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# THE EU LONG-TERM STRATEGY AS AN OPPORTUNITY FOR JUST TRANSITION

## FIVE ELEMENTS FOR SUCCESS

**REBEKKA POPP & LISA FISCHER**

### Executive Summary

The success of decarbonisation policies depends critically on whether they manage socio-economic consequences in a just way. This has, amongst others, become visible in coal phase-out debates across Europe.

The recent publication of the European Commission's strategic long-term vision for a climate neutral Europe by 2050 sets out the extent of the forthcoming transition across sectors, constituencies and geographies. This offers the opportunity to lay the grounds for designing a Just Transition.<sup>1</sup>

Our analysis of possible transition challenges and opportunities in the European energy, transport and agricultural sector finds that a framework for analysing and managing a Just Transition needs to include the following aspects: employment and financial impacts, impacts on consumers and citizens, the geographic distribution of impacts and the impacts from climate change itself, in particular if action is delayed.

While the significance of these aspects differs across sectors, this paper identifies five elements for a successful Just Transition that are common across sectors and complement the EU's 2050 vision:

1. **A clear sense of medium and long-term direction to give planning certainty:** The EU and Member States need to establish a goal of climate neutrality by 2050 following the presentation of the Commission's proposal. Additionally, intermediate climate milestones for 2030 need to be adjusted to be in line with a climate neutral scenario.
2. **Mapping transition trajectories for sectors and regions:** To enable sectors and regions to undertake their own transition planning the next EU Commission

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<sup>1</sup> A definition of Just Transition is provided on page 3.



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needs to develop sectoral and regional pathways to climate neutrality. For example, Member States should call on the next European Commission to make a priority of developing a strategy for industry decarbonisation.

3. **Include all dimensions of Just Transition:** Fair balancing of all interests across society requires a comprehensive Just Transition framework. This framework should incorporate negative and positive impacts associated with accelerated climate action, such as job losses and opportunities, as well as the impacts from delaying climate action.
4. **The EU enables regions and sectors to design and implement a transition:** By providing relevant data, analytical tools and financial support the EU can support Member States and local stakeholders in their efforts for designing a Just Transition.
5. **Identify key actors in the Just Transition:** Designing good Just Transition policies goes beyond the remit of energy or climate departments. For example, aligning skills development or providing tax incentives might require the involvement of education ministries or the Treasury.

## Introduction

In March 2018, Heads of State and Government tasked the European Commission to produce a new long-term climate strategy for the European Union (EU) in accordance with the Paris Agreement. The Commission released a proposal before the United Nations climate change talks in Katowice, Poland in November 2018. In this strategic vision titled **“A Clean Planet for all”** and the accompanying in-depth analysis, the Commission includes two scenarios that achieve climate neutrality by 2050 in pursuit of keeping the global temperature increase to well below 2°C and continuing efforts to keep it to 1.5°C.<sup>2</sup>

The Commission’s communication is the first step towards developing a formal long-term strategy by 2020 to fulfil the EU’s commitment under the Paris Agreement.<sup>3</sup> It is a non-legislative document and there is no legislative procedure for finalising it. The strategic vision was part of the agenda of various Council configurations since then and is expected to be discussed by Heads of State and Government at a European Council in Sibiu in May 2019. The European Parliament will present its own views in early 2019.

Achieving deep decarbonisation consistent with the Paris Agreement’s goal of keeping global warming well below 2°C and aiming for 1.5°C requires change in every sector of the economy. For the EU but also for national governments, the new long-term strategy serves as a useful instrument for laying the grounds for successful economic and societal transformation. It can help decision-makers understand and anticipate

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<sup>2</sup> European Commission (2018) **2050 Long-Term Strategy**

<sup>3</sup> UNFCCC (2018) **Communication of Long-Term Strategies**



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transition challenges and opportunities but also how other EU instruments, such as the EU budget or innovation policy can support a Just Transition. The strategic vision gives an idea of the economic and social impacts of decarbonisation and how to address them. To have effect, it needs to become the anchor point for a real plan for structural change. The absence of a plan for handling the political and redistributive effects of the transition is a barrier to raising climate ambition. Only by addressing Just Transition can the long-term strategy become a tool for a prosperous climate neutral EU.

This briefing intends to inform the conversations succeeding the presentation of the strategic vision. It outlines which additional instruments and evidence the EU can provide to prepare the grounds for a successful Just Transition. To this aim, the first section defines the Just Transition concept. The next section gives an idea of the breadth of the challenges and opportunities that arise from full decarbonisation by examining transition processes in the energy, transport and agriculture sectors. Based on this analysis, the final section develops five elements for a more comprehensive, long-term approach to Just Transition in Europe.

