

DeCarb - ACTIVITY 2.2

SYNTHESIS REPORT ON THE CONCLUSIONS FROM “NEW ENERGY MIX” SOCIAL DIALOGUE EVENTS

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TABLE OF CONTENTS

1	INTRODUCTION.....	3
2	ABOUT ACTIVITY A 2.2.....	4
2.1	Added value of the “New energy mix” social dialogue events.....	4
2.2	Planning of the “New Energy Mix” social dialogue events	6
3	DESCRIPTION OF THE SOCIAL DIALOG EVENTS	7
3.1	Social dialogue events implementation table.....	7
3.2	PP1 (LP) – SHORT DESCRIPTION	8
3.3	PP2 – SHORT DESCRIPTION.....	9
3.4	PP3 – SHORT DESCRIPTION.....	10
3.5	PP4 – SHORT DESCRIPTION.....	11
3.6	PP5 – SHORT DESCRIPTION.....	12
3.7	PP6 – SHORT DESCRIPTION.....	12
3.8	PP7 – SHORT DESCRIPTION.....	13
3.9	PP8 – SHORT DESCRIPTION.....	14
3.10	PP9 – SHORT DESCRIPTION.....	15
4	KEY ARGUMENTATION.....	16
4.1	THEME 1	17
4.2	THEME 2	22
4.3	THEME 3	26
5	SIMILARITIES AND DIFFERENCES ON ACTIVITIES A2.2. AND A1	30
6	LESSONS LEARNT (TO BE INCLUDED IN ACTION PLAN)	31
6.1	Theme 1 – Environmental restitution and land restoration needs and possible post mining land uses.....	31
6.2	Theme 2 – Expected socioeconomic impact from the cessation of coal driven activities 32	
6.3	Theme 3 – Economic alternatives after phasing out coal-intensive activities in partner regions.....	32

1 INTRODUCTION

This document combines and compiles partner's summaries from the social dialogue events and at the same time represents a synthesis report on highlighting the crucial social issues to be integrated into territorial planning (DeCarb activity A2.2), thus promoting public consultation on different aspects of the DeCarb project, which require broad consensus. The conclusions of the 'New energy mix' social dialogue events were juxtaposed with the conclusions of all A1 project activities, to provide better policy advice for the development of DeCarb action plans (activity A5.1) and to establish public consensus for their subsequent implementation. Compared to the regional stakeholder group meetings (DeCarb activity A2.1), social dialogue events had involved a wider audience in the public consultation process, thus gaining a broader consensus for the development and implementation of action plans. This document presents the final stage of the public consultation process, the synthesis report of the conclusions from the "New energy mix" social dialogue events. This report will synthesise the results from the various social dialogue events (provided by project partners), to identify common issues, barriers and enablers of measures proposed in actions plans that require consensus and develop recommendations on how to increase awareness on the new energy mix transition.

The document is structured as follows:

1. Introduction
2. Brief description of the DeCarb project and activity A2.2
3. Description and evaluation of the "New energy mix" social dialogue events organised
4. Participants' feedback with regards theme 1
5. Participants' feedback with regards theme 2
6. Participants feedback with regards theme 3
7. Similarities and differences between the results of the activity A2.2 and the A1 activity
8. Lessons learnt (to be included in the DeCarb action plans)

2 ABOUT ACTIVITY A 2.2

DeCarb Activity 2.2 included the organisation of nine ‘New energy mix’ social dialogue events with the participation of members of the public and stakeholders operating in partners areas on issues that require broad public support/consensus. Social dialogue was designed to enable participants to analyse and highlight environmental restitution and land restoration needs and to identify economic alternatives, after phasing out coal-intensive activities in partner regions, as well as suitable practices on decarbonisation and clean energy transition. All the listed activities above will be considered in the policy measures to be designed in each region. Project partners had invited members of the public and local/regional stakeholders to ensure consensus on issues surrounding the phasing-out of coal-driven activities in territorial value-chains and economies.

2.1 Added value of the “New energy mix” social dialogue events

Social dialogue events are a tool that can be used to increase the levels of transparency, efficiency and effectiveness of decision and policy making. Public dialogue and consultation are considered an alternative and efficient way to approach the views of the people and institutions affected by specific policy decisions, thus gaining a broader consensus for the development and implementation of policy. In fact, social dialogue events can become the platform via which those ultimately impacted by policy choices can share their views and potentially have their argumentation reflected in policy outcomes. In the case of DeCarb members of the public and local stakeholders can provide feedback on controversial issues surrounding the phasing-out of coal-driven activities in their territories that require consensus building.

Carrying out social dialogue events in DeCarb partnership regions is a crucial part of the project. Since the aim of the project is to support coal intensive regions to secure sustainable growth through decarbonisation and clean energy transition strategies, it is of paramount importance to complement field and desk research with an account of the viewpoints of a. public administrations, b. energy production companies, c. universities, academic institutions and research organisations, d. environmental NGOs/ agencies, e. industry associations/ chambers, f. regional agencies, g. sectorial stakeholders and h. members of the public.

DeCarb partners will manage to co-shape the necessary conditions that will allow for a smooth energy transition in national, regional, and local development plans, only after completing the consultation process with the above groups. The views of these groups will provide information that substantiates the results of the exchange of experience based on field and desk research conducted during the project.

Therefore, after collecting this information, the partnership will manage to synthesise the results of field and desk research with the results of the 'New energy mix' social dialogue events to draft effective and efficient actions plans for the energy mix transition on national, regional, and local level, across various sectors. In addition, social dialogue events will complement regional stakeholder meetings, by providing the viewpoints of a wider community, so that the policy developed by the DeCarb partnership cannot, in any way, be considered biased.

Social dialogue events and their components generate extensive knowledge exchange and provide the public with a platform to express their views. If knowledge exchange develops smoothly during the events, it can potentially improve the quality of previously conducted field or desk research with regards to specific challenges being addressed through the development of new policy measures. As a result, social dialogue has the potential to ultimately improve the quality of regulation and the level public support, thus minimising implementation costs for both public administrations and citizens or businesses.

