

TO PROTECT THE PLANET, THE EU SHOULD

Member State to another.

WORK TOWARDS THE OBJECTIVE OF CLIMATE NEUTRALITY while ensuring our competitiveness and security of supply. Reaching climate neutrality by around mid-century, as the IPCC Special Report and the European Commission's 2050 climate strategy consider is necessary to limit average global temperature increases to 1.5C, will fully depend on meeting a set of crucial framework conditions and related actions, such as recognising different conditions and starting points for EU Member States, developing and deploying innovative technologies in a cost-effective and tech-neutral way, engaging with citizens to gain societal acceptance for the transition efforts.
MAINTAIN THE SOLID SET OF POLICIES IN PLACE TO REACH THE EU TARGET OF AT LEAST 40% EMISSIONS REDUCTION BY 2030, focusing on a successful implementation to give investment certainty.
ENCOURAGE MEMBER STATES TO COORDINATE AND TO FURTHER INTEGRATE EUROPE'S ENERGY MARKETS in order to move to a full Energy Union with integrated short-term energy markets and better interconnections, where clean energy can easily and safely flow from one

MAKE SURE THAT MAJOR TRADING PARTNERS ALSO COMMIT TO COMPARABLE AMBITIONS and, in the meantime, use appropriate safeguards to keep industrial production in Europe such as free allocation of licences under the European emissions trading system (ETS).

5 ENSURE LARGE-SCALE AVAILABILITY OF AFFORDABLE LOW-CARBON ENERGY, DESIGNING AN INTEGRATED VALUE CHAIN APPROACH FOR ENERGY SUPPLY, starting with initiating a strategic mapping process linking future industry low-carbon energy needs to infrastructure development through a bottom-up approach. The EU should also analyse the import needs for low-carbon energy in Europe in cases of risk of energy insufficiency to cover the estimated domestic demand.

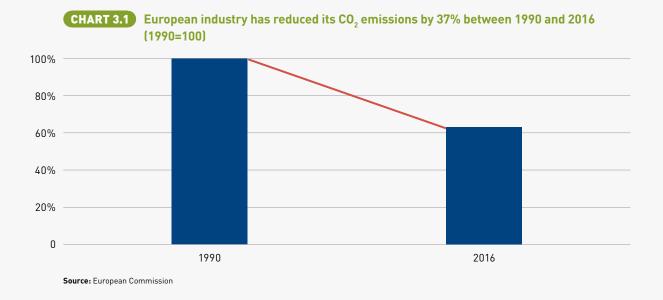
6 CREATE THE CONDITIONS TO MOBILISE PUBLIC AND PRIVATE INVESTMENTS TOWARDS ALL ACTIVITIES THAT ENABLE AND CONTRIBUTE TO THE TRANSITION TO A LOW-CARBON ECONOMY, building on transparent and reliable frameworks for investors and a common understanding of environmentally sustainable investments.

7 REMOVE INCONSISTENCIES AND GAPS IN THE POLICY FRAMEWORK GOVERNING THE CIRCULAR ECONOMY by creating a real market for secondary raw materials and ensuring a level playing field with standards across the G20 countries.

ENERGY AND CLIMATE POLICIES

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

Europe needs to transform its economy to operate in a state of net-zero greenhouse gas emissions ("climate neutrality"), while at the same time improving our competitiveness and securing a supply of critical resources. The implications of this transformation are huge, with far-reaching impacts on society at large that will gradually materialise. European business is conscious of its responsibility and committed to act. Greenhouse gas (GHG) emissions in Europe decreased in the majority of sectors between 1990 and 2016 and industry has reduced its CO_2 emissions by 37% between 1990 and 2016. This is more than the emission reduction of the EU as a whole (-24%). At the same time, European businesses do not hold all the cards in their hands. The ambition for climate neutrality will also require a radical shift in mindset by all actors. Countries throughout the world must act now if we want to live up to the Paris agreement, and the G20 economies have a special responsibility.





