European Commission

Platform for Coal Regions in Transition

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Energy

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Monday 8 April

Platform for Coal Regions in Transition: Plenary I

The plenary session introduced the working group meeting of the Platform for Coal regions in transition. Klaus-Dieter Borchardt, Deputy Director General of the European Commission Directorate-General for Energy (DG ENER) emphasised that the number of project descriptions received is a testimony of the fact that several regions across the EU are actively engaged in this transition process. The new Secretariat of the Platform for Coal Regions in Transition was introduced and its functions were briefly described. The European Commission Directorate-General for Regional and Urban Policy (DG REGIO) and DG ENER then presented their priorities and the funds available for the regions to use. The session was concluded by extending a warm welcome to the new coal regions and members of the Platform from Slovenia, Poland, Ukraine, and Romania.

The dates for the next two platform meetings in Brussels are as follows:

- 15th and 16th July for the 5th Working Group Meeting of the platform
- 15th and 16th October for the 6th Working Group Meeting of the platform

The Annual Political Dialogue will not be Brussels, but in a coal region in transition, which is yet to be confirmed.

Rudolf Niessler, Director of DG REGIO, highlighted that the smart specialisation approach is a key element for realizing economic and social transition in coal regions. Support extended in aiding the transition processes in these coal regions will remain a political priority beyond 2020. DG REGIO recognises the necessity of making funding available and hence, structural financing will be provided for regional transformation on a broad scale, with a total budget of EUR 370 billion. The Commission will focus on funding the activities focused on the diversification of economic activities, skill development, small and medium-sized enterprises (SMEs) and green technology within the context of the energy transition. It will prioritise regions that need to reach a level similar to the rest of Europe in terms of making this transition. Furthermore, the next Cohesion Policy Programme will consider the needs of regions in transition and hence, support the transition by anticipating and managing the consequences of likely structural changes. Though the negotiations for the 2021-2027 fund with the Council and European Parliament are still on-going, there is a structure in place for the future Cohesion Policy framework.

Coal Regions in Transition – recent progress

The Czech RE:START program was presented. This transition is a structural change that requires funding from the EU and the national government, and hence, the respective governments have a large role to play in setting the priorities of the regions in transition. The RE:START program aims to do the following:

- set a framework focusing on the needs of the region;
- combine financing opportunities with concrete measures, and
- foster research and development.

The key messages were as follows:

- infrastructure to support the transition is in many ways lagging behind and there is room for investment (from both the public and private sectors). The government must generate further resources for these regions;
- technology is important for the transition, but it is merely a tool to aid this process; the human factor is the essential driver; and

- the government has reallocated EUR 232 million of the current European Structural and Investment (ESI) funds in favour of enabling coal regions to make this transition

The Czech government encouraged the Platform to visit the region to gain a better understanding of the situation and to discuss specific strategic interventions. The Platform should enable knowledge and data sharing; hence, the Secretariat should stimulate exchanges between the regions including those on good and bad experiences.

Mr Hendrik Fischer, State Secretary of the Ministry of Economic Affairs and Energy, Brandenburg, shared the recommendations of the German Coal Commission, drawn from its recently published report. One of the critical elements is "security planning". Part of the work of this commission is to set up a plan with the following key milestones:

- By 2022, five gigawatts of capacity drawn from brown coal should be taken off the market and the nuclear power plants should be taken off the grid.
- By 2030, another six gigawatts should be taken off the market.
- By 2038, all coal power plants should be decommissioned.

The decommissioning of brown coal power stations is a significant challenge, as it will entail the closure of several mines in Brandenburg that are reliant on the operation of these power plants.

The progress achieved with regard to these milestones will be reviewed in 2023, 2029, and 2032. The reviews will consider the security of energy supply in Germany, the level of employment in the sector, and the price of the energy. To make the transition and exit from coal energy a success, the following will be crucial:

- investing in the extension of the grid and energy storage;
- ensuring coordination between sectors;
- ensuring structural support;
- ensuring growth and stability of the region.

The development of tourism alone will not be sufficient to compensate for the structural changes. Therefore, sufficient investment in these regions is necessary to ensure the development of worker skills as well as research and development. The attractiveness of these regions must be retained after 2038 by creating new economic opportunities and jobs.

To conclude, Mr Fischer explained that a clear roadmap for the exit from coal needs to be established. In addition, public authorities should establish measures that can be taken in the medium and long term and involve local authorities. Finally, it is important to recognize the role that the EU can play in supporting a smooth transition process.