The process of public dialogue and consultation increases the level of available information on the expectations of the public and representative groups, as well as the policy alternatives non-evident during decision making. In fact, social dialogue events are one of the most efficient methods to approach civil society and to increase the level of transparency. Engaging with civil society is possible because the opportunity to participate in policy making offered during social dialogue events works as an incentive for members of civil society that have active interests in specific issues to be addressed through new policy measures. Social dialogue events bring into the discussion the expertise, viewpoints, and ideas for alternative actions of those directly affected, thus ensuring that regulators will manage to balance opposing interests, identify specific desirable or undesirable effects, and solve practical problems after consulting with the public.

2.2 Planning of the “New Energy Mix” social dialogue events

Project partner 8 (PP8), KSENNA - Energy Agency of Savinjska, Saleska and Koroska Region was responsible for developing the methodology. In the third semester, the document regarding the instructions was sent to all project partners. The document *Joint organisation methodology, guidelines, and materials for the “New Energy mix” Social Dialogue Events* included all instructions on the implementation of the event and its contents, as well as instructions for the evaluation and reporting of the event. It described and presented the themes, that had to be considered in terms of content organisation. It described the characteristics of the main regional stakeholders and their role in the event, what the target groups are and how the organizers should communicate with them and the public. It listed and presented the organising tasks for the social dialogue events and communication strategy, regarding websites, social media, invitation data and registration data. It described the agenda layout guidelines and the instructions for the facilitators. Guidelines on the preparation of summary reports and of the synthesis report were presented. The templates for the invitation, notices, registration forms, layout of the agenda, evaluation forms, and summary reports were also added to the document attachment in the form of annexes.

3 DESCRIPTION OF THE SOCIAL DIALOG EVENTS

3.1 Social dialogue events implementation table

The data on the implementation of social dialogue events by individual partners is presented in the table below.

PPX	PROJECT PARTNER	EVENT DATE	EVENT LOCATION
PP1 (LP)	Stara Zagora Regional Economic Development Agency (BG)	28.09.2020	Regional Library Hall, Stara Zagora
PP2	Lodzkie Region (PL)	16.11.2020	Online, via ZOOM platform
PP3	ENEREA Eszak-Alfold Regional Energy Agency Nonprofit Ltd. (HU)	16.09.2020	County Hall of Nyíregyháza
PP4	South-West Oltenia Regional Development Agency (RO)	12.11.2020	Conference room, Yda House, Turceni, Gorj
PP5	Ministry for Economic Affairs and Energy, State of Brandenburg (DE)	24.11.2020	Online, via Webex platform
PP6	House of Energy (DK)	23.04.2021	Online
PP7	Regional Association of Local Governments of Western Macedonia (EL)	10.05.2021	Online, via Google meets platform
PP8	Energy Agency of Savinjska, Saleska and Koroska Region (SI)	6.05.2021	Online, via ZOOM platform
PP9	Extremadura Energy Agency (ES)	12.09.2019	XXI Century Building, Bajadoz (Extremadura)

3.2 PP1 (LP) – SHORT DESCRIPTION

Stara Zagora Regional Economic Development Agency - Bulgaria

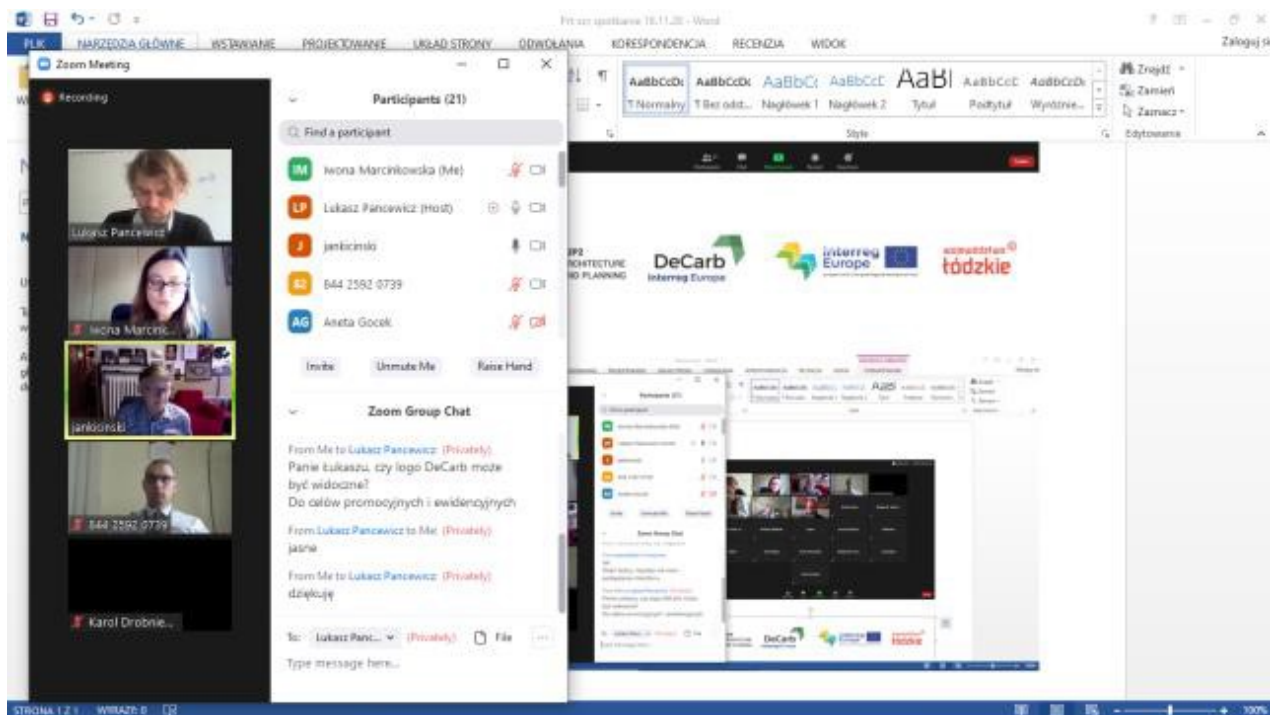
The event was jointly organized by the DeCarb project and the TRACER project, funded by H2020 programme and Green DC project, and funded by H2020 programme. It was organized on the 28th of September 2020. The event was steamed live on Facebook with more than 22 thousand people reached. Despite being held in Bulgarian, it was also available in English language on Google Meet platform, where project partners from other 3 partnering projects were also able to follow the event. There were 81 registered participants, who were in the hall physically. Others were joined virtually via online conference. Stakeholders and other participants were actively involved in the discussions, so the event was very productive and successful.