The EU should:

- work towards the objective of climate neutrality (net-zero greenhouse gas emissions), while ensuring our competitiveness and security of energy supply. Reaching climate neutrality by around mid-century, as the IPCC Special Report and the European Commission's 2050 climate strategy consider is necessary to limit average global temperature increases to 1.5°C, will fully depend on meeting a set of crucial framework conditions and related actions on both European and global level. Furthermore, political decisions and their effects on labour markets must be taken into account. Upcoming EU actions need to cater for the specific situation of sectors and regions vulnerable to the low-carbon energy transition. European cooperation is needed to help them come forward with credible plans to support economic development, create new jobs and retain existing ones by supporting companies and adaptation of their workforce to changing realities (the so-called "just transition" agenda). The conditions to achieve this goal are laid out in chapters 2 to 6.
- 2 maintain the solid set of policies in place to reach the target of at least 40% emissions reduction by 2030. The focus between now and 2030 should be on a successful implementation that gives investment certainty. Nevertheless, if existing policies allow us to go beyond 40%, then this is a very positive outcome.

3 when defining further energy and climate policy actions, take into account that:

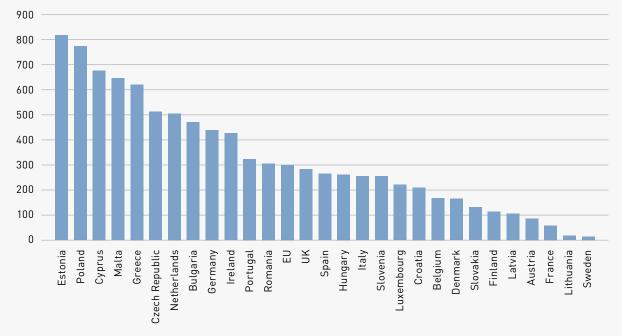
- > the real answer lies in technological innovation: European companies are pioneering and are well positioned in many different segments as they see clear opportunities arise from the energy transition;
- > avoid picking winners at a too early stage as the range of technologies and fuels to support the low-carbon transition is broad; policy should let them all compete to deliver the needed solutions;
- > having a sound and stable legislative outlook is key: given the early stages for many zeroand low-carbon technologies, market penetration and scale-up take time and resources in an environment of constant regulatory changes;
- > global trading partners did not catch up with the EU's level of ambition so far; as long as this continues, it is vital that the European industry continues receiving protection against unfair international competition.

DIFFERENT ENERGY AND CLIMATE STARTING POINTS

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

While the potential to decarbonise is significant, there is a large variation between EU Member States in terms of starting points that make the shift towards climate neutrality more challenging for some than others. For example, Nordic countries have already achieved an electrification rate of 32% in their industries, buildings and transport sectors, whereas the figure is much lower in Eastern European countries. The economic structure also matters, with countries like the Czech Republic, Germany, Poland and Romania generating more than 20% of their GDP from the manufacturing sector. The difference in economic situation, share of industrial activities and energy mix means that each EU Member State will require a different pathway to undertake a successful energy transition. Europe therefore needs to become more cohesive and inclusive to implement energy and climate policies as cost-effectively as possible.





Source: European Environment Agency (EEA), 2019

The EU should:

recognise different conditions and starting points for EU Member States to boost European coordination for cost-effective policy implementation by encouraging Member States to coordinate and to further integrate Europe's energy markets. We need to move to a full Energy Union with integrated short-term energy markets and better interconnections, where clean energy can easily and safely flow from one Member State to another.

2 help to improve cooperation between economic sectors (electricity and gas, transport and heating, etc.) in order to reduce emissions more cost-effectively. For example, the electricity sector can help reuse or repurpose existing gas pipelines for green hydrogen so as to prevent the costly premature writing-off of gas infrastructure. This also means that the right decisions must be taken at the right time in order to prevent excessive subsidies and unnecessary interconnection delays.

