

Smart strategies for the transition in coal intensive regions

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Roadmap for the Southeast Region, Bulgaria

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1 Introduction

“A goal without a plan is just a wish.” - Antoine de Saint-Exupéry

A roadmap is a strategic document that creates conditions for solving a specific problem through outlining a vision and measures to realize it. The current roadmap is dedicated to the transition of the coal-intensive Bulgarian Southeast Region (SER) to low carbon economy in two main directions:

- Research and Innovation (R&I) needed to support the transition;
- Reskilling of the workforce to prepare it for the “green” energy and economy future.

The roadmap defines the goals and desired outcomes from dedicated policy actions in the target region. It also includes the major steps and milestones to achieve the targets set and highlights the approaches to be applied in order to reach them.

The Roadmap for Southeast Region (SER) aims at formulating optimal planning and identifying a series of measures and actions for achieving the targets set within the R&I and reskilling strategies of SER. The document provides policymakers with appropriate guiding directions aimed at improving the legislative and financial framework and incorporating new energy technologies into the energy system, as well as the proposed re-training procedures and schemes that stimulate investments.

Road mapping is widely regarded as a crucial strategic planning technique for forecasting both the critical development needs and the steps required to achieve big advancements in a given field, and so serves as a useful decision-making tool. The Roadmap's timeframe, similar to the TRACER documents on which it is based, focuses mainly on the years up to 2030, but also considers a broader horizon of 2050.

The methodology applied for the development of the Roadmap for SER includes three steps (graphically presented in Figure 1 below):

1. Selection of priority energy technologies to be included in the Roadmap (in accordance with the R&I priorities and reskilling needs).
2. Determination of the process for the development of the Roadmap:
 - definition of the major axes required to achieve the Roadmap's objectives;
 - proposal of measures under each of the main axes to overcome specific barriers;
 - decomposition and analysis of the prioritized measures into specific activities.
3. Assessment of alternative scenarios for priority measures (categorization of measures into High, Medium, and Low priority).



Figure 1: Roadmap development process

The following documents, elaborated within TRACER project, were used as a basis for developing the Roadmap:



Figure 2: TRACER documents used for the SER's Roadmap development

The vision

The vision, according to the above roadmap development process, is contained in two previous TRACER reports:

- Report setting out a vision and future-oriented priorities in Southeast Region in Bulgaria (TRACER D5.3, 2021)
- Projections for the transition to 2030 / 2050 (TRACER D6.1, 2021)

The above reports present the expected transition in SER, including the energy technologies. For doing so, it was necessary to develop projections for the transition to 2030 and 2050, focused on the energy mix required to cover the regional and/or national needs. The energy technologies replacing the currently operating coal-fired power plants are mainly solar PV and storage, complemented by wind, hydrogen, waste incineration, demand response and energy efficiency end-use measures.

The strategy

The R&I strategy of SER (TRACER D6.2, 2022) intends to support the decarbonization of Bulgaria's most coal-intensive region. The document describes R&I approaches in the energy sector and untapped regional development and investment possibilities. The Strategy considers the available region's R&I, economics, and energy infrastructure, as well as the national and regional R&I and decarbonization goals. SWOT analysis was used to identify the Strategy's objectives, priorities, governance, and financing. The analysis showed that the existing R&I operations in the region are inadequate due to a lack of human competency, work organization and monitoring, limited government funding, and low decentralization.

Despite its crucial role in energy generation and distribution, the region lacks a long-term and comprehensive vision for regional energy development. Bulgaria is trying to catch up with other coal-dependent European countries by promoting R&I and attracting serious financing. National and regional R&I policy has advanced due to political will. Solar PV (both large and small scale), hydrogen, batteries, waste incineration, smart grids, and energy system digitalization are expected to be the primary energy-related R&I topics of focus in SER.

The workforce retraining needs report (TRACER D6.3, 2022) is another element of the “strategy”. The decarbonization process needs to both guarantee long-term employment and preserve the high level of living standard in the SER. The completion of this process requires the collaboration of all relevant stakeholders, including local and regional governments and their respective organizations, national governments, trade unions, employer organizations, vocational training and retraining centres, vocational high schools and colleges, secondary schools and high schools offering classes leading to the attainment of professional qualifications, universities, and non-governmental organizations (NGOs). Reskilling / retraining of the workforce is the second main pillar of the current Roadmap and stepping on D6.3 conclusions a set of adequate actions are proposed.

In the course of preparing the analytical documents of R&I potential and reskilling of workforce a large number of funding instruments were identified that will support the proposed in the Roadmap actions. It is apparent that SER has a diversified instrumentarium on which to base its transition and decarbonization activities in the coming years. An overview of the currently available instruments is shown in the Figure below.

