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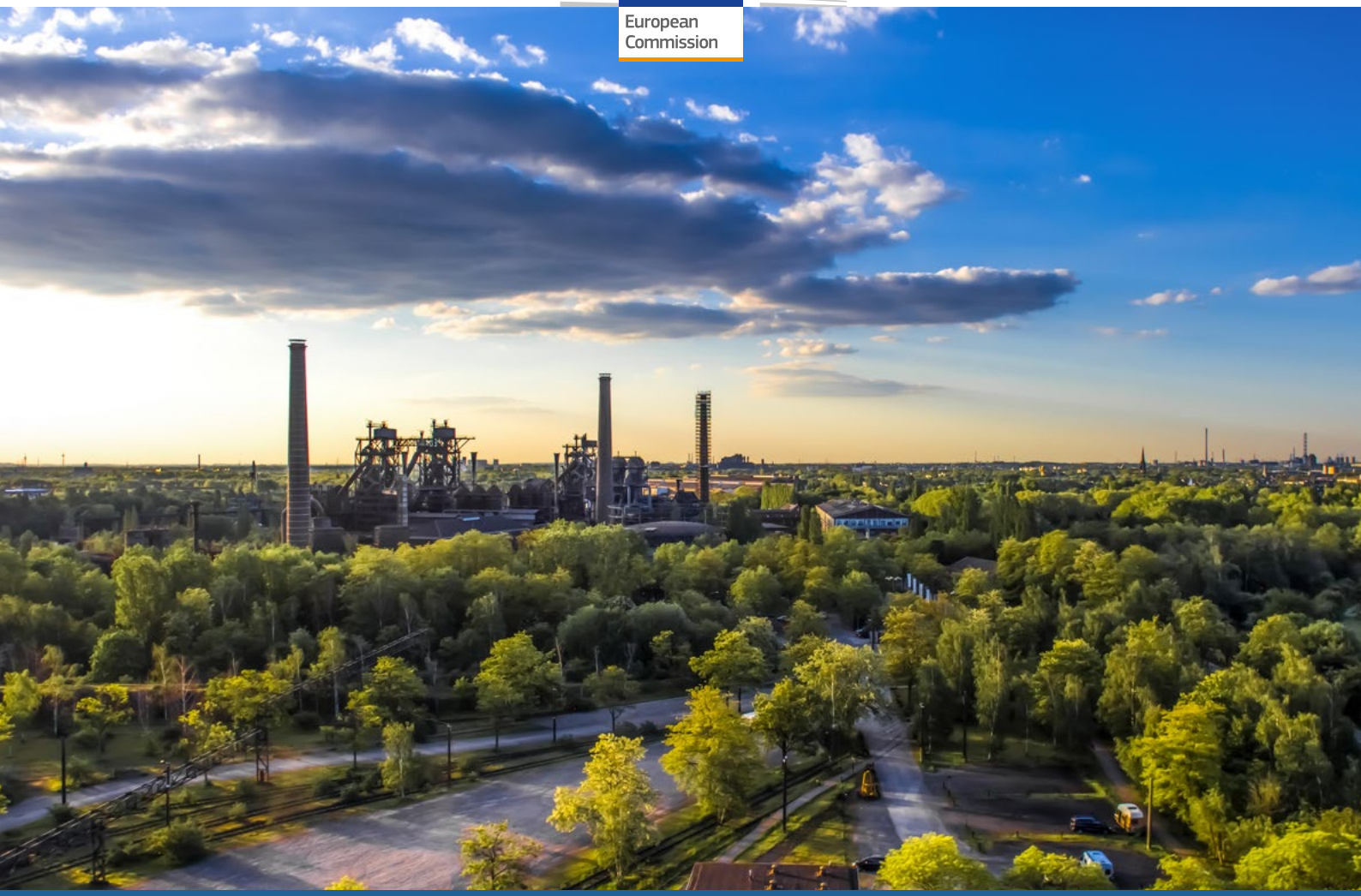

Coal Regions in Transition virtual week November 2020

Reference document

Energy

Monday 16 November 2020 (13:30.17:30)

Current outlook of the Coal Regions in Transition Initiative

Updates on the Initiative (13:30-14:15)

Catharina Sikow-Magny, Director for Internal Energy Market, DG ENER, European Commission1;

María Belarmina Díaz Aguado, Director-General of Energy, Mining and Reactivation, Regional Ministry of Industry, Employment and Economic Development, Government of Asturias, Spain;

Nicola de Michelis, Director for Smart and Sustainable Growth and Programme Implementation IV, DG REGIO, European Commission;

Andrea Gentili, Acting-Head of Unit, Low Emission Future Industries, DG RTD, European Commission.

Day 1 of the Coal Regions in Transition Virtual Week was opened by Catharina Sikow-Magny, Director for Internal Energy Market, at DG Energy (ENER)1. In her presentation, Ms Sikow-Magny gave an update on recent EU policy developments and progress under the initiative for coal regions in transition. She stressed that the Secretariat for the initiative continues to provide services to coal, peat, and oil shale regions, with plans to resume physical meetings as soon as circumstances allow. She then welcomed the two newcomers to the initiative - Małopolska (Poland) and Stara Zagora (Bulgaria). With an outlook to 2021, she announced plans for the establishment of an exchange programme for coal regions, and the creation of a dedicated coal regions in transition initiative for the Western Balkans and Ukraine. With regards to key EU policy developments, Ms Sikow-Magny presented the ongoing work on the EU Recovery instruments, the upgrade of climate targets by 2030 and the Commission's work on the future EU energy system (e.g. strategy on hydrogen, Renovation Wave programme, energy system integration).

Next, María Belarmina Díaz Aguado, representing the Government of Asturias (Spain), introduced a video on the ongoing transformation of Asturias from the perspective of its people, including local industry actors and the civil society. In this context, Ms Aguado expressed her hope to soon welcome the participants in the initiative during the next annual political dialogue meeting, which was originally scheduled for December 2020 in Asturias, but has been postponed due to the COVID-19 pandemic.

Nicola De Michelis from DG Regional and Urban Policy (REGIO) elaborated on the Commission instruments' set up to address the asymmetric regional effects of the transition to a carbon-neutral economy. EUR 17.5 billion is made available under the Just Transition Fund (JTF), the first pillar of the Just Transition Mechanism (JTM) and implemented in line with cohesion policy and Next Generation EU. Mr De Michelis emphasised the need for efficiency and effectiveness in the use of available funds, with a long-term perspective in mind. He concluded with an appeal to Member States that their Territorial Just Transition Plans (TJTPs), unlocking available funds, are developed promptly to ensure implementation in 2021.

