

BRIEF

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#ENERGY TRANSITION

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# JUST ENERGY TRANSITION: A REALITY TEST IN EUROPE'S COAL REGIONS



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In Europe, the transition away from coal started decades ago but remains incomplete. Coal phase-out now seems inevitable for economic and political reasons.

The declining competitiveness of coal and European coal mining, together with European Union's (EU) climate and air pollution objectives make coal an energy of the past. Nevertheless, phasing it out entails important social and political risks. As this coal phase out partially results from policy decisions of the EU, the latter must act to help its coal regions address those risks and achieve a socially fair energy transition.

With 450,000 jobs at stake, social and political consequences of a disorderly coal phase-out can be disastrous, further weakening already fragile territories, deepening the European regional divides and boosting political resentment.

Despite its shortcomings, the Coal Regions in Transition Platform, created by the European Commission in 2016, reflects the EU's willingness to develop a truly proactive approach to performing a socially fair energy transition. Indeed, the EU attempts to anticipate and mitigate the unavoidable economic and social consequences of the

coal phase out, rather than merely respond to its unfolding consequences in a reactive and purely compensatory manner.

Ensuring a socially fair energy transition for coal regions is of paramount importance to guarantee the political sustainability of this transition. As such, the Coal Regions in Transition Platform is a necessary component of the 'Social Pact for the Energy Transition'<sup>1</sup> that the Jacques Delors Institute calls for.

"We're not just talking about jobs and money... it's about our existence" Christine Herntier, mayor of the German coal town of Spremberg

## 1. The irreversible decline of European coal

In Europe, the transition away from coal started decades ago but remains incomplete. Coal phase-out now seems inevitable for economic and political reasons.

Coal played a historic role as the main fuel of the European economy and the sector where post-war European integration

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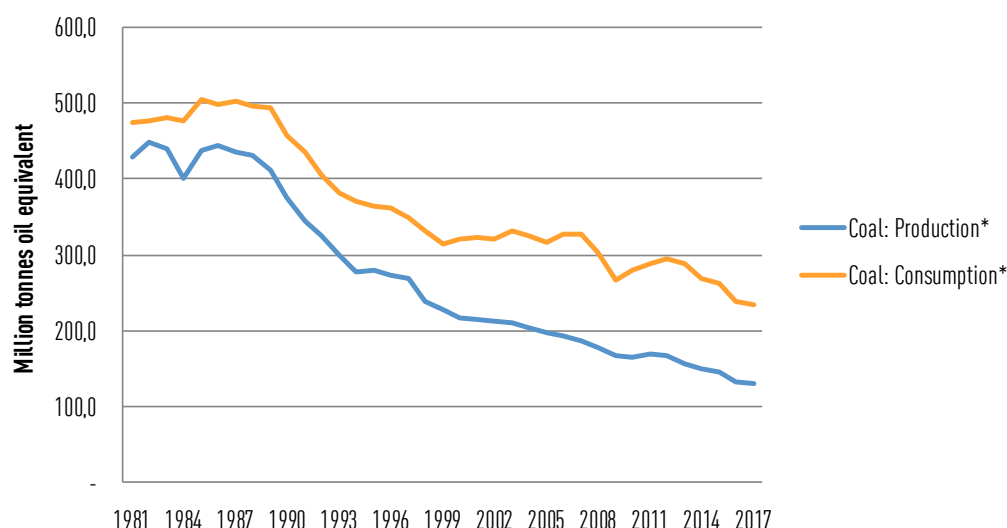
1. Jacques Delors, Sofia Fernandes, Thomas Pellerin-Carlin, 'Europe needs a Social Pact for the Energy Transition', Jacques Delors Institute Policy Brief, January 2018.

politically began with the European Coal and Steel Community. Today, coal remains a key energy source for many economies in the world, including China, India and the US<sup>2</sup>. Nevertheless, in Europe it is facing a significant decline. EU coal production has been divided by three, following a halved demand (cf. graph 1) and the rise of cheaper foreign imports. As a result, European coal mines are massively closing down.<sup>3</sup> The transition away from coal is thus inevitable from an economic perspective.

emissions. At the same time, it is the easiest fossil fuel to replace since we very well know how to massively produce electricity and heat with alternative sources<sup>5</sup>.