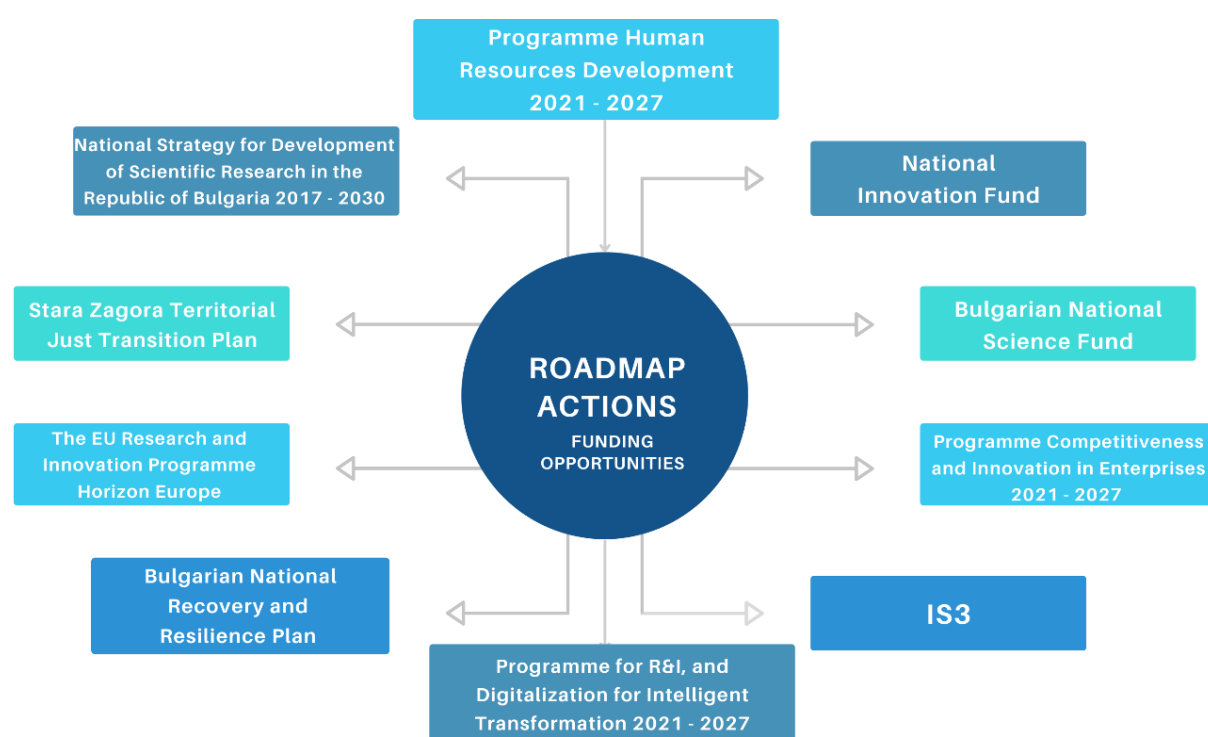


Figure 3: Funding opportunities for SER Roadmap actions

2 Strategic approach for the development of the Roadmap

2.1 Prioritization of R&I activities for the selected energy technologies

The current Roadmap is based on the identified set of priority areas in the energy sector that are applicable for the SER and are meant to satisfy the regional R&I potential. The identified priority areas are focused on the analysis of the region's potential and capacities. These are deemed promising not only in terms of energy generation but also in terms of the region's R&I capabilities.

2.1.1 Research and Innovation in the RES sector

SER does not have much wind potential for power generation, so it is unlikely that significant wind power projects will be implemented in the region. Biomass energy initiatives have similar prospects. On the other hand, SER disposes of significant potential for large-scale and small-scale PV development, especially large-scale PV on the lands of the current Maritsa East coal complex. Moreover, a waste incineration plant is envisaged to be installed in the former coal-fired power plants of the Maritsa East complex.

Despite the strong energy engineering potential, it is very unlikely that SER will rank among the EU's R&I leaders in technological development, due to the region's weak R&I tradition, funding, and infrastructure. Instead, in the realm of renewable energy, the following R&I areas are promising for the region:

- Energy modelling, which includes long-term energy scenario modelling as well as short-to medium-term power market modelling.
- Multidisciplinary socio-economic research related to the market penetration of RES technologies, including studies on people's perceptions, citizen involvement (e.g. in relation to distributed generation, energy cooperatives), cost-benefit analyses and support schemes.

2.1.2 Research and Innovation in hydrogen

Bulgaria and SER, more specifically, have a real chance to start exploiting the hydrogen potential by 2030. The NECP (ME, 2020) recognizes the growing role of hydrogen in the future energy mix of the country. Hydrogen can provide large-scale renewable energy storage while also allowing for sectoral integration, presenting a new pathway for the hydrogen economy. As a result, a legislative foundation, implementation strategy, and hydrogen production plan are crucial components in shaping the country's future energy vision. This further requires bold actions to promote the development and operation of hydrogen production in the region.

Making the shift to green hydrogen socially acceptable and fair is one of the most important tasks of a successful transition. The shift will affect everyone, so it needs to be ensured that the profit and costs of transformation are shared fairly. As a result, the energy transition must be seen as an overall socioeconomic challenge. It is critical to have a committed policy for the public acceptance of hydrogen that demonstrates a clear and transparent regional strategy, encompassing research organizations, state institutions and the industry.

