



LIFE-IP North-HU-Trans

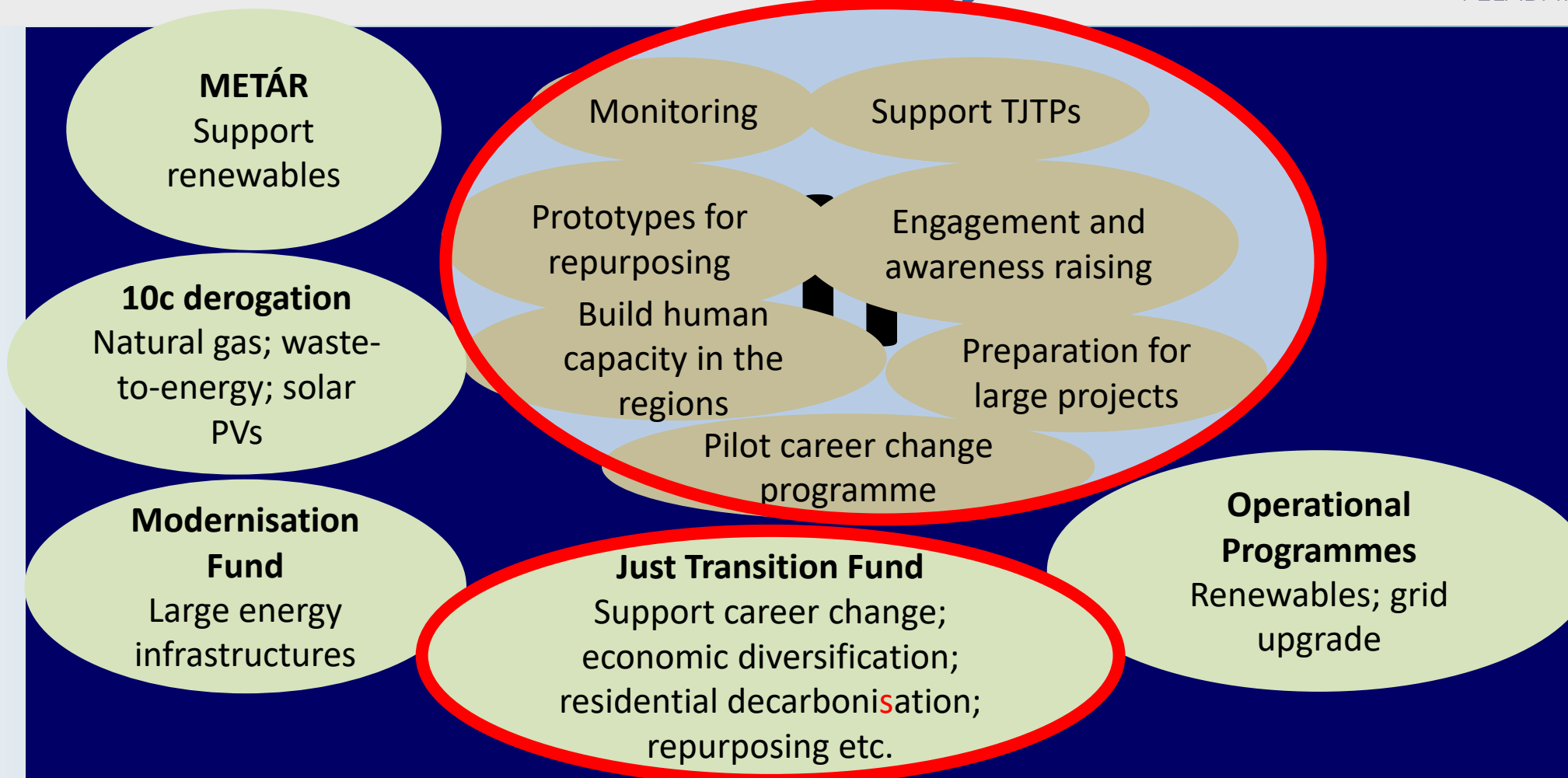
Secure and start implement an effective roadmap for the low-carbon transition of the single largest coal region in Hungary



MINISTRY FOR
INNOVATION AND TECHNOLOGY

Ministry for Innovation and Technology, Hungary

Lignite phase-out is a crucial part of the National Climate and Energy Plan



Overall goal is the wide implementation of the
NECP

Strategic approach to phase-out lignite

EU LIFE Programme (accelerator funding)