A complete phase out of coal is also an unavoidable choice that countries have to make in order to reach their climate objectives, as recalled by the recent French, Dutch, Spanish and German decisions to close down coal power plants by, respectively, 2022, 2029, 2030 and 2038.

**FIGURE 1 ■ European Union Coal Production and Consumption**



The transition away from coal is also necessary to protect Europeans from air pollution and consequences of climate change. Coal greatly contributes to air pollution, which constitutes a serious public health risk leading to 400,000 European premature deaths every year, and placing a significant burden on public health spending<sup>4</sup>. Furthermore, coal represents a quarter of Europe's greenhouse gas

In brief, the question is no longer whether coal will be phased out. It is rather how fast the transition will occur, and whether it will be a disorderly one with disastrous social consequences, or a well-managed one that will improve the quality of life of all Europeans, especially those living in coal regions. It is in this context that the debate about the need for a 'just transition' takes place. This concept is now widely recognised

2. As well as Russia, South Africa, South Korea and Japan. According to the British Petroleum Statistical Review 2018, all those countries consume more than 80 Mtoe of coal, i.e. more than Germany, Europe's biggest coal consumer.

3. Between 2014-2018, 27 out of 128 coal mines closed all across the EU (e.g. in Germany, Poland, Czech Republic, Hungary, Romania, Slovakia, Slovenia and the UK). Source: Alves Dias et al., "EU coal regions: opportunities and challenges ahead". Joint Research Centre Science for Policy Report, Publications Office of the European Union, Luxembourg, 2018.

4. Thomas Pellerin-Carlin, Sofia Fernandes, Eulalia Rubio, Jean-Arnold Vinois, "Making the Energy Transition a European Success: Tackling the Democratic, Innovation, Financial and Social Challenges of the Energy Union", Report No.114, Institut Jacques Delors, 2017

5. Oil is harder to substitute, especially because of its high energy density that makes it particularly well suited as a key energy source for transport and mobility. Nevertheless, solutions exist and innovations are being developed. See Emilie Magdalinski (2019).

in international settings<sup>6</sup>, as well as by the European Commission, which considers that “the [energy] transition must be fair and socially acceptable. Social implications of the process must be at the centre of policies from the outset”<sup>7</sup>.

## 2. Anticipating and dealing with the negative consequences of coal phase-out in Europe

Phasing out coal has important social and political risks that the EU should anticipate, mitigate and address.

Firstly, around 450,000 European jobs are at stake (240,000 direct jobs, including 185,000 in coal mining and 55,000 in electricity production across the EU, together with 215,000 indirect jobs in business outsourcing, logistics and manufacturing sectors<sup>8</sup>). Even though this represents only around 0.2% of all EU jobs<sup>9</sup>, they might be complicated to replace since coal workers have historically enjoyed a number of important benefits, putting greater expectations on any alternative employment<sup>10</sup>. At the same

time, European coal workers are on average older than employees in other industrial sectors, for example two-thirds of German lignite miners are older than 45 years old<sup>11</sup>. Similarly, in 2007 the major group of employees in the EU hard coal sector (26,8%) were between 41 and 45 years old<sup>12</sup>. Therefore, a large percent of coal employees will retire in the near future (e.g. 63% of lignite workers in Germany by 2030), which means that compulsory redundancies can largely be avoided.

Coal jobs are also highly concentrated in the mining regions that already face difficult economic circumstances (see Map n°1). For instance, the German region of Lusatia, being the country's second biggest coal producer, has an unemployment rate twice as high as the national average<sup>13</sup>. In Polish Silesia, youth unemployment reaches a striking 39%<sup>14</sup>. Finally, the Greek Western Macedonia, where most of the jobs are in coal mining and electricity production sectors, rates first among all European regions with highest unemployment in 2017, with its 29% rate across all ages<sup>15</sup>. To make matters worse, high unemployment in coal regions is often accompanied by little

