

Own raw material resources – Source of own independence (REMIX)

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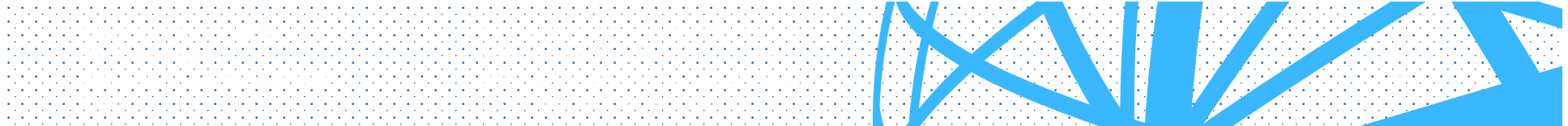


MINISTRY OF
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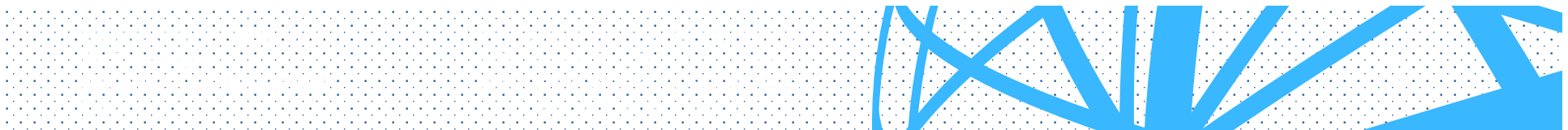
Czech Republic

- ➔ Hearth of Europe
- ➔ 1993 – Velvet Divorce with Slovakia
- ➔ 10.5 million inhabitants
- ➔ 78.9 thousand km²
- ➔ Industry
- ➔ Culture
- ➔ Tourism



Sector of Mining and Geology

- Mining and geology have very long tradition in the Czech Republic. Czech geologist and producers of mining and processing technologies are well know around the world.
- Czech geologists have experience from the frozen countries like Greenland throught countries with European type of clima, hot and humid countries like Vietnam, Jamaica, till arid countries like Mali, and Mongolia (and others).
- Czech producers offers mining technologies and transport equipment for underground and open-pit mines, processing technologies for glass, cement, crude oil and many others.



History of Mining in the Czech Republic

- History of mining in Czech region is very ancient. First modern mining law in Europe was the „Ius Regale Montanorum“ of the Czech King Vaclav II on the year 1305. Some parts of mining law of the city of Jihlava were modern even in written form on 1249.
- All profitably accessible ore deposits were already exploited in the past. However, the Czech Republic is still rich in industrial minerals and construction materials and there are some reserves of lignite and uranium ore too.



History of Geology

- ➔ First modern university for education in geology was established in Přebram in 1849. It was become famous by the Profesor František Pošepný.
- ➔ Czech territory started to be mapped step by step in the scale 1:75.000 in nineties of 19th century.
- ➔ Complete territory of the Czechoslovakia has been geologically mapped in the year of 1965 and it was released in the scale 1:200.000. Later were added specialized maps like hydrogeology, geophysical, landslide risks, etc.
- ➔ Today continues the mapping in the scale of 1:25.000. Of course, deposits under mining has much more detailed geological prospection.



Recent state of Raw Materials in the Czech Republic

- ➔ Czech Republic belongs to EU countries with relatively good position of mining sector.
- ➔ Continues lignite, hard coal, industrial minerals and construction materials.
- ➔ Starts geological exploration for modern minerals like lithium and other searching of facts in case of EU critical minerals. Due to long time mining history, we could have got those minerals not only in original deposits, but also on pit heaps and tailing ponds.
- ➔ Geological companies continues to work partially abroad to keep know-how of prospecting in green-fields.



Recent state of Raw Materials in the Czech Republic

- ➔ Since 1989 no new mine has been opened in the Czech Republic. The mining of gold and other metals has been banned because of bad experience with mining activities in communist era, when mining was synonymous of heavily polluted environment, especially ground waters and surface soil in mining areas.
- ➔ Low prices of minerals in the eighties have been also one of the reasons. Number of mining areas and protected deposit areas have been abolished, so that mineral resources can not be exploited again without hopeless loss. The reasons for the ban on mining and abolishment of many deposits have not been rational, they have been politicized, generally constructed or fabricated.