Mr Julian Schorpp, Director European Energy and Climate Policy – Department Energy, Environment, Industry, DIHK - Association of German Chambers of Commerce and Industry presented Germany's coal exit plan and the role of businesses in it. It will be difficult to practically address the priorities of businesses and the proposed coal transition will increase the electricity price in Germany. However, to avoid excessive price increases, the industry recommends compensation mechanisms for electricity consumers and suitable market design. The clean energy package obliges the government to make legal and policy adjustments that should include cost-efficient compensation for the owners of power plants. Mr Schorpp emphasised the importance of the reviews of these milestones in 2023, 2029 and 2032 to ensure the security of energy supply as well as competitiveness. This is essential to achieve the climate targets.

Keynote speeches

Dominique Ristori, Director General, DG ENER, highlighted that DG ENER is working with DG REGIO to ensure a fair transition in the different regions and collaborating to provide new capacities to act and identify new funding. DG ENER's priority is to develop new activities and jobs in coal regions and guarantee access to finance. The Commission is working with 20 pilot regions in eight Member States. It aims to work with 12 Member States and 31 regions concerned with this energy transition. It will work with the Secretariat to identify key projects and help national and regional authorities in this transition. It will also work with the European Investment Bank (EIB), the World Bank, Bloomberg Philanthropies, and the reserve funds on coal and steel. They will open the LIFE program and the Innovative fund to the regions.

Jerzy Buzek, Member of European Parliament and Chair of the Industry, Research and Energy (ITRE) Committee, emphasised the responsibility of the platform Secretariat. He has proposed a dedicated fund for the regions that amounts to EUR 5 billion under the upcoming Multiannual Financial Framework 2021-2027. This proposal has received broad support.

Introduction of the Platform Secretariat

The Secretariat's major role will be to provide support material and tools for all EU coal regions as well as technical assistance in unique circumstances. It will become a one-stop-shop for knowledge on coal and energy transition. The Secretariat will support the development of strategies and projects for structural diversification and technology transition. It will also act as a facilitator. By the end of July 2019, the Secretariat will develop two toolkits based on a study of various good practices. In 2020, the Secretariat will review the different funding sources, reports, and technology solutions. The European Economic and Social Committee (EESC) has also been supporting this approach of the platform since 2016; the EECS envisaged a transition plan for the coal transition and created a group dedicated to this purpose. It is also essential to connect the regions to the international market to aid their development. The Cohesion Policy can integrate these issues, and there is a need for a new package for co-financing the transition and related projects in the future.

Platform newcomers: introduction of new coal regions

The platform newcomers were enthusiastically welcomed to the platform. The representatives of the respective regions included Laura Marine Morillo, advisor of the Ministry of Ecological Transition from Spain; Mr Octav Dan Paxino, State Secretary in the Ministry of European Funds from Romania; Oleksandr Brykalov, Mayor of Mirrhrad, Donetsk region from Ukraine; Katarzyna Tarnowiecka, Deputy Director for Economic and investment promotion, Lower Silesia from Czechia; Maciej Sytek for the Wielkoposka region from Poland; and Leopold Vrankar, Ministry of Infrastructure from Slovenia.

Coal Regions Roundtable

Discussion

- **Chair:** Klaus-Dieter Borchardt, Deputy Director General, DG ENER
- **Co-chairs:** Birgit Urban, Brandenburg Representation to the EU, and Dimitrios Mavromatidis, Western Macedonia Development Fund
- **Moderators:** Robert Pollock and Timon Wehnert, Senior Advisors to the Secretariat of the Platform for Coal Regions in Transition
- **With interventions from:**
    - Witold Stępień, Committee of the Regions
    - Giorgia Rambelli, Covenant of Mayors
    - Christopher Lang, Saxony Liaison Office, presenting the Vanguard Initiative
    - Ricardo González Mantero, Junta de Castilla-y-León, presenting European Federation of Agencies and Regions for Energy and the Environment (FEDARENE)

As the responsibility for the transition process rests largely with the regions in transition, these regions expressed an interest in engaging in dialogue amongst themselves to exchange experiences. Considering this, the goal of this roundtable was to provide a space for coal regions to discuss the potential for creating a network of coal regions in transition at the EU level and to determine the terms of possible future cooperation. The process of establishing such a network can be supported by the European Commission and the Secretariat.

Establishing such a network would help unlock the power of cooperation between regions in order to address issues beyond changing the energy mix and reducing coal usage. It would include designing and implementing economic, social and environmental transition plans for regions. Such a network could become a multiplier for the interests of the regions and provide an opportunity to increase the profile of the participating regions within the larger community.