3 recognise that different approaches need to be followed per sector.

- For buildings, Member States must increase efforts on renovation and develop incentives to increase their energy efficiency. The EU should also make sure that buildings become energy-intelligent and are able to communicate with the grid. In addition, more should be done to provide affordable, low-carbon heat for household and industrial applications.
- In the transport sector, practical and affordable alternatives across all transport modes need to be promoted. For example, the expected increased demand for zero-and low-emission vehicles (ZLEVs) needs to be met with more affordable models, to avoid measures that are not acceptable to the wider public. Moreover, we need a wider deployment of charging and refuelling infrastructure for alternatively powered vehicles.
- In agriculture, we need more incentives for climate-friendly agricultural services, more efficient (re)use of agricultural waste, fertilisers, soil and water management, and to reduce or mitigate methane emissions from animals.



INNOVATIVE TECHNOLOGIES TO REDUCE GREENHOUSE GAS (GHG) EMISSIONS

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

Radical innovation is the lifeline for many industrial sectors, not only to reduce their emissions but also to remain competitive. How are we in Europe going to make sure that innovative technologies are developed and deployed here on an industrial scale? Companies in China, Japan, South Korea and the USA are developing fast through public-private partnerships. For mature technologies, Europe is right to trust free market forces as the most efficient way to allocate capital. However, this is not true for emerging technologies with scope for many breakthrough solutions, which typically emerge when cooperation between governments and businesses is strongest.

CHART 3.3 European are still well represented among the world's biggest clean tech companies Largest companies in the New Energy Global Innovation Index (NEX), by Market Capitalisation, 2019



Source: New Energy Global Innovation Index, 2019

The EU should:

Should develop and deploy innovative technologies to support decarbonisation of value chains in Europe in a cost-effective and tech-neutral way, unleashing investment through a comprehensive industrial strategy. This includes greater flexibility for public-private partnerships, state aid and other political decisions that reduce costs and determine the magnitude of private investments that will flow into Europe.

(2) financially support the business case for breakthrough technologies to help companies make them competitive whilst reducing their GHG emissions. It therefore needs to put in place the right enabling framework that includes the possibility to underwrite risks that are unique to new business models for breakthrough technologies. Extra government support should be focused on those sectors that must make the transition without current commercially available technologies. The EU ETS Innovation Fund (estimated total size: €10 billion between 2021-2030) and the 35% share for climate-friendly technologies in the Horizon Europe budget for the period 2021-2027 are significant steps in the right direction.

3 rethink the public finance approach to fund energy infrastructure. Currently the energy transition is often financed through energy bills. However, Member States could consider other financing sources, such as the general government budget. Integration in the wider budget allows for a comprehensive industrial strategy that foresees the emergence of new value chains and uses the entire toolbox of government support to implement them in Europe.



4 AFFORDABLE LOW-CARBON ENERGY

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

By 2050, the electricity capacity needed to meet the demand for energy-intensive industries is estimated to increase by 3 to 4 times compared to today. This is more than even the most extreme scenario considered in the European Commission's long-term climate strategy. For low-carbon energy sources to be cost-competitive internationally and investments to be made, the power sector will have to provide affordable, low-carbon electricity as soon as possible.

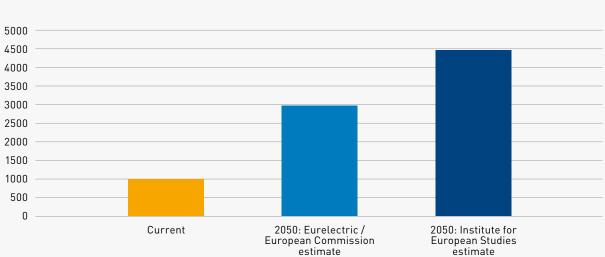


CHART 3.4 Industry demand for electricity is expected to quadruple in the next decades Industry demand for electricity (in TWh)