6. According to the United Nations International Labour Organisation, a “just transition” is one that generates strong social consensus and creates decent jobs. Similarly, the Paris Agreement calls on parties to take into account “the imperative of a just transition of the workforce and the creation of decent and quality jobs in accordance with nationally defined development priorities”. Those requirements have more recently been repeated in the Solidarity and Just Transition Silesia Declaration signed at the COP24 in Katowice in 2018. Sources: International Labour Organisation, 3015 “Guidelines for a just transition towards environmentally sustainable economies and societies for all”, 2015

7. European Commission, *Fourth State of the Energy Union*, April 2019

8. Alves Dias et al., “EU coal regions: opportunities and challenges ahead”. Joint Research Centre Science for Policy Report, Publications Office of the European Union, Luxembourg, 2018.

9. Eurostat, 2017, *Labour market and Labour force survey (LFS) statistics*.

10. Coal workers have indeed gained a number of economic and social benefits. For instance, Polish miners benefited from two additional monthly salaries each year, travel subsidies or additional family allowances. It might thus be difficult for them to abandon such benefits if alternative employment is not equally attractive. Source: Aleksander Szpor, “Coal Transition in Poland”, IODRI and Climate Strategies, 2017.

11. Hermann, H et al., «Beschäftigungsentwicklung in der Braunkohlenindustrie: Status quo und Projektion bis 2030», The Institute for Applied Ecology for the Federal Environment Agency (UBA), 2018 (in German only).

12. Koen Rademaekers et al., “An Evaluation Of The Needs For State Aid To The Coal Industry Post 2010”, Report for the European Commission - DG Transport and Energy, Ecorys, 2008.

13. Anja Bierwirth et al., “Phasing-out Coal, Reinventing European Regions - An Analysis of EU Structural Funding in four European Coal Regions”, Wuppertal and Berlin: Wuppertal Institute for Climate, Environment and Energy, 2017.

14. Ibidem

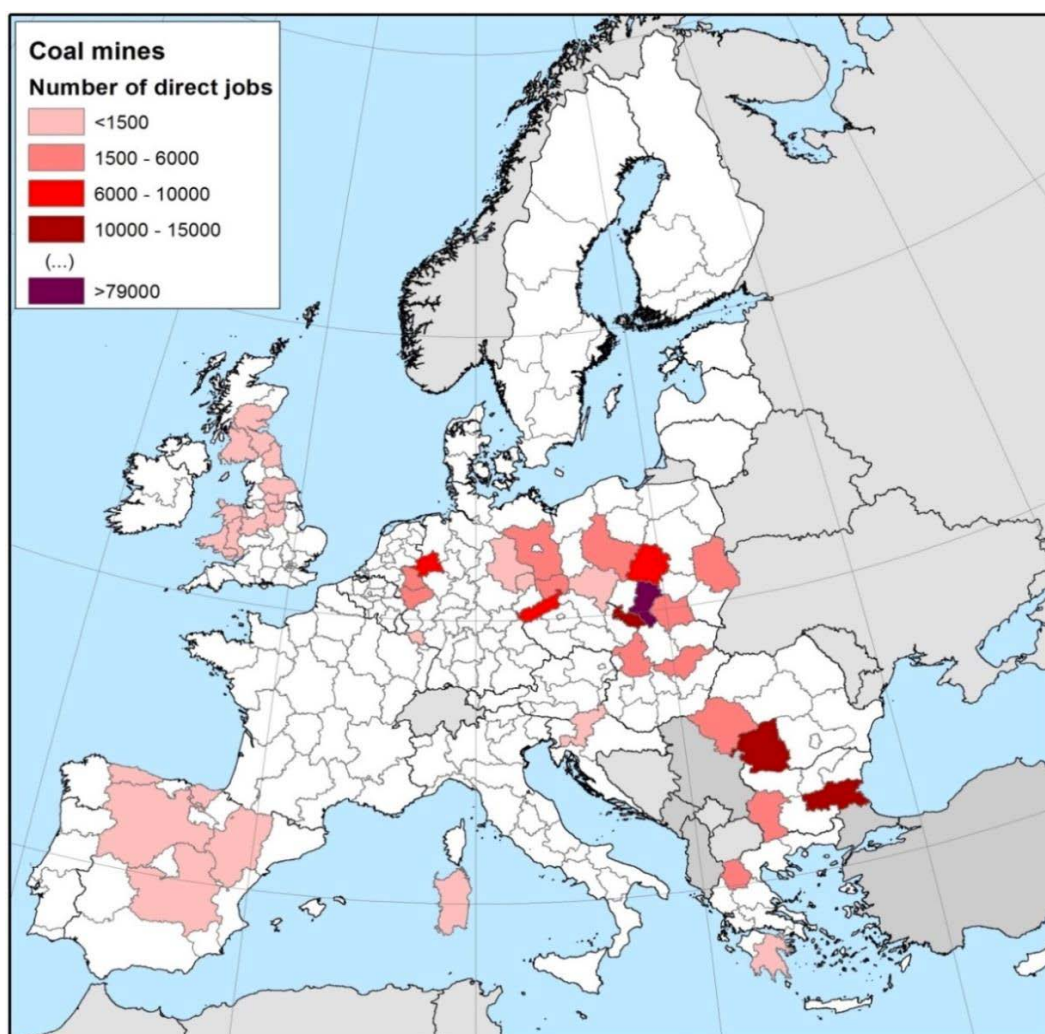
15. Eurostat, “Unemployment statistics at regional level”, 2018.