## The Just Transition Concept

Just Transition is about capturing the complexities of the necessary transition towards a climate neutral and climate resilient economy, highlighting public policy needs and aiming to maximise benefits and minimise socio-economic risks in this transformation. At the same time, the speed of such a Just Transition needs to be in line with the Paris Agreement, to ensure that climate policies are ambitious enough to protect communities globally.

The concept was first developed by trade unions in North America to provide a framework for discussions on the necessary social and economic interventions to secure workers' jobs and livelihoods in the shift from high-carbon to low-carbon, climate-resilient economies. Driven by the challenges posed by climate change, unions sought to align their efforts to provide workers with decent jobs with the protection of the environment. The concept has since been endorsed and used by a rapidly growing number of stakeholders, including local and federal governments, civil society, industry, and affected communities. In 2016, the International Labour Organization (ILO) set out **Guidelines on a Just Transition towards Environmentally-Sustainable Economies for All**.<sup>4</sup> Just Transition is further recognized in the UNFCCC process and the **Paris Agreement** as a key challenge for local transitions and the restructuring of real economy sectors.<sup>5 6</sup>

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<sup>4</sup> ILO (2016) **Guidelines on a Just Transition towards Environmentally-Sustainable Economies for All**

<sup>5</sup> UNFCCC (2015) **Paris Agreement**

<sup>6</sup> The previous two paragraphs originally appeared in the E3G (2018) report **Funding the Just Transition to a Net Zero Economy in Europe: Opportunities in the Next EU Budget**.



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Initially, the Just Transition concept was used to frame the challenge to transform economies from fossil-based energy and production systems to decentralized, renewable ones. As the scope was still limited, national governments could afford to leave transition plans late and address the political conflict through providing financial compensation to affected regions. As the next phase of decarbonisation will expand to all real economy sectors and require a steep acceleration of its pace continuing this approach seems insufficient and might mean that opportunities from new industries and growth sectors will be missed.

To be 'just' for all parts of society, Just Transition plans need to be developed in support of accelerated climate action. While inaction might reduce transition costs in the short-term, it has negative, partly devastating impacts on other stakeholder groups such as workers in the renewable industry or vulnerable communities affected by the impacts of climate change locally and globally. Ultimately, Just Transition is an integrated approach to sustainable development which brings together social progress, environmental protection, and economic success into a framework of democratic governance. Effective Just Transition strategies require local, bottom-up participation of all affected stakeholders and commitment by governments to guarantee legitimacy and provide planning security.

## Just Transition in the EU: Scope and State of Play

This section analyses the transition processes required in the EU's energy sector, the transport sector and agriculture to achieve decarbonisation by 2050 in a just way. By looking at a few, very different sectors we want to scope commonalities, differences and synergies of the transition challenges that could give insight into how the EU's current understanding and tools for Just Transition need to evolve.

### **All real economy sectors will have to decarbonise, but transition challenges differ**

With the ratification of the Paris Agreement, the EU committed to keep global warming to well below 2 °C and to continue efforts to maintain it under 1.5 °C. The recently published special report by the IPCC on the impacts of global warming of 1.5 °C above pre- industrial levels has further underscored the urgency of limiting the temperature increase to below 1.5 °C. This requires the decarbonisation of all real economy sectors including the finance sector. It is also clear that not every sector will follow the same decarbonisation pathway. Instead, each sector will need to come up with an individual roadmap for decarbonisation, considering how to manage the social impacts as well as likely consequences of climate impacts to their sectors. The following gives an overview of transition pathways of selected EU sectors.

#### **Decarbonising the energy sector**

With zero-carbon energy generation technologies largely available, **the energy sector needs to achieve net-zero emissions the fastest.** This is also required because the decarbonisation of other sectors, such as heating and transport, partly relies on



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increased electrification. A recent **study** shows that an almost complete coal phase-out by 2030 for OECD countries is necessary to stay within the temperature limit.<sup>7</sup> However, not only the phase-out of coal but also ending the extraction and use of unabated fossil gas and oil is needed to decarbonise the energy sector.

**Europe's energy system has already undergone fundamental changes** in recent years because of advances in renewable energy technologies and decarbonisation policies, even though further action is necessary. By now, one third of the EU's electricity generation comes from renewables, showing that a transition in the energy sector is already taking place.<sup>8</sup> The EU has sought to address the structural changes associated with the decline of the coal sector and established the **Coal Regions in Transition Platform** that facilitates best practise exchange between coal regions.<sup>9</sup> This helped kick-start planning for the transition of several regions, for example the **action plan for the post-coal development of the Upper Nitra region** in Slovakia.<sup>10</sup> Yet, coal still provides a quarter of EU electricity generation and remains the predominant source of electricity generation in several EU countries.<sup>11</sup>

