The European Green Deal: How to turn ambition into action

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Executive summary

The pressure is on. The climate and ecological crises are accelerating and there is growing recognition that business as usual is not an option.

The EU can and should play a major role in addressing the planetary crisis, in enabling and accelerating the transition to a more sustainable world. It can do this by acting as a rule-maker and enforcer; as an economic powerhouse; as a source of significant funding within the EU and beyond, as well as a mobiliser for private financing; as a convening power; as an innovator and developer of new solutions; as a standard-setter; as a major producer and consumer.

The European Green Deal is crystal clear in its ambition. We are faced with the challenge of a lifetime and the EU must act now if it is to achieve a sustainable economy and create the base for sustainable prosperity. The EU will need to change how it produces and consumes. It must change its energy, mobility and food systems.

However, as this ambition and the goals are now turned into policies and initiatives, the greatest challenge lies in the 'how'. How to turn the ambition of the European Green Deal into real action and real results?

This paper argues that there are five fundamental strands of action, in which the EU with its member states must up their game now if they are to achieve the goals of the European Green Deal and leverage impact beyond EU borders as well:

1. **Leadership** that communicates the urgency for action. Europe needs leaders - be it politicians, policymakers, media, heads of military or other opinion influencers - that communicate clearly the direction of travel and remind the public of the benefits of action as well as the costs of inaction for the economy, society and people.

2. **Aligning member state action with the agreed goals** requires political will, ownership of the needed measures and recognising that urgent action is in every nation's interest. This calls for using every tool in the kit, including EU policies, investments and collective action, to get on the right track. It requires addressing existing incoherencies in the policy and investment framework as well as better enforcement of existing rules.

3. **Bringing business along:** The EU needs to help create the right framework conditions for European businesses – big and small - to succeed in the transition, and to become a leader in those solutions that are increasingly demanded in- and outside of the EU.

4. **Bringing people along:** Reaching the agreed goals requires communicating and showing the benefits that the measures will bring to people; managing the social impact on the most vulnerable in particular; and providing people with the right tools to engage in the transition.

5. **Global action:** The EU should lead by example but also collaborate with other major players in addressing the climate and the wider sustainability crises. When the EU speaks and acts as one, it can be more powerful and impactful globally than the sum of its parts.

The pressure is on

Ensuring long-term, sustainable prosperity within the limits of our planet is the challenge of our lifetime. The state of our climate and environment threatens the planet, people's well-being and prospects for business. Greenhouse gas (GHG) emissions, pollution, the unsustainable use of natural resources, inefficient use of energy, biodiversity loss and waste are growing and show no sign of dissipating. In addition to their immediate impacts, the ongoing climate and environmental crises cast a long shadow over humanity's future. The impacts for the economy, society, people and business are expected to be much more devastating and costly than what has been seen with the COVID-19 pandemic.

Scientists warn that the planet is on the verge of a climate catastrophe, which could spell the end of our civilisation as we know it.[1] Following current trends, the global temperature is expected to increase by 1.5°C by 2040, or even earlier, if emissions are not drastically cut in the next years. While already this temperature increase is expected to lead to notable economic, societal and environmental costs, scientists have warned the speed and scale of the negative impacts could increase exponentially with higher temperature increases.

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Furthermore, the world is facing a serious ecological crisis. The ecosystems that provide us with food, clean air, water, medicines, and help to regulate the climate are deteriorating worldwide because of human activities.[2] Combined with increasing air, water and soil pollution, and the adverse effects of chemicals and waste on the environment and human health,[3] it is becoming clear that the planetary crisis has many dimensions, all of which need to be addressed.

EXAMPLE: The extraction and processing of natural resources from land to biomass, from minerals to fossil fuels account for half of the world's carbon emissions and 90% of biodiversity loss.[4]

EXAMPLE: Industrial farming and heavy pesticide use are driving decline in insect populations which threatens our food production, as more than 75% of global food crop types rely on pollination.[5]

The ongoing climate change and ecological destruction have become a real threat to national and international security. While countries across the world have spent, and continue to spend, billions to deter *possible* military threats and defend oneself against "worst-case scenarios", they have failed to deter and prepare for this *real* security threat. Military forces across the world have already been occupied to deal with climate-related disasters, and in the future, this enemy will keep national forces increasingly busy, be it in managing floods, disaster relief, firefighting and dislocated populations. Impacts like water and food shortages can lead to social meltdowns, even state collapses, and mass movements of people.[6]

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The impacts are not equal. While the consequences and related costs may, for the time being, appear manageable for the Western world, the future looks very different for tropical countries. If the world temperature increases by 1.5°C above the pre-industrial era, these areas, inhabited by 40% of the world's population today, as well as parts of the Middle East, China and India could become uninhabitable.[7] The poor and the vulnerable in the developing world have been paying a disproportionally heavy economic and human price for weather-related disasters for decades. In the future, the burden on the poor and vulnerable, across the world, will continue to increase as climate change advances.[8] The children from countries least responsible for the climate crisis will suffer the most.[9]

It is widely recognised by policymakers and experts that business as usual is not sustainable. As a demonstration of this, in 2015, the world leaders agreed on the Sustainable Development Goals (SDGs) and the Paris Climate Agreement, which provide the direction of travel for creating sustainable, climate-neutral economies and societies across the world. Furthermore, the COVID-19 pandemic has raised awareness amongst the public at large that our economy and society must become much more resilient against man-made and natural global threats. Whether they are pandemics or environmental catastrophies, much more needs to be done to prevent, mitigate, address and prepare for these crises that are waiting to happen.