2.1.3 Research and Innovation in smart grids and digitalization of the energy system

The reform of the existing power grid, which in Bulgaria seems to be making timid steps, is a turning point in the establishment of a fully functioning energy system. The lack of reliability and stability of renewable energy sources (RES) is a common argument used to oppose the much-needed reform of the energy system and the integration of decentralized generation, demand response and storage.

As a result, it is critical for R&I to focus on security of supply, and particularly on smart grids. Consumers, grid companies and producers need to become familiar with the future intermittent generation and become more adaptive, as do market players. Smart grids, smart meters, smart utilities, the Internet of Things (IoT), artificial intelligence (AI), and blockchain are just some of the latest advances that are driving the energy industry revolution. SER, as Bulgaria's "energy heart", is well-positioned to participate in the relevant research and innovation activities.

2.1.4 Research and Innovation in energy storage systems

According to the National Recovery and Resilience Plan (CoM, 2022), the SER is envisaged to be a leader in energy storage. The plan aims to accelerate regional decarbonization by constructing huge storage systems that will help the balancing of the energy system. The scope of rules and regulations should be increased and clarified to make the use of batteries and energy storage devices easier.

Prior to the formation of a viable economic sector in the field of energy storage technologies, significant R&I activities must be undertaken. Owing to the large number of trained people and well-developed energy infrastructure, the region appears to be very promising for this sector's growth.

2.2 Prioritization of local workforce reskilling / retraining needs

A stakeholders mapping was conducted and all involved stakeholders in the process of reskilling/upskilling were analysed, including local and regional governments and their organizations, national government, trade unions, employers' organizations, vocational training and retraining centres, vocational high schools, vocational colleges, secondary schools and high schools with classes for obtaining professional qualifications, universities, and non-governmental organizations (NGOs). An important implication was the necessity of joint efforts by all regional and national stakeholders in order to complete successfully the process of Just Transition.

It was crucial to identify the profile of the workforce that needs reskilling, while analysing the retraining demands in the SER that would be triggered by the coal phase-out. However, a significant challenge was to access accurate public information on the personnel sequence of the three TPPs and the mining business that make up the Maritsa East complex (TRACER D6.3, 2022).

In assessing the job creation potential of the renewable energy sector in the SER, it was also important to consider the big variety of jobs that the RES sub-sectors can provide. Beginning with wind energy, the branch can offer occupations at all levels of the hierarchy, such as project developers, service technicians, data analysts, maintenance and repair electricians, power engineers, IT specialists, mechanical and civil engineers, and machine operators. Solar energy may provide job openings for installers and maintainers of PV and solar thermal systems, building inspectors, road construction machine operators, and PV system electricians (RES-SKILL, 2021).

When the total number of new jobs created as a result of the RES boom is weighed against the jobs potentially lost as a result of the region's slow coal phase-out process, it becomes clear that a major shock is unlikely to happen. In fact, several factors will alter the employment environment in the SER, such as migration and retirement patterns of workers, which will make it easier to bridge the gap between new jobs created and jobs lost. In addition, if managed effectively, the expanding renewable energy sector will attract a large number of professionals who are willing to relocate because of the strong employment offer (TRACER D6.3, 2022). All these negative effects are vital to a smooth, fair and just transition in the SER.

The study proved that the intermittent renewable electricity generation in SER, combined with electricity storage and/or green hydrogen production, are among the most promising sectors that will experience labour shortages, especially after 2030 when costs are expected to decrease. Both technologies have significant potential for development in the region in terms of job creation and retraining opportunities. Because of the predicted high intermittent capacities in the near future, it is likely that a large proportion of the batteries produced will be installed in the Maritsa East energy complex, which will require a highly skilled workforce.

2.3 Barriers analysis

In the effort of SER to achieve its transformation and set goals for 2030 and 2050, certain barriers could be pointed out. The detailed analysis of these barriers is very important in the course of the development of the roadmap. After careful exploitation, effective measures to avoid/overcome these barriers could be offered.

2.3.1 Barriers to hinder the development of R&I the SER priority energy technologies

The below listed barriers are a result of further analytical work, based on the weaknesses and threads identified in the R&I Strategy (TRACER D6.2, 2022).

➤ *Barriers to the Research and Innovation in the RES sector:*

- RES future is hindered by unclear policy, heavy and lengthy administrative procedures, and restrictions, such as lengthy processes of connecting to the grid and obtaining a building permit, lack of "one-stop-shops", need of numerous documents, restrictions on decision-making by the apartment owners in multi-family buildings.
- R&I in the field of renewable energy is still subject to "import" from more advanced countries and regions;
- Lack of regional support for R&I in renewable energies.
- Long-term underfunding of research in the SER, which does not allow to develop and publish scientific results in leading scientific journals.
- R&D entities in the region focus their research on conventional energy sources rather than renewables.