**A phase-out of coal affects a comparatively small share of the European workforce, concentrated in a few countries and regions.** In the EU, the coal sector provides jobs to 237,000 people, with 185,000 employed in the mining of coal and 52,000 working in coal-fired power plants. A large share of coal mining jobs in the EU are concentrated in five states: Poland (54%), Germany (13%), the Czech Republic (10%), Romania (8%) and Bulgaria (6%).<sup>12</sup> Central and Eastern European countries are particularly vulnerable to the risk of job losses. In all EU countries employment in the coal industry represents below 1 % of total employment at regional level, except for Silesia in Poland where coal mining jobs represent 5% of regional employment.<sup>13</sup> The age structure in the coal sector facilitates a socially fair transition. For instance, in Germany two thirds of those employed in lignite mining will have retired by 2030.<sup>14</sup> Thus, the long-term horizon of the EU's strategy is crucial for a Just Transition because plans can be aligned with a natural turn-over in the workforce.

**As the coal industry in particular is heavily regionally concentrated, the energy transition requires agency from local and regional stakeholders** to develop alternative income opportunities for workers and communities. The national level provides stability to these processes by providing clear guidance on energy mix planning. In contrast to other sectors, the coal sector is dependent on financial

<sup>7</sup> Climate Analytics (2017) **A Stress Test for Coal in Europe under the Paris Agreement**

<sup>8</sup> Eurostat (2018) **Renewable Energy Statistics**

<sup>9</sup> European Commission (2018) **Coal Regions in Transition**

<sup>10</sup> Prievidza (2018) **Akčný plán rozvoja hornej Nitry** (in Slovak)

<sup>11</sup> Agora Energiewende/Sandbag (2018) **The European Power Sector in 2017**

<sup>12</sup> JRC (2018) **EU Coal Regions: Opportunities and Challenges ahead**

<sup>13</sup> Bruegel (2017) **Beyond Coal: Facilitating the Transition in Europe**

<sup>14</sup> Umweltbundesamt (2018) **Beschäftigungsentwicklung in der Braunkohleindustrie: Status quo und Projektion** (in German)



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support from national and regional governments to implement transition measures as it is already losing its economic competitiveness.<sup>15</sup>

On the other hand, **the decarbonisation of the energy sector creates jobs in new industries** like renewables and energy efficiency. A 2012 **European Commission working paper** projects that by 2020 the development of renewable energies could create up to three million jobs, with gains in energy efficiency adding or maintaining another two million jobs.<sup>16</sup> Currently, the renewable energy sector in the EU employs over one million people.<sup>17</sup> It is notable that employment in renewables is unevenly distributed across the EU, with the Nordic countries having the highest proportion of workers in the renewables sector and southern and central European countries recording lower employment.<sup>18</sup>

**Some studies expect that the transition to renewable energy adversely affects low-income households.** As Member States' investments in renewable energy are often financed by an increase in electricity taxes, low-income households may be required to spend higher shares of their income on electricity.<sup>19</sup> Member States are required to design renewable subsidies in such a form that they protect the poorest households from rising energy prices. Yet, continuing to produce energy from coal-firing also has negative effects for citizens as coal combustion increases air pollution and is responsible for about 23,000 premature deaths in the EU every year.<sup>20</sup>

#### Decarbonising the transport sector

In the transport sector, **solutions for zero-carbon transport are available for passenger transport.** They include a combination of strengthening public transport, speeding up the use of alternative and net-zero carbon fuels and deploying electric vehicles. But their effectiveness depends on increases in efficiency of the transport system and vehicles as well as the transition to zero-carbon electricity generation. According to a **report by the European Climate Foundation and Climact**, decarbonising passenger transport by mid-century requires EU countries to stabilize transport demand at today's level and achieve modal shift, thereby reducing car share to 70% from around 80% today. It is further necessary to improve car efficiency by 15% by 2030 as well as to increase the share of electric vehicles so that 80% of new cars are zero-emission vehicles by 2050.<sup>21</sup> The technological solutions for aviation and maritime sectors are less clear.

**The actual transition in the European transport sector industry is however only slowly taking shape.** The **Commission's strategy for low-emission mobility** foresees

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<sup>15</sup> Carbon Tracker (2017) **Lignite of the Living Dead**

<sup>16</sup> European Commission (2012) **Exploiting the Employment Potential of Green Growth**

<sup>17</sup> European Environment Agency (EEA) (2017) **Renewable Energy in Europe – 2017 Update**

<sup>18</sup> Jacques Delors Institute (2017) **Making the Energy Transition a European Success**

<sup>19</sup> Bruegel (2018) **The Distributional Effects of Climate Policies**

<sup>20</sup> Climate Analytics (2017) **About 80% of EU and German, virtually all Polish Coal Plants non-compliant with new EU 2021 Air Pollution Regulations**

