



Strategy of Economic Restructuring of Usti, Moravian-Silesian and Karlovy Vary Regions

**Working Group 1:
Post-coal economy and structural transformation
- Project Lab –**

**Priority projects in Coal Regions
in Transition in Czech Republic**

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Strategy of Economic Restructuring
of Usti, Moravian-Silesian
and Karlovy Vary Regions

East Railway Station in Děčín - complex brownfield restructuring

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East Railway Station in Děčín
- complex brownfield restructuring

Basic facts

- The project aims at a complex restructuring of the brownfield, which is formed by the extensive territory of the so-called Eastern Railway Station in Děčín.
- main goals:
 - To transform a part of the territory in the area to be useful for the development of business activities,
 - to transform the building of the former Austrian Northwest Railway into a modern educational center of the CTU - Faculty of Transportation,
 - Fostering the potential of R&D activities (e.g. of the CTU) in the field of transportation and road safety - e.g. testing of new rolling stock, development of safety measures.



East Railway Station in Děčín - complex brownfield restructuring

Starting points

City of Děčín – economic growth is limited by lack of the area for further business development

- surroundings of the city: nature protected areas, forests, steep hills,
- centre of the city: Elbe river with the flood-protection zone,
- important road and rail communications through the city,
- loss of traditional jobs in the river transport of coal, railway and river reloading of the goods,
- downturn of traditional industries (eg. production of textiles) and potential for the growth of new perspective branches (growing companies are seeking location for further development).



⇒ **revitalized brownfields represent the only possible areas for further development**

East Railway Station in Děčín
- complex brownfield restructuring

Eastern Railway Station Brownfield

- existing large railway infrastructure, which is not fully utilized (and will not be even in the future)



- the main station building is vacant and it is slowly becoming one of the historical technical monuments under the threat of total gradual degradation.



East Railway Station in Děčín
- complex brownfield restructuring

Eastern Railway Station Brownfield

- the railway station is considerably oversized in view of current needs:
 - passenger trains redirected to Děčín Main Station,
 - local transport is dominated by road lorries,
 - trains are only passing the station,
 - no more border controls or checks of the trains,
 - most of the buildings are abandoned.



East Railway Station in Děčín
- complex brownfield restructuring

Eastern Railway Station Brownfield

- main building – historical monument facing degradation:
 - still one of the best preserved ancient large stations in Europe (similar stations of same type located in Wien and Prague are already gone),
 - great potential for rescuing the building and its meaningful use.



East Railway Station in Děčín - complex brownfield restructuring

Master plan for Eastern Railway Station Brownfield

- rebuild the old and underutilized railway infrastructure into the area for development of the business, transport, services and education,
- reconstruct the rail system from existing 26 rail tracks into 14 rail tracks,
- utilize 2/3 of existing brownfield area for development of a new industrial zone,
- saving the main building and rebuilding it into the multi-functional educational centre, dedicated mainly to the Czech Technical University - Faculty of Transportation.



Project effects:

- creation of an industry zone in an area where free areas are not available,
- creating hundreds of new jobs (400-500),
- use of brownfields, protection of green areas,
- access to international transport links between the Czech Republic and Germany,
- creating potential for the development of education and improving level of education in the region (education centre for 100+ permanent students + teachers),
- synergy with the transport infrastructure,
- cross-boarder cooperation with nearby schools and industry in Saxony (Germany),
- utilization of existing service infrastructure.

East Railway Station in Děčín
- complex brownfield restructuring

Estimated project budget:

- Railway infrastructure reconstruction – 700 mio. CZK / 28 mio. €
- Land acquisition - 100 mio. CZK / 4 mio. €
- Environmental clean-up – 100 mio. CZK / 4 mio. €
- Rebuilding the main station – 400 mio. CZK / 16 mio. €
- Investments in the multi-functional education centre - 100 mio. CZK / 4 mio. €
- Supporting service area, accommodation - 100 mio. CZK / 4 mio. €
- **Total estimated budget – 1 500 mio. CZK / 60 mio. €.**

FINANCING THE PROJECT

- mix of sources is assumed:
 - state budget,
 - private funding,
 - EU funds.

PROJECT STATUS

- in preparation,
- seeking for financing,
- realization - 2020 - 2025.