- **Project title:** Secure and start implement an effective roadmap for the low-carbon transition of the single largest coal region in Hungary (North-Hungary; LIFE-IP North-HU-Trans)
- **Total Budget:** 14.878.324 EUR (60% EU co-finance)
- **Project duration:** 01/09/2020 – 31/10/2029 (9 years)

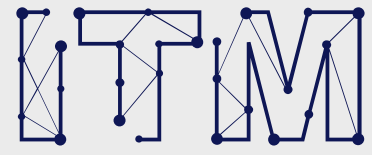
Expected results

- **Decarbonisation:** - 6.5 million tons CO₂ emission reduction (= 14% of total domestic and 50% of total domestic CO₂ emissions from power generation)
- **Human capacity** building for planning and implementing the transition at central, regional & local level.
- **Full implementation** of the industrial coal phase-out
- **Prototypes to substitute lignite-fired technology** and test flexibility solutions as repurposing of mine-sites
- Implement **career change** and **supply-chain companies'** mentor programme at pilot level
- **Replicate** successful elements in Eastern-Europe's lignite regions
- Mobilise **complementary funds** to finance the NECP implementation

SRSP to provide technical support for the elaboration of the JTPs by Hungary

- Successful application for **technical assistance to the European Commission** for the preparation of the Territorial Just Transition Plans (JTP);
- The European Commission selected the **KPMG consortium** within the SRSP project to provide technical support
- **The preparation of JTPs is currently still underway;** the drafts JTPs of Heves, Borsod-Abaúj-Zemplén and Baranya counties are available
- **Selection of affected NUTS3 regions:** based on (1) statistical analysis (2) the territorial distribution of coal and natural gas power plants and fossil fuel extraction activities.
- The EC's 2020 European Semester Country Report Annex D was also taken into account for the analysis in the selection
- **Key characteristics:** Heves (Mátra Power Plant), Borsod-Abaúj-Zemplén (lignite mine in Bükkábrány) – the two last remaining Hungarian coal districts; Baranya (energy-intensive industries, cement production). Reason: the highest socio-economic risk of the transition to climate neutrality.
- JTPs will be submitted to the EC as the fifth priority axis of the Energy Efficiency Operational Program + (EEOP+ KEHOP+)

LIFE-IP North-HU-Trans and key transition aspects



FELADATUNK A JÖVŐ

Transition strategy

- Based on **key stakeholders** (government, industry, trade unions, regional and local authorities, regional actors)

Governance of transition

- Gradual phase-out of lignite capacities and mines: milestones, agreements, conditions

Technology options

- Mobilize **complementary funds**

- Large project partnership** (1 background institution, 2 county government offices, 3 local municipalities, 1 central authority, 1 university, 8 enterprises, 1 CSO, 2 trade unions, 2 county chambers of commerce and industry).

- Coal Commission:** 6 working groups (phase-out; employment, economy; environment; energy poverty; finance)

- Prototypes to substitute lignite-fired capacities:** solar PVs, combination of solar PVs and energy storages; Artificial Inertia to improve grid stability problems (caused by disappearing rotating generators) etc.

- Prototypes to substitute lignite in the residential** sector: individual building efficiency; energy community

- Environmental monitoring

- Agriculture, forestry, aquaculture, environmental education, recreation, water retention

- Protection of mining cultural heritage

- Segmentation of workforce** based on age, health conditions, skills, experience, location, willingness to change career, etc.

- Support career change** for 500 workers and miners of the MPP preferably towards green economy

- Segmentation of supply chain companies** (suppliers, buyers, clients) of the lignite sector: number and value of contracts, number of employees etc.