➤ *Barriers to the Research and Innovation in hydrogen:*

- Lack of legislative basis for boosting the development of hydrogen (although it is expected that a Hydrogen Strategy for Bulgaria and a Hydrogen Plan for the SER will be put into force by 2030).
- Weak knowledge flows and links between science and business.
- Lack of financial incentives for investments in hydrogen-related R&I both at national and regional level.
- The hydrogen market is new and there are no clear private financing options.
- Lack of functioning R&I entities focused on hydrogen production in the region and lack of know-how.

➤ *Barriers to the Research and Innovation in smart grids and digitalization of the energy system:*

- Lack of clear standards and guidelines across the grid to support the system's interoperability that hinders smart grid deployment.
- Lack of R&D initiatives in the sector that could boost the implementation of digitalization process in the energy system.
- Obstacles to the modernization of the energy grid due to the lack of investments and know-how.

➤ *Barriers to the Research and Innovation in energy storage systems:*

- There is no legislation & policy regulating energy storage.

- Uncertainty about future investments in the sector within the National Recovery and Resilience Plan.
- Difficulty to find relevant professionals to fill in the vacancies in the sector - lack of prepared experts for energy storage systems.

2.3.2 Barriers to the reskilling/retraining of existing workforce

The identified barriers are as follows:

- Brain-drain processes observed in the region, which is expected to rise as a consequence of the Just Transition.
- Missing or poor VET infrastructure in the region.
- Low societal will for reskilling in the mining industry.
- Lack of tailor-made curricula designed specifically for the needs of ex-coal workers.
- Absence of dedicated vocational training linked to the energy technologies in SER.
- Lack of analysis and plan on which new sectors will be developing after the gradual coal phase-out so as to prepare the workforce for them.
- Lack of dedicated policy and legislative measures that could guide the process of reskilling or upskilling of the existing workforce.
- Lack of incentives and stimuli for promoting the retraining of the target group.

3 Recommendations for Measures

3.1 Major axes needed to accomplish the objectives of the R&I Strategy

The development of research and innovation in the energy and environment sectors requires a R&I strategy with a focus on decentralization. This would stimulate the academic and business potential of the region and could be implemented through two main pillars:

1. Introduction of a set of instruments to boost R&I in energy and environment;
2. Improved access to funding opportunities for the regional academy and business.

Based on these two key pillars, three Major Axes could be outlined:

1. Effective national and regional research system through legislative improvement;
2. Investment in research infrastructure;
3. Improvement of the qualification of researchers.

3.2 Major axes needed to fulfill the needs for workforce retraining

The analysis of workforce retraining needs in the SER has outlined three main axes to achieve the objectives set out in the R&I strategy (TRACER D6.3, 2022):

1. Improvement of the regional VET ecosystem and design of curricula addressing the market needs for the affected labour force.
2. Fostering the involvement of the existing and emerging energy businesses in the process of career reorientation.
3. Provision of administrative support to facilitate the workforce retraining.

3.3 Measures proposed under each one of main axes to overcome the barriers

3.3.1 R&I in the energy and environment sectors

Axis 1: Effective national and regional research system through legislative improvement

Measure 1: Establishment of a favourable legislative framework for the promotion of R&I in clean energy technologies and RES introduction and usage

Measure 2: Creation of a direct link between the R&I bodies, academia, business and society to make research and innovation achievements more accessible and applicable

Axis 2: Investment in research infrastructure

Measure 1: Creation of public R&I laboratories (crowding-in effect from public support, resulting in a progressive increase in public R&I intensity in the region)

Measure 2: Investment incentives for promotion of R&I in the business sectors

Axis 3: Improvement of the qualification of researchers in the energy and environment sectors

Measure 1: Conceptualising and facilitating research development through capacity building

Measure 2: Exchange programmes among partner universities/institutes

Measure 3: Promotion of R&I results to boost societal support and increase number of researchers

3.3.2 Workforce reskilling

Axis 1: Improvement of the regional VET ecosystem and design of market-based curricula for the affected labour force

Measure 1: development of regional educational system linked to the market demand, region's potential, developed technologies and workforce specifics

Measure 2: Design of tailor-made training programmes for ex-workers of the mines and power plants

Measure 3: Recognition procedure for skills, knowledge and experience gathered in the coal industry

Measure 4: Creation of financial incentives on a competitive basis for the target group to reskill or upskill through dedicated social policy in the sector

Axis 2: Fostering the involvement of the existing and emerging energy businesses in the process of career reorientation

Measure 1: Provision of incentives for companies that employ retrained workers from the coal sector

Measure 2: Boost the work-based learning methodology

Measure 3: Support internships and practices

Axis 3: Provision of administrative support to facilitate the workforce retraining

Measure 1: Capacity building for public administration for facilitating the process of workforce reskilling/upskilling

Measure 2: Establishment of a functioning informational system for ex-workers of the mines and power plants, providing support and information for career reorientation, quitting the job, social benefits, self-employment initiatives etc.

Measure 3: Facilitation of the informational flow about vacancies and job seekers

4 Action Plan of the Roadmap

4.1 Assessment and prioritization of the proposed measures

In the process of prioritizing initiatives, both the practical viability of each measure and its expected impact are taken into account.