Andrea Gentili from DG Research and Innovation (RTD) gave an overview of the negotiations on the legal changes to the Research Fund for Coal and Steel (RFCS). Among the envisioned changes is the requirement for all new projects to be in line with the European Green Deal. Negotiations on the new legal basis of the RFCS are expected to conclude in Q1 of 2021, with the next call for applications commencing in mid-2021. Finally, Mr Gentili shared plans to support coal regions in transition under the RFCS next year, through research activities in the coal sector and related technologies, conforming to the principles of the Just Transition Mechanism.

Poll

The audience was asked to participate in a live poll with two questions:

- Which topics would you like us to feature in the agenda of our next meeting?
- Is there a specific country/region you would like to hear from in the next meeting – either a newcomer or a region that already presented?

The poll results showed that the majority of people want to learn about future developments of the Just Transition Fund and hear more good practice examples from the EU and beyond. With regards to the second question, the most mentioned countries and regions included Germany, Stara Zagora (Bulgaria), Upper Silesia (Poland), and Asturias (Spain).

Q&A (14:15-14:45)

Relating to the Just Transition Fund, it was indicated that the degree of involvement of local authorities depends on a Member State's institutional and constitutional arrangement. However, strong cooperation is needed between the local, regional, and national levels to ensure a just transition and thus, stakeholder consultation is strongly advised. Further clarifications were provided related to the Territorial Just Transition Plans, namely, that the plans can cover one or more regions, but should be kept flexible and simple, and remain targeted at communities that are most affected by the transition. The Plans can contain concrete project ideas which would help a rapid implementation

1 Since the Coal Regions in Transition Virtual Week in November 2020, Ms Catharina Sikow-Magny has become Director for Green Transition and Energy System Integration, DG ENER, European Commission.

once funds are available, though this is not mandatory. Member States must prepare Territorial Just Transition Plans that identify and justify the selected territories and set out specific types of operations to be funded at territory-specific levels, i.e. NUTS3 level or lower.

On a question related to the types of projects eligible for funding, reference was made to the Article 4 of the EU Regulation on the Just Transition Fund, which lists activities that are eligible for funding. Projects should address the socio-economic consequences of the transition through, for example, upskilling and reskilling of the affected workforce and investments in the deployment of technology and infrastructures for affordable clean energy, greenhouse gas emission reduction, energy efficiency and renewable energy. The selection of projects will be defined by regional specificities and the regional vision of their transition. It was noted that there is no preference over private or state-owned projects, though state aid rules will apply to the latter and that the Just Transition Fund is open to EU Member States only.

On the Research Fund for Coal and Steel (RFCS), Mr Gentili reiterated that the fund is in line with the European Commission's objectives. All selected projects within the new legal basis of the RFCS must be compatible with the European Green Deal. For example, funding could be used to retrofit a coal-fired power plant with Carbon Capture and Storage, though only if in light of a phase-out of the plant, not to address elements of competitiveness. For projects proposed under the previous RFCS legal base, a bridging element to the new legal basis has been introduced earlier in 2020, alignment with parts of the European Green Deal needs to be demonstrated. For ongoing projects, selected three years ago, their progress is being monitored by European Commission's experts.

Presentation of the newcomers in the initiative (15:00-16:00)

Piotr Łyczko, Deputy Director of the Department of Environment, Marshal's Office of the Małopolska Region, Poland;

Ina Lazarova, Deputy CEO, Bulgarian Energy Holding and Momchil Vanov, CFO, Bulgarian Energy Holding, Bulgaria.

Piotr Łyczko from the Marshal's Office of the Małopolska Region (Poland) opened the presentation on the energy transition in Małopolska with an overview of the region's profile, including geographic characteristics and information on the coal mining and power plants. The region's energy transformation began in the 1990s through to the 2000s. Today, some 8,900 workers are employed in the region's mining sector and related industries. Mr Łyczko stressed that the further restructuring of the coal mining in Małopolska is directly linked to the strategic decisions at the national level and the government's mine restructuring plan. Simultaneously, Małopolska has become the first Polish region to limit the use of coal for household heating by adopting a solid fuel ban in the town of Kraków in September 2019. The region also adopted a Regional Action Plan for Climate and Energy in 2020 that envisions the mobilisation of public and private funds to support a low-carbon transition. In partnership between the local governments and companies in the Western Małopolska sub-region, 60 project concepts have been prepared with a total budget of over €700 million. Finally, Mr Łyczko presented the structure of the recently established Just Transition Working Group for the Małopolska region, which brings together a wide range of stakeholders, including industry, trade unions, and NGOs.

Ina Lazarova and Momchil Vanov from the Bulgarian Energy Holding (BEH) presented the region of Stara Zagora (Bulgaria). Ms Lazarova began by elaborating the importance of the region, which is known as the "energy heart" of Bulgaria. The Maritsa East (Energy) Complex, located near the town of Stara Zagora, is the largest energy complex in South East Europe, hosting the country's biggest lignite mines, four thermal power plants, and a briquette plant. Data on the mining trends showed that the annual coal production is around 30 million tonnes of lignite with reserves for up to 60 more years. An overview of Bulgaria's electricity sector indicated 30% of the total installed generation capacity is coal-based. He then elaborated on the social and economic importance of Maritsa East Complex, with 13,000 people directly and almost twice as many indirectly employed as a major challenge to the implementation of the European Green Deal and expected negative effects on regional employment. On the national level, risks for the competitiveness of the Bulgarian economy were stressed, due to the significant costs of decarbonization and the risk of carbon leakage. Mr Vanov concluded by outlining project ideas for a carbon capture and storage facility by retrofitting the thermal power plants in the Maritsa East Complex and building a pipeline for CO2 transport to suitable storage areas in Northern Bulgaria. A second project idea is to transform the Maritsa East Complex into a hydrogen production site.

Q&A

In the Q&A session, Mr Vanov from BEH elaborated on the expected negative employment effects of decarbonisation in the Stara Zagora region by pointing to the many businesses part of the supply chain of the Maritsa East Complex. In this context, Mr Vanov highlighted the difficulty of coming up with a transition plan quickly. The Stara Zagora region will thus rely heavily on the advisory services that the Commission can provide for the preparation of the TJTP. In a follow-up question on the involvement of local authorities, Mr Vanov said that all relevant stakeholders will be involved and stressed the need for a mutual agreement

among the parties (e.g. trade unions, government, etc.) in taking decisions on the transition. Currently, the government's plan is to extend the operational life of the coal capacities for as long as possible, while considering future options for retrofitting of the power plants and the use of alternative fuels.

On the coal phase-out timeline of Małopolska, Mr Łyczko answered that the decision lies with the national-level authorities, which are currently working on restructuring plans with currently no date set for the coal phase-out in Małopolska.