The participants discussed the roles of the Secretariat in supporting this interregional dialogue. The Secretariat can provide guidance regarding the development of transition strategies and regarding the identification and implementation of projects contributing to the strategies as well as create a central repository of projects and practices. The participants also noted that in addition to learning from good practices, negative experiences and the lessons that can be learnt from them should not be overlooked. The information collection efforts could also be extended to mapping existing networks and providing examples of interregional cooperation on transition. In addition, participants highlighted the need for the discussions of the roundtable to be adequately communicated. The Secretariat's support will be instrumental in ensuring transparency.

This interregional dialogue should avoid duplicating the work undertaken by the Platform as a whole and complement the Secretariat's work programme. Rather, it should become a forum that is for the regions by the regions. Moreover, the interregional dialogue should avoid replicating the efforts of other initiatives. Instead, the regions should cooperate more closely with related initiatives and build on existing structures. For instance, the Committee of Regions invited the coal regions of the Platform to use its structures and processes to organise their collaboration. Representatives from the European Economic and Social Committee also offered support. The Covenant of Mayors expressed its willingness to assist the coal regions network. A representative from FEDARENE offered support with regard to disseminating activities and spreading the platform outcomes.

While the roundtable sessions provided a valuable opportunity for networking for the regions, the participants agreed to deepen their discussions by structuring them around different themes, and regions volunteered to be involved in the next steps.

Conclusions

Further consideration of the potential nature and themes for inter-regional working should be made before the next Working Group meeting. The future network should complement the work of the Platform/Secretariat and other initiatives. Such a network should promote the identification and sharing of good and bad practices, relevant information about regions, project ideas, and views on key operational and strategic themes. Mr Borchardt recommended a pooled approach to inter-regional interaction that promotes collective working and avoids fragmentation of the group/network into multiple sub-groups.

Actions

- In preparation of the upcoming Working Group meetings of the Platform, the co-chairs will further consider the nature and scope of the group/network, with input from the Secretariat and Commission.
- Participants will reflect on topics they wish to discuss.
- The roundtable participants will continue their reflection on how to ensure alignment and cooperation with related initiatives and institutions.

Project Lab: Governance of transition

Discussion

- **Chair:** Peter Berkowitz, Head of Unit, DG REGIO.
- **Moderator:** Rachel Bernice Perks, Mining Specialist, World Bank.
- **Panel participants:**
  - Katja Müller, Wirtschaftsregion Lausitz (Germany)
  - Karel Tichý, Ministry of Regional Development of Czech Republic
  - Fréderic Marquet, Région Hauts-de-France (France), Policy Officer in charge of the programme rev3, Third Industrial Revolution
  - Philip Pearson, Greener Job Alliance, advising organisation to the Yorkshire Just Transition Task Force (United Kingdom)

The issue of governance is key to the successful transition of coal regions in the EU. Indeed, the transition is an all-encompassing process, reaching beyond the simple issue of transitioning away from coal-related activities. For coal regions, where coal is an element of local identity and social cohesion as much as it is the basis for regional growth and jobs, the transition to a low-carbon economy means completely reinventing the region, from not only the economic, but also the social and cultural points of view.

This process requires close cooperation and seamless coordination between all levels of government (national, regional and local) and sectors of the economy (public and private), and a strong involvement of civil society (local communities, non-government organisations (NGOs), trade unions) to ensure not only acceptance but also ownership of the transition.

In this session, several governance models from EU regions at different stages of the transition were presented. The discussions aimed at identifying good practices, existing

shortcomings and ways for fine-tuning current approaches to governance in EU coal regions.

Conclusions

The design of a comprehensive and general roadmap is central to each project. Financial resources are a key issue, and there is a need for support with regard to this. The project should ensure the participation of stakeholders, as the first element of any transition is the engagement of society. Hence, civil society involvement should be representative, as people are reluctant to be part of a regional dynamic that, to some extent, could be impacted by aspects of the political landscape.

National authorities should encourage and support local governments to involve citizens in their approach, e.g., via participatory budgets. It is also important to distinguish environmental NGOs and local stakeholders who might overlap sometimes.