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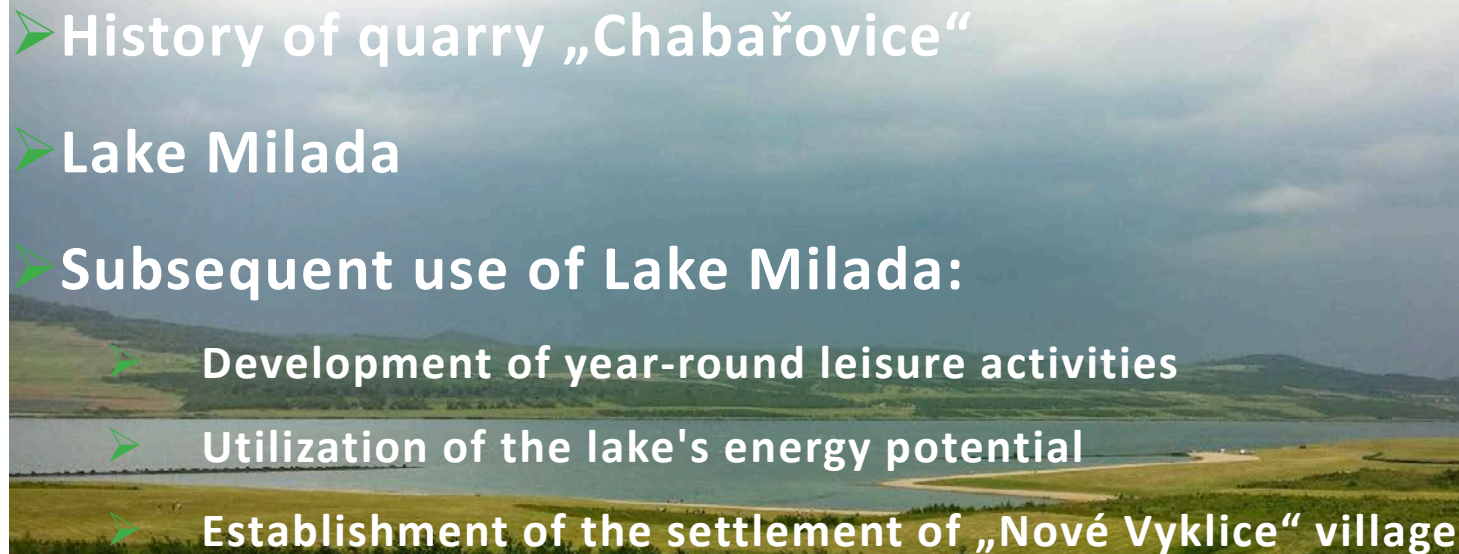


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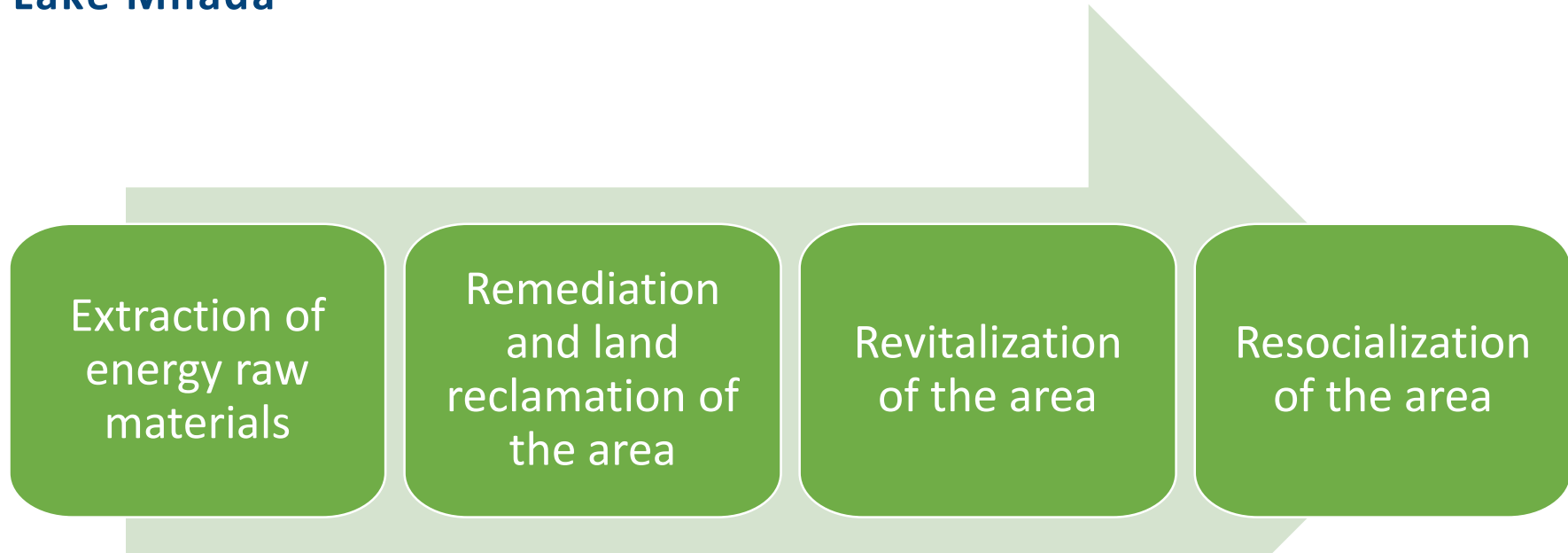
Reclamation, Revitalization and Resocialization of Lake Milada