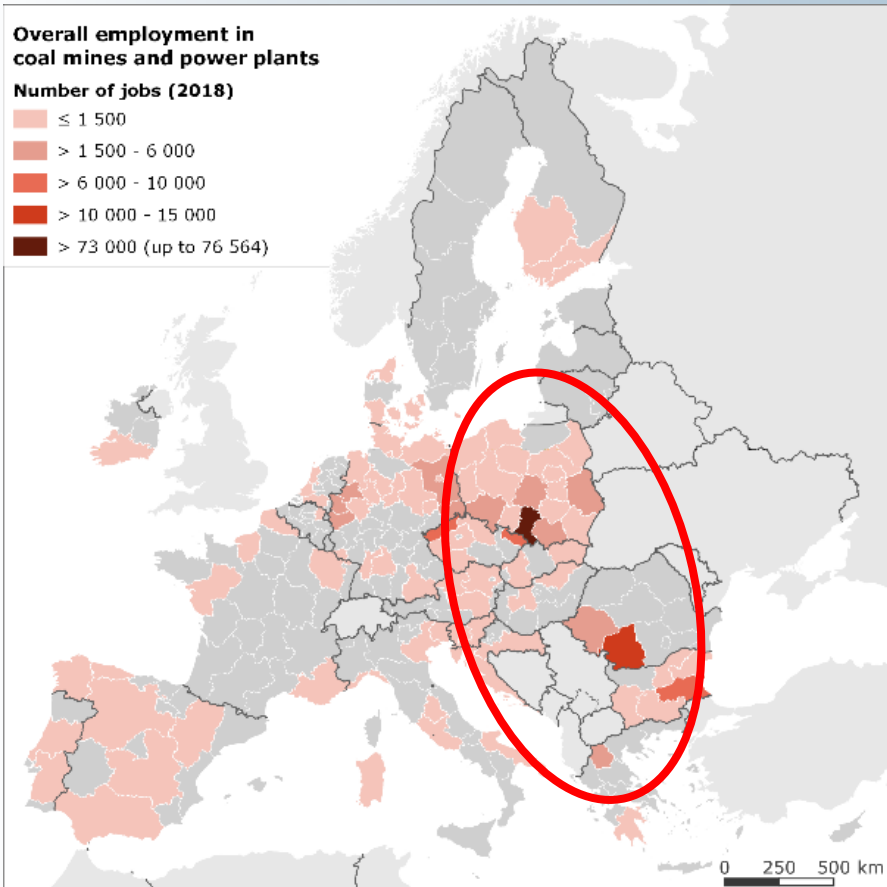
- Support 250 companies (among the 951 affiliated and supply chain companies of MPP) to enter new markets, supply chains and find new clients and customers preferably in the green economy sector.

Repurposing of pre-existing mine sites

Sustainable employment

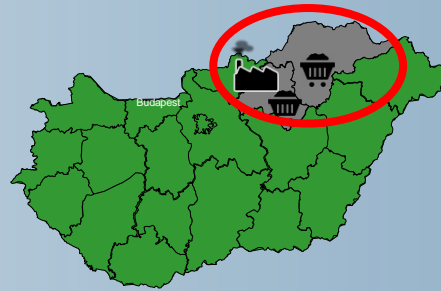
Economic diversification

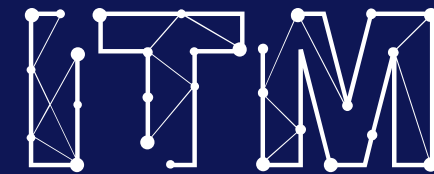
Replication potential: Eastern Europe's lignite regions



Collaboration opportunities and replication where....

- electricity production is based on lignite;
- mining is significant (in terms of **assets, operational costs, number of direct and indirect jobs**, volume of production, recultivation liabilities);
- coal/lignite import is irrelevant – domestic production is dominant;
- electricity is produced by vertically integrated companies (mine + power plant);
- residential lignite has to be substituted;
- **industry tax income** of local municipalities paid by coal industry is proportionately high





FELADATUNK A JÖVŐ

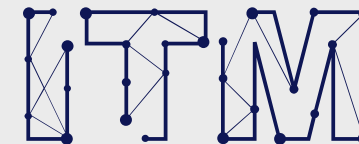
Territorial Just Transition Plans of Hungary



MINISTRY FOR
INNOVATION AND TECHNOLOGY

Ministry for Innovation and Technology, Hungary

Status of the TJTPs: affected sectors and workplaces



INNOVATION AT WORK

Assessment of the challenges posed by the transition in each of the identified areas

- Assessing the challenges posed by the transition, already limited to the given county.
- Economic, social and territorial assessment of the transition to a climate-neutral economy.



Coal mining



Coal - based electricity generation



Manufacture of building materials and chemicals



Heavy industry



Automotive industry and its supplier value chain

6 main types of activities have been identified, within which further actions have already been further specified for the county(ies) concerned.

- 1) Investment in training and retraining of the workforce;
- 2) Green economic diversification, technological change, promotion of research and development and innovation;
- 3) Encouraging the development of renewable energy infrastructure
- 4) Encourage environmentally friendly household energy production and energy usage;
- 5) Green public transport development;
- 6) Sustainable repurposing of mining sites (only Heves and BAZ).

The Fund can help maintain around 4,000 jobs in the three counties

Declining sectors

The goal is to keep jobs.

Transforming sectors

The goal is to support adaptation.

1. Heves County



2 300 jobs



3 400 jobs

2. Borsod-Abaúj-Zemplén County



1 700 jobs



7 300 jobs

3. Baranya County



1 200 jobs



3 000 jobs