Concerning the assessment of the measures, based on discussions with relevant stakeholders during the working group sessions, the following assessment criteria have been identified:

1. What is the expected contribution to the energy and environment targets¹?
2. What is the economic viability of the proposed measures?
3. What is the social dimension, mostly focused on the acceptance of the proposed measures and the relation to the regional level of employment?
4. Legality, i.e. whether the proposed measures fall under the existing legislative framework or new legislative initiatives are needed.
5. Capacity to implement the support measures.

These 5 assessment criteria are shown in the below figure:

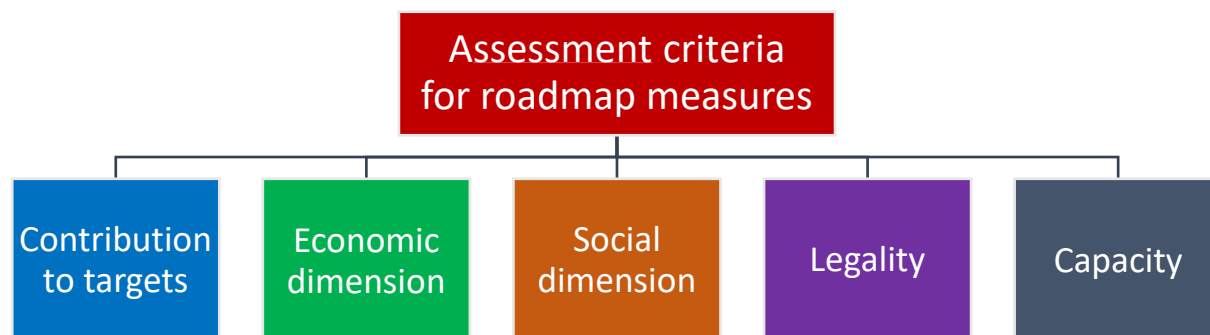


Figure 4: Assessment criteria for the measures within SER's Roadmap

For the prioritization of the measures in the roadmap, the following rating scale is used:

Table 1: Rating scale of the proposed measures

Rating	Contribution
+	Low
++	Medium
+++	High

¹ As of 31st May 2022, in Bulgaria there are such targets only at a national level, but also regional targets will be available after the adoption of the territorial just transition plans.

4.1.1 Assessment and prioritization of the proposed measures to meet the objectives of the R&I Strategy

R&I	Assessment	Priority
Axis 1: Effective national and regional research system through legislative improvement		
Measure 1: Establishment of favourable legislative framework for the promotion of R&I in clean energy technologies and RES introduction and use	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> +++
Measure 2 Creation of a direct link between the R&I bodies, academia, business & society to make R&I achievements more accessible and applicable	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> +++
Axis 2: Investment in research infrastructures		
Measure 1 Creation of public R&I laboratories (crowding-in effect from public support, resulting in increase in public R&I intensity)	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> +++
Measure 2 Investment incentives for business in the sector of R&I	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> +++
Axis 3: Improvement of the qualification of researchers in energy and environment sectors		
Measure 1 Conceptualising and facilitating research development through capacity building	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> ++
Measure 2: Exchange programmes among partner universities/institutes	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> ++
Measure 3: Promotion of R&I results to boost societal support and increase number of researchers	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> ++

4.1.2 Assessment and prioritization of the proposed measures to meet the needs for workforce retraining

Reskilling	Assessment	Priority
Axis 1: Improvement of the regional VET ecosystem and design of market-based curricula for the affected labour force		
Measure 1: Development of regional educational system linked to the market demand, region's potential, developed technologies, and workforce specifics	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> +++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Measure 2: Design of tailor-made training programmes for ex-workers of mines and power plants	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> +++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Measure 3: Recognition procedure for skills, knowledge and experience gathered in the coal industry	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> ++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Measure 4: Creation of financial incentives on a competitive basis for the target group to reskill or upskill through dedicated social policy in the sector	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input checked="" type="checkbox"/> +++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Axis 2: Fostering the involvement of the existing and emerging energy businesses in the process of career reorientation		
Measure 1: Provision of incentives for businesses that employ retrained workers from the coal sector	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> ++ <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Measure 2: Boost the work-based learning methodology	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> +++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Measure 3: Support internships and practices	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> ++ <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

Axis 3: Provision of administrative support to facilitate the workforce retraining			
Measure 1: Capacity building for public administration for facilitating the process of workforce reskilling/upskilling	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	+++
Measure 2: Establishment of an informational system for ex-workers of mines and TPPs providing support & information for career reorientation, quitting the job, social benefits, self-employment initiatives	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	++
Measure 3: Facilitation of the informational flow about vacancies and job seekers	<ul style="list-style-type: none"> • Contribution to energy & environment targets • Economic dimension (costs and viability) • Social dimension (employment & acceptance) • Legality • Capacity 	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	++