However, globally as well as within the EU, the gap between ambition and action remains wide. The fight against time, against climate change, ecological destruction and their impacts, has started - and everyone, including the EU and other major global actors, member states, regional authorities and cities, businesses and individuals have a role to play and self-interest to act.

The EU's response to the ongoing sustainability crises: The European Green Deal

The EU can and should play a major role in addressing the planetary crisis, in enabling and accelerating the transition to a more sustainable world. It can do this by acting as a rule-maker and enforcer; as an economic powerhouse; as a source of significant funding within the EU and beyond, as well as a mobiliser for private financing; as a convening power; as an innovator and developer of new solutions; as a standard-setter; as a model for others, as a major producer (and not just of goods and services but also waste) and as an ever-growing consumer.

EXAMPLE: The EU's share of the global population is less than 6%, and while the EU's contribution to global emissions has decreased to around 8% (figures from 2018) of current emissions,[10] the EU-27 remains responsible for approximately 18% of historical global CO_2 emissions (i.e. since the start of the industrial revolution).[11] It also continues to consume more resources and goods from outside the EU, which come with a significant embedded climate and environmental footprint.[12] The EU consumption of, for example, soy (mainly used for feeding animals), palm oil and beef from outside Europe accounts for 16% of global deforestation and is also driving the destruction of other global ecosystems, such as wetlands.[13]

The European Green Deal is the EU's response to the ongoing sustainability crisis. It recognises that the EU must act if it is to avoid the most catastrophic consequences for the economy and society, while creating a base for sustainable prosperity for current and future generations. While it could have been even more ambitious,[14] the Green Deal provides a valuable framework for action and a good basis for a new growth strategy for Europe. It acknowledges that changes are needed across sectors, and that this will only succeed if the measures taken also enhance competitiveness and 'leave no one behind'. At the heart of it is the EU's goal to become climate neutral by 2050, supported by the mid-term target to reduce the EU's GHG emissions by 55% by 2030 (compared to 1990).

Achieving the ambition and goals of the Green Deal will require systemic change, new thinking and drastic measures across sectors and all levels of society. The European Commission's wide array of policy initiatives and proposals on improving our energy, mobility and food systems, our overall production and consumption patterns as well as ecosystems and biodiversity provide the basis for action.

However, while the EU and its member states tend to be good at agreeing on visions and setting targets, they continuously fall behind when it comes to actually implementing the agreed climate, energy and environmental goals. Moreover, the EU is far from effective in leveraging its strengths and bringing about a system change beyond its borders.

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EXAMPLE: The EU failed on almost all of its sustainability goals for 2020, including those regarding energy savings, biodiversity and air, water, soil and chemical pollution.[15]

EXAMPLE: Before COVID-19, EU member states were not on track to achieve 40% - not to mention the higher 55% - GHG emission target for 2030. While the pandemic has temporarily dropped GHG emissions, there is a danger for a rebound, unless the recovery from the COVID-19 crisis is coupled with a fundamental transformation of our energy, mobility, food, production and consumption systems in the EU and beyond.[16]

There is an enormous risk that the EU's level of ambition, set in the European Green Deal, will not be met with needed action across the EU member states. The EU and national leaders' current speeches and political declarations mean little, if not actually implemented and enforced. Thus, while it is understandable that the discussion on the means and the ways of achieving the set goals will continue, it is essential that the measures taken will ultimately meet the set ambition.

The foundations for action

This paper argues that turning the ambition of the Green Deal into reality is built on five fundamental elements, which are also the barriers and drivers for change: leadership, aligning member state action with the set goals, bringing business along, bringing people along and global action. These are five foundational strands of action where the EU, with its member states, need to upgrade their game now, if they are to achieve the goals of the Green Deal and leverage impact beyond EU borders.

1. LEADERSHIP

Europe needs leaders that **convey the rationale and urgency for action:** we are not talking about a 'potential' scenario but about a real security threat that is already on our doorsteps, which will lead to enormous costs for humanity, for our societies and for our economies, already during our lifetime. Leaders must clearly communicate the direction of travel and explain that non-action is not an option. There is no place for political short-sightedness.

Leaders must become better in **stressing the benefits** of reducing our environmental and climate footprints, for the economy, society and people. While it is essential to also recognise the challenges and manage them, it is time to change the tone from a narrative of negative change to a narrative of positive change and self-interest. It should be in the EU's, individual member states', cities' and businesses' interest to engage in this race for new business opportunities and jobs, cleaner air, healthier lives, lower healthcare costs, better quality of living, greater security and ultimately, long-term prosperity. Politicians, policymakers, military leaders and other opinion influencers, including media, all have a role to play in communicating the positives and convincing people and business that it is time to increase the overall ambition and act. Europe needs leaders at all levels and across sectors to challenge each other in a race to the top.