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Restoration and Resocialization of Lake Milada

- 
- A wide-angle landscape photograph of Lake Milada. The lake is a large, calm body of water in the middle ground, surrounded by green fields and low hills. The sky is overcast with grey clouds. In the foreground, there is a gravel path and some green vegetation.
- History of quarry „Chabařovice“
 - Lake Milada
 - Subsequent use of Lake Milada:
 - Development of year-round leisure activities
 - Utilization of the lake's energy potential
 - Establishment of the settlement of „Nové Vyklice“ village

Approach to the process of restoration and resocialization of Lake Milada



A high-quality approach to mitigating the consequences of mining activities and restoring the landscape affected by the extraction of energy raw materials and bringing the area back to the use of society requires a systematic and comprehensive approach to the solution of all coherent and interconnected entities.

Approach to the restoration and resocialization of Lake Milada



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Post-coal economy and structural transformation - Project Lab
Reclamation, revitalization and **Resocialization of Lake Milada**

Extraction of energy raw materials



- Mining took place between 1977 and 1997
- Annual production of 5 mio. tons of lignite
- In total 61 mio. tons of coal was extracted and 262 mio. m³ of soil was excavated.



Quarry Chabařovice

Remediation of the site and land reclamation

Lake Milada

- Remediation and reclamation works were carried out on the territory of the former lignite quarry of Chabařovice.
- The main object of the hydric reclamation is the Lake Milada.
- The whole area of the lake was designed as a suburban leisure zone and the area was made available for the public in 2015.



Remediation of the site and land reclamation

- 
- An aerial photograph showing a large, irregularly shaped lake (Lake Milada) surrounded by green fields and forests. In the distance, a town or city is visible under a clear blue sky.
- Start of filling: June 2001
 - Completion of filling: August 2010
 - Area of reclamation: 1 541 ha
 - Flooded area: 252.2 ha
 - Water volume: 35.6 mio. m³
 - The length of the peripheral communication of the bank line: 8 700 m
 - Operating level of 145,7 m above MSL
 - Maximum depth: 25.3 m
 - Average depth: 15.5 m

Revitalization of the area



Development of year-round leisure activities.