Presentation of national cases (16:00-17:00)

Antonios Kailis, Just Transition Development Plan, Greece

Mr Kailis presented the Greek plan for the energy transition of the lignite areas of Western Macedonia and Megalopolis. The National Energy and Climate Plan for Greece commits to phase-out coal in the power sector by 2028, with most of the coal-fired capacity to be decommissioned by 2023. The focus of the plan is to support the transition of the local economies and employment while minimising the social and environmental impacts. A governance committee for coal phase-out, comprising four ministries, set up a steering committee with regional representatives, the public power company, and public labour management organisation. The vision for the regions is based on five principles: a focus on labour-intensive industries, better use of the regions intrinsic advantages, speedy transition with a focus on quick wins, promotion of social and environmental sustainability, and integration of modern technologies. These principles guide regional development towards clean energy, smart energy, sustainable tourism, industry and trade, and technology and education. Western Macedonia expressed interest in 11 major projects in these thematic areas, which are estimated to mobilise around €2 billion, including €1.5 billion in clean energy. Similarly, Megalopolis is in the process of modernizing its energy and industrial profile, while utilising its natural advantages. Finally, 15 incentives have been devised, grouped into three categories, to attract innovative production processes and maintain existing operations (e.g., through grants for investments in innovation) and to support individuals (e.g., through income tax deduction).

Laura Martín Murillo, Director, Just Transition Institute, Ministry for the Ecological Transition and the Demographic Challenge, Spain

Ms Murillo elaborated on Spain's commitment to achieve climate neutrality by 2050 with an intermediate target of 39% decrease in greenhouse gas emissions by 2030. Spain has developed a Just Transition Strategy, which contains an action plan for regions with coal mining and power plant closures. To implement the Strategy, just transition agreements will be signed between the State, the affected regions and municipalities, and stakeholders such as companies, trade unions and NGOs. Furthermore, the Climate Change and Energy Transition Bill, also includes a title on just transition, which obliges the authorities to conduct mid-term evaluations of the Just Transition Strategy every five years.

Next, Ms Murillo explained the institutional arrangements in place for the implementation of relevant policies on just transition, including the Just Transition Institute at the national level. Among the first achievements of the Institute is the launch of a green hydrogen plan and a storage roadmap with priority for projects in just transition areas. Spain has managed to close most of its coal mines by the end of 2018, while many of the coal-fired power plants are set to close in 2020. The objective is that there will be a zero social and employment impact on the affected areas, through the Just Transition Strategy and the accompanying just transition agreements.

Ms Murillo provided details on the just transition agreements, which would involve all levels of administration and other relevant stakeholders, such as industry and NGOs. In the first step, a protocol, defining the geographical scope of a given just transition area, will be signed between the national, regional and local administrations. The second step envisions a full diagnostics document, providing details on the socio-economic conditions of the given area and identifying challenges and opportunities. In a third step, a stakeholder consultation will be organised that envisions the involvement of trade unions, industry, academia, and civil society, who will be invited to submit their ideas for projects and initiatives. Analysis and evaluation of the project ideas follows based on maturity, viability, the needs and other criteria in order to identify possible financial support. Based on this, a priority list of projects will be compiled. Ms Murillo shared that work on the just transition agreements has already started in 12 mining areas with ten already being in the analysis and evaluation phase and two at the stakeholder consultation phase. In total, there have been more than 1,800 project ideas from over 500 actors submitted so far.

To conclude Ms Murillo highlighted that just transition in Spain has been put in the focus of the strategic work of the government through the creation of the Just Transition Institute and relevant legislation.

Raphael L'Hoest, Deputy Director General, Competition and Structural Policy, Federal Ministry for Economic Affairs and Energy, Germany

In the context of the German coal phase-out, Mr L'Hoest presented the Act on the Phase-out of Coal-fired Power Plants and the Structural Strengthening Act for Coal Regions.

The Act on the Phase-out of Coal fired Power Plants details the German federal government plan of shutting down coal-fired power plants. The Act, in force since 14 August 2020, contains provisions on the phase-out of electricity generation from hard coal and lignite by 2038 at the latest, the continuous review of security of supply, an authorisation to compensate electricity consumers in the event of an electricity price increase due to the coal phase-out, and an adjustment allowance for older employees in the coal sector. For hard coal, a two-stage phase-out schedule has been devised, the first running until 2030, and the second running from 2031 until 2038. For hard coal in the power sector, a reduction target is set, and power plant operators are invited to bid downward for compensation of the early retirement of their respective plants. From 2031, there will be no incentives to nudge plant retirement by 2030. Furthermore, if the targeted reduction will not be achieved by the auction from 2024, a legal reduction will take place instead. For lignite, the voluntary scheme is replaced by legal regulations on mandatory decommissioning dates and a public law contract with the power plant operators, including a compensation - which is currently pending approval of the Bundestag and the European Commission under state aid rules.

The Structural Strengthening Act for Coal Regions aims to provide structural aid for the affected regions. It comprises two main pillars, namely (i) The Coal Region Investment Act which offers up to €14 billion in financial transfers to Länder (four federal states affected) and communities until 2038, and (ii) Federal projects, i.e., up to €26 billion to be spent on transport infrastructure, relocation of federal agencies, research institutions (e.g., Fraunhofer, DLR) and research programmes. Additionally, among other measures, €1 billion will be made available to selected communities, a federal program will be launched to finance non-investment spending e.g. for capacity building in the coal regions, and every three years a scientific evaluation progress will be undertaken.

Q&A (17:00-17:30)

Six questions were selected among those submitted by the participants and asked to the panellists.

Asked whether gas would be used as a transitional energy source, Mr Kailis pointed out that, aside its climate commitments, the Greek government must guarantee an uninterrupted supply of electricity in the context of a stringent phase-out plan for coal, a duty he expects natural gas to fulfil. Despite no set phase-out date for natural gas, he underlined that the Greek strategy considers natural gas as a transitional energy source during further investments in clean energy.

Ms Murillo indicated that, due to the suddenness of the 2018 bankruptcies of Spanish coal mines, providing an adequate support scheme for companies in terms of restoration and reskilling the affected workforce had been difficult. Nonetheless, a service to accompany workers in their quest for a new career path has been put in place, including support for the decommissioning and restoration of coal sites and power stations.

Regarding the German federal government's development of a transition strategy for the regions, Mr L'Hoest said the aim is to adopt a bottom-up approach whilst providing regions with support and monitoring. He supported setting up a clear path based on regional comparative advantages. This was backed by Ms Murillo, who indicated that the Spanish Just Transition Strategy and Just Transition Fund put a targeted focus on local effects, be they direct or indirectly related to the closure of mines.

Mr L'Hoest indicated that plans to coordinate national and EU Just Transition funds, where up to €40 billion are made available under the German Structural Strengthening Act, are still under discussion. In Spain, Ms Murillo indicated that the geographic and thematic scope might be extended with the EU Just Transition Fund, to capture that which was not included in the national transition strategy. She further believes that, having worked on a first transition plan, Spain is now better equipped to develop its transition strategy for the EU Just Transition Mechanism.