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EXAMPLE: Transitioning to cleaner energy as well as more sustainable mobility and food systems, and greening our built environment hold great prospects for enhanced growth and new jobs.[17]

EXAMPLE: Air pollution from our energy systems, industrial processes, agriculture and mobility cause hundreds of thousands of premature deaths every year.[18] It also costs Europeans hundreds of billions annually, not only as direct health costs but also economic damages (e.g. labour productivity losses).[19] Another driver for reducing air pollution should be the estimated benefits for GDP growth.[20]

EXAMPLE: It has been estimated that if existing EU environmental law was fully implemented, it would save the EU €55 billion per year in health costs and direct costs to the environment.[21]

EXAMPLE: Enhancing a transition to a circular economy would help the EU achieve several goals at once. It would help reduce GHG emissions,[22] ensure access to critical materials, create new jobs,[23] and increase demand for new products and services. It has been estimated that it could raise the EU's GDP by 0.5% and generate a net economic benefit of €1.8 trillion by 2030.[24]

Europe needs leaders that **advocate the need for a system change and a coherent approach**. Creating a sustainable, resource-efficient climate-neutral economy requires improving our energy, mobility and food systems, our overall production and consumption patterns as well as ecosystems and biodiversity – all at the same time. Reducing CO_2 emissions alone will not be enough to address the planetary crisis. It is essential that the measures taken also address the lesser-discussed ecosystem, pollution, chemicals and waste crises. Thus, finding win-win approaches and common solutions is important. A good – and often ignored - example is the role of nature and nature-based solutions in addressing the multiple challenges we face.

EXAMPLE: Better conservation, restoration and management of ecosystems can and should play a central role in both climate mitigation and adaptation. On the mitigation side, the environment provides valuable natural sinks in the form of oceans, forests and wetlands. About 60% of GHG emissions from human activities (since the pre-industrial era) are stored in the oceans or plants and soils on land.[25] As a result, the current loss and degradation of forests, as well as agricultural and commercial fishing practices that destroy these natural sinks are a major driver for climate change. Protecting and improving nature's own climate sinks would be a cost-effective way to mitigate climate change.[26]

EXAMPLE: As the search for sustainable alternatives to oil-based plastics, and especially single-used plastics, continues, biobased and biodegradable materials are gaining traction. Wood from sustainably-managed forests, non-edible plants and agricultural residues can provide valuable solutions as long as their production and consumption enhance sustainability and do not compromise food security.

EXAMPLE: Nature's own solutions can provide inspiration for innovative, green new products, processes and business models.[27] Humpback whales have already inspired blades for wind turbines and termite mounds the creation of self-cooling buildings.[28]

Europe needs leaders that **aim to manage the looming challenges pro-actively**, rather than just react to the consequences. Enhancing crisis preparedness at the EU and national level requires understanding, preventing and preparing for the unwanted consequences in medium- to long-term.

EXAMPLE: Between 1980 and 2017, disasters caused by natural hazards cost the EU more than 90,000 lives and over €500 billion of economic losses.[29] While the EU and its member states' approach has been to react and pay for the consequences of the disasters once they hit, a much more proactive approach will be needed in the future. The EU can no longer escape the impacts of climate change - including the intensification of extreme weather events; pluvial, coastal and river flooding; droughts; wildfires; heatwaves; desertification; and rising sea levels – and it needs to couple mitigation efforts with greater focus on prevention, risk reduction and resilience building.[30]

EXAMPLE: The climate and environmental crises risk destabilising the European neighbourhood, leading to civic and economic disruption and even mass movements of people. This should provide an urgent and strong reason for the EU and its member states to enhance efforts to use shared tools like development aid and international partnerships to prevent, mitigate and address possible unwanted consequences of climate change beyond its borders (e.g. by supporting climate adaptation projects). This is central to improving the EU's crisis preparedness.

Leadership should be reflected in the **ownership of agreed policies**. Way too often, the EU countries' heads of state and government agree, jointly, on goals, policies and measures in Brussels, only to distance themselves from the commitments made when they return to their capitals - if it suits their own agenda. Europe needs leaders that communicate the rationale and benefits of EU collaboration to their citizens, as well as the joint and national benefits of measures to be taken.

Given what is at stake, European leaders need to be willing to take **radical decisions** on how they use policies and financing to bring about the necessary changes on a system, business and individual level. This requires more system-thinking and addressing the existing incoherencies in the policy and investment framework. There can be no place for policies and investments that continue to support practices that are harmful for people and the planet, whether it is subsidising fossil fuels or promoting polluting and environment-degrading industrial farming and fishing practices. It is time to step up our efforts and use the tools we have to create the future we want. The policies and investments of today will determine whether the EU will have a sustainable, climate-neutral economy in 2050.

EXAMPLE: The EU remains one of the largest subsidisers of fossil fuels in the world. EU countries spent €159 billion on energy subsidies in 2018. In stark contradiction with their lofty climate rhetoric, nearly a third of that went to supporting coal, gas and oil, in the form of grants, loans, tax incentives or price support.[31]

While gas has been seen as a transition fuel that can support the shift from coal to renewables, the current investments in expansion of EU gas import capacity contradict the EU's goal of achieving climate-neutrality by 2050.[32] Moreover, the recent rise in energy prices has reminded Europeans that gas is not a reliable, stable energy source for the energy transition. This should act as a driver for the EU to accelerate the shift to clean energy and investments in energy efficiency, renewables and smart grids. The EU must focus on developing a functioning electricity market to achieve secure, affordable, and sustainable energy. It should follow the International Energy Agency's call to ban selling and installing new gas or other fossil fuel boilers after 2025.