economic diversification<sup>16</sup>, low productivity and ageing populations. In other words, coal workers are less likely to find another job in their home regions than most European workers. A disorderly and poorly managed coal phase out could strike a hard blow on already fragile territories. And as we have known for decades, poorly managed economic hardship can be a potent fertilizer for anomie and political resentment<sup>17</sup>.

#### MAP 1 ■ COAL MINES NUMBER OF DIRECT JOBS

3 coal regions marked in red on the above map are among those with highest

unemployment rate in Europe [ $\geq 15.2\%$ ] (**Peloponnisos and Dytiki Makedonia in Greece and Castilla-La Mancha in Spain**), 5 others find themselves in the orange category just below [ $9.6-15.1\%$ ] (**Sardegna in Italy, Aragón, Principado de Asturias, Castilla y León and País Vasco in Spain**) and 8 others in the following beige one [ $5.8-9.5\%$ ] (**Yugoiztochen in Bulgaria, Sachsen-Anhalt in Germany, Észak-Magyarország in Hungary, Lubelskie in Poland, Sud-Vest Oltenia in Romania, Stredné Slovensko in Slovakia, Vzhodna Slovenija in Slovenia, Northumberland and Tyne and Wear in the UK**).

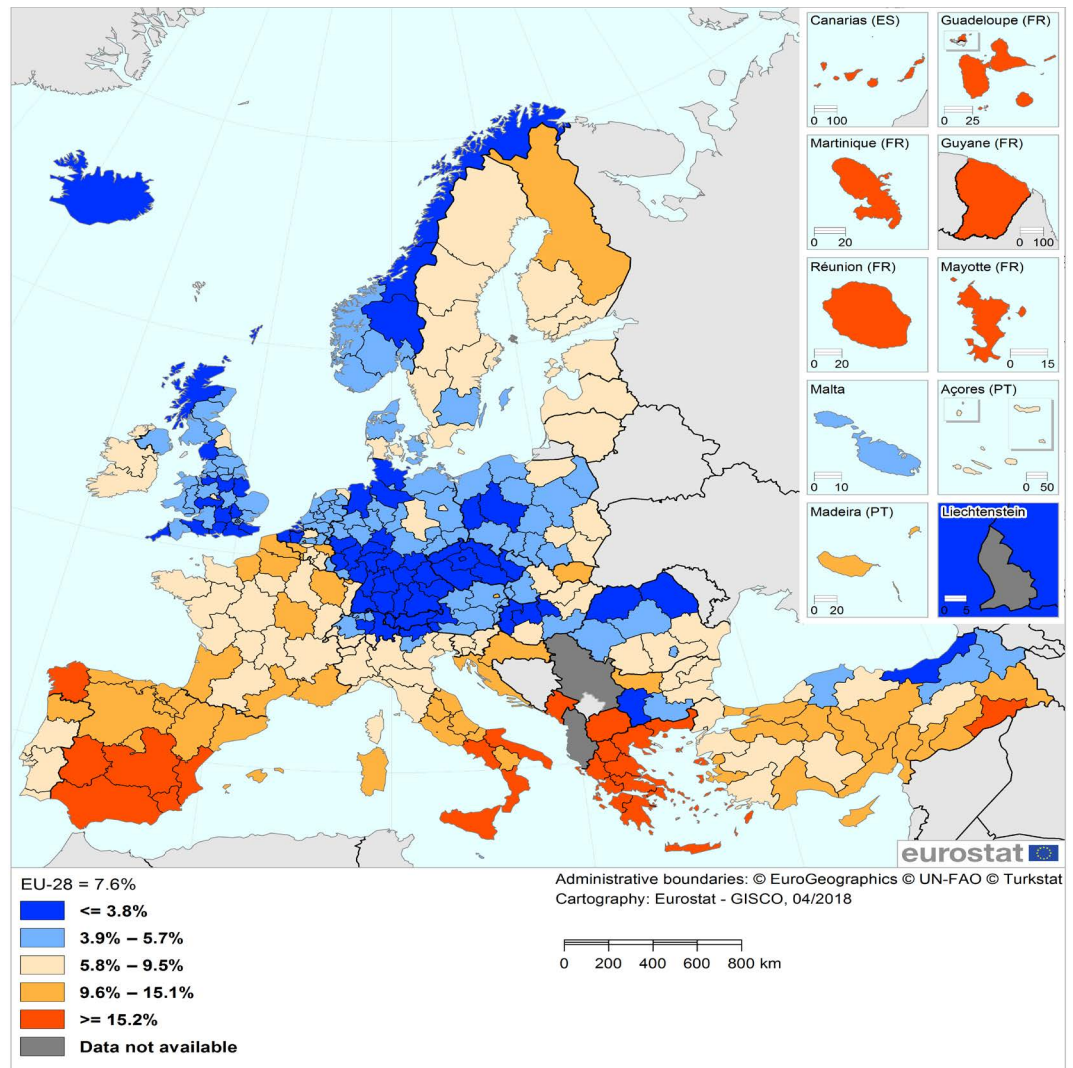


<sup>16</sup>. especially in the lignite mining regions, typically much weaker and more rural than those where hard coal is predominant

<sup>17</sup>. Marie Jahoda, [Paul Lazarsfeld](#) and Hans Zeisel, *Die Arbeitslosen von Marienthal. Ein soziographischer Versuch über die Wirkungen langandauernder Arbeitslosigkeit*, 1933.



MAP 2 ■ UNEMPLOYEMENT RATE, 2017



Secondly, coal workers have a strong political power that can be harnessed to slow down, or even temporarily block, the coal phase-out. They, for instance, successfully pressured the German government to backtrack from the taxation of coal-fired power stations in 2015<sup>18</sup>. This bargaining power builds on the positive image that coal miners have in most EU societies. They are often seen as historical leaders of political battles that transformed European countries into independent democracies, in which all citizens can benefit from the protection of the Welfare States<sup>19</sup>. Coal workers are