Project Lab: Advanced fuels and circular carbon economy

Discussion

- **Chair and moderator:** Anna Colucci, Head of Unit, DG ENER
- **Project presentations:**
  - Jiu Valley Hydrogen Hub, Dr. Eng Mihai Varlam, General Director of National Research and Development Institute for Cryogenics and Isotopic Technologies Rm Valcea, Romania
  - Hydrogen production from coking coal, President of the Management Board, Daniel Ozon, Jastrzębska Spółka Węglowa S.A. (JSW)
  - KIC Inno Energy support for circular carbon economy projects, Kamil Szydlowski, KIC Inno Energy
  - Electrochaea Power to Gas Technology, Dr. Mich Hein, Founder and CEO of Electrochaea
  - European Network towards a Circular Carbon Economy, Dr. Christian Growitsch, Fraunhofer Institute for Microstructure of Materials and Systems (IMWS)

The Project Lab on Advanced Fuels and Circular Carbon Economy discussed examples of projects in the areas of hydrogen production and CO2 re-utilisation, as well as funding opportunities and networks to support these projects. Participants discussed the challenges with the development and commercialisation of these technologies, particularly with regard to funding and ensuring a suitable market for them. They also discussed funding opportunities and relevant policy frameworks for the deployment of these technologies.

Conclusions

It is important to ensure the environmental impacts of these new technologies, especially if they are supported by public funding, are such that they provide significant climate benefits. Hence, it is necessary to perform life cycle assessments of the new technologies, while focusing on the energy required and the efficiency of the conversion process. The European Commission Directorate-General for Climate Action (DG CLIMA) is looking at how innovative projects will be treated with respect to the EU Emissions Trading System (ETS).

KIC Inno Energy can support innovative projects from start-ups to larger ones via either an equity-sharing or revenue-sharing model. Several other EU programmes offer funding for such projects. However, in addition to this support, coal regions must be able to benefit from appropriate and suitable projects, initiatives, and technologies relevant to their needs and context.

Actions

- In light of the encouraging will to commit from the industry's side, the European Commission will ensure that projects as well the industry get the support they need.
- The European Commission will continue to look into such projects to determine how best to support them. It will also aim to address the needs of specific coal regions.
- The Secretariat will be a one-stop-shop for information on mapping instruments that could be used to provide funding for such projects.

Project Lab: Reskilling and job placement programmes

Discussion

- **Chair:** Peter Berkowitz, Head of Unit, DG REGIO
- **Moderator:** Corinna Zierold, Senior Policy Adviser, IndustriAll
- **Panel participants:**
  - Suzanne Jeffery, Chair of the Campaign against Climate Change Trade Union Group, report 'One Million Climate Jobs'
  - Sebastian Dyjeciński, Marshal's Office of Silesia, project 'Śląskie. Zawodowcy'
  - Zdeněk Karásek, Deputy of the Governor of Moravia-Silesia, project 'Career Consultancy and Lifelong Learning Support'
  - Gareth Lewis, Trade Union Congress Yorkshire and Humber, 'Just Transition' taskforce

This discussion involved reskilling of workers as a precondition to mastering the energy transition in a just way. Cooperation between regions and other actors is essential to adapt the workforce for upcoming changes in the labour market.

The first intervention was by Suzanne Jeffery, Chair of the Campaign against Climate. She focussed on the report 'One Million Climate Jobs', published in 2014 by the organisation. The report highlights the urgency of greenhouse gas (GHG) emissions reduction. It identifies the types of jobs that would contribute to reducing emissions and proposes the concept of "climate jobs".[1] The underlying idea here is to establish a national climate service that will create new public sector jobs. The key areas for job creation are in energy (distribution and use (renewable) sectors), manufacturing, construction and maintenance, domestic buildings, insulation, installation and maintenance of local renewable energy and heating systems, and in the development of public transport systems. Other areas are education and training, as well as waste and agriculture. In conclusion: 1) The transition must be linked to reducing emissions if an urgent just tradition is to be made; 2) Certain jobs can be created that carry with them the pride in contributing to the creation of a

[1] The report is based on the UK context, and it estimates that the creation of climate jobs could cut GHG emissions by 87% in 20 years. According to estimations, six million jobs will be lost globally by 2030 because of climate change, but there is potential for 24 million jobs to be created.

sustainable society; 3) A smooth and effective coordination and a National Climate Service should be established that can be remodelled locally to reskill the labour force.

The second panellist, Sebastian Dyjecinski of the Marshal's Office of Silesia, project 'Slaskie Zawodowcy', presented a vocational training project in the Silesia region, south of Poland. The Slaskie Zawodowcy project, running from 2014–2020 (funded by the EU and other regional funds), was inspired by the decrease in vocational schools due to the partial closure of industrial plants in the 1990s, which led to a fewer people with specific skills. The project links vocational training directly with business needs, effectively boosting the region's labour market. It aims to encourage additional courses, internships, trainings and other learning opportunities for vocational education. A social campaign was launched to raise the programme's awareness and attract potential candidates.