EXAMPLE: The EU and its member states must stop supporting unsustainable food production and consumption. It is time to end subsidies to uncompetitive farming practices that are harmful to people's health, the climate and the environment.[33] In addition to extravagant subsidies for livestock production,[34] using taxpayers' money to advertise meat-eating[35] and offer dairy products to school kids[36] is unacceptable, as they undermine the imperative shift towards a more sustainable, plant-based food system in Europe.

The EU and its member states should also take a close look at their fisheries policy. As the world's second largest provider of fisheries subsidies,[37] European commercial fishing is driving over-fishing, which is detrimental for sea life and biodiversity. Beyond these impacts on fish stocks and ecosystems, commercial fishing in several EU member states, including Italy, Denmark, France, the Netherlands, Croatia and Spain, has been identified as a notable driver for global climate change, as these are areas where carbon stocks and anthropogenic threats are highest, and dragging heavy nets across seabed are releasing significant amounts of carbon emissions.[38]

All political leaders and parties across the EU must take responsibility and recognise that **protecting people's health and the climate are too important for petty political games**. From now on, the political debates on the speed of change, what measures should be taken and how the transitional costs will be covered and distributed will only intensify. There is a serious risk that some politicians and political parties will aim to delay or even sabotage climate action as a way to increase their own support, as they recognise people's built-in resistance to change. This must be avoided. All political leaders and parties should aim to safeguard the public interest rather than give concessions and bow to popular sentiments. They must demonstrate their willingness to engage in a constructive discussion on the measures needed for a just transition to a climate neutral EU. To support this, across the EU member states, governing coalitions should work together across parties and bring different stakeholders together to find joint solutions.

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In addition to top-down approaches, **leaders must listen to the worries and needs of people and businesses, and look for solutions to manage the transition proactively and jointly**. The EU, national, regional, local as well as business leaders need to proactively consider and aim to manage the possible impacts of the transition. It should be noted that while the EU has taken notable efforts to address the concerns of the coal regions in transition, this is only one of the sectors affected. The transition will, for example, also impact the food and mobility systems, and industrial production overall. The transition will affect various groups of people differently, from aging populations to rural communities – while not forgetting the ones that will pay the heaviest cost for non-action: the children of today and tomorrow.

Leadership requires transparency, and citizens must be given the means to hold leaders and governments accountable for the measures they take and the results they achieve. One way to do this is via legal action. It can push member states to act. It can even provide a pathway for addressing inter-generational justice when the current electoral systems and national governance fail to address the concerns and fears of young people.

EXAMPLE: The amendment to the Aarhus regulation on access to justice in environmental matters will allow for better public scrutiny of EU acts affecting the environment.[39]

EXAMPLE: Court cases on climate action are mushrooming across the world, with an aim to hold governments accountable for inadequate action.[40] The ruling of the Supreme Court of the Netherlands in 2019, which recognised that the state owes a duty of care to protect its citizens from climate change in accordance with its obligations under the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) has been considered as the basis and a pathway for concerned individuals in Europe – and around the world – to undertake climate litigation in order to protect human rights.

2. ALIGNING MEMBER STATE ACTION WITH THE AGREED GOALS

The EU has a delivery problem. Time after time, the European Commission puts forward carefully thought-through, relatively balanced proposals that the member states first water down on paper, and after they have agreed to the diluted new rules, they may or may not implement them depending on their interests. As mentioned above, this discrepancy between declared ambitions at EU level and actual member state actions stands out when it comes to the implementation of the EU's environmental and climate goals and policies. The delivery problem quickly becomes a credibility problem. The EU risks being a declaratory super-power, but an implementation midget.

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Compliance and implementation of agreed measures, with the speed needed, requires **political will.** Member states need to take ownership of the necessary measures. They must realise that acting now is in their national interest, and that collaborating with neighbours within the EU and beyond would multiply the benefits. As long as national political victories are judged on the basis of short-sighted criteria, such as the ability to protect national industry or maintain the status quo (e.g. subsidies for agriculture with no conditions attached), the EU will never become more than the sum of its parts.

However, as the risk of being held accountable for inaction increases in elections as well as in court rooms (as mentioned above), there is a growing self-interest for politicians to act. Building on these developments as well as member states' national pride, the EU should enhance its own efforts to create political pressure and/or make member states more accountable for their inaction by boosting communication around the comparisons of member states' performance and implementation.

EXAMPLE: The European innovation scoreboard, which now also includes indicators for environmental sustainability, assesses innovation performance in EU countries.[41] While it compares the relative strengths and weaknesses of national innovation systems, it can also be used as a guidance for countries to identify areas for improvement. These kinds of scoreboards and their results should be used much more actively to raise awareness about the state of play in the EU member states.

The EU has a diverse toolbox available – made of EU policies, economic and financial instruments, and convening power - which it can use to further guide and incentivise member states to engage in a race to the top. If there is a will, these tools can be used to bring about positive, systemic change quickly. And yet when member states are dragging their feet with implementation, this EU toolbox remains important. Even if it may not bring about change as quickly as hoped, it provides a framework, incentives and guidance for the direction of travel.