Tuesday 17 November (10:30-12:30)

Parallel session 1: Just transition in the Western Balkans and Ukraine – a new initiative for coal regions in the EU's close neighbourhood

Introduction (10:30-10:40)

Jasmina Trhulj, Head of Electricity Unit, Energy Community Secretariat

The first parallel session of Day 2 was opened by Jasmina Trhulj from the Energy Community Secretariat who introduced the new Initiative for Coal Regions in Transition in the Western Balkans and Ukraine. She provided an overview of the fossil fuel landscape in the area, explaining that over 70% of CO2 emissions in the countries originated from the energy sector, dominated by coal power plants. Jasmina Truhulj informed the audience that the first steps for coal phase out were already underway, but that more action was needed to avoid carbon leakage from the EU and ensure that citizens would not bear the costs for transition.

Snapshot on Ukraine (10:40-11:10)

Valentyna Moskalenko, Regional Policy Adviser to the Prime Minister, Ukraine

Ivan Lukeria, Ministry for Communities and Territorial Development, Ukraine

Andrii Zalivskiy, Mayor of Chervonohrad, Ukraine

Andrii Silych, Mayor of Vuhledar, Ukraine and representative of the Donetsk Coal Town Platform in the Ukraine National Coordination Centre for the Transformation of Coal Regions

To explain Ukraine's current state of transition, Regional Policy Adviser to the Ukrainian Prime Minister, Valentyna Moskalenko, presented the ongoing activities of the Ukrainian government and the ministries involved in the transition process (Ministry for Communities and Territorial Development, Ministry of Energy, Ministry for Finance etc.). She explained that just transition activities (e.g. training trips for mayors of coal towns) already started in Spring 2020 and that good cooperation with international partners and a coordination centre for exchanges between central, regional and local authorities have been established.

This was echoed by Ivan Lukeria from the Ukrainian Ministry for Communities and Territorial Development who underlined that after decades of postponement, energy transition was now a top issue on the political agenda. He explained the main foci of transition - job creation for redundant workers, economic diversification and new sources of income for highly dependent local authorities – as the local budget of some communities is currently up to 70% reliable on taxes paid from coal mines and power plants. Ivan Lukeria underlined the most pertinent actions, namely the attraction of investments into infrastructure (industry and scientific parks) and human capital, the diversification of local economies and social protection of former miners and their families. Ukraine's aims to provide sustainable funding from the central government, to which the EU and Germany have already provided input and best practices.

Next, Mayors from two Ukrainian municipalities - one from the West and one from the East of Ukraine -explained the current situation in the coal regions. Representing the town of Chervonohrad, Andrii Zalivskiy showed how local communities were preparing for the energy transition. In his municipality with 800.000 inhabitants, 8.000 coal miners are still employed in seven operating coal mines which make up half of the town's tax income. Andrii Zalivskiy presented the economic and environmental challenges to which his town is exposed to and some ideas for the future of Chervonohrad, which borders Poland, as a touristic and industrial hub.

The Mayor of Vuhledar, Andrii Silych, underlined the importance of economic diversification and intermunicipal cooperation. The Donetsk Coal Town Platform was established in 2019 and brings together seven Ukrainian coal mining towns. Though it has already brought forward some success (common project concepts, public awareness and governmental support), Andrii Silych noted some major challenges for just transition remain. Currently the platform is preparing a Joint Transformation Strategy which is expected to launch in Summer 2021.

Roundtable discussion on the new initiative for coal regions in Transition in the Western Balkans and Ukraine (11:10-12:30)

Anna Sobczak, Policy Coordinator for coal regions in transition in the framework of EU Green Deal, DG ENER, European Commission;

Andrea Liverani, Program Leader for Infrastructure and Social Development, World Bank;

Sumeet Manchanda, Associate Director and Lead, EU & Bilateral Green Finance, Energy Efficiency and Climate Change, EBRD;

Marek Tabor, Head of Office, College of Europe-Natolin, Poland;

Artur Lorkowski, Deputy President of the Management Board, National Fund for Environmental Protection and Water Management, Poland.

The roundtable discussion focused on the individual components of the new initiative, which Anna Sobczak from DG ENER launched with a comprehensive overview followed by the policy context for the area (EU-Ukraine/EU-Western Balkans dialogues on Green Deal). The Initiative for Coal Regions in Transition in the Western Balkans and Ukraine is to be seen as the sister initiative for EU Initiative for Coal Regions in Transition. Apart from the European Commission, it includes five partners (World Bank, EBRD, Energy Community Secretariat, College of Europe-Natolin, and the Polish National Fund for Environmental Protection and Water Management) and is made up of five components:

- An open platform for a region-wide, multi-stakeholder dialogue to share experiences, knowledge and good practices on transition-related issues;
- Twinnings and exchanges on transition-related issues between the EU, the Western Balkans and Ukraine;
- An academy on transition-related issues, providing trainings for governance, community engagement, environmental reclamation, repurposing of land and assets for relevant stakeholders;
- Technical assistance (expert support) to pilot regions to develop transition roadmaps;
- Guidance on finance for transition projects and programmes.

A secretariat to orchestrate these activities will be launched in 2021. Its main tasks will be to identify the main stakeholders of energy transition, and to manage and engage these in the process through a comprehensive communication plan. It will organise multiple events (3 platform meetings, minimum 6 local workshops, up to 3 academy meetings, trainings and capacity building events) and design and implement the twinning exchange programme between the EU and Ukrainian and Western Balkan coal regions.

Andrea Liverani from the World Bank underlined the opportunities this initiative provides for Western Balkan and Ukrainian coal regions. The number, diversity and quality of stakeholders and institutions involved will bring together the most up to date knowledge on energy transition and facilitate the necessary dialogue to overcome the challenges. The initiative sets an example for cross-boundary initiatives, supporting the neighbouring countries towards carbon neutrality.

Sumeet Manchanda from the EBRD added that the EBRD will take a matchmaker role and support the initiative, particularly in the provision of access to funding for projects. With experience gathered through the EBRD's internal Just Transition Initiativeand overall in the funding for projects in the field of green transition, they will develop eligibility criteria, a template for submitting project ideas and also support the other four initiative components.

The College of Europe-Natolin, represented by Marek Tabor, will mostly be active in the design and delivery of tailored educational programmes to a variety of stakeholders (local and regional governments, community leaders, trade unions, social partners, business community, NGOs, etc.). Due to the ongoing pandemic, this will initially focus on online tools and will be built along four blocks:

- E-learning courses following various themes of transition with practical and pragmatic support for stakeholders;
- A digital forum to foster online interaction among learners and with teachers;
- An online repository of reports, analysis, and strategy papers related to energy transition;
- A repository of video material (lectures, conferences, webinars, interviews) related to coal transition.

Finally, Artur Lorkowski from the National Fund for Environmental Protection and Water Management, confirmed the support of Polish counterparts throughout the initiative. As the institution was involved in Poland's green transition that commenced 30 years ago, it will ensure a knowledge exchange between Western Balkan and Ukrainian coal communities and those facing the same challenges in the EU, particularly Poland.