3.3 PP2 – SHORT DESCRIPTION

Lodzkie Region - Poland

The social dialogue event was held online on 16th of November 2020, due to Covid-19 limitations, with the use of ZOOM platform. It was held from 9.00 to 12.00. Invitations were sent by e-mail to entities related to the transition to a low-emission energy economy, and then they were confirmed by a phone call. Participants had to sign up for the meeting online. After confirming their participation, each of the guests received a link to the event along with a package of DeCarb original reports and translated into Polish and summarized version as well. The meeting was held in Polish language because all the participants were regional and national actors.



3.4 PP3 – SHORT DESCRIPTION

ENEREA Eszak-Alfold Regional Energy Agency Nonprofit Ltd. – Hungary

The DeCarb, social dialogue event was held on September 16, 2020, in Nyíregyháza and the venue was provided by the County Hall. The event was attended mainly by regional stakeholders and civilians, so the speakers spoke Hungarian. The target groups of the “new energy mix “- social dialogue event were civilians and the public, who could also ask questions interactively during the presentation. Of course, there are other potential participants in the target group who were present from the administration, as well as representatives of local stakeholders, companies, environmental organizations, regional agencies, universities. Registration was available on the web page of the event.



3.5 PP4 – SHORT DESCRIPTION

South-West Oltenia Regional Development Agency - Romania

The hybrid event took place in Yda House-Conference room, 1A Iancu Popilian Street, Turceni. Turceni is a city in Gorj county, Oltenia, Romania. The Turceni Energy Complex, which is the largest thermal power plant in Romania. It is located just outside the City. The language of the event was Romanian, considering that most of the participants and guests were of Romanian nationality. In the context of the COVID-19 pandemic approach and the restrictions imposed by the Romanian government (projects workshops participants were limited to the number of 25), the social dialogue event took place in hybrid system (both on-site and as an online event). The event was attended by 44 people, 25 on site (physically) and 19 online (virtually). Discussion was focused on the importance of retraining the former miners and on the re-employment in new sectors related to RES, in order to achieve an energy transition given the socio-economic impact.



3.6 PP5 – SHORT DESCRIPTION

Ministry for Economic Affairs, Labour and Energy, State of Brandenburg – Germany

Ministry for Economic Affairs, Labour and Energy of the State of Brandenburg organised its social dialogue event on the 24th of November 2020. Due to the restrictions and measures related to the COVID-19 epidemic, it was organised via platform WEBEX, as an online video conference. Briefly, the “New energy mix” social dialogue event was a success, being held on time in the 5th semester schedule and well received by participants, which attended from a wide variety of backgrounds. There were 27 registered participants. The most important stakeholders of the DeCarb project (such as LEAG, the network MinGenTec, speaker of the Lusatian representative of the State Chancellery and the Regional Energy Manager of the Planning Community) were able to support the event. Participation was also higher than in the stakeholder meetings, which were primarily of a lecture nature. After each presentation, there were some questions directed to the presenters, but in general it was a normal discussion type process. The dialogue event ensured that new networks were formed. These will continue beyond the DeCarb project and contribute to regions decarbonization.

3.7 PP6 – SHORT DESCRIPTION

House of Energy – Denmark

The event was held on the 23rd of April 2021. It was held online via video conference. There were 44 of registered participants. The event was very successful, and even though an evaluation form was not used, both the verbal feedback during the event and the written information received informally afterwards were entirely positive. Dialogue on the softer parts of the green transition is very much in focus in Denmark, where a lot of greenhouse gas reductions has been realised due to technology. The last few percentages of reduction cannot be made with technology but must come from changed behaviour.