EXAMPLE: The significant amounts of public money made available as a part of the COVID-19 recovery efforts are a real opportunity to invest in the green transition and leverage private support. It is essential that the visions for green recovery and 'building back better' are implemented. The EU cannot afford to restore the old wasteful and damaging ways of work and life. We should see enhanced efforts to support greater circularity, energy efficiency, renewables, and sustainable mobility and agriculture. The European Commission has a central role in ensuring that the member states' recovery and resilience plans are aligned and implemented accordingly.

Moreover, where the EU must become much more effective is in improving **enforcement** mechanisms and processes when member states are breaking agreed rules. The EU must more readily penalise member states when they are breaking the rules.

EXAMPLE: The ruling of the European Court of Justice ordering Poland to pay a daily penalty of €500,000 until it stops extracting brown coal from Turow coal mine, which is draining groundwater from surrounding areas and damaging communities in the Czech Republic, is a good example of how law and financial penalties can be used to drive implementation.

3. BRINGING BUSINESS ALONG

Reaching the agreed goals depends on businesses' support, solutions and investments. Simultaneously, it should not be forgotten that European competitiveness and prosperity are closely tied to the leadership and successes of European industry in providing the necessary solutions for the European and global markets of today and tomorrow.

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Many businesses and communities of businesses are already committed to change and driving it with the products and services they are bringing on the market.[42] Many of the solutions we need for the transition already exist and are just waiting to be deployed.

EXAMPLE: Renewable technologies, namely solar and wind, have become competitive vis-à-vis fossil fuels.[43] Heat-pumps can already be used to transition away from fossil fuel-based heating, on a large scale and cost effectively. Together, these existing solutions could reduce Europe's energy-related emissions, increase its energy security, support self-supply and reduce energy prices for European citizens, and thus help address energy poverty.

EXAMPLE: The International Energy Agency suggests that there is enormous untapped potential for offshore wind (in fact, more than 18 times global electricity demand today, per year), but much more needs to be done to deploy these solutions, including floating offshore-wind technology.[44]

EXAMPLE: It has been estimated that if 50% of the world's rooftops would be covered with solar PVs this could deliver enough electricity to meet the world's annual electricity demand. This would also help address energy poverty and decarbonise global electricity supply.[45]

If international business can green its supply chains and operations, the impact on the system as whole will be huge. Shifting away from the current 'business as usual' and 'take, make and dispose' economic model, would help alleviate the current strain on global resources (i.e. energy sources, water, land, food, minerals). The change is already driven by businesses' self-interest. Many are acknowledging that in the face of growing competition for natural resources, a better use of existing resources – a transition to a circular economy via reusing, repairing, remanufacturing and recycling existing materials and products - could help cut costs and thus improve competitiveness.

EXAMPLE: European industry is extremely vulnerable in the face of the global resource challenge. European companies outsource the largest share of resource extraction in the world. The EU is dependent on

energy imports, such as oil and gas, as well as raw materials for renewable technologies, chemical, construction and other industrial sectors. It is no surprise that many European businesses are already leading in developing new business models and are adapting their processes, products and services to face these challenges. To support and accelerate their efforts, the EU's work to promote a circular economy will be of paramount importance.

Many businesses have recognised that greater sustainability is the future, and they need to be prepared. To ensure their long-term competitiveness, it is in businesses' interest to be part of the solution. However, having a common set of rules and incentives would help businesses to accelerate the development and deployment of necessary solutions and green their business operations.

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The EU must create a framework that helps industry to succeed in the transition. At its best, this framework can provide the basis for European businesses to become a leader in developing and deploying those solutions, products and services that are increasingly demanded, not only in but outside the EU as well. To get started, the EU must help build the conditions for businesses to emerge from the COVID-19 crisis stronger, with the capacities and resilience to face the next ones. Moreover, the EU should enhance the use of both its internal tools (e.g. Multiannual Financial Framework, Common Agricultural and Fisheries Policies, single market and public procurement, ETS, environmental regulation and standards, sustainable financing, eco-design, labels, digital as well as skills agenda, innovation policy, taxation) as well as external tools (e.g. trade, diplomacy, funding, border measures like carbon border adjustment) to create these enabling conditions.[46]

EXAMPLE: Putting a price on emissions incentivises European businesses to improve their climate footprint, but, as long as the price for CO_2 (and other environmental standards) are higher in the EU than in other parts of the world, European businesses will struggle to compete. To address the risk of carbon leakage and encourage cleaner production processes abroad, the EU is exploring the possibility of imposing carbon emission costs on imports of goods, called the Carbon Border Adjustment Mechanism (CBAM). It

would impose a levy on imports in carbon-intensive sectors like iron, steel, cement, and fertilisers from countries with lower environmental standards than the EU. Implementing the CBAM will not be without difficulties,[47] but it would make a valuable and necessary new addition to the EU toolbox.

Policies cannot lag behind and hamper the efforts of innovative, forward-looking businesses that are providing the market with solutions to address the planetary crisis. The framework, which should include regulation, market conditions and financial incentives, must provide the setting for innovative sustainable businesses to grow and compete. Polluting practices must come with a real cost. The framework should incentivise the development and deployment of solutions and business models that will get the EU on track to becoming a sustainable, climate-neutral economy by 2050. At the same time, it is important that the policy and investment framework takes a comprehensive, integrated approach and aims to avoid unwanted consequences.