Mr Zdenek Karasek, Deputy of the Governor of Moravia-Silesia, presented a project on 'Career Consultancy and Lifelong Learning Support' in the Moravia-Silesia region in the Czech Republic, outlining its progress in terms of increased employment rates.[2] The program was inspired by a conference in Scotland in the early 2000s based on the reskilling of steel workers, which recommended the development of transferable skills among other points. The Czech program focused mainly on this. Thus, it developed training programs for teachers, pupils, employed and unemployed people. It was funded by the call from the European Commission Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL) in 2009 on Transferability of skills across economic sectors. Overall, the Moravian-Silesian Employment pact includes: Kompas – Observatory of the labour market; Competences 4.0: developing competence pyramids describing necessary skills for current and future labour markets; and Career guidance and lifelong learning.

Mr Gareth Lewis from the Trade Union Congress in Yorkshire and Humber presented the work of the 'Just Transition' taskforce, established in Yorkshire in 2015. Yorkshire has a deep connection with coal mining and steel. Yorkshire no longer produces coal, but its declining steel industry employs almost 9000 people. However, such carbon-intensive jobs can no longer be considered reliable permanent jobs.

He highlighted the example of the last coal mine in the UK, Kellingley colliery, and the lack of consistent government policy on how to properly deal with its closure. This negatively affected the community, and the effects were felt intergenerationally. The Just Transition taskforce therefore aims to ensure a just and fair transition to a green future. The taskforce aims to map the employment transition exposure and adaptive capacity of the Yorkshire and Humber region and to identify key national and regional policy levers.

Conclusions

The importance of forming partnerships, dialogue, proper industrial policy and planning, and the anticipation of skills needed for the transformation must be recognized. There is a need to simultaneously reduce emissions and create jobs and economies in which people are trained, skilled and employed; develop interpersonal skills; and urgently encourage action from trade unions and government despite the possible economic cost.

Project Lab: Energy storage

- **Chair:** Anna Colucci, Head of Unit, DG ENER
- **Moderator:** James Frith, Bloomberg New Energy Finance

[2] In 2004, unemployment in the region reached 20%, whereas according to latest estimates, it is around 5%

- **Project presentations:**
  - James Frith: Lithium-ion batteries
  - Prof. Dr. André Niemann, University of Duisburg: Water Pump Storage Project at Prosper Haniel Coal Mine
  - Kacper Maruszczak, JSW Innowacje: Water Pump Storage Project at Krupinski Coal Mine
  - Charlie Blair, Managing Director, Gravitricity: Energy storage systems
  - Aarne Pérez, Founder, Magellan & Barents: Unconventional Water Pump Storage Project in Asturias
  - Rogelio Peón Menéndez, Energy Technology Director, TSK: Thermal and Cryogenic Storage Projects in Asturias

Discussion

Five examples of energy storage projects using lithium-ion batteries, hydraulic lifting, water pumps and pumps using heavy weights in former coal mines and regions in Germany, Poland, Spain and UK were discussed and two key points emerged.

First, the deployment time of the various projects was discussed. The thermal and cryogenic storage project presented by Rogelio Peón Menéndez can be deployed within 24 months and the unconventional water pump storage project presented by Aarne Pérez can be deployed within 36 months. In contrast, lithium-ion batteries can be deployed within just a few months. Therefore, the competitive advantage of these technologies compared to lithium-ion batteries was questioned.

Second, the costs of the different projects were discussed. According to André Niemann, although underground hydroelectric pump storage is more expensive than conventional solutions, it creates many advantageous synergies. Charlie Blair clarified that since Gravitricity is currently utilizing existing mine shafts to prove the effectiveness of the technology, drilling-related costs will ultimately decrease. However, the costs of the other projects cannot compete with those of lithium-ion batteries. The prices of the batteries have fallen by 85% since 2010, and James Frith predicted they will decrease further.

Given the short deployment time and low cost of lithium-ion batteries, they appeared to be the optimal solution for energy storage. However, several disadvantages emerged. For instance, the prices of the batteries are closely tied to the prices of input commodities, their efficiency decreases when energy is stored over longer periods, and there is a limited amount of lithium available. Several panellists therefore argued that lithium-ion batteries should only be used for vehicles and not for static energy storage.

Conclusions

Due to the new energy storage technologies, coal sites could help reduce the costs of energy storage projects. They should therefore play a key role in ensuring that energy storage is renewable and clean. To reduce the often high up-front investment costs, projects should exploit the knowledge of site operators at the outset, as they have extensive insights into the locations.

Furthermore, although the majority of the presented projects promise to bring new jobs to the respective regions, most are in a provisional state and they require additional funding to overcome the high up-front investment costs. Additionally, although lithium-ion batteries can be deployed at a much quicker pace than other technologies, they present limitations with regard to energy storage over long time periods.