Sources: Eurostat , 2016 ; Eurelectric, 2018 ; European Commission, 2018 ; Institute for European Studies, 2018

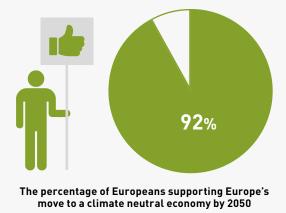
- ensure large-scale availability of affordable low-carbon energy, designing an integrated value chain approach for energy supply. Therefore, it should initiate a strategic mapping process linking future industry low-carbon energy needs to infrastructure development through a bottom-up approach. This can include local and regional roadmaps identifying the preconditions for GHG reductions in industry. It should also consider where governments can co-invest with industry in carbon storage solutions such as carbon capture storage (CCS), bioenergy with CCS, carbon capture utilisation (CCU) and natural sinks, which will be needed to abate unavoidable emissions (such as process emissions).
- ensure adequate security of supply by providing, where necessary, adequate low-carbon back-up power capacity. In various industrial production processes, high-quality energy and uninterrupted supply is crucial for product quality, to prevent damage to highly sensitive machinery and equipment and to ensure safe working conditions.
- analyse where existing energy infrastructure can be upgraded, interconnectivity and storage increased, and demand-side management improved to make efficient use of rapidly increasing renewable electricity across Europe.
- Analyse the import needs for low-carbon energy in Europe in the event of risk of energy insufficiency to cover the estimated domestic demand.
- incentivise further improvements in energy efficiency, as this will remain crucial to balance the significant increase in overall energy demand.



5 PUBLIC ACCEPTANCE OF THE ENERGY TRANSITION

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

Public support for a political move towards climate neutrality is crucial and public attention is growing fast. However, public support will be tested if certain policy decisions touch upon restricting or limiting consumers in their current lifestyles or lead to an unjust transformation that leaves the most vulnerable groups of society behind. In this context, businesses are important players providing products and services that reduce emissions, make more efficient use of resources and simultaneously boost well-being.



-87%

Percentage drop in new onshore wind capacity in Germany during the first quarter of 2019 compared to a year before, mostly due to public opposition and regulatory hurdles

Source: European Commission, 2019; cleantechnica.com, 2019

The EU and its Members States should:

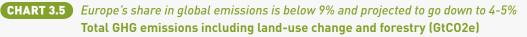
- foster adaptation of consumer behaviour and public acceptance for the low-carbon energy transition, engaging actively with citizens to gain societal acceptance. It should also pave the way for technology acceptance and changes in consumption patterns. Cost-effective policies need to be combined with educational and awareness-raising campaigns, improved product information and community approaches that accelerate the understanding amongst citizens that their own actions significantly influence their carbon footprint, and that they should act upon this. This can spur new demand, which in turn allows businesses to adapt their product and service portfolios accordingly. Concretely:
- inform citizens about how to reduce their energy use through energy efficiency measures, and how to use energy in a way that shifts load away from peak hours towards hours when demand is lower (demand response).
- **3** increase consumer empowerment to self-generate clean energy.
- A help increase social acceptance and interest for large renewable energy projects, zero- and low-emission vehicles (ZLEVs), and other technologies such as carbon capture, utilisation and storage (CCU and CCS).

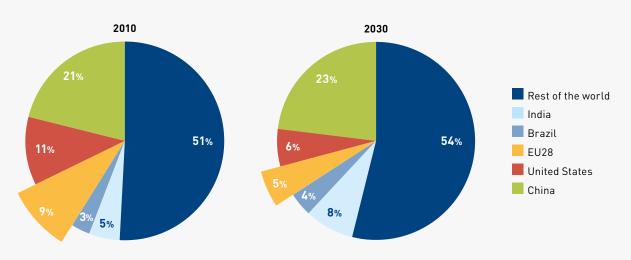


6 CONVERGENCE OF GLOBAL CLIMATE AMBITIONS

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

All Paris Agreement signatories have agreed to collectively review and increase their climate ambitions. Whereas Europe's energy-related CO_2 emissions continued to fall by 1.3% in 2018, they rose globally by 1.7% to hit a new record due to sharp increases in China (2.5%), the United States (3.1%) and India (4.8%). Even with current climate pledges by major economies, which are less ambitious than Europe's, there are many uncertainties as to how they aim to achieve these targets.