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EXAMPLE: Increasing the share of climate spending to at least 30% under the Multiannual Financial Framework (MFF) for 2021-27 and NextGenerationEU sends an important signal that climate action is an EU priority. However, for this money to make any impact, much more consideration needs to be put into how this money is spent and where the rest of 70% of the EU budget goes. The climate spending under the Common Agricultural Policy (CAP) provides a serious warning. While the European Commission spent over a quarter of the CAP budget, about €100 billion, in 2014-2020 to help the sector mitigate and adapt to climate change, it did next to nothing to lower agricultural emissions.[48]

EXAMPLE: The future is electric: electrifying heating and cooling, mobility and industrial processes, where possible, and using clean sources of energy for this, such as wind, solar and heat pumps, is central to greening our energy system. The policy and investment choices of today should be geared towards making this a reality. Subsidies for fossil fuels have to stop. Electrification requires addressing current transmission bottlenecks and developing necessary electricity infrastructure and interconnectors. The deployment of solar and wind requires further

improvements in large-scale storage solutions and the development of energy communities that can produce, consume, store and sell renewable energy. Electrifying mobility will require major additional investments in charging infrastructure for electromobility.

EXAMPLE: Houses and apartment buildings are still being built and/or equipped with fossil fuel boilers rather than with clean, affordable and available alternatives, such as heat pumps and solar panels.[49] As long as member states support gas heating systems as a climate action measure, they are undermining the uptake of more sustainable solutions.

EXAMPLE: Solar PVs and wind turbines will require significant amounts of critical materials. Their production comes with social and environmental costs that cannot be ignored. For these technologies to become real solutions for the green transition, it is essential that their deployment will be coupled with greater circularity thinking, including the reusing and recycling of the resources at the end of their life-cycle. The current European efforts to integrate life-cycle thinking for batteries, needed for electric vehicles, provide a good starting point for these efforts.[50]

Strengthening the EU's sustainable competitiveness and ensuring that the EU achieves 'competitive sustainability'[51] requires public and private **investment in the skills, sectors, products, services and technologies that are necessary for the transition**. The EU, member states and European businesses need to enhance research and development to make the energy, mobility and food systems more sustainable, and to enable the transition to a circular economy. They must work together to identify and enhance development and scale-up of those solutions, products and services that can give European players a global competitive advantage.

EXAMPLE: Both public and private funding must be mobilised to develop technologies which could act as a catalyst to accelerate the clean energy transition. Examples include green hydrogen, large-scale electricity storage, nuclear fusion, wave energy and 0-carbon fertilisers.

EXAMPLE: The EU's efforts to enhance energy efficiency, the uptake of renewables and circular economy have created a conducive environment for European businesses to develop relevant solutions. As a result, European businesses are arguably in a good position to continue developing, for example, wind energy, heat-pumps, demand-side power grid management, buildings and domestic appliance efficiency, aviation biofuels, shared mobility solutions, industrial process efficiency, zero-emissions steel, and material recycling and management.[52] There is great scope to continue developing business models such as products-as-service, remanufacturing and upcycling, with an aim to combine the smarter use of resources and even dematerialisation with increased competitiveness.

EXAMPLE: Digitalisation, data and digital solutions could be used much more systematically and strategically to accelerate the transition to an environmentally and socially sustainable economic model. They can help bring about a system-wide transformation and create food, mobility and energy systems that operate within the planetary boundaries. If guided, they can help address global warming and environmental challenges, such as pollution and the loss of biodiversity, and to enable greener business models and lifestyles, including more sustainable production and consumption patterns. Europe should mobilise all the tools at its disposal to become a global leader in developing digital solutions for addressing the planetary crisis, while at the same time continuing efforts to reduce the climate and environmental footprint of the ICT sector.[53]

The overall toolbox must signal the direction of travel, provide predictability for investors and businesses, and thus contribute to making greater sustainability profitable. Removing existing incoherencies, such as support for fossil fuels, from the policy and investment framework is the starting point. Moreover, the toolbox should enhance the sustainable production and consumption of energy, food, textiles, packaging, electronic devices and all other consumer goods. It should help change how homes are built, deconstructed, kept warm or cooled down. It should incentivise change in how people and goods move on land, sea and in air. The toolbox should put the power of digitalisation to use, and enable and accelerate the green transition. As the EU continues to develop related initiatives, it is essential to get the framework right. Politicians must provide a framework for action, even if it means a radical change of the status quo - it needs to reflect the sense of urgency.

The overall toolbox must signal the direction of travel, provide predictability for investors and businesses, and thus contribute to making greater sustainability profitable.

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4. BRINGING PEOPLE ALONG

Across Europe, climate change and environmental issues are top concerns for citizens, which is increasingly reflected in local, national and EU election debates. However, as the green transition advances, it will affect people, and if not managed well, can lead to significant societal opposition. Significant efforts will be needed to ensure a broad buy-in for the transition. This requires a social dialogue about the benefits and transitional costs of the measures taken; managing the social impacts,

especially for the most vulnerable, including low-income households and people with disabilities and providing everyone with the right tools to engage in the transition.