<sup>21</sup> ECF/Climact (2018) **Net Zero by 2050: From whether to how**



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increased efficiency of the transport system, a higher deployment of low-emission alternative energy for transport and the development of electric vehicles.<sup>22</sup> The EU does not have a goal on electric vehicles, however, the adopted CO<sub>2</sub> standards for new passenger cars and vans support a gradual transition to lower emission vehicles. The shift from internal combustion engines to electric cars could be further accelerated by a growing number of European countries implementing diesel bans in areas suffering from heavy air pollution.<sup>23</sup> Yet, the European automobile sector has been reluctant to embrace e-mobility. To date, Europe has only one plant producing battery cells for electric cars.<sup>24</sup> With the **European Battery Alliance** launched in October 2017 the EU intends to encourage the development and manufacturing of new battery technologies in Europe.<sup>25</sup>

Compared to the coal industry, the scale of the transition required for a decarbonisation of the transport sector and its impacts on the automobile industry are very different. **First, many more jobs are involved.** 13 million Europeans work in the automobile sector in manufacturing, services and construction, representing 6.1% of total EU employment.<sup>26</sup> The country with the highest employment in the automobile industry is Germany with about 850,000 workers. In France, Poland, Romania, the UK, Czech Republic, Italy and Spain the industry provides between 100,000 and 200,000 jobs.<sup>27</sup> **Second, compared to the coal industry, the jobs in the automobile industry are much more dispersed geographically and there are highly integrated transboundary supply chains.** There are 227 automobile assembly and production plants in the EU. Many of these are in Germany (43), France (35), the United Kingdom (33), Italy (24) and Poland (16), but other European countries also have a significant automobile industry. The Czech Republic (3.2%) and Slovakia (2.6%) are the EU countries with the highest share of their working population employed in automotive manufacturing.<sup>28</sup>

**The impact of the transition to clean mobility on these jobs depends** primarily on the type of vehicle produced but also on the location of future manufacturing as parts of the value chain may be moved outside of Europe. A recent **report** projects that the transition to electricity and hydrogen will create new jobs in construction, electricity, hydrogen, services and most manufacturing sectors but it will also reduce jobs in manufacturing combustion engines and the fuels sector providing the gasoline and diesel needed to power them. The net impact on jobs by 2030 is estimated to be slightly positive.<sup>29</sup>

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<sup>22</sup> European Commission (2016) **Commission Publishes Strategy for low-emission Mobility**

<sup>23</sup> See Transport & Environment (2018) **Diesel Bans in Cities still letting dirty new Diesels off the Hook** for an overview of low emission zones and diesel bans in European countries.

<sup>24</sup> Reuters (2018) **Factbox: Plans for Electric Car Battery Production in Europe**

<sup>25</sup> European Commission (n.d.) **European Battery Alliance**

<sup>26</sup> While only a subset of these jobs would be affected directly by a shift away from combustion engines, all jobs depend on continued competitiveness of a sector the future of which is likely to be dominated by electro mobility.

<sup>27</sup> European Automobile Manufacturers Association (2018) **The Automobile Industry Pocket Guide**

<sup>28</sup> European Automobile Manufacturers Association (2018) **The Automobile Industry Pocket Guide**

<sup>29</sup> Cambridge Econometrics (2018) **Fuelling Europe's Future**



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The car industry has great financial resources and innovation capability to prepare for the transition. However, this is complicated by the fact that supply chains of the auto industry are transboundary and, thus, decision-making is also spread over countries: While strategic investment decisions of car companies are taken, for instance, in the company's German headquarters, they affect vehicle production in other parts of Europe. **The European level therefore plays an important role in structuring the transition process.**

**A switch to e-mobility might at the moment not be affordable for all consumers, but this is set to change in the medium-term.** It is estimated that the ownership and operating costs of cars will be similar for all types of vehicles by 2030.<sup>30</sup> It is important that policy makers ensure that no one is caught in a trap of facing rising fuel taxes but being unable to afford alternatives. Yet, delaying the transition away from vehicles running on diesel or petrol in turn has significant health impacts as they emit not only CO<sub>2</sub> but also particulate matter or car owners might face 'ad hoc' bans for diesel cars effectively turning their cars into stranded assets.<sup>31</sup>

#### Decarbonising the agricultural sector

**The transition of agricultural practices is complicated** by the fact that there exists little consensus on what the process of transitioning to climate-friendly, sustainable farming practices would look like. Views range from climate-smart agriculture to a shift towards organic production.<sup>32</sup> A reduction in livestock capacities is seen as an important measure to reduce greenhouse gas (GHG) emissions. For instance, **Rural Investment Support for Europe (RISE)** found that in order to reach current EU climate targets, livestock in the EU needs to be reduced by 74% in 2050.<sup>33</sup>