furthermore well organised and highly unionised (e.g. in Poland the unionisation rate in various coal sectors ranged between 75% and 113% in 2003, with miners often belonging to more than one union<sup>20</sup>). Making an enemy of them is thus not only doubtful from a moral standpoint, but can also entail an important political risk since workers' and trade unions' support is crucial in achieving a socially fair energy transition.

Nevertheless, even if some past transitions had dire economic, social and political consequences, there are also many cases of

18. Nick Butler, "Germany — decision means the coal industry lives on", Financial Times, 6 July 2015.

19. Timothy Mitchell, Carbon Democracy: Political Power in the Age of Oil, Verso, 2011.

20. Aleksander Szpor, "Coal Transition in Poland", IDDRI and Climate Strategies, 2017

successes. One can think of regions such as the Dutch Limburg<sup>21</sup> or the German Ruhr<sup>22</sup>, which, with active workers' participation, managed to shift from coal and steel-based economy to a knowledge-based one. Those examples illustrate that 'just transition' is not a utopian concept. All past successes share some common characteristics:

1. They all focus on proactive measures, aiming at establishing effective innovation systems and developing alternative, more sustainable industries, providing workers with new job opportunities, instead of only offering them compensation.
2. They all involve active co-operation between national and local authorities, representatives of the industry and trade unions, which ensures public support for the transition and weakens resistance. The most recent example of such an active multi-stakeholder participation in the coal phase-out process is the German Coal Commission (see Box n°1).
3. The EU Coal Regions in Transition Platform (see next section) incorporates both of those characteristics among its objectives.