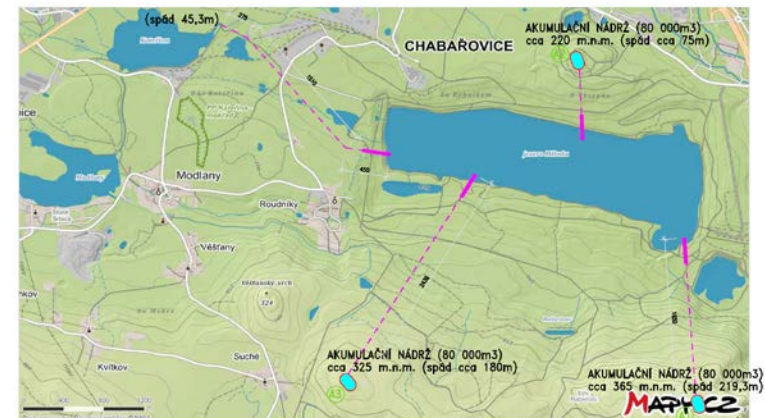
Revitalization of the area



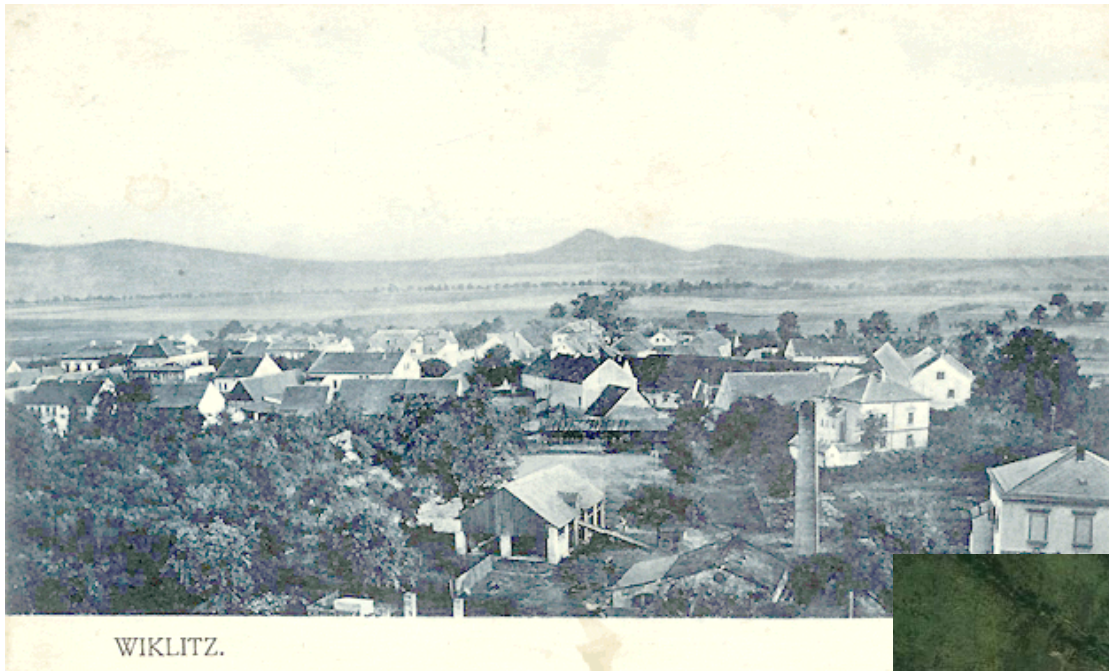
Utilization of the energy potential of surface water

- a significant potential is represented by the possibility of building pumped-hydro power plants using the newly created lake

- With an appropriate addition of an energy storage facility for storing the surplus energy, the pumping station is an effective tool for balancing and regulating the electricity transmission system.
- This utilization can also help to finance the costs connected with operation and management of reclaimed areas.

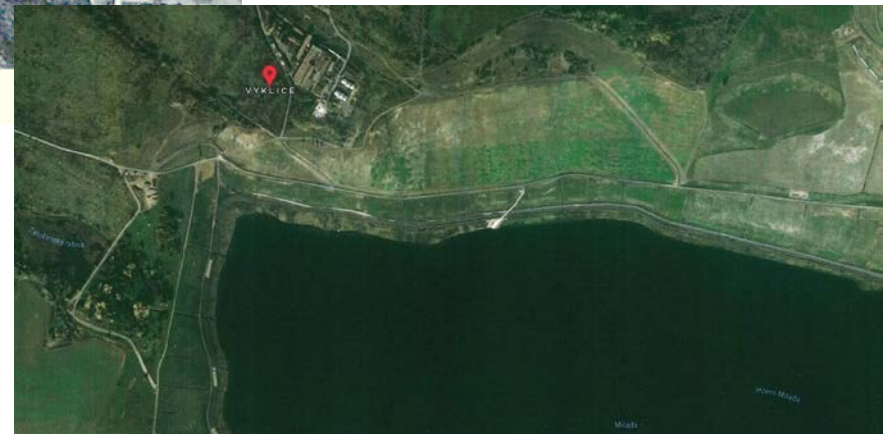


Resocialization of the area



Establishment of the settlement of „Nové Vyklice“ village

Resocialization of the revitalized area by the construction of the settlement „Nové Vyklice“ village near the place where the original village of Vyklice were situated (demolished between 1981 and 1982).



Reclamation, revitalization and **Resocialization of Lake Milada**

Project effects:

- completion of reclamation processes,
- the creation of a new space for leisure, sport and tourism,
- improving the image of the site and its surroundings,
- attracting new investments,
- development of the potential for energy use of the area - pumping power plant.

Financing the project:

- estimated budget – 1 700 mio. CZK / 68 mio. €
- mix of sources is assumed:
 - EU funds,
 - state budget,
 - municipalities budget.

Project status:

- reclamation – finished,
- revitalization – ongoing,
- resocialization – in preparation,
- realization – 2001 – 2025.

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Strategy of Economic Restructuring
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and Karlovy Vary Regions

Connection of reclaimed spoil tip „Krušné hory“ to public transport infrastructure in Karlovy Vary Region and related investments

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DESCRIPTION OF THE MEASURE

- preparing a connection of reclaimed spoil tip „Krušné hory“ to public transport infrastructure in Karlovy Vary Region,
- a new development centre on former spoil tip - **„BMW Group Future Mobility Development Center“**
- a new centre for R&D activities,
- building up a car park for visitors and suppliers, bus stations and charging station for electric cars and related underground utilities.

PROJECT EFFECTS

- starting point for future development of region,
- making a contribution to new job opportunities for high educated workers,
- development of R&D in the Karlovy Vary Region, development of new business opportunities,
- new job opportunities would help to attract new young and talented people to the region,
- adaptation of the current educational programmes at high schools in order to prepare well qualified future workers for activities in automotive industry, digitalization and autonomous car manufacturing.