**The sector is facing changing consumption patterns that will require adjustment.** For instance, the demand for organic products is steadily increasing with already established Western European markets experiencing growth of 5.4% between 2015 and 2016 and Eastern European sales recording a growth rate of 8.8% in the same period.<sup>34</sup> Another major trend is the emergence of largely or completely meat-free diets, including the development of new technologies that produce plant-based alternatives.<sup>35</sup>

**EU agriculture has already been through a major transition** towards more energy intensive, specialised and mechanised production systems. Consequently, production takes place in fewer, larger and more capital-intensive farms. At the EU level, the agricultural sector is regulated by the Common Agricultural Policy (CAP), which influenced past and current developments of the sector through European subsidies. Even though the CAP has been frequently reformed, it tends to inhibit rather than

<sup>30</sup> Cambridge Econometrics (2018) **Fuelling Europe's Future**

<sup>31</sup> World Health Organization (WHO) (2018) **COP24 Special Report: Health & Climate Change**

<sup>32</sup> E3G (2018) **A Just Transition for All?**

<sup>33</sup> RISE (2018) **What is the Safe Operating Space for EU Livestock?**

<sup>34</sup> Statista (2018) **Organic Food Market in Europe**

<sup>35</sup> E3G (2018) **A Just Transition for All?**



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encourage structural change towards agricultural practices that reduce their impact on the climate.<sup>36</sup>

Like the auto industry, **many Europeans work in agriculture**. With 10 million people in agriculture, the sector accounts for 4.4% of total EU employment. In Romania, Bulgaria, Greece and Poland, employment in agriculture accounts for more than 10% of total employment, whereas in more than half of the Member States it represents less than 5% of total employment.<sup>37</sup> In contrast to the energy and transport sector, agriculture creates employment predominantly in rural areas and job losses could lead to an increasing urban-rural divide. As the previous section has outlined, it remains an open question in which direction and how fast the sector will adjust so it is difficult to project impacts on employment.

**Some policies for reducing the climate impact of the agricultural sector bring important equity questions.** For example, rising prices for carbon-intensive food products, such as meat, could disproportionately affect low-income households. Moreover, decarbonisation policies in other sectors, such as the production of biofuels, further affect food prices.<sup>38</sup> Transitioning the agricultural sector is associated with co-benefits for adaptation as well as for biodiversity due to a reduced land area needed for growing animal feed. Similar to the coal and transport sector, decarbonising the agricultural sectors also yields health benefits, particularly from reduced meat consumption.<sup>39</sup> Agriculture is a shared competence between Member States and the EU. A reformed CAP could help to encourage a transition of the sector.

This section shows that sectors face challenges over how to design ‘just’ decarbonisation pathways that go beyond employment impacts. These include the geographic distribution of impacts, financial aspects as well as impacts on consumers and citizens. Table 1 provides a non-extensive overview of these based on the analysis above. The analysis also illustrates that while sectors need individual decarbonisation roadmaps, regions can benefit from looking across sectors in planning the transition as this could open opportunities in future growth sectors.

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<sup>36</sup> See for example European Environmental Bureau (2017) **Is the CAP fit for the Future of Farming?**

<sup>37</sup> Eurostat (2017) **Farmers in the EU**

<sup>38</sup> Bruegel (2018) **The Distributional Effects of Climate Policies**

<sup>39</sup> WHO (2018) **COP24 Special Report: Health & Climate Change**



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*Table 1: Examples of transition challenges and opportunities in EU sectors*

	<b>Energy sector</b>	<b>Transport sector</b>	<b>Agriculture</b>
<b>Geographic distribution of impacts</b>	<ul style="list-style-type: none"> <li>- Strong regional economic effects in lignite coal sector in particular</li> <li>- Central and Eastern European countries particularly vulnerable due to high number of high-carbon jobs</li> </ul>	<ul style="list-style-type: none"> <li>- Jobs in the automobile industry very dispersed geographically</li> <li>- Transboundary supply chains</li> </ul>	<ul style="list-style-type: none"> <li>- Jobs located largely in rural economy</li> </ul>
<b>Impacts on employment</b>	<ul style="list-style-type: none"> <li>- Risk of loss of 237,000 jobs in coal sector</li> <li>- Job opportunities in growing sectors such as renewable energy production and energy efficiency</li> </ul>	<ul style="list-style-type: none"> <li>- On average, transition towards electromobility will lead to lower employment per vehicle</li> <li>- Growing electromobility market and competitive pressure could otherwise put whole industry at risk (13 m employed in automobile sector)</li> </ul>	<ul style="list-style-type: none"> <li>- Impacts on employment difficult to project</li> </ul>
<b>Impacts on citizens and consumers</b>	<ul style="list-style-type: none"> <li>- Potential increases in energy prices could raise inequality issues</li> <li>- Health benefits due to reduced air pollution</li> </ul>	<ul style="list-style-type: none"> <li>- Purchase and running costs for electric vehicles reach same level as those for internal combustion engines by 2030</li> <li>- Health benefits due to reduced air pollution</li> </ul>	<ul style="list-style-type: none"> <li>- Higher prices for carbon-intensive food products could raise inequality issues</li> <li>- Health benefits due to reduced meat consumption</li> </ul>