Q&A and concluding remarks (12:30)

In the brief Q&A session, partners of the new initiative clarified their roles and target groups. It was again emphasised that all stakeholder groups (including civil

society partners) have been included in the design of the initiative and will continue to play a role in future developments. Finally, participants were urged to stay tuned through DG ENERs communication and social media channels and were invited to join the official launch event of the initiative on 10/11 December 2020.

Parallel session 2: Discussing the future hydrogen economy: opportunities for Coal Regions in Transition

Welcome and introduction (10:30-10:40)

The second parallel session of Day 2 was facilitated by Carsten Rothballer and Timon Wehnert from the Secretariat of the Initiative for Coal Regions in Transition. They welcomed the 170 participants and shared the results of a poll conducted during event registration indicating that 75% of participants were optimistic about hydrogen providing significant employment in coal regions.

Timon Wehnert contextualised the discussion by explaining that the share of hydrogen varies based on different scenarios. There is uncertainty around how much hydrogen will be used in the energy transition but, in spite of this uncertainty, Timon Wehnert made optimistic forecasts, foreseeing an increase in the role of hydrogen in the coming years. Transport, power and industry sectors could, potentially, benefit of hydrogen but the biggest variable will remain the costs of its realisation.

Presentation of the EU hydrogen strategy and implication for Coal regions (10:40-10:55)

Ruud Kempener, Policy Officer at DG ENER, European Commission, shared that Europe is a front-runner in the development of hydrogen but competition, mainly from China, is rising - by 2050, hydrogen could make up to 10% of EU energy mix, though it could increase in importance. Next to hydrogen, many pieces will define the future EU energy mix: digitalization, consumer activation, switching gas into electricity, transforming electricity into gases and more. He added that a hydrogen strategy needs to take a whole value chain approach and pointed to the opportunity to shift from fossil-based hydrogen to renewable energy-based hydrogen, especially for heavy industry and transport.

Value chain for hydrogen, infrastructure, clean hydrogen: the opportunities ahead (11:10-11:50)

Hans-Joachim Polk, Member of the Executive Board at VNG AG;

Mara Bubberman, Advisor EU Public Affairs Advisor - Northern Netherlands Region;

Marc Rechter, Co-Founder and CEO at Resilient Group;

Jakub Przyborowicz from ENTSO-G.

Speakers from regions across Europe shared their experience vis-à-vis novel hydrogen projects. Hans-Joachim Polk, Member of the Executive Board at VNG AG, shared that Saxony-Anhalt and Saxony are developing a hydrogen strategy focussed on the specifics of a region with a strong chemical industry. The Bad Lauchstädt Energy park has potential to contribute to the energy transition with a reduction in CO2 emissions, storage of renewable energy and linking sectors such as mobility, chemical industry and urban energy suppliers. He added that the regional challenges on hydrogen could be addressed by creating incentives for the use of green hydrogen, establishing a regulatory playing field for electrolysers and implementing a regulatory framework for H2 transport. In terms of employment, he underscored that Saxony-Anhalt and Saxony have all the available skills within the region thanks to an established chemical industry, universities and research centres.

Mara Bubberman, Advisor EU Public Affairs Advisor - Northern Netherlands Region, introduced the challenges of the Northern Netherlands. The region has a legacy of energy production and its economy has been dependent on it for decades. She indicated that without any action, up to 20,000 jobs are threatened in the region. She noted that hydrogen can support in maintaining the socio-economic level in the region. She also introduced participants to HEAVEN, the first Hydrogen Valley of Europe, a dedicated area that contains the full value chain of hydrogen, including energy generation, storage, heating, transport and mobility.

Marc Rechter, Co-Founder and CEO at Resilient Group, highlighted the importance for Europe to link supply and demand areas. He sees hydrogen as a potential driver for jobs, energy security and investments. He mentioned the 'systems of systems' approach, by which it is identified how different systems work together, looking at efficiency and economy as well as synergies in cross-domain impacts. The focus on costs needs to be broadened towards the potentials and gains that hydrogen can bring to European regions in the medium and long term, especially through social and economic impacts.

Finally, Jakub Przyborowicz from ENTSO-G covered the integration of hydrogen with existing natural gas infrastructure. The presenter mentioned that there is infrastructure being developed now with ongoing projects and added that the infrastructure for natural gas can be adapted for hydrogen. He pointed to business models testing and operating schemes within regulatory sandboxes which need to make available spaces to experiment.

Poll and interactive discussion (11:50-12:25)

The audience was asked to participate in a live poll with three key questions:

- Where do you think skills and knowledge are most needed?
- Participants saw innovation and private companies as two key sectors in building regional skills.
- What kind of jobs would hydrogen bring to coal regions?
- The answers to this question were quite varied, but engineers, technicians, and qualified/skilled workers stood out.

Asked about the factors to consider when repurposing existing infrastructure, Mr Rechter replied that a key point is investment efficiency and attracting more investment into the regions, especially where the energy industry is declining. He pointed to the possibility of repurposing existing infrastructure to be used for other types of energy, (natural) gas infrastructure being the clearest when adapting to green hydrogen. He added that, for the private sector, a level of creativity is required to monetise infrastructures to make this happen.

On adequate timing for hydrogen investment, Ruud Kempener replied that, whilst hydrogen is important and a focus of the EC, it should not be a singular strategy, but part of the general aim to decarbonise, including renewables, energy efficiency and electrification, among others. There is considerable CO2 production using hydrogen which means that there is a big CO2 reduction opportunity, where the focus should remain first. He underlined the need to support strategies that aim to reduce emissions in a commercially viable manner by 2030, as today, renewable hydrogen remains more expensive than fossil-based hydrogen.

Participants asked how regions could be guided to identify their renewable energy potential to support green hydrogen. The EC sees an increase in renewable electricity consumption, though a 20% increase in renewable energy is required to achieve a transition from fossil to renewable hydrogen consumption.

Concluding remarks (12:25-12:30)

Timon Wehnert concluded by pointing out today's situation was still complex with need for more research. He introduced the upcoming toolkit for practitioners which will look at technologies and other coal infrastructure. His takeaway was that every region needs to assess its potential for green hydrogen individually as pathways will vary, and every region will have to do their due research on the topic.

Carsten Rothballer added that any region interested in hydrogen needs to invest in renewables and local potential, as green hydrogen must be up-scaled to gain competitiveness in the market.