3.8 PP7 – SHORT DESCRIPTION

Regional Association of Local Governments of Western Macedonia – Greece

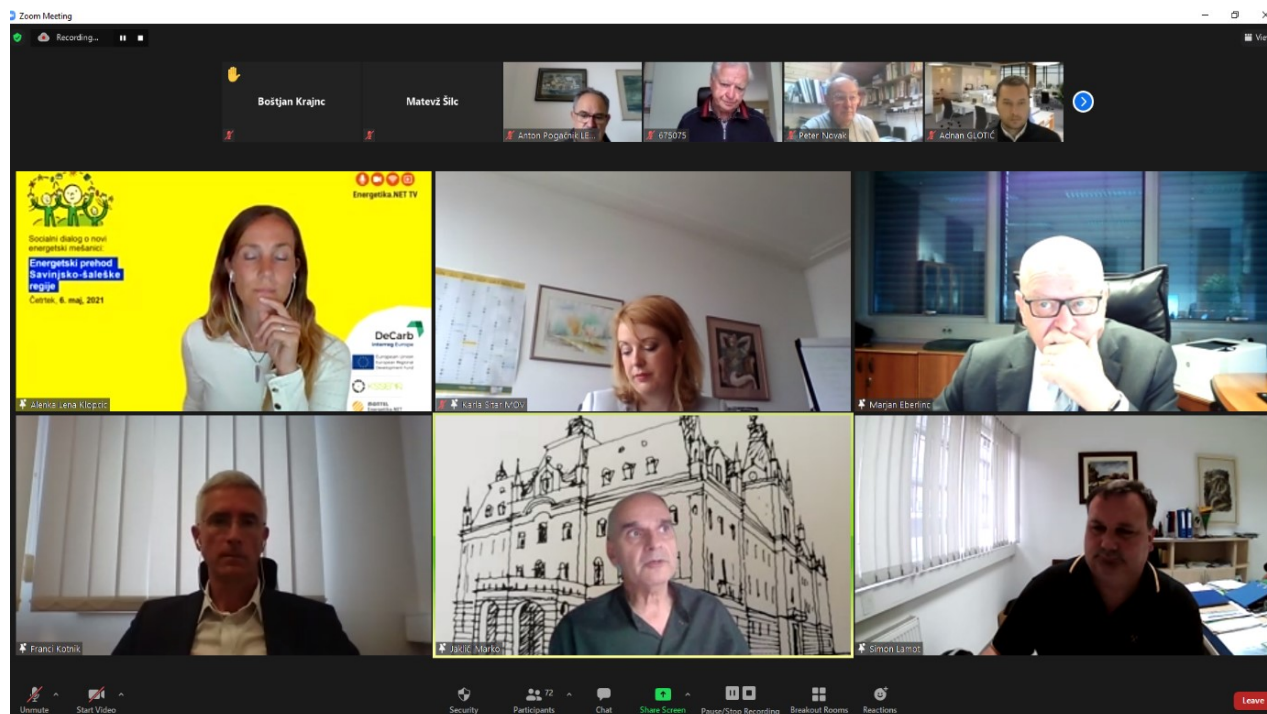
The social dialogue event was held online due to the restriction of Covid- 19 on the 10th of May, 2021. Invitations with the option of an online registration to the event were sent by e-mail to local and national authorities, academics and researchers involved in the scheme of the green and low-carbon transition in the area of Western Macedonia and Megalopolis. Meeting members had to sign up for the meeting online. More than 48 stakeholders and general public attended the event. The main target of the event which was organized in the framework of DeCarb project with the title “Phasing out Coal”, was the establishment and implementation of a governance model for sustainable development in the post coal era, in order to achieve both an energy transition and a positive socio- economic impact. The expected outcome of this discussion was achieved with a fruitful, active debate that led to the evaluation of how the reduction of coal-driven value change that will affect the regional employment and economic development. The event lasted for 3 hours and 45 minutes. The language of the event was Greek, as the attendees were national and regional actors, stakeholders, and contributors to the process of transition.



3.9 PP8 – SHORT DESCRIPTION

Energy Agency of Savinjska, Saleska and Koroska Region - Slovenia

Social dialogue event was (due to the COVID-19 epidemic) organized virtually via an online video conference. The meeting was co-organized by KSSENA and the company Montel Energetika.net. The meeting was held online, via ZOOM platform. Nevertheless, the event was rated with a very good rating. If an even bigger event were to be organized (in the event of cancelling the epidemiological measures), there might be much more present representatives of the public. Perhaps an even more interesting discussion would take place. The organizers and participants were satisfied with the course of the event. All matters of the agenda were covered. The most important object of the event was the unfolding of all possible social aspects, which could only be achieved through a discussion when the public was involved. There were 83 registered participants. Some of the statements on the social dialogue event were so meaningful and influential, that the news also reached the largest national media house RTV Slovenia, which published news about statements made on the social dialogue event.



3.10 PP9 – SHORT DESCRIPTION

AGENEX, Extremadura Energy Agency – SPAIN

The social dialogue event was organized as a part of the international event AGORA, that took place in Badajoz from the 10th to the 13th of September 2019. The event AGORA - International on Education, Research and Employment is a space for international encounter and connection that integrates these three levels. The focus of the roundtable organized by DeCarb project moderators, was the importance of education and training related to employment in the new sectors related to sustainable energy, to achieve an energy transition considering the socioeconomic impact. The DeCarb session for the social dialogue took place on the 12th of September 2019. The language of the event was Spanish, as most of the attendees were national and regional actors. The event took place in the XXI Century Building, in the city of Badajoz, Extremadura region, Spain.



4 KEY ARGUMENTATION

Developing a short description of the key argumentation achieved on the social dialogue events, with regards to the themes described in the *Joint organisation methodology, guidelines, and materials for the “New Energy mix” Social Dialogue Events* was one of the main tasks of the partners. Only with the key findings of the partners, by individual themes, can an objective report that will show the actual situation and the true public opinion, now be given. The DeCarb partners presented their key arguments, on individual themes. This report brings together all arguments, so that the key findings may be used further in the action plans. The partners described the key arguments accordingly to the themes described in the table below. In this chapter key arguments are presented by individual partner and by individual theme.

Theme 1	Environmental restitution and land restoration needs and possible post mining land uses
Theme 2	Expected socioeconomic impact from the cessation of coal driven activities
Theme 3	Economic alternatives after phasing out coal-intensive activities in partner regions

4.1 THEME 1

PP1 - Stara Zagora Regional Economic Development Agency

The main purpose of the discussion, on the SZREDAs “New energy mix” social dialogue event, regarding the theme 1 (Environmental restitution and land restoration needs and possible post mining land uses) was to involve those stakeholders responsible for developing and implementing strategic documents and making decisions, the vision, and expectations of the participants regarding land restoration after coal extraction and the possible use of these territories, in particular: good environmental management practices after coal mining; the most appropriate use of reclaimed areas, taking into account characteristics of the area.

The Energy Complex Mini Maritsa Iztok is situated in the central south part of Bulgaria. It is also one of the agricultures centres of the country. Land restoration and reuse of land is crucial topic when considering regions decarbonisation. Representatives from Trakia University, Stara Zagora, shared their studies and experience on land restoration and reuse of land for agriculture purposes also for food production and not only for technical cultures. In addition, a potential innovative project on land reuse was proposed.