It is time for national, regional and local European leaders to **be open about the implications of the green transition.** They need to communicate that this transition will be visible (and will require, for example, new infrastructure), that it will mean changes to employment (new jobs will be created, others will be lost), that it will impact people and their lives, and requires everyone's contribution, even behavioural change. The transition will change how we move, heat or cool our homes, what we eat and how we consume in general.

It is time for national, regional and local European leaders to be open about the implications of the green transition.

Reaching the agreed goals requires showcasing the concrete benefits of the measures taken for people, be it in the form of warmer homes, reduced energy costs or better health and lives overall. This also requires analysing topics that are less discussed, such as the benefits that come with nature restoration and reduction of chemical pollution.

As the transition advances, it is important to ensure transparency about the measures governments and businesses are taking, the costs and the benefits, and address any possible misinformation. As climate action will surely become a greater focus of political and societal debates, it is essential for European and member state leaders, as well as scientists and other experts, to proactively engage in the discussion and also address the spread of possible misinformation on social media, for example.

EXAMPLE: While the EU, its member states and European industry have spent decades to build the current energy system, and the vested interests and transitional costs are hindering the green transition, the current high energy costs should serve as a stark reminder why the transition is desperately needed. It is essential to be transparent about the costs of the current energy system and why this must be fixed, how this can be done in a cost-effective manner, and what the benefits would be. The EU needs to reduce its dependence on imported fossil fuels – the driver for the rise in energy prices - and transition to a clean energy system, wherein energy efficiency and renewables, for example, would help address the vulnerabilities of our current energy system.

Bringing people along requires **recognising and managing the unwanted social impacts**. Every transition comes with trade-offs, and there will be transitional costs, as well as winners and losers. The ongoing transition should be the fastest and most comprehensive transition the humanity has seen, and it will affect every person. Managing this requires being open about the measures that must be taken, explaining how the transition costs will be covered and giving hope and prospects to those who are or will be most affected. It is essential to prepare for the changes and ensure that the most vulnerable will not be left behind. This entails careful planning and socioeconomic resources to address the impacts on a national, sub-national but also on a European level.

EXAMPLE: Numerous initiatives are already in place to address energy poverty and improve vulnerable people's access to affordable, clean energy, and as such can provide inspiration for local, regional and national measures across the EU.[54] In Thessaloniki, Greece, a PV system on the roof of one of the city schools is covering the electricity needs of a shelter.[55] In Australia, low-income households can apply for free solar panels.[56]

EXAMPLE: At the EU-level, the European Commission's proposal for the Social Climate Fund could provide a valuable tool to address some of the social and distributional barriers related to the green transition, including the short-term challenge of securing cash flow for initial investments. It would use revenues from the auctioning of emission allowances to support the most vulnerable in building renovations, as well as in the electrification of heating and cooling, facilitating access to clean mobility and even by providing temporary income support.

Creating space and tools for social dialogue has already proven to be valuable for exchanging about the rationale for the transition and enabling people to express their hopes and concerns. Such platforms can also be used to co-create solutions and manage the transition.

EXAMPLE: The Covenant of Mayors, the Dublin Forum, the German Coal Phase-out Commission and Scotland's Just Transition Commission exemplify how social dialogue and pro-active collaboration can help advance and manage the transition, while ensuring that the voices of the different stakeholders are heard in the process. It is important that EU-level initiatives such as the Conference on the Future of Europe and Platform for Coal Regions in Transition will contribute to these efforts.

Moreover, bringing citizens and consumers on board requires **enabling and empowering** them to support the transition. People need incentives and tools to engage in the transition. Educating people on the measures that have the biggest impact and using, for example, labels to guide consumers are important. However, ultimately the aim should be to ensure that every product and service on the European market is sustainable by default, which would make it much easier for people to contribute in the transition.

Bringing citizens and consumers on board requires enabling and empowering them to support the transition.

EXAMPLE: To promote renewable energy communities, which with the support of citizens, small and medium-sized businesses and local governments can enable local communities to become producers-consumers and owners of renewable projects, requires addressing, for example, remaining legislative obstacles at national level.[57]

EXAMPLE: People find it extremely difficult to evaluate the environmental, climate and health impacts of, for example, food products. Labels could help people to choose healthy and sustainable food more easily. Ideally, labelling on food should build on a simple score system that would capture health, environment, and climate impacts of the given food product.

5. GLOBAL ACTION

For the EU to become a meaningful global actor, a model and a driver for change, it needs to build on the successes within its own borders, and use its internal policies and investments to influence developments outside the EU as well as its external tools to encourage system change globally.

The EU should **lead by example**. Its global leadership on SDGs and climate action and the attractiveness of its goals and measures are greatly influenced by successes within its own borders. It must showcase the concrete economic, security, social and environmental benefits that come from reducing emissions and greening the economy, and how this can be done cost-effectively. It must demonstrate how, for example, coal regions and industry can take part in the transition and renew themselves. If the EU and its member states can showcase the concrete benefits of action, they can play a leading role in mobilising others to speed up their efforts.

At the same time, it is in the EU's interest to **build on the power of its policies and investments within the EU** to bring about change beyond its borders. For example, the EU can exercise global regulatory power through the rules and standards which it applies to products and services on its internal market.