Wednesday 18 June 2020 (10:30-12:00)

Updates from the Secretariat and voices from the regions

Welcome and introduction (10:30-10:40)

Robert Pollock, Secretariat of the Initiative for Coal Regions in Transition

Mr Pollock opened by giving an update on the Secretariat of the Initiative for Coal Regions in Transition. The initiative covers 31 regions in 11 countries. The initiative has now officially taken on board peat regions, including in Ireland and Finland, as well as oil shale regions in Estonia. He informed participants that a lot of work has progressed as part of the initiative, including the initiative Coal Regions in Transition in the Western Balkans and Ukraine, which is building momentum. Further, the Secretariat is expected to begin working on twinning and exchange programs in the coming months. Two toolkits, on technology options for coal regions and financial instruments for coal regions will be published in 2021. This will be in addition to the four published toolkits on transition strategies, governance transition, sustainable employment and welfare support, and environmental rehabilitation and repurposing. Webinars on several of these topics have been made available on the European Commission Directorate-General for Energy YouTube channel; two more will be released in 2021 (to be notified, you can subscribe here). A number of case studies on transitions have also been published.

Updates from START (10:40-10:55)

Paul Baker, Secretariat the Initiative for Coal Regions in Transition

Mr Baker provided an update on the activities of the Secretariat's Technical Assistance to Regions in Transition (START). The program opened for calls in 2019 which led to the selection of seven regions, five of which had been visited by March 2020. Visits came to a stop temporarily due to the ongoing pandemic, and there has been a revision on the modalities through which assistance is being provided. The technical assistance focuses on strategy development, governance issues, project identification, project selection and development, working with local administrations, and the like. Each region receives between 50 to 120 days of technical support. The seven regions covered are Asturias (Spain), Midlands (Ireland), Karlovy Vary (Czech Republic), Małopolska and Silesia (both Poland), Megalopolis/Peloponnese (Greece) and the Jiu Valley in the Hunedoara county (Romania). The regions are diverse and at different stages in their path to phase-out coal. Thus, different types of assistance have been requested, from a focus on strategy development to project identification and development.

In the Midlands, the focus was set on an engagement process including an open call for projects, receiving 156 replies. The assistance also included the provision of a targeted employment and skills report together with a pathway to transition plan for the affected region, a document mapping transition in the short- and long-term through aspects of consensus building, resource allocation, and progress monitoring, among others.

For the Karlovy Vary region, a thematic analysis covering good practices for regional transition strategies, employment creation and skill requirements, and renewable energy options is ongoing. Subsequently, a strategy review will be undertaken to provide recommendations and a sub-regional action plan for transition for the Sokolov sub-region.

For Asturias, ongoing activities include the development of an energy strategy aligned with EU technology and policy priorities, and project selection and validation, based on a methodology that has been developed, too. This will be followed by a project assessment and presentation.

Work has also begun for the region of Małopolska, where the focus lies on project selection and prioritisation criteria as well as the alignment with EU just transition and energy policies. A formulation of roadmaps for project development will follow.

START support activities will be initiated in the regions of Jiu Valley, Silesia, and Megalopolis by the end of 2020.

Update from trilateral cooperation (10:55-11:10)

Karel Tichý, Project Manager, Economic and Social Council of the Ústí Region, Czechia

Mr Tichý introduced the trilateral cooperation, involving the Czech Republic, Germany, and Poland. He discussed how the regions from the three Member States have several commonalities, from a historical perspective to challenges that are lying ahead to envisioned development plans, which provide ideal conditions to join forces. The cooperation mutually agreed on a set of priorities, including the revitalisation of coal mines and the development of alternative energy sources whilst also securing energy security. Other fields of possible cooperation include climate change adaptation of post-coal mining landscapes, development of projects related to education, healthcare and balneology, tourism, and smart mobility. Examples of new transition projects developed in the interregional cooperation include the LIFE WATERSOLAR, a clean energy demonstration project entailing floating solar parks in the Ústí Region (Czech Republic). The aim was to develop innovative approaches to the production of electricity from clean, renewable sources and its storage in the form of green hydrogen, all the while re-purposing the post-mining

landscape. The group met in Dresden and Görlitz early in November 2019.

Katja Müller, Head of Unit Economic Development, Europastadt GörlitzZgorzelec GmbH for Economic Development, Marketing and Tourism, Germany

Ms Müller presented a project that emerged from the trilateral cooperation, undertaken by the German town of Görlitz and the Polish town of Zgorzelec. The project will lead to a reduction of more than 75,000 tons of CO2 emissions per year by converting to climate-neutral district heating generation. Connecting both districts heating networks across the border and using a common generation plant minimises investment costs and generates synergy effects, which in turn leads to fewer costs in heating for the final user. On 9 July 2020, the mayors of the two cities signed a letter of intent for a climate-neutral district heating supply for Görlitz-Zgorzelec. The total cost of investment for this project is estimated to be at €82 million. This means that the project can only be realised with financial support, over 80% in German part, and 100% in Polish part, requiring strong political support from Germany, Poland, and the EU.

Aleksandra Szwaja, Economy Department, Marshal's Office of Lower Silesia, Poland

Ms Szwaja presented another project that emerged from the trilateral cooperation, known as "A Life with Mining" Project (MineLife). The objective of the project, based on knowledge and experience exchange, was to intensify and strengthen cooperation between mining institutions in Poland and Saxony, and between mining institutions and citizens in the Saxon-Lower Silesian border area. The project partners include the Saxonian Upper Mining Authority (Freiberg, Germany), the State Mining Authority (Katowice, Poland), and the Marshal's Office of Lower Silesia (Wrocław, Poland). The implementation period ran from 2017 to 2020. Tasks of this projects included a joint competency development through, e.g., conferences and field trips, the development and application of a conflict management strategy, culminating in the redaction of a handbook on conflict management in mining, and to shed light on the importance of mining in Saxony and Lower Silesia through, among others, guest lectures.

Regional transition success stories and good practices: lessons learned (11:10-12:00)

Steve Fothergill, Centre for Regional Economic and Social Research, Sheffield Hallam University on the UK coal transition experience

Mr Fothergill began by providing background information on the coal industry - at its peak, around 100 years ago, the UK coal industry employed 1.1 million people, extracting around 290 million tonnes of coal per year from 3,000 mines. Even in the 1980s, there were still a quarter of a million people employed in the sector, though the last coal mine closed in 2015. This means that the UK has acquired a vast amount of experience in this field. The UK transition away from coal was not driven by a green agenda, but by technical changes and commercial pressure (e.g., imports of cheaper coal). According to Mr Fothergill six major lessons can be drawn from the UK experience:

- Opposition from the labour sector is to be expected; in the UK, the biggest industrial dispute since WWII was that of coal miners.
- Redundancies can be managed sensitively; although in practice the UK did not always do that, given that the UK coal mines were State-run, they were shut down progressively over several years and workers wishing to keep working in the industry were offered to relocate to active mines.
- The blow to the local economy is cross-generational and socio-economic effects persist; the major issue remaining is void of employment opportunities that the post-miner generation do face.
- There is no single "silver bullet" to address the transition but several solutions that need to be worked on concurrently.
- Geographical context matters: some former mining areas in Britain have regenerated more successfully than others. Typically, this has been the case for mines located centrally within the UK, with good connectivity to other economic areas of the country and the available land for alternative development. Mining areas in the north and peripherical regions often lacked such advantages.
- Regeneration of former mining areas is a cross-generational endeavour. In the UK, this has been ongoing since the 1930s.