PP2 - Lodzkie Region

Quite a few project propositions and new opportunities were mentioned in the discussion of the “New energy mix” social dialogue event of the Lodzkie Region, regarding the theme 1:

-Examination of new possibilities of using post-mining areas, among others for RES locations (photovoltaic and wind farms) or for the energy storage (pumped storage solutions), mapping and analysis of the possibility for installing power and the impact on the energy mix in the region.

-Combining the use of post-mining areas by various forms of use: e.g., agricultural production (biomass production) with the location of renewable energy sources.

-Analysing how the possible change in the use of workings affects the original plans for the development of tourism - incl. issues related to the change in the use of workings.

-Analysis of the impact of a possible change in remediation activities on the wider tourist base in the region.

-Recognizing the impact of new solutions on energy production (use of low emission fuels, implementation of RES) on the value chains and the industry's workforce retraining opportunities (i.e., retraining and restructuring of employment options for employees who will not continue to work in mining and energy production).

The two main project propositions summarized on the discussion were the flooding of the mining infrastructure with water to get two tourist lakes, available for further use and RES installations on the degraded areas.

PP3 - ENEREA Eszak-Alfold Regional Energy Agency Nonprofit Ltd.

The opinion of the Nyíregyházas decision makers, evolved in the discussion, on the "New energy mix" social dialogue event, was that there are basically two things they could do with deluded areas. The first way was recultivation, e.g. - creating a plant cover or building a solar farm. The second way to make the deluded areas useful was to continuously use them as an important secondary source of raw materials. These can be raw materials for cement industry (slag fly ash), aggregate in concrete production (replacement of sand and gravel). The domestic construction industry needs to import slag, as this industry is constantly growing. With this use of deluded areas, imports could be triggered, thus benefiting the economy. Spoil materials associated with coal production often contain significant amounts of clay. The tailings fall into the neutral or slightly alkaline category according to their pH, so it is advisable to concentrate their use on acidic sandy soils. Of course, care must be taken not to leave sulfur and other contaminants in it, as this can cause the problem.

PP4 - South-West Oltenia Regional Development Agency

The SWORDA's approach regarding the first theme on the "New energy mix" social dialogue event, was aimed towards identifying the needs and to establish the restoration activities that provide ecological, social-economic benefits for the community. It was also intended, that region's political decision-makers recognize a better understanding of the context and initiating the most effective methods to stop coal mining operations that pave the way for restoration activities, with examples of good the practice of the DeCarb partners.

The most promising conclusion on the event was that photovoltaic capacities could be developed both in the form of medium-capacity solar parks, made on degraded lands, and in the form of small and dispersed capacities made by energy consumers who can make the transition to the prosumer.

PP5 - Ministry for Economic Affairs, Labour and Energy, State of Brandenburg

On the “New energy mix” social dialogue event, The Ministry for Economic Affairs, Labour and Energy of the State of Brandenburg the potential of the post-mining landscape was discussed, regarding the theme 1. In this context, the Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft mbH (LMBV) explained their function within the development of Lusatia. The LMBV explained that they did not have the possibilities to contribute to the development in Lusatia, they had the task of public safety and utilization of these areas. Topics such as photovoltaics from water surfaces could not be decided by LMBV. This would have to be discussed with DeCarb project operators.

PP6 - House of Energy

The suggested three themes for the “New energy mix” social dialogue event (THEME1 - Environmental restitution and land restoration needs and possible post mining land uses, THEME 2 - expected socioeconomic impact from the cessation of coal driven activities, THEME 3 - Economic alternatives after phasing out coal-intensive activities) are not relevant in a Danish context. As a result, Aalborg Municipality focused on a theme more relevant: Energy behaviour initiatives towards the public in the North Denmark.

PP7 - Regional Association of Local Governments of Western Macedonia

The Regional Association of Local Governments of Western Macedonia recognized a joint conclusion regarding all the three themes described above and, in the document, Joint organization methodology, guidelines, and materials for the “New Energy mix” Social Dialogue Events. The joint conclusion was that the SDAM Programme will be supported by the EU Just Transition Mechanism, pillars of which are the Just Transition Fund - a special scheme under the Invest EU Programme - as well as the European Investment Bank's loan facility to the public sector.

Moreover, financing from the Recovery and Resilient Fund (RRF) is intended to be allocated for the sanitisation, restoration, rehabilitation and upgrading of the lignite mining zones within those areas, intended to be properly attributed to nature as well as to human uses, according to five growth pillars described in the JTDP:

- i) Clean energy,
- ii) Smart agricultural production,
- iii) Sustainable Tourism,
- iv) Industry, handicrafts and trade
- v) Technology and education

The most essential prerequisite for achieving this being the lignite lands' repurposing, the Plan will be regularly updated by the Steering Committee, following the planning progress of the JTD Programme.

PP8 - Energy Agency of Savinjska, Saleska and Koroska Region

It is not yet entirely clear who will take care of all the degraded areas and the destroyed landscape. Velenje Coal Mine will, as a current owner manage and rehabilitate these areas with care as long as it will be able to do it. Many tourist activities are already taking place in a large part of these areas, which indicates a very good future. The future of strategic energy location (of the Šoštanj Thermal Power Plant) is still unknown. The mother company of Velenje Coal Mine and Šoštanj Thermal Power Plant, Holding of Slovenian Power Plant intends to build an operating gas power plant (Green hydrogen or methane) at the location of Šoštanj Thermal Power Plant, which could also be used to provide energy for the district heating system of the SAŠA region. But it is not yet clear to what extent they can use the existing infrastructure on the location, how substantial the gas production will be, what type of gas will it be producing and how it will distribute the gas. It is also not clear what type of technology for gas production can and will be used at the location. KSSENA, together with its stakeholders, also applied many

projects (to the JTF) that could save the existing energy infrastructure and important energy related jobs at the location of the Šoštanj Thermal Power Plant.