4.2 Specification of the set of actions required to implement the Roadmap

4.2.1 Measures regarding the R&I Strategy

Axis 1	Effective national and regional research system
Measure 1	Establishment of favourable legislative framework for the promotion of R&I in clean energy technologies and RES introduction and use
Action 1	Legislative improvements in R&I in clean energy: → Introduction of legislative improvements to encourage the R&I in clean energy and boost its results by 2030 with horizon to 2050 - update of national R&I strategies; form working groups, including innovators, to draft legislation
Involved bodies	Universities; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy; Innovators
Timeframe	2023 - 2030
Funding mechanisms	JTF, ERDF, ESF, Programme "Education" 2021 - 2027; National budget
Action 2	Provision of financial incentives in R&I in clean energy: → Provide new financial incentives to encourage the R&I in clean energy and to boost its results by 2030 with a horizon to 2050
Involved bodies	Universities; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy
Timeframe	2023 - 2030
Funding mechanisms	JTF, ERDF, ESF, Programme "Education" 2021 - 2027; National and Municipal funding where applicable.

Action 3	Promotion of RES utilization and development <ul style="list-style-type: none"> → Promotion of introduction/development of the selected RES technologies in SER Vision 2030 - 2050 → promotion of R&I in hydrogen → promotion of R&I in smart grids & energy system digitalization → promotion of R&I in energy storage systems
Involved bodies	Local and regional authorities from SER; SZREDA, Universities; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy
Timeframe	2023 - 2030, with a horizon 2050
Funding mechanisms	JTF, ERDF, ESF, Programme "Education" 2021 - 2027; National and Municipal funding where applicable.
Measure 2	Creation of a direct link between the R&I bodies, academia, business and society to make R&I more accessible and applicable
Action 1	Boosting the link between the regional and national research ecosystems <ul style="list-style-type: none"> → Supporting co-designed activity programs of at least two study years proposed by educational institutions from "modest" and "moderate" innovation ecosystems and the private sector from innovation hubs
Involved bodies	Universities; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy; Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, and companies.
Timeframe	2023 - 2030
Funding mechanisms	Programme "Education" 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ERDF, ESF, Interregional Innovation Investments (I3)
Action 2	Linking R&I community with business and society <ul style="list-style-type: none"> → Improved innovation resource flows between innovation ecosystems at various stages of development; → Improved entrepreneurial education and local talent equipped to support business acceleration and digitalization; → Enhanced entrepreneurial activity in developing innovation ecosystems and its scale-up across Europe or internationally; → Increased youth (self) employability; → Raised awareness of diverse business cultures and opportunities.
Involved bodies	Universities; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy; Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, and companies.
Timeframe	2023 - 2030, with a horizon to 2050
Funding mechanisms	Programme "Education" 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)

Axis 2	Investment in research infrastructures
Measure 1	Creation of public R&I laboratories; crowding-in effect from public support, resulting in a progressive increase in public R&I intensity in the region
Action 1	Establishment of public laboratories to boost public R&I → Introduction of specifically designed mechanism, to support the establishment of public laboratories and increase R&I knowledge sharing
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy; Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, companies.
Timeframe	2023 - 2030
Funding mechanisms	Programme "Education" 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)
Action 2	Boosting public support to private R&I to intensify the clean coal transition and development of RES technology → Mobilizing public-private partnerships to support private R&I and increase the public support, including financial support to intensify the clean coal transition and development of RES technologies.
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Parliamentary Committee on Education and Science; Parliamentary Committee on Energy; Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, companies.
Timeframe	2023 - 2030 with a horizon 2050
Funding mechanisms	Programme "Education" 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)
Measure 2	Investment incentives for business in the sector of R&I
Action 1	Introduction of financial incentive schemes for R&I public entities → Financial schemes to support public R&I laboratories → Financial schemes to support researchers in R&I public ecosystems → Exchange programmes between public and private R&I ecosystems
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, companies.
Timeframe	2023 - 2030 with a horizon to 2050
Funding mechanisms	Programme "Education" 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)

Action 2	Introduction of financial incentive schemes for R&I private entities <ul style="list-style-type: none"> → Financial schemes to support private R&I laboratories → Financial schemes to support researchers in R&I private ecosystems → Exchange programmes between public and private R&I ecosystems
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); higher education establishments, regional and local public authorities in the field of education and employment, companies.
Timeframe	2030 with a horizon to 2050
Funding mechanisms	Programme “Education” 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)

Axis 3	Improving of the qualification of researchers in R&I in energy and environment sectors
Measure 1	Conceptualising and facilitating research development through capacity building
Action 1	Capacity building for R&I entities - workshops, peer reviews, exchange of good practices <ul style="list-style-type: none"> → Enhancing scientists' and other researchers' capacity to join the European Research Area by supporting market-oriented, internationally applied science and business projects → Financial support for capacity building activities for both public and private R&I entities
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, companies.
Timeframe	2023 - 2030 with a horizon to 2050
Funding mechanisms	Programme “Education” 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)
Measure 2	Exchange Programmes among partnering universities/institutes
Action 1	Establishment of exchange programmes <ul style="list-style-type: none"> → Establishment of postgraduate exchange programmes → Establishment of doctoral students exchange programmes
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Research bodies (Bulgarian academy of sciences, etc.); Vocational schools, higher education establishments, companies.
Timeframe	2023 - 2030 with a horizon to 2050