PROJECT EFFECTS

- development of cooperation with technical universities in Prague, Pilsen and Brno with which the investor wants to enter into strategic partnership.

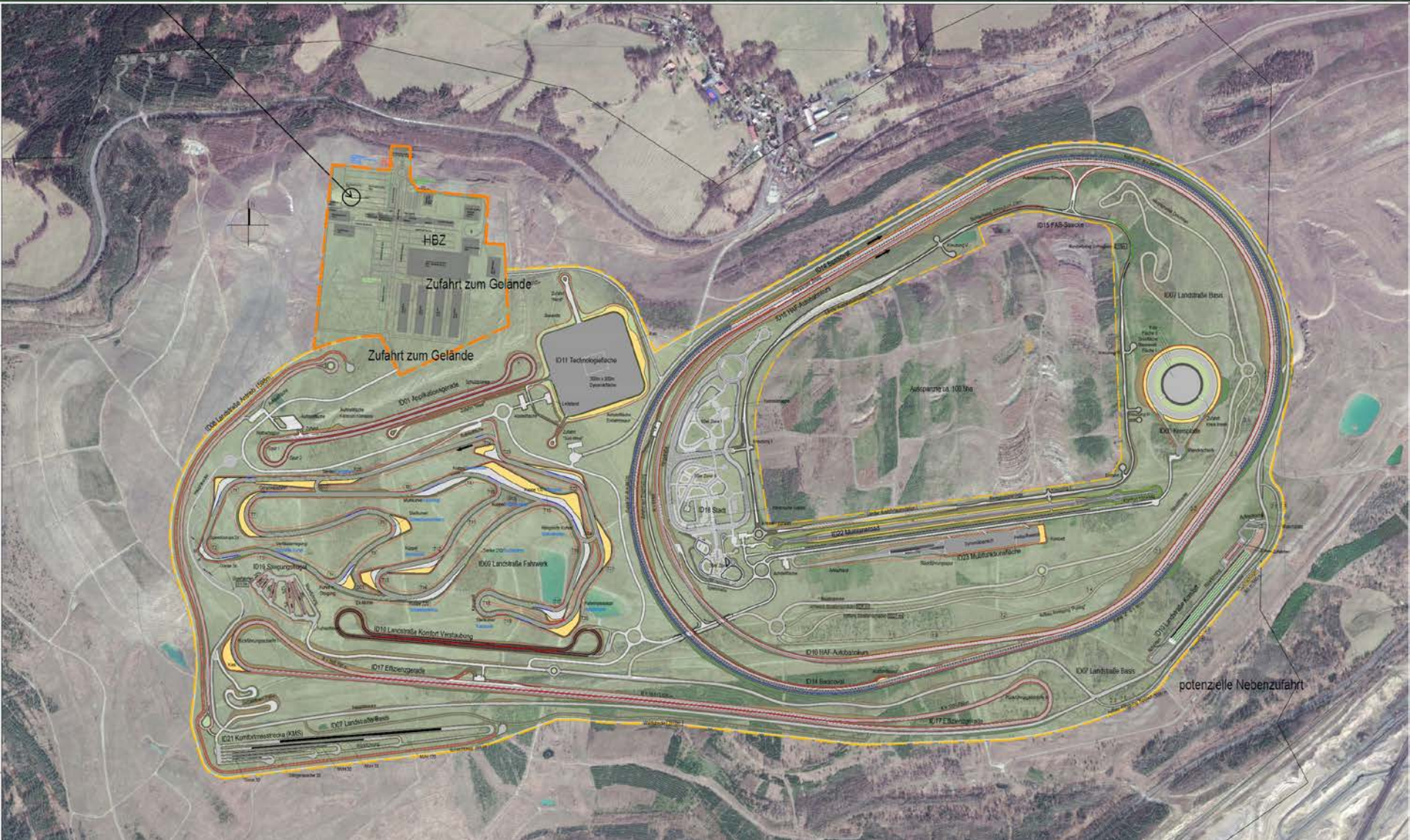
FINANCING THE PROJECT

- mix of sources is assumed:
 - state budget,
 - private funding.

PROJECT STATUS

- in preparation,
- realization – 2018 – 2022.