The Holding of the Slovenian Power Plant has prepared some projects with which it wants to mitigate the negative impacts of the 30% loss of electricity production, related to the closure of the Šoštanj Thermal Power Plant. The company intends to finance the implementation of the wind turbine at the Paški kozjak hill and the implementation of some solar power plants (which size and locations are not yet official) directly in the region. It also intends to finance the implementation of new small hydro power plants on the upper parts of the river Drava. However, some experts also suggest power-to-gas and gas-to-power systems. Specific energy infrastructure of the Thermal Power Plant Šoštanj, could in the future serve as a foundation for the first gas power plant in Slovenia, to use the latest power-to-gas and gas-to-power operating system, given that in the future there will be more and more personal and small photovoltaic installations, with surpluses of electricity produced mainly in the summer months.

PP9 – AGENEX, Extremadura Energy Agency

On the “New energy mix” social dialogue event, the Extremadura province determined the need to close the nuclear power plant located in the north of the region as soon as possible. The public is aware that the closure will bring a certain amount of unusable land. The event sparked a debate mainly about this subject. It is a reality that the nuclear power plant will be shut down soon. The best solution is that it is done by phases and the most recent news is that it is estimated to start in 2031. For the conclusion on the first theme, in the province of Extremadura, areas that will be unused in the future would be preserved for the implementation of large solar powered panels order to generate electricity.

4.2 THEME 2

PP1 - Stara Zagora Regional Economic Development Agency

The purpose of the discussion, regarding the theme 2 on the SZREDA's "New energy mix" social dialogue event was to involve the stakeholders responsible for developing and implementing strategic documents and making decisions, to consider and acknowledge the vision and expectations of the participants for the potential socio-economic impact of the cessation of coal-intensive activities and in particular the link between the region and the upcoming activities related to decarbonisation, the expected socio-economic impact of their cessation, the plans for dealing with the forthcoming impact and all parties engagement in it. The main outcome of the discussion and the following Q&A process was the agreement that the transition before anything else should be just for the workers (that their rights are the most important) in the energy sector and their families. The expected decarbonization impact on people may reach up to 100.000 people. It can create serious difficulties in the region's development, leading to depopulation, and drastic worsening of the economic situation in the region.

PP2 - Lodzkie Region

The Lodzkie region had the following suggestions (made up on the social dialog event) for the future of the valley, regarding the theme 2:

- Retraining of staff that can support the development of renewable energy sources - this applies to installation fitters, commercial and legal support, or new fields of activity, e.g., recycling of renewable energy installations,

- Maintaining support for microgeneration and smaller RES installations implemented in smaller municipalities of the region, it is an important factor influencing socio-economic issues (energy cost and cheaper electricity from RES),

- Identifying and mapping of resources and allowing spatial barriers for the implementation of renewable energy, this applies, for example, to restrictions resulting from the protection of agricultural land or limitations of transmission networks and potential projects related to RES locations, e.g., identification of large volumes of the rooftops on which photovoltaic cells can be installed.

-Lobbying for legal solutions supporting the implementation of renewable energy sources, in particular the elimination of legal barriers or organizational and legal support in the implementation of renewable energy sources.

-Support for improving the energy efficiency of buildings, energy education concerning knowledge about energy sources (including RES) and ways to save it.

PP3 - ENEREA Eszak - Alföld Regional Energy Agency Nonprofit Ltd.

At their social dialogue event, ENEREA, with various past indicators of the state, confirmed that the closure of the coal mine has the greatest impact on labour unemployment, which is extensive when it comes to mining. Their solution to this problem was to redirect workers to other sectors. Low-skilled people are primarily able to do manual work, so they can find jobs in industries such as transportation, warehousing, construction, commerce, and hospitality. Some good practices around the world, were also presented.

- 28% of the job opportunities are in the manufacturing industry.

- There is also a constant need for manpower in customer relations and administration jobs.

- Job creation must be considered in sectors where turnover is typically high: agriculture, trade, hospitality, transport, construction.

- In connection with the labour shortage, employers indicated labour demand in the manufacturing industry, especially in metal processing and the production of electronic products and machinery.

- Significant labour demand was indicated in the agriculture, forestry and transportation, warehousing sectors. It is important that these jobs are linked to the primary labour market.

PP4 - South-West Oltenia Regional Development Agency

Theme 2 addressed at the SWORDA's "New energy mix" social dialogue event was focused on the socio-economic impact expected from the cessation of coal-based activities in the DeCarb regions. One of the solutions that could be offered for the unemployment generated by the closure of the mines and the gradual elimination of coal is the training and preparation (retraining) of former workers for the RES sector.

PP5 - Ministry for Economic Affairs, Labour and Energy, State of Brandenburg

There was not much talk about the theme 2 at the social dialogue event. The event was dedicated to the future projects that will save the region from negative socio-economic impacts. Nevertheless, one of the participants asked, how many jobs will be created by the new business models and whether they can compensate for the decline. Dr. Federau's answer was: It cannot be expected 100%, but if you look beyond 2038 into the future, this is the goal. Thus, local decision-makers (together with their stakeholders) have committed themselves to providing new jobs in their region for all future redundant workers and ensuring their social stability.

PP6 - House of Energy

The suggested three themes for the "New energy mix" social dialogue event (THEME1 - Environmental restitution and land restoration needs and possible post mining land uses, THEME 2 - expected socioeconomic impact from the cessation of coal driven activities, THEME 3 - Economic alternatives after phasing out coal-intensive activities) are not relevant in a Danish context. As a result, Aalborg Municipality focused on a theme more relevant: Energy behaviour initiatives towards the public in the North Denmark.

PP7 - Regional Association of Local Governments of Western Macedonia

The Regional Association of Local Governments of Western Macedonia recognized a joint conclusion regarding all the three themes described above and, in the document, Joint organization methodology, guidelines, and materials for the "New Energy mix" Social Dialogue Events. The joint conclusion is described in the chapter 4.1 of this document.