#### BOX 1 ■ MANAGING A SOCIALLY-FAIR COAL PHASE-OUT IN GERMANY

**The German Commission on Growth, Structural Change and Employment**, more widely known as the Coal Commission was created by the German government on the 6th of June 2018, after the conclusion of a new 'grand coalition' between CDU/CSU and SPD in February 2018. The main objective of its 28 members representing the industry, academia, environmental groups and trade unions was to commonly determine a deadline for the country's transition away from coal.

After eight months of negotiations, it finally announced on the 26th of January 2019 its proposal to plan a gradual phase out of coal and achieve a coal-free Germany by 2038 at the latest. A review in 2032 will decide if the deadline can be brought forward to 2035.

The Commission recommended an investment of €40 billion in transition measures in lignite mining regions over a 20-year period, as well as compensation of up to €2 billion per year for energy users (private and industry) in case of rising energy prices<sup>23</sup>. It is now up to the German government and the states (Länder) to translate the Commission's recommendations into concrete policy and legislation.

The proposed deadline has been criticised by both environmentalists and RWE (Germany's main electricity producer). The former consider that the decision lacks ambition and asked for a phase-out date to be set earlier than 2038<sup>24</sup>. According to the latter, the date has been set too early. The Commission's decision is thus the result of a multi-stakeholder compromise. As such, and despite criticisms from both sides, it has high chances of being honoured by Germany.

<sup>23</sup>. Aleksander Reitzenstein and Rebekka Popp, "The German Coal Commission - A Role Model for Transformative Change?", E3G Briefing Paper, April 2019 Commission on Growth, Structural Change and Employment (2019) Abschlussbericht (only in German)

<sup>24</sup>. Environmental NGO Greenpeace called for a phase-out by 2030, and other environmental groups in the country supported a 2035 deadline. Source: Adam Vaughan, "Germany agrees to end reliance on coal stations by 2038", the Guardian, 26 January 2019.

<sup>21</sup>. Ben Gale, Rick Hölsgens, "Coal Transition in the Netherlands", IDDRI, Climate Strategies and University of Gronigen, 2017

<sup>22</sup>. Béla Galgóczi, "The long and winding road from black to green: Decades of structural change in the Ruhr region", International Journal of Labour Research, Vol.6(2), 2014

### 3. The EU must act to ensure a socially-fair energy transition for Coal Regions

[Lamy quote] “We must not fall into this political imbalance where the EU advocates for a policy that has a social cost, and then leave Member States alone in addressing this cost. This would increase the democratic deficit that is already a problem in our Union” Pascal Lamy [tbc by Pascal Lamy].

Organising Europe’s socially fair coal phase-out requires action from the European Union. As the 41 European coal producing regions are located across 12 member states in Central-Eastern (e.g. Poland, Czech Republic, Romania or Slovakia) Southern (e.g. Greece and Spain), as well as Western Europe (e.g. Germany), the transition is by itself a pan-European problem. It furthermore stems from EU policy choices, notably its international commitments under the Paris Agreement, and those made in the scope of the recently adopted ‘Clean Energy for All Europeans’ package. From both moral and political standpoints, the EU should not promote a policy that is certain to entail major social costs, while leaving Member States and regions alone in addressing them<sup>25</sup>. **The EU must instead be a part of the solution to help States and regions build a sustainable coal-free future for themselves.**

In the past, European structural funds have been often applied in a reactive manner, simply to respond to the already happening changes<sup>26</sup>. The disadvantage of such an approach is that, even though it might prevent severe social disruption (by funding retraining, transfers or early retirements

of workers), it usually is extremely costly and does not address deeper structural challenges<sup>27</sup>.