Connection of reclaimed spoil tip „Krušné hory“ to public transport infrastructure in Karlovy Vary Region and related investments



Connection of reclaimed spoil tip „Krušné hory“ to public transport infrastructure in Karlovy Vary Region and related investments



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Strategy of Economic Restructuring
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Mining pit sites reclamation

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Mining pit sites reclamation

Challenges for after mining site development

Minuses of the landscape after deep black coal mining

- **Undermined**, but declination stops after 5-10 years
- **Without dwellings**, with minimum roads and infrastructure
- **Not used** for public life

Pluses of the area

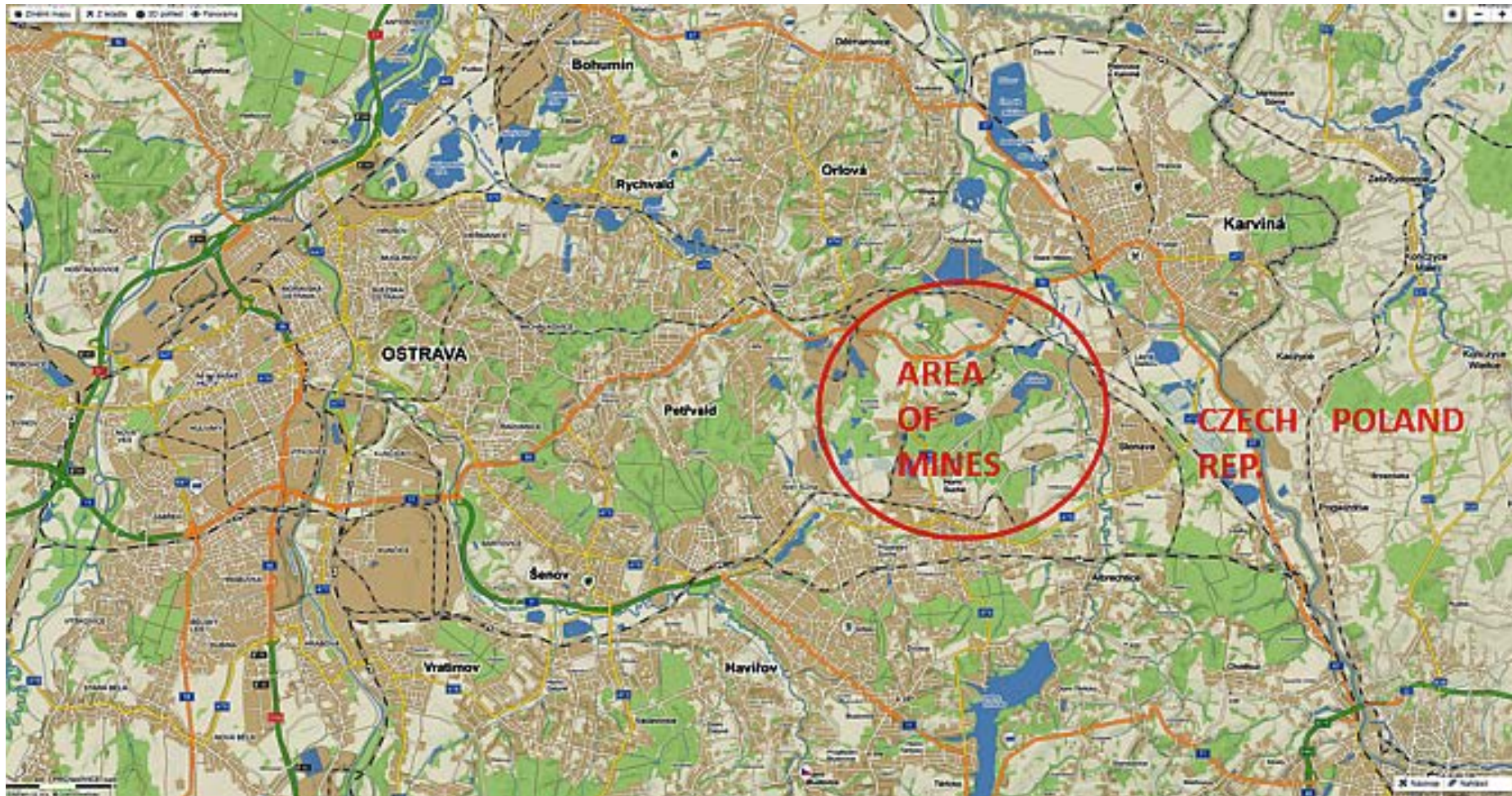
- Sites equipped with **high capacity infrastructure**
- Connected with **railway** trucks
- **Single ownership** of state or one private owner
- Possibility to **create new landscape** and facilities based on advanced **master plan** for the whole area
- Neighbourhood of **population of 200.000**, population of min. 3 mil. (incl. Poland) in 1 hour drive

Sites for immediate redevelopment



Mining pit sites reclamation

Urbanization 600.000 on the Czech side



Mining pit sites reclamation

Good practise in reclamation for industry

Industrial zone František and Dukla

František mine closed 1998

- state transferred the site to Horní Suchá municipality in 2004
- Infrastructure built with Czech subsidy aprox. 8 mil. EUR
- Individual private and municipal projects wit EU support