Future areas of cooperation on the field of Raw Materials and Minerals in the Czech Republic (1)

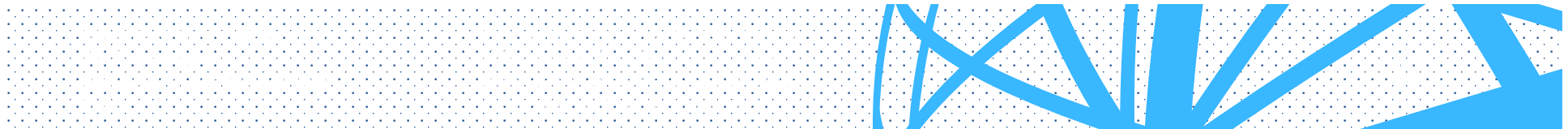
- ➔ The Czech Republic lacks an in-depth survey of critical commodities from recent decades, therefore it does not have an overview of its “new / untraditional” mineral resources reserves, which became valuable and necessary only recently, in the context of technological progress in industry.
- ➔ These “new” raw materials are an indirect prerequisite for the innovation potential of Czech industry - a shift to higher value-added production (hi-tech, etc.). To be able to use all the mineral resources, which will be needed in the Czech Republic in the future, the best principles of green mining, issuing exploration of mining permits and mining technologies have to be implemented into law.

Future areas of cooperation on the field of Raw Materials and Minerals in the Czech Republic (2)

- ➔ The Ministry of Industry and Trade of the Czech Republic is inspired in the field of mineral resources by a very well developed system of issuing exploration of mining permits and mining technologies and general principles of green mining in Scandinavian countries.

Areas of cooperation on the field of Raw Materials and Minerals abroad (1)

- ➔ Czech consulting companies are ready to assist to the governments in elaboration and design their Governmental Raw Materials Policies as powerful tool for implementation best practices for governing of all mined minerals and minimization of mining waste including increase of government revenue.
- ➔ Czech mining sector companies are assembled into the Czech Mining Technology Association able supply mining machines for deep and surface mining



Areas of cooperation on the field of Raw Materials and Minerals abroad (2)

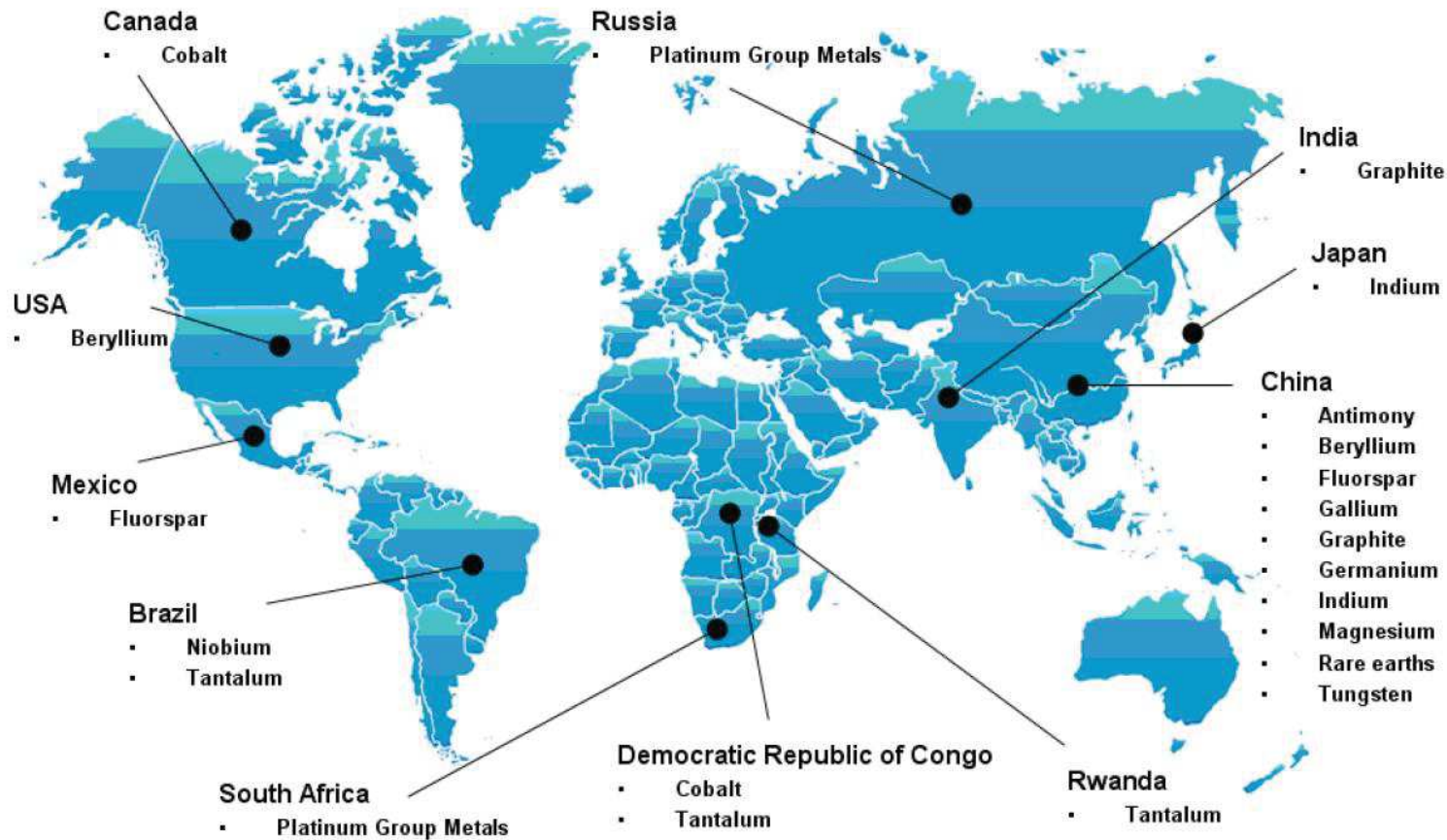
- ➔ Companies dealing with geological prospection are well experienced and ready to cooperate in projects starting from green-field exploration
- ➔ Plus they can calculate of reserves in deposit and make projection how to open the mine and which technology is the best for exploitation till the delivery of mining and processing technologies.