Ilka Cirkel, Dept. of European and Regional Networks, Ruhr/North-Rhine Westphalia on the Ruhr coal transition experience

Ms Cirkel presented a new form of cooperation of mining sites in the Ruhr region, where all actors share the common task of developing the mining sites, but took on individual responsibilities. The German federal state North-Rhine Westphalia is responsible for planning and financing, the mining company for reconstruction, cities on planning framing, permissions, and participation, and the Ruhr Regional Association on moderation. The transition process can be dated back to the 2007 "Konzept Ruhr", a strategy for sustainable urban and regional development in the metropolitan area of the Ruhr. Starting this early was fortunate, given that the following year, the German federal government announced the termination of subsidies for hard coal mining in Germany as of 2018. This gave the region sufficient time to plan the future of the region. In

2008, the regional agreement "Chance for Change" in the Ruhr region was launched, focusing on mine sites. It took six more years, i.e., until 2014, to reach the "Mining Site Contract". During these years, Mining Site Contract negotiations were undertaken to reach a common ground for 20 sites. Consensual quality criteria were sustainable re-use, important for urban development, stabilising social structures, creating jobs by economic use, and reducing land use. Mr Cirkel shared advice to start the process informally and formalise it a later stage when appropriate, which in her experience took several years. The initiative includes a steering committee made of all contracting partners who meet annually to report on every site. Closing her presentation, Ms Crikel reminded the audience that the transition is a very long process that requires sustained public funding which, in turn, will attract private investments.

Zdenek Karasek, Moravia-Silesia Deputy Governor for Coal Regions in Transition and the Just Transition Mechanism, Czech Republic on the Moravia-Silesia coal transition experience

Mr Karasek presented updates on the transition of the Moravian region, Czech Republic. Since 2016, the region has participated in the Strategic management of transformation (RESTART), covering the Moravian-Silesia region and two areas in the region of Bohemia. The region of Moravia-Silesia joined the Platform for Coal Regions in Transition (CRIT) in 2018. In September 2020, the Czech government decided a closure of all remaining hard coal mines by 2021, pushing a just transition into focus. Around 8,500 people were employed in the coal mines in 2019 (4,000 of which were miners), expected to decline to just 650 by 2022. Overall, over 20,000 people are employed in sectors connected to the coal industry. Under Czech law, the coal mines will be transferred to the State enterprise DIAMO. A working group was set up in recent months, including the regional government, municipalities, and DIAMO. However, the regional transition process began in the 1990s and saw the production of coal dropping from 16.1 million tonnes in 2000 to 3.7 million tonnes in 2019. In parallel, new economic sectors emerged, such as the automotive and ICT sectors, which now employ over 14,200 individuals. The number of people employed in Research and Development has also doubled since 2005. Other success stories include the building of a super-computer, the conversion of some former steel facilities into a tourist attraction, and other forms of territorial restructuring. The transition has further led to improvements in air quality. The region is now looking into new clean energy sources, e.g., hydrogen from renewable energy. As part of the MSR Regional Development Strategy 2019-2027, Mr Karasek remarked two indicators, namely reduction of local emigration and image improvement. The region is preparing for new funding opportunities, including those under the Just Transition Mechanism and the Modernisation Fund.

Dimitris Tsekeris, Energy Policy Officer, WWF Greece on the Western Macedonia and Megalopolis coal transition experience

Mr Tsekeris presented the European Climate Financing Initiative (Europäische Klimaschutzinitiative, EUKI), a project financing instrument of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Part of the initiative included the solutions to create sustainable jobs in coal communities in Greece, Bulgaria, and Poland. WWF Germany, WWF Greece, WWF Poland, and WWF Bulgaria participated in the initative.

The Greek coal phase-out strategy foresees a shut-down of existing power plants by 2023, while those currently under construction, notably the Ptolemais 5, will shut down by 2028. Under the revised Greek National Energy and Climate Plan, there was a strengthening of Greece's ambitions to reduce its greenhouse gas emissions, namely by 42% instead of 32%. However, natural gas will be used as the main replacement for coal, which is problematic vis-à-vis the achievement of climate neutrality by 2050. Mr Tsekeris reminded the most recent studies carried out by WWF Greece includes the study, 'Just Transition & Employment in Greece', published on 10 November 2020. It emerged that, the jobs of 2,200 workers are directly affected, while 6,600 are without an adequate safety net due to a cascade effect. Furthermore, for each € divested from coal, €3.1 and €1.7 are going to be deducted from the local economy in Western Macedonia and Megalopolis, respectively. The study also pointed out that the role of Greek Public Power Corporations (PPCs) as landowners is extremely critical as the area present very good growth potential. Thus, WWF Greece is advocating for a higher engagement. As not all areas are expected to be impacted in the same way, the study recommends targeted reskilling of the workforce in sectors with specific characteristics such as decommissioning of coal power plants, circular economy, renewables, energy efficiency, and rehabilitation of contaminated soil. According to Mr Tsekeris, the proposed governmental approach towards a just transition plan fails to address the direct impacts of the proposed strategy and does not encourage the participation of the local communities; WWF Greece will continue to mobilise on these issues.

Research projects on environmental issues related to mining and coal mine closure

Welcome and introduction (14:00-14:10)

Zoe Rasbash, Secretariat of the Initiative for Coal Regions in Transition

The session was opened by Zoe Rasbash from the Secretariat of the Initiative for Coal Regions in Transition who reminded the audience about the toolkits and webinars available on the Initiative's website and introduced the speakers.

Scene setting presentation on future of the RFCS programme (14:10-14:20)

Lucas Janssen, DG RTD, European Commission

In his presentation on the status and future of the Research Fund for Coal and Steel (RFCS) programme, Mr Janssen elaborated the upcoming revisions of the RFCS' legal bases. In light of the future requirement to align investments with the European Green Deal, as well as due to the current macroeconomic environment of low interest rates, three RFCS legal bases are being revised as part of the RFCS Modernisation Package:

- COM(2020) 319 amending Council Decision 2003/76/EC on the implementation of Protocol 37 (DG RTD)
- COM(2020) 320 amending Council Decision 2008/376/EC on the RFCS programme and technical guidelines (DG RTD)
- COM(2020) 321 amending Council Decision 2003/77/EC on financial guidelines (DG BUDG)

The objectives of the Package are as follows:

- To ensure a financial annual allocation to manage RFCS Call for Proposals of at least €40 million;
- to allocate additional resources for the time period 2021-2027 to respond to new research needs;
- to modify the financial guidelines managing the assets of the European Coal and Steel Community (ECSC) in liquidation;
- to update the RFCS coal and steel research objectives in order to be in line with the European Green Deal.