Dukla mine closed 2007

- Private land, partnership with municipality of Havířov in 2010
- Infrastructure built with Czech subsidy aprox. 8 mil. EUR
- Sale of land to international producer - Private development

Mining pit sites reclamation

**Good practise in
reclamation for industry**

Industrial zone František



Mining pit sites reclamation

Good practise in reclamation for industry

Industrial zone Dukla



Mining pit sites reclamation

Good practise in reclamation for leisure

Golf Karviná - opened 2012

- Golf Club on stable land built with EU subsidy Land under playground still partly undermined,
- Golf playground shaping built as mine reclamation project

Leaning Church site – historical monument, 37 meters of decline

- Church preserved with mining reclamation projects

Dinopark Doubrava (Ostrava) opened 2009

- Long term lease of private land of mining tip for EU financed leisure Dinopark

Karviná lake

- 20 meters deep lake caused by mining decline
- Reclamations going on for 10 years with final use of recreation area
- Construction of camping site, beaches, fishermen facilities

Mining pit sites reclamation

Good practise in reclamation for leisure

- DINOPARK DOUBRAVA
- GOLF KARVINÁ
- LEANING CHURCH



Mining pit sites reclamation

Planned projects

- Project led by the Region in close cooperation with stakeholders – municipalities, significant enterprises and authorities
- Area **masterplan** with pipeline of projects according to mine closures
 - Finding use for sites
 - Finding projects for clean energy resources uses (geothermal, mine gas)
 - Investment enhancing activities
- Bringing necessary road **infrastructure** both major and access roads (partly planned), Adjusting existing infrastructure
- **Landscaping and water management projects** for declined lakes
- **Industrial zone** Barbora 100 ha – already planned
- Industrial zone Frantisek and Dukla – extension to existing site

Mining pit sites reclamation

Financing and management of activities

Coordination and project management

- Setting up Agency/Unit to develop the whole area – starting with combined EU and national resources
- Start 2018/2019, Budget aprox 4 mil. Euro for 3-4 years, depending on experts costs

Planning

- Masterplan to be developed with help of EU (both financial and experts)
- Start immediate 2018, project thesis available, budget 1,5 mil.Euro

Reclamation works – basic scope of works

- Compulsory mining company reserves in accordance with The Czech Mining Law
- Ongoing planning and construction activities to be amended

Landscaping, water management and Infrastructure project

- Combined municipal, regional, state and EU funding
- Some projects prepared, other according to Master plan

Development

- Private investments, marketing to be prepared

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position / function

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EMPLOYMENT AND EDUCATION

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EMPLOYMENT AND EDUCATION

Challenges of the labour market in the region

- High unemployment rate in relation to national average
- High percentage of long-term unemployed caused by:
 - Closing major industrial companies
 - Low mobility for new jobs
 - Low interest in retraining to new professions
- Insufficient structure of education :
 - Limited flexibility of professional and vocational education (education not matching needs of the market)
 - Limited flexibility of existing system for career guidance on all levels
 - Lack of professionals in new industries and services

EMPLOYMENT AND EDUCATION

Needs of the Region

- Well **educated** people according to needs of industry, services and public authorities in the world of society / industry 4.0
- Up-to date **information** on the demand and supply in the labor market
- Implementation of the **Career Guidance System** for better choice of study and occupation
- Linking key partners of the "**world of work**" and the "**world of education**" to better professional training
- Implementation of innovative and piloted programs to develop system of **initial and lifelong learning and transfer of competences** in the region (some already-validated)
- Inspiration from exiting EU solutions

EMPLOYMENT AND EDUCATION

Objectives – CAREER GUIDANCE

Set up system for career guidance to ensure mobility in the labour market:

- career guidance **methodology for adults** - existing workforce
- career guidance methodology for career **consultants at schools** - for future workforce
- **pilot** testing project
- **implementation** of the system

Budget: about 2 million euros

Project start 2019 - 2022

EMPLOYMENT AND EDUCATION

Objectives – TARGETTED TRAINING

Training at schools according to identified employers and future labour market needs:

- methodology for setting up **partnerships between schools and companies** – training in the company environment
- recommendations on **changes to the Framework of education** system
- **pilot** testing project
- **implementation** of the system

Budget: about 2 million euros

Start – 2019, 2 years

EMPLOYMENT AND EDUCATION

Territorial Employment Pacts (TEPs)