**The role of climate change impacts in developing decarbonisation strategies**

**Considering climate impacts is integral to designing comprehensive just decarbonisation strategies.** Europe is already facing wide-ranging climate-induced impacts such as heatwaves, droughts, wildfires, storms and floods, with direct and



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indirect effects on ecosystems, the economy as well as human health and well-being in Europe. Weather and climate-related extreme events caused on average annual losses around €12.8 billion between 2010 and 2016 in the countries of the European Economic Area.<sup>40</sup> A study by the Joint Research Centre (JRC) shows that these impacts will amplify with a further increase in global mean temperature.<sup>41</sup> When setting the pace of the transition it needs to be clear that a slower transition increases the cost of climate impacts and might reduce our ability to transition altogether.

**This is most obvious in the agricultural sector.** Farming conditions directly depend on climate conditions. In recent years, the agricultural sector has been increasingly affected by climate-induced extreme weather events, leading to reduced yields.<sup>42</sup> Therefore, high adaptation needs already imply changes to existing farming practices. The projected increase in the occurrence and magnitude of extreme weather events is expected to increase the risk of crop losses and impose risks on livestock production. Impacts are projected to vary among European regions. While climate change may improve the suitability of northern Europe for growing crops, it will reduce crop productivity in large parts of southern Europe.<sup>43</sup>

**Other sectors are also projected to experience climate impacts.** For example, in the energy sector further increases in temperature and the occurrence of droughts is expected to limit the availability of cooling water for thermal power generation in summer and energy transport infrastructures across Europe are at risk from increasing frequency and intensity of extreme weather events.<sup>44</sup> Traditional transport routes for inputs and outputs to industrial sectors, such as the Rhine, are already becoming less reliable.<sup>45</sup>

Thus, climate impacts are already posing costs to sectors and regions, which need to be considered in developing climate-proof decarbonisation strategies. A precondition for sectors and regions to factor climate impacts into their planning and establish adaptation pathways is access to relevant data.

## Five Elements for a Long-Term Approach to Just Transition

The Commission's strategic vision offers a high-level analysis of Just Transition. The EU and Member States now need to make sure that this is complemented with the tools to better understand and mitigate the above-mentioned challenges and reap the opportunities that arise from decarbonisation.

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<sup>40</sup> EEA (2019) [Economic Losses from Climate-Related Extremes](#)

<sup>41</sup> Joint Research Centre (2018) [PESETA](#)

<sup>42</sup> EEA (2018) [Climate Change, Impacts and Vulnerability in Europe 2016](#)

<sup>43</sup> EEA (2018) [Climate Change, Impacts and Vulnerability in Europe 2016](#)

<sup>44</sup> EEA (2018) [Climate Change, Impacts and Vulnerability in Europe 2016](#)

<sup>45</sup> New York Times (2018) [The Rhine, a Lifeline of Germany, Is Crippled by Drought](#)



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Based on the analysis above, we have defined five elements for how the strategic vision can result in a more comprehensive, long-term approach to a Just Transition to a decarbonised society.

**1. A clear sense of medium and long-term direction.**

In its strategic vision, the Commission evaluated several pathways and expressed a clear preference for climate neutrality by 2050 as the best way to protect Europeans and their prosperity. It is essential that in the debates following the presentation of the Commission's proposal, the EU and Member States confirm the goal of climate neutrality by 2050 as the only safe option.

Clarity on time frames and ambition levels gives planning security to Member States, European regions and local communities as well as to industries and workers. It equips them to make decisions on where investments risk becoming stranded, where opportunities from economic modernisation might arise or on technology choices. For instance, the difference between 80% and 95% of emissions reductions has big implications for the future of the fossil gas sector.

Setting the goal of climate neutrality by 2050 at the latest secures greater scope for action. It means the transition process takes place within a time frame when the impacts and costs of climate change are still manageable and the options to decarbonise manifold. Addressing the transition too late when workers, businesses or regions have little option to respond increases the political and financial costs of the transition but also the costs caused by the manifestation of climate change impacts.