Mr Janssen indicated that, in line with Art. 4.2 of Council Decision 2003/76/EC, 27,2% of the RFCS budget is allocated to coal-related research and 72,8% to steel-related research for the 2021 – 2027 funding period. A further €71 million is expected to be made available towards breakthrough clean steel projects (approx. €19 million) and large coal-related projects (approx. €52 million) that will be in line with the Just Transition Mechanism principles. The updated objectives of the RFCS coal research, currently pending approval of the Council, include supporting the just transition, improving health and safety of workers, and minimising the environmental impact of coal mines and coal power plants in transition. Mr Janssen concluded with a brief introduction to two RFCS-funded research projects that address issues of transition – the MERIDA project and the Recovery project – which were presented by the next two speakers.

Presentations (14:20-15:15)

Pedro Riesgo Fernandez, University of Oviedo in Spain on the MERIDA project;

Alicja Krzemień, Central Mining Institute (GIG) in Poland on the RECOVERY Project;

Dimitris Xevgenos, SEALEAU B.V on the LIFE BRINE-MINING project.

Pedro Riesgo from the University of Oviedo in Spain presented the final outcomes of the Management of Environmental RIsks During and After mine closure (MERIDA) project, which ran from 2015 to 2019. Ten partner organisations from six countries implemented the project, which had the following goals:

- Providing specific guidance on issues relating to the environmental impacts of underground coal mines at closure and post-closure stages.
- Identifying physical and chemical processes affecting environmental risks during mine closure and post-closure and establishing site-specific models and monitoring methods that should be implemented.
- Developing an integrated risk assessment methodology to identify risks and develop appropriate treatment strategies and evaluation methods on performance and cost.
- Calculating the financial provisions required for closure and post-closure stages for each company, taking all treatment costs into account.
- Providing a practical methodology (written up as a technical guidance) that can be used for the evaluation of risk, as well as for selecting the remediation measures in terms of their performance in risk reduction, practical implementation and cost.

The main outcomes of the MERIDA project include a best practice guideline for the prediction of environmental impacts and the management of risk during coal mine closure and post-closure.

Next, Alicja Krzemień from the Central Mining Institute (GIG) in Poland presented the Recovery of degraded and transformed ecosystems in coal mining-affected areas (RECOVERY) project. The project runs from mid-2019 until mid-2023, and is implemented by seven partner organisations from four countries. Based on the research of six coal mining-affected areas in Czechia, Germany, Spain and Poland, the project will develop a framework for land rehabilitation and ecological restoration to accelerate ecosystem recovery (both underground and above ground), in the form of best practice guidelines.

The objectives of the RECOVERY project are as follows:

- To give guidance for policy and decision-makers to select the land rehabilitation and ecological restoration actions, which deliver the greatest benefits relative to their costs.
- To increase the (positive) impact of land rehabilitation and ecological restoration actions on both society and the environment.
- To deliver: (i) detailed costs of land rehabilitation and benefits in the provision of ecosystem services in coal mining-affected areas; (ii) suitable indicators for these ecosystem services; (iii) feasible valuation techniques and optimal discount rates.

Ms Krzemień elaborated on the planned research activities for one of the six sites – the Janina mine in Silesia, Poland. The research team will test different techniques to enhance land rehabilitation of the waste heap, characterised by intensive eroded slopes and high acidic levels. The aim is to attempt to develop artificial substitutes for soils suitable to several types of plant communities that deliver a wide range of ecosystem services. To achieve this, the RECOVERY project team will test different types of waste materials from the area, including coal combustion by-products, sludges, aggregate, and organic matter, as substrate for different plant communities. Ms Krzemień concluded her presentation by sharing a video about the progress of the project thus far.

Dimitris Xevgenos presented the LIFE BRINE-MINING project in Poland, which is funded by the LIFE programme. Started in 2019, the 4 year-long project tackles the issue of wastewater from closed mines. The project aims to provide an integrated solution for management of coal mine effluents, including recovery of water and salts with high purity and quality.

Mr Xevgenos began by giving the audience an overview of the quantities of the different types of coal mined across European countries, proceeding by focusing on the case of Poland, where the biggest share of hard coal in Europe is being mined. Mr Xevgenos explained that 182 million cubic meters of wastewater are discharged annually in Poland's second-longest river – the Oder (Odra) river. This results in both environmental damages and economic losses.

In the second part of his presentation, Mr Xevgenos presented the case of the Dębieńsko and Budryk coal mines in Poland. The near-by plant is the first to apply a zero liquid discharge system to treat coal mine brine. In addition, the system recovers water & saleable salts. The investment in the system is estimated to be approximately €51 million. One of its main drawbacks is the high energy consumption (~970 kWh/t of salt recovered).

Mr Xevgenos concluded with a brief presentation on one of the first output of the LIFE BRINE-MINING project – circular economy action plan for the coal mining sector in Poland. The action plan includes a stakeholder evaluation based on which engagement activities will be organised in 2021.

Q&A session (15:15-15:30)

Ms Rasbash opened the session with a question to the panellists on what, in their view, the initial points to start/ focus on when addressing environmental impacts should be. To this, Mr Riesgo answered that planification should be the focus, especially in the context of mine closures where proper planning several years in advance is important. He further added the need for a long-term view when coming up with solutions, as well as engagement with regional and local-level stakeholders in order to address the challenges together.

On a question with regards to the alignment of the RFCS with the JTM, Mr Janssen clarified that once the RFCS Modernisation Package has been approved, a new call will be launched that is aligned with the JTM. It will be mentioned in the description of the call, which is how the JTM alignment will be addressed. On co-funding, Mr Janssen answered that for research projects the co-funding is 60% and for pilot and demonstration projects is 50%.

In the final round, Ms Rasbash posed a question to the panellists on what they foresee as major barriers for the coal regions. Mr Riesgo started by pointing to the amount of well-paid jobs that are going to be lost by coal mine closures and the difficulty to find a similar amount of jobs that are equally well-paid. Mr Xevgenos then followed by saying that the speed of the energy transition is what is the most challenging for regions. In this context, Mr Xevgenos pointed to the long time that coal regions need to identify and develop alternative economic activities. Ms Krzemień raised the issue of employment in relation to young coal industry workers who would need to find alternative jobs, as well as in the cases where coal-related jobs have ran through several generations. Finally, Mr Janssen answered with the issue of access to knowledge for regions and highlighted on the importance of having best practice cases on things that worked in some regions and not in others.

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Based on the notes of rapporteurs Toma Pavlov, Giuseppe Costanzo, Veronika Müller, and Martin Freire. Final editing by Zoe Rasbash and Mirjam Buck.

The presenters were not consulted on the content of this report. This report is not exhaustive in content. The full content can be obtained from the streaming records of sessions, available on the Coal Regions in Transition Virtual Week website.

Initiative for coal regions in transition

The Initiative for coal regions in transition is an initiative by the European Commission.

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