EXAMPLE: The Single Market makes the EU one of the most important and influential actors globally. It influences global market developments and contributes to regulation of global markets. It incentivises many international companies to comply with EU rules and use EU standards as global standards on their own initiative. It provides Europe with significant leverage in international trade negotiations and helps to attract foreign investments. To make the EU market even more attractive and to give EU additional leverage globally, the EU must enhance its efforts to enable the free movement of services and products as well as integration in areas such as taxation.

Simultaneously the EU must **use its external tools to collaborate with other major players and to encourage system change globally**. The Green Deal, its goals and principles should be strongly reflected in the EU's diplomatic efforts, its participation in international institutions, financing, trade negotiations and partnerships. The EU also has notable experience and expertise in enabling the green transition, which it can build on when engaging in capacity building and providing technical assistance beyond its borders.

EXAMPLE: The EU is already a significant funder of development projects beyond its borders, and it should enhance its efforts in supporting the more vulnerable in addressing the climate and the wider sustainability crises. This entails greater collaboration in assisting the EU's partners in pursuing their recovery plans in align with joint environmental and climate goals. The EU should promote synergies in development cooperation with other major players such as the US and China, to accelerate the transition.

EXAMPLE: The EU must continue to push for increased ambition and concrete measures at the global fora, be it at the G7, G20, UN Biodiversity Conference or UN Climate Change Conference. It needs to show moral and practical leadership, and work closely with like-minded countries to increase pressure for action. At the same time, it must also do its share to implement agreed measures, including the phasing out of fossil fuel subsidies.

The EU is not the only global actor that is using its policies, financing and other tools to become more sustainable and achieve climate neutrality.[58] The race to the top has started. There is and will be growing global competition for leadership but also for ideas, sustainable solutions and standard-setters. The EU cannot afford to wait and lose this opportunity to influence the global direction and the global market.

It is not over until it is over

The stakes are high. Science leaves no doubt about the urgency of the situation. No one knows the actual tipping points that could make significant parts of the world uninhabitable, lead to serious water stress and/or food insecurity, societal and economic disruption across the world and thus to unimaginable suffering. The scientists have been able to make projections of what may await us if the world temperature increase hits 1.5°C, but the uncertainty around the impacts, vulnerabilities and costs increase exponentially beyond this point.

It is these unknown unknowns and fears around the unwanted, unforeseen domino-effects of our actions that should be the ultimate reasoning to prevent, address and prepare for the impacts of climate change and ecological crises. These should be the greatest driver for wanting to live within the boundaries that the planet has given us, within Europe and beyond.

The game is not over yet. The climate and ecological crises are caused by people, and thus can also be stopped by people. We can influence what happens next and what the ultimate costs will be for current and future generations.

The game is not over yet. The climate and ecological crises are caused by people, and thus can also be stopped by people.

This is also why the EU has a responsibility and self-interest to act. Be it as a model for others; a global leader; a rule-maker and rule-enforcer; a source of significant funding within the EU and beyond, and a mobiliser for private financing; a convening power; an innovator and developer of new solutions; a standard-setter; or as a major producer and an ever-growing consumer – it has the power and the tools to bring about the needed change. The EU is much greater and influential than the sum of its parts – and this is why it is essential that all Europeans join forces in this new quest for peace and sustainable prosperity.

Bridging the gap between ambition in the European Green Deal and necessary action will not be an easy task. Creating a sustainable, climate-neutral economy requires numerous simultaneous transitions, and there is no time to wait. Achieving the necessary system change and creating the enabling framework for the transition requires leadership, policies and investments. The transition requires deploying existing solutions and developing new ones at an unprecedented scale and speed. The Green Deal will only become a reality and a stepping stone for further action if it becomes an economic and society-wide project that encourages businesses and people to participate. It will only succeed if it becomes a positive European story with multiple benefits for people, business and the planet, and manages the uneven impacts of this systemic transition. It can only deliver real results for Europeans if European efforts are coupled with proactive global collaboration.

The Green Deal will only become a reality and a stepping stone for further action if it becomes an economic and society-wide project that encourages businesses and people to participate.

We are at a cross-roads. The choices we make today will determine whether we can stick to the 1.5°C goal, whether the world will become climate neutral and whether nature can continue to provide the services we rely on to live. They will determine what the ultimate human, societal, economic, security and ecological costs will be for current and future generations. The decisions taken in the EU, in the member states and within European businesses today will determine the EU's future role and position in the global arena, and the prospects for European competitiveness. They will determine Europeans' prosperity and wellbeing for generations to come. Our actions – or our inaction – will not go unnoticed. They will be judged by our children and grandchildren.

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The Sustainable Prosperity for Europe (SPfE) Programme explores the foundations and drivers for achieving an environmentally sustainable and competitive European economy.

While the climate crisis is a complex challenge to be addressed, non-action is not an option. Prospering within the planetary boundaries requires rethinking the existing 'take-make-dispose' economic model, reducing pollution and being smarter with the resources we have. The SPfE Programme engages in a debate on the needed measures to achieve a fair transition to an environmentally sustainable economy and society. It focuses on areas where working together across the EU can bring significant benefits to the member states, citizens and businesses, and ensure sustainable prosperity within the limits of this planet.

The **European Policy Centre (EPC)** is an independent, not-for-profit think tank dedicated to European integration. It supports and challenges European policymakers at all levels to make informed decisions based on evidence and analysis, and provides a platform for partners, stakeholders and citizens to help shape EU policies and engage in the debate about the future of Europe.