Additionally, intermediate climate milestones for 2030 need to be adjusted to be in line with a climate neutral scenario. In the strategic vision, the European Commission makes it clear that it is not proposing changes to the EU's 2030 target. However, the detailed modelling shows that the EU goes well beyond the current 2030 target of 40% in all the scenarios, and the presented climate neutral pathways achieve 51% GHG emissions reductions by 2030 (once land use is factored in).<sup>46</sup> A **report by the European Climate Foundation and Climact** clearly illustrates that the EU's greenhouse gas emissions target needs to be increased to 55-65% compared to 1990 levels in order to reach climate neutrality by 2050.<sup>47</sup>

**2. Mapping transition trajectories for sectors and regions.**

The strategic vision recognizes that achieving climate neutrality by 2050 requires the transition of all sectors of the economy, including the financial sector. The in-depth analysis accompanying the Communication models corresponding pathways for energy, buildings, transport, industry, non-CO<sub>2</sub> emitting sectors and land resources. Importantly, the Commission identifies multiple pathways to

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<sup>46</sup> See also E3G (2018) **A Climate Neutral Europe by 2050: A first Look at the new EU Long-term Climate Strategy**

<sup>47</sup> ECF/Climact (2018) **Net Zero by 2050: From whether to how**



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achieve climate neutrality and its overall conclusions are not dependent on individual technology assumptions. The document also gives an impression of the implications of the transition towards green jobs for regions.

Understanding the choices associated with sectoral and regional transition trajectories is important for a Just Transition because it enables sectors and regions to plan investments in infrastructure, innovation or skills.

Decarbonisation pathways differ between sectors as there are large differences with regard to the number of jobs involved and the geographical impact of the transition. It is particularly important to map these pathways at the EU level for two reasons. First, in some sectors like the automotive industry supply chains stretch across Europe and decisions taken in one country influence workers in another, requiring a European assessment of options. Second, the costs and benefits of decarbonisation are not evenly distributed across Europe. Member States with lower GDP per capita levels have higher shares of employment in those industries that will decline or have to undergo massive transformation, such as fossil fuel extraction and mining, energy intensive industries and automotive manufacturing.<sup>48</sup> Countries like Slovakia, with less direct leverage over decisions on the future of the automotive industry but heavily impacted by them, can use the process started with the presentation of the strategic vision to influence the conversation.

While for some sectors assessments of decarbonisation opportunities exist, all sectors will have to come up with individual decarbonisation plans. The next EU Commission needs to initiate the process to chart sectoral pathways to climate neutrality and the long-term strategy can become an anchor point for this process. The Commission presented a new **Industrial Policy Strategy** in 2017.<sup>49</sup> To actually align EU industrial policy with climate neutrality by 2050, Member States should call on the next European Commission to make a priority of developing a strategy for industry decarbonisation looking at innovation, finance, skills, and deployment needs.

### 3. **Include all dimensions of Just Transition into the planning of transition processes**

The strategic vision acknowledges that some people are particularly vulnerable to the transition, such as people with low income, and looks at the jobs lost but also at the opportunities created through decarbonisation. Moreover, the in-depth analysis recognises that more integrated planning of mitigation and adaptation is necessary. This captures the three core dimensions of a Just Transition:

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<sup>48</sup> European Commission (2018) **In-depth Analysis in Support of the Commission Communication COM(2018) 773**

<sup>49</sup> European Commission (2017) **New Industrial Policy Strategy**



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**Mitigate negative impacts from decarbonisation policies:** Minimising the structural impacts through long-term planning, re-training and social and financial support schemes.

**Reap the opportunities from decarbonisation:** Decarbonisation policies can drive growth and jobs in new industries or bring material co-benefits, such as the reduction of air pollution.

**Minimise the negative impacts from climate change itself:** A transition is only just if it is fast enough to avoid dangerous climate impacts and keeps 1.5°C in reach. Including all three dimensions is important for decisions about timelines and measures to be just for all parts of society.<sup>50</sup>

To be able to include the third dimension into regional or sectoral decision-making requires, for example, understanding climate impacts on infrastructure and supply chains or growth conditions in the agricultural sector. Currently, significant knowledge gaps exist regarding climate impacts and required adaptation pathways. To help communities and sectors adapt to climate change when transitioning, the long-term strategy should be followed up by efforts to close knowledge gaps regarding climate impacts. The **Risk Data Hub** that the European Commission is preparing to launch providing access to EU-wide risk data on natural hazards at national and local scale may be a central element of this process.<sup>51</sup>

**4. The EU enables regions and sectors to design and implement a transition.**

The strategic vision outlines an EU role that includes supporting the transition through the EU budget, employment and social policies, cohesion policies as well as access to relevant data. It also highlights the EU's engagement in facilitating regional initiatives like the Coal Regions in Transition Platform. At the same time, the EU has limited competencies in policy fields instrumental for Just Transition, such as social policy.