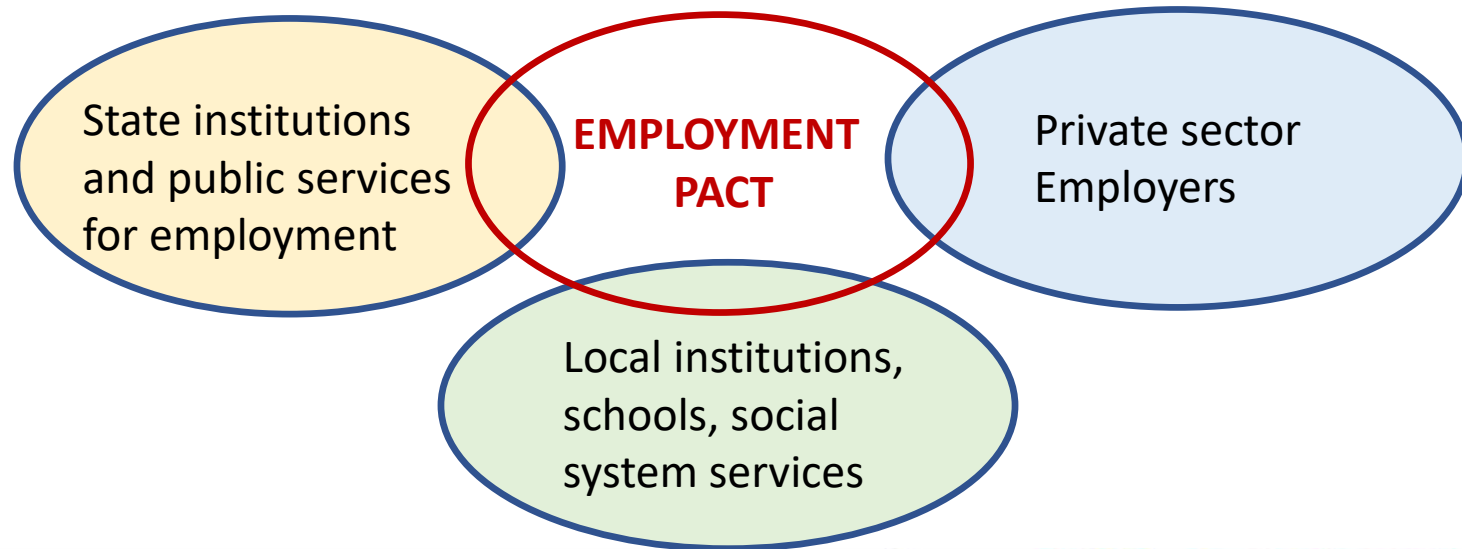
- TEPs - strategic communication and professional platforms of key labor market partners in the regions
- TEP was set up to prepare interventions in supporting employment
- **The Moravian-Silesian Employment Pact (MSEP)** was completed by the official signature of the Pact document on 24th February **2011 in Ostrava**.
- MSEP created methodology for TEPs in other regions. **In 2015 TEPs spread to 13 regions of the Czech Republic.**
- Signatories :
 - Moravian-Silesian Region Authority,
 - Union for the Development of Moravian-Silesian Region,
 - Chamber of Commerce of the Region,
 - Confederation of Industry of the Czech Republic,
 - Labour Office, Regional council of trade unions
 - Government Commissioner for Moravian-Silesian, Usti and Karlovy Vary Regions.



EMPLOYMENT AND EDUCATION

Moravian-Silesian Employment Pact Mission

- Analysis of existing labour market demands and supply
- Innovations in the labour market and control over regional employment policy
- Network maintenance
- Tool for communication between stakeholders



EMPLOYMENT AND EDUCATION

MSEP Employment Pact current projects and activities

- **RE:START** – managing two strategic pillars:
 - Human Resources and
 - Social Stabilization.
- **Regional partner for project KOMPAS - Barometer of the Labor Market** national project CZ.03.1.54/0.0/0.0/15_122/0006097
 - To predict the labour market at the national and regional levels,
 - Setting up skilled workplace for monitoring and prediction of the labor market at Ministry of Labour and Social Affairs.
MSEP is responsible for implementation in the Region.
- **Project Start a career with employers in the Moravian-Silesian Region**
CZ.03.1.48/0.0/0.0/16_055/0005651
 - regional project to help to start career for young applicants and candidates up to 25 years (for graduates of secondary schools and students of the last years of secondary schools). The MSEP is a implementing actor of the project.

EMPLOYMENT AND EDUCATION

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EMPLOYMENT AND EDUCATION

Other projects

- Infrastructure projects
 - Use of mining railway siding for public transport in MSK
 - Road bypasses around towns (Havířov, Karviná)
 - Electrification of existing railways in MSK
 - Regional data optical networks in MSK
 - Modernization of regional railway wagons
 - Karlovy Vary EUR 12 mil.
 - Usti : EUR 64 mil.
 - Moravia – Silesian : EUR 49 mil.

 **RE:START**

**Thank you for your
attention!**

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