With coal, the EU opts for a different strategy: develop a proactive approach to prevent future social and economic disruptions, rather than merely respond to their unfolding consequences. In other words, the European Commission tries to combine the so-called ‘sunset policies’, aiming at phasing out coal with the ‘sunrise policies’, leading to the emergence of new economic sectors in coal regions. This is why the European Commission created the Platform on Coal Regions in Transition in November 2016, as a part of the “Clean Energy for All Europeans” package. It is a multi-stakeholder initiative led by the European Commission’s DG Energy, in close cooperation with DG for Regional Policy and the DG for Research and Innovation, supported by the fieldwork of operational country groups and scientific feedback from the Joint Research Centre. One of the main objectives of the Platform is to enable a policy dialogue between a large number of stakeholders (e.g. regional and national authorities, industry representatives, business community, trade unions, academia, NGOs, EC’s and external experts<sup>28</sup>), demonstrated to be crucial in generating support for coal transitions.

Its proactiveness lies in its focus on promoting economic diversification and technology transition through investment in structural transformation, growth and jobs, as well as eco-innovative sectors, rather than only financing compensatory measures for laid-off workers. Furthermore, the Platform has the potential of establishing a multi-level governance framework that the European

<sup>25</sup>. Original quotation from former EU Commissioner and current President Emeritus of the Jacques Delors Institute [Pascal Lamy](#): “so that we do not fall into this political imbalance that EU is advocating for something that has a social cost, and then addressing this is left with the Member States thus increasing this sort of democratic deficit which is already a problem in our Union”. Source: 19 February 2019, Brussels, event on the energy transition co-organised by Bruegel, Jacques Delors Institute and the EU’s Florence School of Regulation. The authors modified this sentence for editing purposes, and with the authorisation of Pascal Lamy.

<sup>26</sup>. Anja Bierwirth et al., “Phasing-out Coal, Reinventing European Regions - An Analysis of EU Structural Funding in four European Coal Regions”, Wuppertal and Berlin: Wuppertal Institute for Climate, Environment and Energy, 2017

<sup>27</sup>. Ibidem

<sup>28</sup>. European Commission, “Platform on Coal and Carbon-Intensive Regions: Terms of Reference”, 2016

energy transition necessitates. Together with EU efforts to ensure a better governance of the Energy Union<sup>29</sup>, the Platform helps build common coherent phase-out policy for all Member States by overseeing and coordinating their national efforts. It also constitutes an opportunity to develop policies fit for the diverging economic and social circumstances of European coal regions by combining bottom-up and top-down approaches.

One of the main added values of the Platform is providing coal regions with expertise that their administrations may lack. This increases the regions' capacity to attract additional funding and to make more and better use of EU Funds. The Platform could also help European coal regions attract more private investments. EU Regional Policy Commissioner, Corina Crețu, recognised that there is currently a lack of high-quality projects that could benefit from financing by the private sector. Owing to their poor quality, projects also frequently record low implementation rates<sup>30</sup>.

Additionally, as suggested by the first insights from the Platform's pilot projects, transition processes are often institutionally fragile and subject to intense political pressures<sup>31</sup>. They come both from national governments, which often partially own coal companies, as well as local authorities which closely cooperate with them, since they constitute an important source of regional public revenues. For instance, the Polish government is the majority owner of the biggest coal firm (Polska Grupa Górnicza), and a significant shareholder in the second biggest company (Jastrzębska Spółka Węglowa)<sup>32</sup>. Such strong entanglement may undermine the transparency and inclusiveness of tendering

processes, with the risk of local authorities granting preferential treatment to coal companies. This requires stricter oversight by relevant EU bodies, including the European Commission, the European Court of Auditors and the European Parliament.

## 4. Conclusion and recommendations

The Coal Regions in Transition Platform is a key example of the change in the way the EU wishes to perform a socially fair energy transition: anticipate and act proactively in a holistic manner with the participation of all relevant players, rather than postpone action and respond reactively with ex-post compensatory payments. The Platform, however, faces important challenges, including the lack of high-quality projects or insufficient inclusiveness of local tendering processes. It is also unknown whether the next European Commission will wish to invest more political and financial capital into this endeavour.