Finally, although several of the projects are currently being deployed in areas with a high population density, they are equally applicable in less populated areas, as mines (almost) always have access to a good grid connection.

Tuesday 9 April

Shaping technical assistance for transition in your region

Discussion

- **Chairs and moderators:** Andrzej Błachowicz, Managing Director of Climate Strategies & Timon Wehnert of Wuppertal Institut, both representing the Platform's Secretariat.
- **Panel participants:**
  - Karel Tichý, Ministry of Regional Development of Czech Republic
  - Hans-Rüdiger Lange, Innovation Region Lusatia, Germany
  - Paul Boutsen, transit_LAB, Belgium
  - Jan Bondurak, Central Mining Institute (GIG), Poland

This brainstorming session sought to identify what support the Platform Secretariat can provide to meet the needs of coal regions in transition. The participants were introduced to the support materials (guidelines, reports and toolkits) that the Secretariat plans to develop, as agreed with the European Commission.

The Secretariat also discussed participants' views of the main challenges in their transition efforts to understand the participants' expectations from the Secretariat. The participants agreed that the most pressing issues are economic diversification, job creation, and energy and technological transition. In this context, an overarching challenge for the regions is that the transition process does not have a defined end. With continuous changes in the regions, the economic structure will have to adapt and the people's role in the regional community will evolve. Another key challenge is depopulation and ageing populations. These need to be specifically addressed in the transition strategies. At the same time, the regional demography serves as an indicator for a successful transition process.

Participants highlighted their interest in obtaining guidance on accessing possible funding, as this was a crucial factor in aiding the transition. EU funds play a central role, but a number of funding sources, including private investments, are also available at the national and regional levels in many countries.

The participants were also interested in obtaining advice on project identification and implementation. They stressed the need for projects to be aligned with regional transition strategies and to have indicators to assess the projects contributions to goals set out in the strategies. Furthermore, they expressed the need for advice on governance issues, such as how to structure inclusive stakeholder engagement processes.

There are several enabling conditions for these transition processes to be meaningfully supported by the Secretariat. First, the transition strategies have to be aligned between the local, regional and national levels. Next, the beneficiaries of the support and funding must be carefully considered, keeping in mind the crucial role of a wider group of actors beyond the affected mining communities. Another important element is the creation of a narrative shared by all involved parties that guides the long-term transition. Finally, the wider economic diversification of the transition beyond the energy sector is crucial to consider.

Conclusions

The Secretariat is expected to act as a facilitator for leveraging available resources, including funding and expertise. The Secretariat can serve as a central point to obtaining good practices and other experiences, with the specific objective of help fill the gaps in practical knowledge that regions might face.

It can also help regions identify and collaborate with regions facing the same challenges and find partners for common projects; provide guidance on communication efforts so that key messages reach the local population; and offer guidance on available funding sources, related programmes and advisory services.

Actions

Based on the outcomes of this session and the feedback from participants, the Secretariat will determine the type of support it can provide. It will present its support services in more detail at the upcoming Platform Working Group meetings.

Project Lab: Reclamation and re-purposing

Discussion

- **Chair:** Peter Berkowitz, Head of Unit, DG REGIO
- **Moderator:** Luc Christiaensen, Senior Economist, World Bank Africa Region, World Bank
- **Project presentations**
  - Planeta Petrila - a post-mining community regeneration project, Mihai Danciu, architect, Assistant Professor, Timisoara Polytechnic University;
  - Mining pit and Collieries reclamation project in Moravia Silesia, Eva Spasovová, Project Manager
  - Environmental solutions in former coal mines of Endesa in Spain, Pedro Iglesia, Director, Carbunion
  - Revitilisation of Krupinski Coal Mine in Silesia, Poland, Jacek Srokowski, President, JSW Innovations
  - Novihum Lignite-to-Soil Improvement for recultivation of soils of old depleted mines, Dr. Rolf Nagel, Managing Partner, Munich Venture Partners.

The Project Lab on Reclamation and Re-purposing showcased a number of examples of coal mine site reclamation and re-purposing projects. Presentations included examples from Romania (the transformation of a former mining site into a cultural hotspot in the Jiu Valley), the Czech Republic (reclamation projects for two mining sites in Moravia and Czech Silesia), Spain (the restoration of four former mining sites by a mining company) and Poland (the revitalisation of a mining site in Polish Silesia). The fifth presentation, delivered by Dr. Rolf Nagel, introduced a technology that could help in the recultivation of soils from former mining sites by using lignite to create rich top soil.