Funding mechanisms	Programme “Education” 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF (Interregional Innovation Investments (I3), EIE SCALEUP, CONNECT Horizon Europe)
Measure 3	Promotion of R&I results to boost societal support and increase number of researchers
Action 1	Design of an awareness campaign to promote R&I results <ul style="list-style-type: none"> → Creating a communication strategy and awareness campaign for impactful communication and promotion of R&I results. Boosting R&I connection to science, policy, business and wider auditory
Involved bodies	Academia; Ministry of Education and Science; Ministry of Innovation and Growth; Bulgarian Academy of Sciences; Vocational schools, higher education establishments, regional and local public authorities in the field of education and employment, companies; Mass-media, Social media, Influencers
Timeframe	2023 - 2030 with a horizon to 2050
Funding mechanisms	Programme “Education” 2021 - 2027, National Innovation Fund, Digital Innovation Hub Zagore, JTF, ESF, ERDF

4.2.2 Measures regarding the retraining needs of the workforce

Axis 1	Improving of the regional VET ecosystem and designing of a market-based curricula for the affected labour force
Measure 1	Developing a regional educational system linked to the market demand, region’s potential, developed technologies and workforce specifics of the SER
Action 1	Establishing a network of VET centres specialized on ex-coal workers in the affected region <ul style="list-style-type: none"> → Facilitated network of VET centres that are specialized in reskilling/upskilling of ex-coal workers that exchanges experience and good practices
Involved bodies	Ministry of Education and Science, Ministry of Innovation and Growth, Ministry of Economy and Industry, Ministry of Labour and Social Policies, VET centres, regional authorities, universities, trade unions, Vocational schools, regional and local public authorities in the field of education and employment, companies.
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program “Human resource development”, Programme “Education” 2021 - 2027, Horizon Europe, IS3
Measure 2	Design of tailor-made training programmes for ex-workers of the mines and power plants
Action 1	Development of a novel curriculum & tailored training content to facilitate coal workers’ reorientation <ul style="list-style-type: none"> → The actual design of tailor-made training plans that are explicitly dedicated to ex-mine workers → A shorter duration and adapted content

Involved bodies	VET centres, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, universities, trade unions, coal business, regional and local authorities, vocational schools
Timeframe	2022 - 2025
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Erasmus+, Horizon Europe
Action 2	Support VET providers to integrate the learning materials into their VET & WBL offerings <ul style="list-style-type: none"> → Facilitating the VET providers in the process of integrating the designed materials → Consultancy service for ex-coal workers for their career reorientation
Involved bodies	VET centres, Ministry of Education and Science, Ministry of Innovation and Growth, Ministry of Labour and Social Policies, universities, trade unions, local labour agencies, vocational schools
Timeframe	2022 - 2025
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Horizon Europe, Erasmus+
Measure 3	Recognition procedure for skills, knowledge and experience gathered in the coal industry
Action 1	Facilitated procedure for recognition of experience-based skills and knowledge from the coal sector <ul style="list-style-type: none"> → Facilitated recognition of experience in the energy sector → Facilitated recognition of skills and knowledge in the energy sector
Involved bodies	Ministry of Education and Science, VET centres, Ministry of Labour and Social Policies, universities, local labour agencies
Timeframe	2022 - 2030
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Measure 4	Creating financial incentives on a competitive basis for the target group to reskill or upskill through dedicated social policy in the sector
Action 1	Distribution of pre-paid vouchers for retraining courses for career reorientation in the energy sector <ul style="list-style-type: none"> → Obtaining access to free retraining courses specially designed for coal workers willing to reskill/upskill and remain in the sector → Internationally recognized certificate after successful completion of the course
Involved bodies	VET centres, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, companies
Timeframe	2022 - 2025

Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Action 2	Distribution of pre-paid vouchers for retraining courses for career reorientation outside the energy sector <ul style="list-style-type: none"> → Obtaining access to free retraining courses specially designed for coal workers willing to reskill/upskill and to reorient to a different economic sector → Internationally recognized certificate after successful completion of the course
Involved bodies	VET centres, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, local business
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027

Axis 2	Fostering the involvement of the existing and emerging energy business in the process of career reorientation
Measure 1	Incentives for businesses employing retrained workers from the coal sector
Action 1	Financial tools in support of employers for hiring retrained workers from the coal sector <ul style="list-style-type: none"> → Support mechanisms for employers that are willing to hire target group representatives - vouchers, tax relief etc.
Involved bodies	Ministry of Finances, Ministry of Economy and Industry, Ministry of Education and Science, Ministry of Labour and Social Policies, local labour agencies, National Revenue Agency, companies
Timeframe	2022 - 2030
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Action 2	Facilitated hiring procedures for ex-coal workers <ul style="list-style-type: none"> → Supporting the ex-coal workers in: <ul style="list-style-type: none"> • CV elaboration • job interview preparation • documentation for the new job
Involved bodies	Ministry of Finances, Ministry of Economy and Industry, Ministry of Education and Science, Ministry of Labour and Social Policies, local labour agencies, companies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027