Yet, achieving a socially fair and economically successful energy transition in European coal regions is key not only to decarbonise Europe, but it also constitutes an invaluable opportunity to reinvigorate the European convergence machine and close the currently widening regional divides, which seriously undermine the EU's economic growth prospects<sup>33</sup>.

To make the European coal regions' transition a success, we thus recommend:

<sup>29</sup>. Energy Union Governance Regulation

<sup>30</sup>. Conference: Coal Regions in Transition Platform, 11 December 2017, Strasbourg, France.

<sup>31</sup>. Rebekka Popp et al., "Transformative Change through Innovation: An Analysis of the Role of Innovation in Coal Transition Regions", E3G Report, December 2018

<sup>32</sup>. Anja Bierwirth et al., "Phasing-out Coal, Reinventing European Regions - An Analysis of EU Structural Funding in four European Coal Regions", Wuppertal and Berlin: Wuppertal Institute for Climate, Environment and Energy, 2017

<sup>33</sup>. Cristobal Ridao-Cano and Christian Bodewig, "Growing United: Upgrading Europe's Convergence Machine", World Bank Report on the European Union, 2018



- all EU Member States to adopt the objective to make Europe a climate-neutral economy by 2050, as proposed by the European Commission. This will help to ensure that no one in Europe can deny the necessity of anticipating a coal-phase out. It can furthermore help prevent the current phenomenon where 16-year old trainees are being enrolled into coal jobs that will disappear in the near future<sup>34</sup>.
- the European Commission, Member States and social partners to co-create a European Social Pact for the Energy Transition<sup>35</sup>, in order to achieve a socially-fair energy transition for all Europeans. The Coal Regions in Transition Platform should be embedded into this Pact.
- all EU Member States, including the twelve EU coal mining countries<sup>36</sup>, to push for the creation of a European Energy Transition window within the European Globalisation Adjustment Fund<sup>37</sup> and for an increase of its budget, in order to guarantee that sufficient EU funding is secured for effectively ensuring that not a single coal worker, neither a single coal region is left behind in the transition process;
- that the problem of scarcity of high-quality projects be addressed through the creation of an Advisory Hub within the Platform<sup>38</sup>, similar to the one operating in the scope of the InvestEU strategy, providing expert technical support for “the preparation, development, structuring and implementation of projects”<sup>39</sup>;
- the European Parliament that will be elected on the 26th of May creates a ‘socially-fair energy transition’ intergroup to, among other tasks, closely follow projects conducted in the scope of the Platform and report on them to relevant Parliamentary committees (esp. energy, regions, social affairs, budget). This would also ensure stronger democratic accountability of the process;
- the European Commission to build synergies with other EU initiatives, especially the forthcoming EU R&I Missions. For instance, if the EU decides to implement an R&I Mission to make 100 EU cities carbon-neutral by 2030, it would be very meaningful if several of those cities were located in European coal regions;
- all stakeholders in the coal regions in transition regularly and critically assess the process in order to learn from its successes and shortcomings. This is vital for improving our understanding of how to lead a socially fair transition out of coal, which could serve as a prototype for successfully managing future transformations of other economic sectors impacted by the energy transition (e.g. the automotive industry, and especially the diesel engine value chain).

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34. “Looking for a future in germany’s dying coal industry”, Kalina Oroschakoff, *Politico*, mars 2019

35. Jacques Delors, Sofia Fernandes, Thomas Pellerin-Carlin, ‘Europe needs a Social Pact for the Energy Transition’, Jacques Delors Institute Policy Brief, January 2018

36. i.e. Bulgaria, Czech Republic, Germany, Greece, Hungary, Italy, Poland, Romania, Slovakia, Slovenia, Spain and UK

37. Sofia Fernandes, Justine Daniel, ‘Towards a European Transition Support Fund’, Jacques Delors Institute Policy Paper, October 2018

38. Such Hub could be embedded in, or work with the forthcoming, new [Secretariat for the Coal Regions in Transition Platform](#).

39. European Commission, “EU Budget: InvestEU Programme to support jobs, growth and innovation in Europe”, 6 June 2018