Conclusions

Ownership was highlighted as an important consideration in such projects. This is especially important in cases where the developers are private owners, but they often overestimate the value of the area, while municipalities often underestimate the potential of the area. It

is also important in cases where coal companies carry out reclamation activities in accordance with legal requirements, but revitalisation and re-purposing ("after-use") of the area are often outside their remit. There is also need for more partnerships between the private and the public sector to ensure a good future for the area. This would also help define and meet socio-economic objectives for the area, with a focus on securing employment for former mining employees and the wider community.

Project Lab: Sustainable heating

Discussion

- **Chair:** Hervé Martin, Head of Unit, DG RTD
- **Moderator:** Meredith Annex, Bloomberg New Energy Finance
- **Panel participants:**
  - Carsten Rothballer, ICLEI, presenting projects THERMOS and Keep Warm;
  - Jan Bondaruk, Central Mining Institute (GIG), presenting coal mine water heating solutions in Poland;
  - Antonín Tym, Institute of Hydrogeology, Engineering Geology and Applied Geophysics, Charles University (Prague), presenting a project on geothermal heating in Litomerice (Czech Republic)
  - Kurt Schetelig, IHS, presenting a GrEEN project in Aachen

This session focused on how coal mines and the related heat and power plants can be adapted, upgraded or replaced with other heating solutions to decarbonize central district heating systems in European coal regions. The need to enhance focus on sustainable heating and cooling was highlighted, as heating and cooling in buildings and industries accounts for 50% of the EU's annual energy consumption and several countries represented by the panellists use coal for almost 50% of their district heating needs.

Both Antonín Tym and Jan Bondaruk, who presented projects on harnessing the geothermal potential of former coal mines, emphasized the importance of feasibility studies to confirm the geological profile of the location and thus, the possible energy output before projects are started. Since this initial process requires high upfront investments with limited knowledge of the actual output, the projects generally involve high risks. Carsten Rothballer proposed several tools to cut costs on the feasibility studies, which often account for 80% of all project costs. These include the Pan-European Thermal Atlas, the Thermal Energy Resource Modelling and Optimisation System (THERMOS) project and the KeepWarm project.

The discussion highlighted how the end-costs for users must be determined keeping in mind that the transition is both a technical and social issue. Participants from the Slovakian coal regions in transition highlighted that end-consumers are highly sensitive to changing heat prices, and that these must be kept at a minimum. However, Antonín Tym, Carsten Rothballer and a representative of the European Local Energy Assistance (ELENA) initiative argued that the discussion should not solely be on the end-price, since several social costs such as bad air quality are not reflected in current prices.

Conclusions

The technologies needed to decarbonize the heating/cooling sector are already on the market today. However, in several countries, exemplified by the Netherlands where gas is

the main source of heating, the banking sector is not prepared to invest in heat pumps and geothermal drilling technologies. To tackle this issue, it was agreed that better communication between the public and private sector is needed in order to make the benefits of the new technologies clear.

In addition, it is important to take an integrated and holistic approach to decarbonize the heating/cooling sector. For instance, in order to account for the higher end-prices for users, more focus should be put on increasing energy efficiency in households and creating new jobs.

Actions

- Communication is needed to inform local residents about the fact that numerous social costs such as air quality are not reflected in current energy prices. The public sector should play a leading role in initiating this dialogue.
- Communication between the public and private sector should be improved to ensure the benefits of system understandable for investors. To increase funding opportunities for sustainable heating projects, an increased understanding on how to size the projects to make them eligible for funding is needed.
- Increased focus must be placed on how to utilize the excess heat currently wasted.
- The European Commission should develop a set of good practices for the collection of reliable data with the aim of optimizing the feasibility studies, as a lot of time in projects is spent on data collection.

Observations/sensitivities

Johan Carlson from the Joint Research Center in the Netherlands informed the participants that a report from the initiative of different EU funding sources for energy efficiency and sustainable heating/cooling has recently been published alongside another report on how to combine different funding systems.

Plenary session II

- **Chairs:** Klaus-Dieter Borchardt, Deputy Director General, DG ENER; Hervé Martin, Head of Unit, DG RTD

Discussion

In this session, the moderators of each breakout session reported to the Plenary.

Actions

- A call will soon be sent out to provide opportunities for technical assistance. It was emphasized that the projects must be very precise on the exact nature of technical expertise needed.
- A link to a survey will be sent out, requesting feedback on the 4th Working Group.