Measure 2	Boosting the work-based learning methodology
Action 1	Improved cooperation between VET providers & businesses to provide opportunities that will enable coal workers to transition <ul style="list-style-type: none"> → Facilitated communication channel between VET providers and business in order to ensure smooth retraining and transition of the ex-coal workers to new companies → Link between VET training vacancies and open positions in the local and regional business
Involved bodies	VET centers, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Action 2	Financial tools to cover expenses for work-based learning <ul style="list-style-type: none"> → Financial stimuli for employers when applying the work-based learning in the career reorientation of ex-coal workers → Financial stimuli for employees for participation at work-based learning processes for acquiring new skills and knowledge
Involved bodies	VET centers, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Measure 3	Supported internships and practices
Action 1	Implementing specialized internships for ex-coal employees <ul style="list-style-type: none"> → Offering a wide range of paid internships tailored specifically for ex-coal workers → Elaboration of a methodology for successful implementation of internships for ex-coal workers
Involved bodies	VET centres, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, labour agencies
Timeframe	2022 - 2030
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027

Action 2	Financial instruments to pay the internships <ul style="list-style-type: none"> → Support mechanisms for employers that are willing to propose internships for ex-coal workers in the form of vouchers, tax relief, etc.
Involved bodies	VET centres, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027
Action 3	Scholarships for ex-coal workers <ul style="list-style-type: none"> → Successful re-trainees to be awarded scholarships → Show off the good examples
Involved bodies	VET centres, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027

Axis 3	Provision of administrative support to facilitate the workforce retraining
Measure 1	Capacity building for public administration for facilitating the process of workforce reskilling/upskilling
Action 1	Training of the administration to deal with people from the coal sector in a process of reskilling <ul style="list-style-type: none"> → Special courses for authorities' staff for enabling the smooth process of retraining and reskilling of ex-coal workers
Involved bodies	National, regional and local authorities, VET centres, Ministry of Education and Science, local business, Employment Agency
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Action 2	Establishing a department in each of the affected municipalities that takes care for employees in the process of career reorientation <ul style="list-style-type: none"> → Dedicated department for the matters of Just transition and Green Deal in each of the affected municipalities

Involved bodies	National, regional and local authorities, VET centres, Ministry of Education and Science, local business, Employment Agency
Timeframe	2022 - 2030
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Measure 2	Establishing a functioning informational system for the ex-workers in mines and power plants providing support and information for career reorientation, quitting the job, social benefits, self-employment initiatives etc.
Action 1	Creating a database with all relevant data necessary for career reorientation <ul style="list-style-type: none"> → Gathering and sorting of data relevant for ex-coal workers in regard to: <ul style="list-style-type: none"> • career reorientation • quitting current job • social benefits • compensations • self-employment initiatives
Involved bodies	IT business, local administration, VET centres, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, Ministry of e-Government, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Action 2	Creating the software to support ex-coal workers <ul style="list-style-type: none"> → The elaborated database is applied for the design of a software/application that guides the career orientation of ex-coal workers
Involved bodies	IT business, local administration, VET centres, local business, Ministry of Education and Science, Ministry of Innovation and Growth, Bulgarian Academy of Sciences, Ministry of Labour and Social Policies, Ministry of Finance, Ministry of e-Government, universities, trade unions, labour agencies
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Action 3	Promoting the service for administrative support of ex-coal workers <ul style="list-style-type: none"> → Relevant marketing of the designed service and dissemination of its functionalities to reach targeted group
Involved bodies	Regional and local administration, labour agencies, regional and local media

Timeframe	2022 - 2025
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Measure 3	Facilitating the informational flow about vacancies and job seekers
Action 1	Regular communication with employers <ul style="list-style-type: none"> → Maintaining a regular contact with employers for mapping their actual need of workforce
Involved bodies	National and local labour agencies, Ministry of Labour and Social Policies, Ministry of Finance, regional and local authorities, employers' organizations, trade unions
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Action 2	Regular communication with job/training seekers <ul style="list-style-type: none"> → Maintaining a regular communication with job and training seekers for mapping their actual need of retraining/ reskilling/ upskilling needs
Involved bodies	National and local labour agency, Ministry of Labour and Social Policies, Ministry of Finance, regional and local authorities, employers' organizations, trade unions
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "
Action 3	Regular conduction of Info-days, open days, career fairs <ul style="list-style-type: none"> → To improve the bilateral communication between employers and employees - conduction of: <ul style="list-style-type: none"> • Info days • Open days • Career fairs
Involved bodies	National and local labour agency, Ministry of Labour and Social Policies, Ministry of Finance, regional and local authorities, employers' organizations, trade unions
Timeframe	2022 - 2030 with a horizon to 2050
Funding mechanisms	JTF, ERDF, ESF, Operational Program "Human resource development", Programme "Education" 2021 - 2027, Program "Competitiveness and Innovation in Enterprises" 2021-2027, Program "Technical support" 2021-2027, Operational Program "e-Government and Technical Assistance "

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