Source: Boys et al., 2015

The EU should:

ensure that its major trading partners also commit themselves to ambitions comparable with Europe's as soon as possible and consider additional safeguards to keep industrial production in Europe. These additional safeguards should be considered in close dialogue with business and other stakeholders from now until 2023, when many of the EU's key energy and climate legislation will be reviewed and during which time the 2023 global stocktaking exercise under the Paris Agreement will take place.

The following options could be carefully assessed:

2 better protection for sectors facing international competition, including but not limited to more free allocation and indirect cost compensation under the EU ETS, if other major economies do not face similar costs and regulatory burdens;

Climate provisions in free-trade agreements in the context of the sustainability chapter.

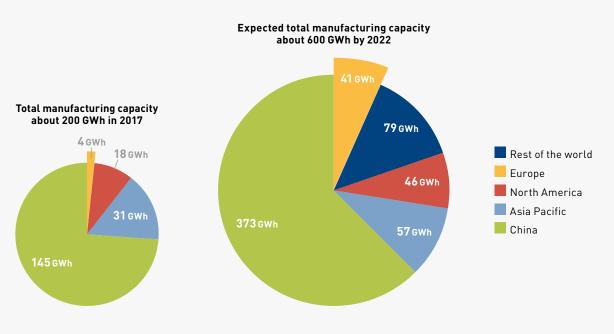


ZERO- & LOW-EMISSION MOBILITY

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

European business is investing heavily to ensure that all modes of transport help to achieve the common goal of climate neutrality. Over the past few years, many European businesses have made strong commitments to decarbonise their modes of transport, often linked to billions of euros in investments. However, it is not certain whether a significant part of these investments will be made in Europe. The USA and China are heavily competing for the financial and human capital that will drive these future value chains.

CHART 3.6 The global battery cell market is expanding hugely, but Europe's role is limited Global battery cell manufacturing capacity growth globally and in the EU (in GWh)



Source: International Energy Agency, 2017

- be aware that all options of low- and zero-carbon technologies are needed for transport to contribute effectively to a climate-neutral economy. The full potential of all such solutions should be explored in a technology- and fuel-neutral way.
- ensure that the value chains and breakthrough technologies of zero- and low-emission mobility (ZLEM) are supported and can rapidly be deployed on a large scale in Europe, and with it attract the many billions of euros of investments needed for the transition. Research and development play a key role in the transition to climate-friendly mobility.
- engage with all relevant stakeholders in public-private partnerships and conduct a strategic mapping exercise on where industry's competitive advantages lie, how to deliver new strategic value chains, match labour skills to future needs and create policy synergies in order to be globally competitive.
- Coordinate demand-side measures across all modes of transport, in particular in designing cost-effective consumer and customer purchasing incentives, make sure Member States meet their obligations under the Alternative Fuels Infrastructure Directive, and standardise technology and infrastructural solutions.
- 5 connect zero- and low-emission mobility legislation to other key areas, in order to have an integrated approach. It is essential to involve stakeholders in reflecting about the feasibility of a reliable methodology for a lifecycle approach, and to develop a stable and enabling policy framework for sustainable, synthetic and advanced fuels and gases.





CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

Environmental degradation is a major challenge that societies and economies across the globe need to address very seriously. There will be hardly any sustainable paths without overcoming these challenges. Reaching climate neutrality will require huge, transformative investments by both the public and private sectors. According to the European Investment Bank, the EU's finance gap for reaching its 2030 energy and climate goals is estimated to be around €270 billion per year, including the goals for the energy, transport, water and waste sector¹. European industry is at the core of this transformation. Access to investment will be of critical importance to make it successful. The European business community is therefore supportive of the objective of the Sustainable Finance Action Plan to further mobilise investments in the EU with a view to achieving sustainable growth aligned with the Paris Agreement and EU climate goals. To effectively contribute to these objectives, it is essential that the policy framework is proportionate, practicable and accommodates the needs of both the financial markets and the real economy.

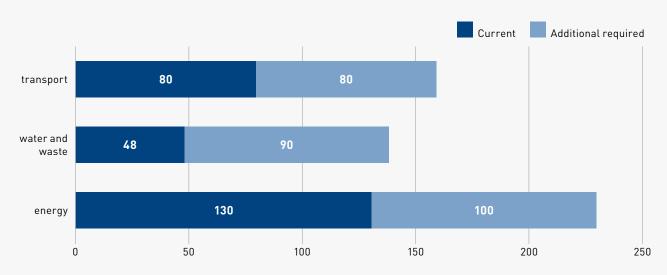


CHART 3.7 Mobilise investments to achieve sustainable growth and reach the EU climate goals Annual investment needs for sustainable development in the EU (EUR bn)

Sources: European Commission, 2019

1 EIB sustainability report 2018

- mobilise public and private investments towards all activities that enable and contribute to the transition to a low-carbon economy, (in particular industrial activities that will have to undergo profound transformations), building on transparent and reliable frameworks for investors and a common understanding of environmentally sustainable investments.
- ensure that all activities that contribute to the green transition or demonstrate a credible path towards notable emission reductions will have easier access to finance. On the contrary, "punitive" legislative instruments that would hamper companies' access to finance must be avoided.
- guarantee a balanced representation in the stakeholders and experts groups preparing recommendations on sustainable finance, including industry (in particular manufacturing and energy), financial sector, civil society and public authorities.
- Make sure that policies are underpinned by credible scientific evidence and reflect the latest, relevant technological developments as well as the complexity and functioning of industrial value chains.



9 TRADE AND SUSTAINABLE DEVELOPMENT CHAPTERS IN EU FREE-TRADE AGREEMENTS

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

Value chains today are global and operating in the framework of such global value chains requires mastering complex production processes, scattered around different locations, in many cases using inputs that come from many different suppliers. The question is how authorities can help create added value in a "sustainable" manner and help businesses in their effort to build a model that is competitive while promoting high-level environmental and social standards. European companies are committed to delivering sustainable solutions and lead sustainability efforts, both in the EU and abroad, in close cooperation with governments, local communities and the broader civil society.

EU free-trade agreements with trade and sustainable development chapters

FTAs IMPLEMENTED

Antigua and Barbuda
Barbados
Belize
Canada
Colombia
Costa Rica
Dominica
Dominican Republic
Ecuador
El Salvador

Georgia Grenada Guatemala Guyana Honduras Jamaica Japan Moldova Nicaragua Panama

Peru Saint Kitts and Nevis Saint Lucia South Korea St Vincent and the Grenadines Suriname The Bahamas Trinidad and Tobago Ukraine

FTAs NOT YET IMPLEMENTED

Argentina Brazil Mexico Paraguay Singapore Uruguay Vietnam

FTAs UNDER NEGOTIATION

Australia Chile India Indonesia Malaysia New Zealand Philippines Thailand

Sources: European Commission, 2019

- Continue its efforts to better encourage and promote the implementation of sustainability provisions in FTAs. BusinessEurope stands behind the better enforcement of environmental and social norms for the development of third countries and for the competitiveness of European companies through a level playing field.
- focus on actions which have a real added value for sustainability and strengthen the EU's global competitiveness, while recognising how far the EU has already come in implementing the UN 2030 Agenda and the Sustainable Development Goals. This includes encouraging others around the world to implement this agenda. The European Commission should ensure a partnership approach between business, civil society and Member States, fostering better understanding between different stakeholders of their priorities and needs for economic, social and environmental sustainability.
- 3 take into account the fact that there are different approaches and different levels of understanding of sustainability between the EU and its partners, when promoting implementation of sustainability provisions. Sustainability is a process, where we should develop a common understanding with our partners and empower civil society organisations.