LIFE Programme and funding opportunities

Discussion

Mr Angelo Salsi, Head of Unit for the Executive Agency for Small and Medium-sized Enterprises (EASME), discussed the LIFE programme, running since 1992, and its evolution, including providing finance for projects focused not only on the environment, but also on climate and energy. He spoke about the flexibility this programme offers in terms of time, budget and theme.

Mrs Maja Mikosinska, Head of Sector, LIFE Nature Biodiversity, presented an overview of the mechanics of accessing LIFE's funding opportunities and stressed that there are multiple funding opportunities under the LIFE programme for everyone, as long as their objective is related to environmental and natural benefits or climate action. Generally, LIFE is divided in two sub-programmes: Climate Action and Environment. In each sub-programme, there are different types of projects – integrated and traditional. Integrated projects are aimed at the implementation of specific plans and strategies (for example – air quality, greenhouse gas mitigation strategies, urban action plans, etc.). They are typically implemented at large territorial scales (at least five cities). Full engagement of all stakeholders is required in order to mobilise significant additional sources of funding to further support the implementation of the ambitious EU environment and climate policy framework. Stakeholder engagement is one of the pillars of evaluation; therefore, it is very important to map out all the actors that play a role in the implementation of a plan. On average, the co-financing grade is 10 million (coming from the European Commission), so an integrated project can received funding of 15-20 million; therefore, mobilisation of other funding is crucial.

Conclusions

The deadlines for calls for proposals was announced and participants were invited to take part in the LIFE Info days organised by the European Commission across the EU Member States along with a general LIFE info day, during which interested stakeholders can speak with representatives of the Commission. This event will take place on 30 April in Brussels.

Update on EU projects supporting transition in coal regions

Discussion

Mr Brian Rickets, Secretary General at Euracoal – the European Association for Coal and Lignite – on the COAL2051 project (funded by the Research Fund for Coal and Steel), introduced the organization, encompassing 26 members from 15 countries, including several non-European countries (i.e., Turkey, Ukraine). Their task involves monitoring coal market policy and research. The Coal Tech 2051 project aims to establish a network of coal researchers, in which the research agenda is set by understanding future needs. The project involves renowned partners in coal research (i.e., International Energy Agency (IEA) Clean Coal Centre).

The objective of coal research needs to shift such that it is in line with the priority of preservation of national resources. Mr Rickets discussed Carbon Capture and Storage (CCS) technology and presented the Boundary Dam coal power plant in Canada as an example of a successful project implementing this technology.

He outlined several recommendations and key research topics to be pursued as part of a coherent response to the climate challenge in an international context:

- Unification of stakeholders on a strategic support programme, managed by the Research Fund for Coal and Steel;
- Gasification of coal and waste at the forefront of recycling in new products;
- Targeted support for technologies with global impact; EU efforts alone are not sufficient and hence, contributions from its partners are vital.

He concluded with an invitation to the 9th International Conference on Clean Coal Technologies from 3–9 June 2019. A Q&A session followed, in which the audience voiced concerns about the cost-effectiveness of the CCS technology.

Dr Rainer Janssen, Managing Director Projects, WIP Renewable Energies, presented a second project, TRACER – Transition in Coal-Intensive Regions, which aims to coordinate and support the transitioning regions. It will run from April 2019 to March 2022, with a budget of EUR 2 million. It includes 15 partners and its objectives are as follows:

- Assist regional actors in developing R&I strategies for Smart specialisation;
- Identify and exchange "best practices";
- Investigate social challenges in the target regions, including re-skilling needs;
- Guide regional actors on access to European funds and programmes and on how to leverage additional national public and private co-financing.

TRACER targets nine regions and more than half of them are actively involved in the platform. Dr Janssen presented the project's core activities, which include:

- mobilisation of a wide range of stakeholders in the nine regions to discuss and agree on a shared vision and priorities for coal transition;
- joint development of nine regional R&I strategies;
- elaboration of best practices;
- assessment of social environmental and technological challenges;
- elaboration of guidelines on how to mobilise investment;
- fostering R&I cooperation.

The presentation was closed by announcing the TRACER kick-off event on 14-16 May in Brandenburg, Germany.

Additional resources

Presentations

- Monday 8 April
- Tuesday 9 April

Videos

Monday 8 April

- Plenary
- Coal Regions Roundtable

Tuesday 9 April

- Shaping technical assistance for transition in your region
- LIFE Programme and funding opportunities / Update on EU projects supporting transition in coal regions

Authors

Edited by Luc Fischer and Alicia Ramos based on the notes of rapporteurs Luc Fischer, Amélie Girad, Jenny Kurwan, Barbara Oberc, Ida Tange and Romina Vateva.

The presenters were not consulted on the content of this report.


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