Raw Materials Initiative – European answer to the situation in the World



- ➔ In 2008, the European Commission adopted the Raw Materials Initiative which set out a strategy for tackling the issue of access to raw materials in the EU
- ➔ This strategy has 3 pillars which aim to ensure:
 - ➔ 1. Fair and sustainable supply of raw materials from global markets using raw materials diplomacy (= build fair economic relationships with Asian, African and Latin American countries).
 - ➔ 2. Sustainable supply of raw materials within the EU (= to decrease high import dependency of EU).
 - ➔ 3. Resources efficiency and supply of secondary raw materials through recycling (= smart recycling).

Production concentration of critical raw mineral materials



Goals of the Czech State Raw Materials Policy in Critical Raw Mineral Materials (1)

- ➔ To provide raw materials inputs from modern Czech sources or from abroad for modern industries.
- ➔ Ensure the conditions for the transition to a low-carbon and material-efficient economy.
- ➔ To increase the level of Czech science and research in the field of minerals and modern materials, secondary raw materials as a substitute for primary non-renewable resources.
- ➔ To increase the use of secondary raw materials in Czech industry in accordance with the principles of the circular economy.

Goals of the Czech State Raw Materials Policy in Critical Raw Mineral Materials (2)

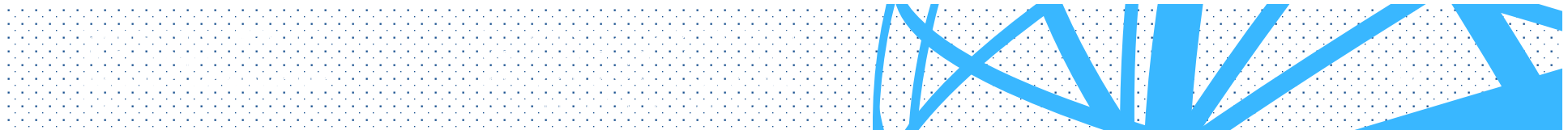
- ➔ Stimulate the market for secondary raw materials and circular solutions by increasing demand through public procurement.
- ➔ Support entrepreneurship and the introduction of new business models incorporating the principles of a low-carbon and circular economy.
- ➔ Incorporate the principles of circular economics into teaching within the education system.
- ➔ Carry out intensive education of the professional and civic public

Main output of the Remix project for the Czech Republic (1)

- ❖ One of the important benefits of the implementation of REMIX project is the possibility of comparing the technological level of mining in all participating regions.
- ❖ This implies an important benefit for the Czech Republic in the application of new tools for promoting Green Mining in the Czech Republic. Efforts to apply Green Mining apply both in legal instruments and in practical requirements for the introduction of environmentally friendly mining technologies.
- ❖ Apply the Green Mining principles in the Czech Raw Material Policy, which will not allow any method of mining other than those that can be described as Green Mining.

Main output of the Remix project for the Czech Republic (2)

- ❖ The Czech Republic wants to be at the forefront of the sustainable use of natural resources.
- ❖ The execution of the vision begins with building a strong domestic base with effective cooperation of regional participants.
- ❖ The main objective is to maintain consistency, interconnection and ideas of the State Raw Material Policy also in the regions and ensure their observance during the subsequent updates.



Successful REMIX events in the Czech Republic (1)

- ➔ Coal Safari offers excursions to operating mines and re-cultivated areas of old mining sites serving to learn about technology of mining and recovery of nature. The purpose is to offer visitors a very close view on the technology of an operating quarry extracting brown coal as well as on the re-cultivated natural areas of closed mining sites, which are nowadays rich in their fauna and flora.
[\(https://www.interregeurope.eu/policylearning/good-practices/item/2557/coal-safari/\)](https://www.interregeurope.eu/policylearning/good-practices/item/2557/coal-safari/).

Successful REMIX events in the Czech Republic (2)

- ➔ Regions of Czech and Polish sides of the border. Protection of historical heritage in the field of mining. An example is the black coal deposit Žacléř - Svatoňovice on the Czech side and Kowary, Stara Kopalnia and Nowa Ruda on the Polish side.
<https://www.djs-ops.cz/>
- ➔ Czech and German (Saxony) cooperation in the matter of sharing information on the common lithium deposit Cínovec / Zinnwald.

Thank you for attention

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