PP8 - Energy Agency of Savinjska, Saleska and Koroska Region

The state has been repeatedly confirming that none of the employees of Velenje Coal Mine and Thermal Power Plant Šoštanj will be left without ensured social security. According to the local authorities, new jobs should be provided for at least 5.000 employees who will be directly affected by the closure of the Velenje Coal Mine. According to some studies, there are more than 8.000 of such employees, those self-employed and those, whose operations are directly linked to the two energy companies, Velenje Coal Mine and Šoštanj Thermal Power Plant.

The local decision makers and stakeholders are afraid that jobs (value-added) will be generated too slowly, judging by the fast transition to the low-carbon future, which is becoming more unprofitable every year, due to the rapid CO₂-emission coupons prices increase. They believe that we can create a maximum of 20 value-added jobs (which are equivalent to the current level of wages in the valley's energy sector) annually. They also explain that for "above-average annual job creation" in the valley (in the next few years after the closure of the Velenje Coal Mine), perfect entrepreneurial conditions should be created. The valley should also be attractive to investors, which will not be possible without the completion of the Third development axis.

Representatives of the Velenje Coal Mine Trade union believe that there are several forms of re-employment measures, available for the valley's decision makers. The suggested measures are planned retirement, promotion of self-employment, retraining, outsourcing, and high severance pay of future redundant energy workforce. They also suggest that politicians involved in ensuring a just transition, should make a pledge (a legal binding contract of sorts) to take care of all redundant workers.

PP9 – AGENEX, Extremadura Energy Agency

In the province of Extremadura, local decision makers are aware that the closure of the nuclear power plant will bring lost jobs and social instability. They intend to solve social stability with new equivalent energy jobs in RES sector. Workers in the coal and nuclear industries could get work in new solar industry after the cessation of coal and nuclear based activities.

4.3 THEME 3

PP1 - Stara Zagora Regional Economic Development Agency

Purpose of the last discussion (about theme 3) was to be made available to the stakeholders responsible for developing and implementing strategic documents and making decisions. In this discussion main speakers were representatives from Trakia University, Zagore Industrial Zone, European Investment Bank, National Agency for the promotion of small and medium sized enterprises. The discussion was active, emphasizing the importance of the business, the new investments for mitigation of social impact of Decarbonization. The discussion was followed by Q&A from participants.

PP2 - Lodzkie Region

The Lodzkie region had the following suggestions and priorities regarding the theme 3:

- Support for the application of mechanisms reducing the share of coal in energy production, including support for the use of installations using transition fuels (gas), cogeneration and the so-called distributed generation (when using RES).
- Support for activities leading to the improvement of energy efficiency - changing consumer behaviour and improving the performance parameters of buildings, which is associated with an overall reduction in energy consumption.
- Support for shaping the so-called energy islands - cooperation using various forms of renewable energy in local energy production, testing, and creating new local supply chains (e.g., using biomass from sewage treatment plants in combustion).
- Use of the existing infrastructure potential (availability of HV and MV transmission networks, newly implemented gas pipeline investments) to implement large-scale RES installations by large producers, e.g., location in the vicinity of the Bełchatów power plant and local transmission infrastructure nodes.
- Support for training of energy industry personnel to use their competences in energy production with the use of transition fuels or RES.

PP3 - ENEREA Eszak-Alfold Regional Energy Agency Nonprofit Ltd.

The main line of the presentation was given by the topic electricity and Thermal Energy Production - Based on Renewable Energy Sources, regarding the theme 3. Mention was also made of solar energy, biomass, geothermal energy, wind energy and a floating mini-hydro power plant, which uses the tidal phenomenon for energy production. Also, Dr. Lajos Szalontai talked about the so-called secondary renewable energy source - hydrogen.

PP4 - South-West Oltenia Regional Development Agency

Considering the particularities of the region, the appropriate post-coal economic activities that can provide high social and economic benefits to local communities are renewable energy, tourism, and agriculture.

Oltenia region is located in an area with a high solar potential. Solar energy can be used for energy purposes either in the form of heat, which can be used for the preparation of domestic hot water and heating of buildings, or to produce electricity in photovoltaic systems. Photovoltaic capacities can be developed both in the form of medium-capacity solar parks, made on degraded lands, and in the form of small and dispersed capacities made by energy consumers who can make the transition to the prosumer. Therefore, the lines of action should lead to the promotion of new solar thermoelectric plants with thermal storage capacity. The hydropower potential of the area represents a national wealth of great value, because it provides electricity at the lowest cost price, in full ecological conditions, being today the most accessible of the planet's renewable resources. Hydropower facilities also have a very low impact on environmental factors, which represents the best response to the concept of sustainable development.

PP5 - Ministry for Economic Affairs, Labour and Energy, State of Brandenburg

The key guidelines for the economic development of the region have not yet been fully developed. The government and the local community are funding various projects to which both public organizations and private entities can apply. In connection with the theme 3 of the social dialogue event, the Ministry presented their future vision in which, the Ministry (together with important stakeholders) will develop strategic energy guidelines in the future, with which the local decision makers will determine how, when, and where the implementation of RES will start.

PP6 - House of Energy

The suggested three themes for the “New energy mix” social dialogue event (THEME1 - Environmental restitution and land restoration needs and possible post mining land uses, THEME 2 - expected socioeconomic impact from the cessation of coal driven activities, THEME 3 - Economic alternatives after phasing out coal-intensive activities) are not relevant in a Danish context. As a result, Aalborg Municipality focused on a theme more relevant: Energy behaviour initiatives towards the public in the North Denmark.

PP7 - Regional Association of Local Governments of Western Macedonia

The Regional Association of Local Governments of Western Macedonia recognized a joint conclusion regarding all the three themes described above and, in the document, Joint organization methodology, guidelines, and materials for the “New Energy mix” Social Dialogue Events. The joint conclusion is described in the chapter 4.1 of this document.