The EU can facilitate and catalyse national and local transition processes by deploying its own tools at hand. Next to the Coal Regions in Transition Platform, the permanent stakeholder dialogues set up under the Governance of the Energy Union for the drafting of integrated National Energy and Climate Plans (NECPs) and national long-term strategies provide venues for the Commission to encourage transition processes.<sup>52</sup>

Financial support for re-skilling of workers or investments in clean technology deployment in regions can be made accessible through the EU budget. Providing data on climate impacts, skills needs or financial risk at sufficiently granular level

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<sup>50</sup> See also E3G (2018) **A Just Transition for All – or just a Transition?**

<sup>51</sup> Euractiv (2018) **'Risk Data Hub' to Enhance EU Resilience to Climate Hazards**

<sup>52</sup> European Parliament (2018) **Governance of the Energy Union**



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can help Member States, regions and sectors design comprehensive plans. For example, the **EU Skills Panorama**, which provides an overview of short- and medium-term employment prospects and skills needs at European, national and sectoral level, is already a useful instrument that can help map changing skills needs in individual sectors.<sup>53</sup> An updated report of its gap analysis for vocational educational training for a climate neutral Europe as well as a focus on providing regional data would help regions design their educational strategies or seek to attract the skills base needed.<sup>54</sup> The EU can also pool and share best practise examples of how regions, sectors and Member States may complement EU activities.

In turn, Member States need to put in place policies that catalyse transitions, such as coal phase-out plans, bans on the sale of diesel and petrol cars or assessments of national skills needs or financial incentives for new industries. All of this can help to anticipate disruptive social impacts. Importantly, they need to develop their NECPs and national long-term strategies in close consultation with all relevant stakeholders. More specific transition strategies benefit from being driven by regional stakeholders and adapted to local needs.

Therefore, future debates on the strategy should shed light on how a successful Just Transition is composed of joint efforts from the EU, Member States and local stakeholders. As various governance levels have a role in the Just Transition process, a regular review and updating mechanism for the long-term strategy needs to be established that guarantees broad stakeholder engagement from all governance levels and thereby increases buy-in for the strategy and corresponding policies.

**5. Identify types of support and key actors for designing a Just Transition.**

The strategic vision already identifies key levers essential for achieving climate neutrality by 2050. These include increased investment, re-focusing research and innovation policies onto climate policies, social policy, skills and employment policy and regional development strategies, as well as supporting enhanced action by citizens and consumers.

These suggestions are important because achieving a Just Transition of sectors and regions requires substantial resources and support. Aside from identifying the types of support needed, debates around the long-term strategy should pinpoint the actors that could play a role in providing it - both in the public and private sector. EU and national institutions responsible for economic, regional or fiscal policy, education and skills or research and innovation need to be tasked with using their tools to support the future of the European workforce in a climate neutral economy. The Coal Regions in Transition Platform could play a more

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<sup>53</sup> **Skills Panorama**

<sup>54</sup> European Centre for the Development of Vocational Training (2013) **Skills for a Low-carbon Europe**



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important role in determining support needs in cooperation with regions if it expands its current focus to cover high-carbon regions more broadly.

Importantly, the EU and Member States should position the EU budget as a key tool to support a Just Transition.<sup>55</sup> Funds through the post-2020 EU budget can be allocated in a way to leverage private funds towards regional plans for a Just Transition. This could include aligning with the long-term strategy's objectives and creating dedicated support facilities for Just Transition, as suggested by the European Parliament.<sup>56</sup> Moreover, countries with a strong concentration of carbon intensive industries could champion dedicated funding for Just Transition tied to accelerated climate action in their integrated NECPs. For instance, Bulgaria, Poland and Slovakia could benefit from funding that both supports a transition away from coal and accelerates shifts towards electromobility or smart energy industries in their manufacturing.<sup>57</sup>



TOWARDS A CLIMATE-NEUTRAL EU BY 2050  
AN E3G SERIES

This original E3G series identifies key areas for achieving Europe's carbon neutrality objective. The series explores various sectoral analyses and policy avenues for the next European Commission's agenda to implement decarbonisation.

## About E3G

E3G is an independent climate change think tank operating to accelerate the global transition to a low carbon economy. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2016 and 2017 E3G was ranked the fifth most influential environmental think tank globally.

More information is available at [www.e3g.org](http://www.e3g.org)

<sup>55</sup> The E3G (2018) report **Funding the Just Transition to a Net Zero Economy in Europe: Opportunities in the Next EU Budget** analyses how the next European Multiannual Financial Framework can be aligned with a Just Transition.

<sup>56</sup> Euractiv (2018) **EU's 'Just Transition Fund' Gesture Muddies Budget Waters**

<sup>57</sup> France24 (2018) **Slovakia Faces Challenges of Shifting Gear into E-cars**



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