cambridge Institute for Sustainability Leadership (CISL), *Circular Savings: Business Perspectives on Energy Savings through Circular Practices* (Cambridge, UK: CLG Europe, 2023), https://www.corporateleadersgroup.com/reports-evidence-and-insights/collections/policy-briefings/policy-briefings-circular-savings-business.
- ²² European Commission, "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Circular Economy Action Plan for a Cleaner and More Competitive Europe," March 11, 2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.
- ²³ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ²⁴ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ²⁵ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, *Digital Product Passport: The Ticket to Achieving a Climate Neutral and Circular European Economy?* (Cambridge, UK: CLG Europe, 2022),

 https://www.corporateleadersgroup.com/digital-product-passport-ticket-achieving-climate-pourtal-and-circular european

 $\underline{https://www.corporateleadersgroup.com/digital-product-passport-ticket-achieving-climate-neutral-and-circular-european-economy.}$

- ²⁶ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ²⁷ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, *Digital Product Passport*.
- ²⁸ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ²⁹ These include iron and steel and ferro-alloys, aluminium, cement and concrete, glass, brick and ceramics, wood, pulp and paper, and a range of basic chemicals, such as olefins, polyolefins and aromatics. Source: University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition to a Climate Neutral and Circular Economy*.
- ³⁰ These include oil, mining, shipping, steel, cement and chemicals. Source: University of Cambridge Institute for Sustainability Leadership (CISL), *Forging a Carbon-Neutral Heavy Industry by 2050*.
- ³¹ University of Cambridge Institute for Sustainability Leadership (CISL), *Raising European Climate Ambition for 2040: A CLG Europe Position Paper* (Cambridge, UK: CLG Europe, 2023), https://www.corporateleadersgroup.com/reports-evidence-and-insights/raising-european-climate-ambition-2040.
- ³² University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ³³ University of Cambridge Institute for Sustainability Leadership (CISL), *Circular Savings*.
- ³⁴ University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition*.
- ³⁵ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ³⁶ University of Cambridge Institute for Sustainability Leadership (CISL), *Circular Savings*.
- ³⁷ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, Tomorrow's Markets Today.
- ³⁸ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ³⁹ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁴⁰ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁴¹ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁴² University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition*.
- ⁴³ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁴⁴ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁴⁵ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁴⁶ University of Cambridge Institute for Sustainability Leadership (CISL), Context Is Everything.
- ⁴⁷ University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition*.
- ⁴⁸ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁴⁹ CLG Europe Materials & Products Taskforce, "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package."
- ⁵⁰ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁵¹ CLG Europe Materials & Products Taskforce, "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package."
- ⁵² University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁵³ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁵⁴ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- 55 University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, Tomorrow's Markets Today.

- ⁵⁶ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁵⁷ CLG Europe Materials & Products Taskforce, "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package."
- ⁵⁸ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁵⁹ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁶⁰ University of Cambridge Institute for Sustainability Leadership (CISL), *The Competitive Sustainability Index*.
- ⁶¹ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁶² University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁶³ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁶⁴ University of Cambridge Institute for Sustainability Leadership (CISL), *Accelerating the Transition*.
- ⁶⁵ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, Tomorrow's Markets Today.
- ⁶⁶ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, *Digital Product Passport*.
- ⁶⁷ University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁶⁸ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, *Digital Product Passport*.
- ⁶⁹ University of Cambridge Institute for Sustainability Leadership (CISL) and Agora Energiewende, *Tomorrow's Markets Today*.
- ⁷⁰ University of Cambridge Institute for Sustainability Leadership (CISL), *The Green Deal and Europe's Recovery: Building a Prosperous, Resilient and Climate Neutral EU through Business and Political Action* (Cambridge, UK: CLG Europe, 2020), https://www.corporateleadersgroup.com/reports-evidence-and-insights/the-green-deal-and-european-recovery.
- ⁷¹ University of Cambridge Institute for Sustainability Leadership (CISL), The Green Deal and Europe's Recovery.
- ⁷² University of Cambridge Institute for Sustainability Leadership (CISL), *Context Is Everything*.
- ⁷³ University of Cambridge Institute for Sustainability Leadership (CISL), The Green Deal and Europe's Recovery.
- ⁷⁴ University of Cambridge Institute for Sustainability Leadership (CISL), *Raising European Climate Ambition for 2040*.
- ⁷⁵ University of Cambridge Institute for Sustainability Leadership (CISL), *The Green Deal and Europe's Recovery*.
- ⁷⁶ CLG Europe Materials & Products Taskforce, "CLG Europe Materials & Products Taskforce's Analysis of the EU's March Circular Economy Package."
- ⁷⁷ University of Cambridge Institute for Sustainability Leadership (CISL), *The Green Deal and Europe's Recovery*.
- ⁷⁸ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, *Digital Product Passport*.
- ⁷⁹ CLG Europe, "More than 150 Business Leaders Call on EU to Strengthen Energy Security by Accelerating Green Transition," May 11, 2022, https://www.corporateleadersgroup.com/news/business-letter-ursula-von-der-leyen-ahead-eus-repowereu-plan.
- ⁸⁰ University of Cambridge Institute for Sustainability Leadership (CISL), Context Is Everything.
- ⁸¹ CLG Europe, "More than 150 Business Leaders Call on EU to Strengthen Energy Security."
- ⁸² University of Cambridge Institute for Sustainability Leadership (CISL), A New Agenda for Europe.
- 83 University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute, Digital Product Passport.
- ⁸⁴ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute.
- ⁸⁵ University of Cambridge Institute for Sustainability Leadership (CISL) and Wuppertal Institute.
- ⁸⁶ University of Cambridge Institute for Sustainability Leadership (CISL), A New Agenda for Europe.
- ⁸⁷ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁸⁸ University of Cambridge Institute for Sustainability Leadership (CISL), "Businesses, Entrepreneurs, Green Growth Groups and Leading Climate NGOs Welcome EU Green Deal Industrial Plan."
- ⁸⁹ University of Cambridge Institute for Sustainability Leadership (CISL), A New Agenda for Europe.