PP8 - Energy Agency of Savinjska, Saleska and Koroska Region

The region has one of the best business incubators in the whole country. SAŠA incubator has already helped numerous companies to be better scalable. The region’s industry is extremely export-oriented. To ensure the right conditions (low-cost zone) that will be attractive to investors, the region urgently needs well-organized industrial zones, a completed Third development axis, cheap raw materials, and cheap electricity. Industrial zones must be directly connected to the highway, thus ensuring good distribution routes. Local authorities are also investing in the tourist future of the valley. The area of both lakes is becoming more and more attractive for both national and international tourism. KSSENA, together with the local authorities of the Velenje’s City Municipality, also applied quite a few projects, regarding the industry 4.0 and 5.0 to the JTF. There is also a huge lack of residential infrastructure in the region, which represents a great business opportunity for the local actors in the construction industry and other small contractors. The local government also categorises sustainable mobility and the circular economy among the important goals of the region.

PP9 – AGENEX, Extremadura Energy Agency

In the context of entrepreneurship and economic alternatives in the province of Extremadura (and also regarding the theme 3 of the social dialogue event), innovation and challenges are recognized in the solar industry. Solar energy would mean environmentally friendly energy production. Given that there is a lot of land available in the province, which is in really large amounts compared to the small numbers of population, there are no spatial problems with the installation of many solar panels, which is necessary when maximizing the power and efficiency. The new industry would also bring new jobs and new economic challenges, they say. The only problem is the inconsistent energy production of the solar industry, which should be solved by a combination of both wind and solar energy.

5 SIMILARITIES AND DIFFERENCES ON ACTIVITIES A2.2. AND A1

The DeCarb project started with the main work on activities 1 (Studies). The work on the project within the framework of activity 1 took place primarily in a theoretical sense. The sub-activities were as follows, A1.1 - Ex-ante assessment, A1.2 - Good practices, A1.3 SWOT analysis and A1.4 Land restoration analysis. As already mentioned, the activity 1 was all about a good and proper research, calculation, and assessment of the actual local indications (characteristics), various potentials, shortcomings, internal and external challenges, market threads etc. Each partner region is totally different. In coal-intensive regions, which are usually rich in history, there are usually many different economic, local, political, cultural, social and energy differences, which are unique and special, so that it is impossible to generalize the conditions of the just transition. Although it is necessary to observe all the characteristics of the region, the fact that a just transition can only be achieved by considering the public opinion remains indisputable. Discussion with the public (the public consensus) is the main action of the activity 2.2. The “New energy mix” social dialogue event represents an occasion where project partners (along with stakeholders and national decisionmakers) presented all the political instruments (relevant for the just transition and for the development of action plan) and projects, relevant for the future and with which the local authority wants to mitigate the negative consequences of the transition from coal-intensive to a low-carbon region. Public consensus is necessary and critical if we are to ensure the right approach and conditions with which the proper restructuring and decarbonisation of the region could start. Although Activities 1 and 2.2., do not differ in a theoretical sense (namely, these are theoretical questions and answers), these are completely different activities. Activity A1 was mainly just a theoretical approach, while the goal of activity A 2.2. was to approve the development of the action plan (by the public) and to reveal or to emphasize the opinion of the local citizens.

6 LESSONS LEARNT (TO BE INCLUDED IN ACTION PLAN)

This chapter presents the results or the synthesis report on the conclusions from the “New energy mix” social dialogue event, which are combined into a universal vision of the restructuring processes (of a just transition). The vision was created through the research of the individual partner summaries (of the past “New energy mix” social dialogue events, organized by the project partners). The conclusions are divided by the individual themes, described in the previous chapters. Extracts from this document can be used (by all partners) in planning and developing of the action plan.

6.1 Theme 1 – Environmental restitution and land restoration needs and possible post mining land uses

The most appropriate approach of the use of degraded areas, is to consider all the characteristics of the area. The conclusions and potentials on the theme 1 were as follows:

-The deluded and degraded areas can be used for the recultivation. The land can be restored for the food and biomass production. In this way, artificial habitats for animal species are also created.

- The deluded areas can be used for the promotion of the local tourism. Shafts can be made into a history museum or they can be flooded and made into tourist lakes. Tourism promotes general business activity and ideas at the level of the local and regional economy.

-Degraded areas can be used as an important secondary source of the raw materials, used for the construction industry.

-The most common conclusion was to use the degraded areas as a primary location for RES farms. Implementing photovoltaic panels and wind turbines is surely an important measure, with which the lost electricity production of coal-intensive age can be compensated.

6.2 Theme 2 – Expected socioeconomic impact from the cessation of coal driven activities

It is important that we consider as many workers as possible (when considering socio-economic measures), not only directly employed but also indirectly employed and self-employed from other industries who will also suffer when the coal mines are closed. The conclusions and potentials on the theme 2 were as follows:

- Social security should be provided for all redundant workers and their families.
- Retraining of redundant workers for the work in the RES sector should be the primary goal. New equivalent energy jobs should be available in RES sector.
- Generating value added jobs, to which the most educated and trained workers can be hired is very important.
- Establishment of new industries for low-skilled people, unable to retrain or to re-educate properly is also an important measure, with which we can ensure the just transition.

6.3 Theme 3 – Economic alternatives after phasing out coal-intensive activities in partner regions

The conclusions and potentials on the theme 3 were as follows:

- Using the existing energy infrastructure, for the implementation of the new RES systems at the existing energy locations with simultaneous training of the staff for the RES energy production.
- Implementation of hydrogen technologies (including power-to-gas and gas-to-power systems).
- Investing in hydropower and solar potentials. Investing in solar energy, where there are none spatial problems (Photovoltaic panel parks and personal photovoltaic systems).
- Creating strategically developed entrepreneurial (business) zones, which are highly attractive to the big investors.
- Investing in Industry 5.0, circular economy, and sustainable mobility.