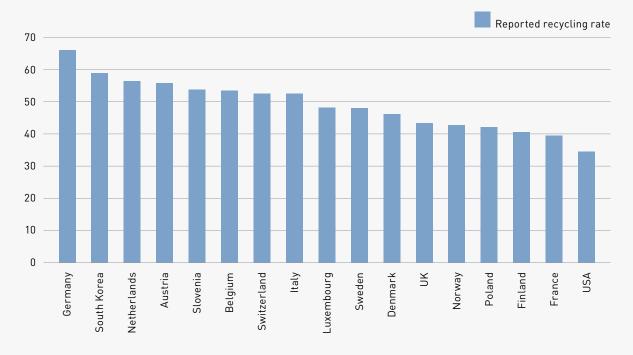


CIRCULAR ECONOMY

CHALLENGES & OPPORTUNITIES FOR EUROPEAN COMPANIES

The circular economy is about maximising the value of raw materials to society through waste prevention, reuse and recycling. In order for this to happen, the circular economy priority from a business perspective is to develop a market for quality secondary raw materials (SRMs) and circular products. Such a market if designed properly can help commercialise more circular processes, products and services, both in domestic and export markets. This will contribute positively to the domestic supply of raw materials, make Europe the frontrunner for initiating ideas, solutions and global standards related to circular designs, reuse, recycling, repair, remanufacturing and refurbishment. Many companies show a large willingness to move forward and become even more circular but identify barriers and untapped opportunities to create such a market.

CHART 3.8 *Recycling rates vary widely across the globe*



Reported recycling rate per country (in this example: municipal waste) in %

Source: Eunomia, 2017

- put more emphasis on removing inconsistencies, filling the gaps and aligning different parts in the existing policy framework to create a real market for secondary raw materials (SRMs) and circular products in order to maximise the value of materials, facilitate the transition to circular business models and achieve a circular economy.
- promote an enhanced investment strategy for SRMs to help the market, supported by more public and private spending on innovation, education and reskilling, an effective circular public procurement strategy, and a smart eco-modulation of fees.
- integrate circular economy thinking into other legislation to maximise its benefits, in particular in the fields of product and material design, climate change, digitalisation, bioeconomy, security of supply and waste shipments.
- ensure a global level playing field with similar regulatory frameworks and standards across the G20 to attain a real market for SRMs.
- collaborate with stakeholders to improve consumer engagement by reducing barriers and increasing incentives, improving awareness and knowledge on consumption behaviour and the lifecycle of materials.
- 6 boost the opportunities for industrial symbiosis, giving more guidance to Member States to promote the different kinds of symbiosis that exist in each country.



EU environment policy encompasses a number of key issues to enhance our quality of life including biodiversity, air quality, waste, water and chemical safety to name but a few. While some of the key challenges for European climate policies and circular economy have already been addressed in this document, BusinessEurope will contribute to the preparation and success of the new environmental agenda of the Commission with more detailed future position papers outlining the solutions industry can offer in this respect. Business is and wants to be part of the solution.

For more information about what EU businesses do to reduce their greenhouse gas emissions and to add to the circular economy in Europe, please visit: http://www.industry4sustainability.eu/

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BusinessEurope is the leading advocate for growth and competitiveness at the European level, standing up for companies across the continent and campaigning on the issues that most influence their performance. A recognised social partner, we speak for all-sized enterprises in 35 European countries whose national business federations are our direct members.



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