

Platform for Coal Regions in Transition

insights and lessons

#CoalRegionsEU



De la Wallonie d'hier, nous créons celle de demain

SPAQuE, a key player in the rehabilitation of coal mining sites – Wallonia Region - BE

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Head of Commercial Development Department



Summary

- 1. SPAQuE and its expertise
- 2. Wallonia Region and past coal extraction activities
- 3. Case study Grand Champs coal mining site
- 4. Tools and methods for the rehabilitation of coal mining sites
- 5. What's next?

- Created in 1991 upon the initiative of the Walloon government with special purpose: rehabilitation of landfills and brownfields in Wallonia
- Public company
- Staff: 80 people
- More than 25 years of experience
- Turnover : ~ €45 million
- Sources of funding: Marshall Plans, ERDF, etc.
- European projects: H2020 (POSIDON), Interreg NWE (RAWFILL), etc.
- PPPP: Private Public People Partnerships

SPAQuE's areas of activity

- Inventory: 6000 sites
- Lists of priority sites → Government → Funds
- Studies
- Rehabilitation of brownfields & coal mining sites
 & landfills
- Management & maintenance
- Environmental quality and health management
- Renewable energy



The value chain

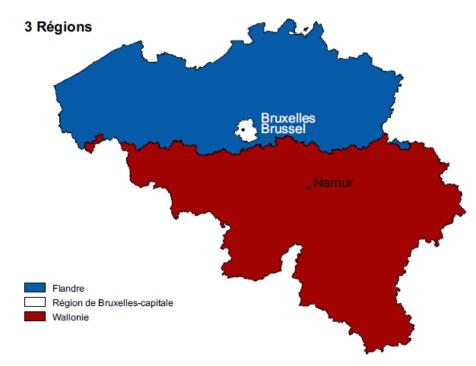
- Historical review;
- Soil investigations/exploration, caracterization, volumetric analysis;
- Economical, technical and urban planning feasability studies;
- Analysis of existing risks;
- Rehabilitation and construction works;
- Analysis of residual risks;
- Water management.

Achievements 2001-2018 - Brownfields rehabilitation

972ha of rehabilitated sites



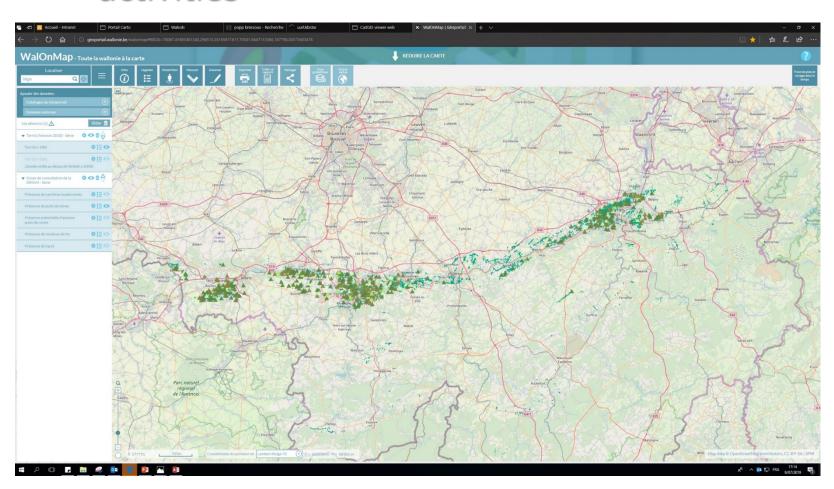
2. Wallonia region and coal extraction activities



- 1840 46.000 workers in coal mines in Belgium
- In 1900, Belgium the 4th country in the world in terms of coal production
- 29th of september 1984 the last coal mine closes the doors in Farcienne, Charleroi



2. Wallonia region and coal extraction activities

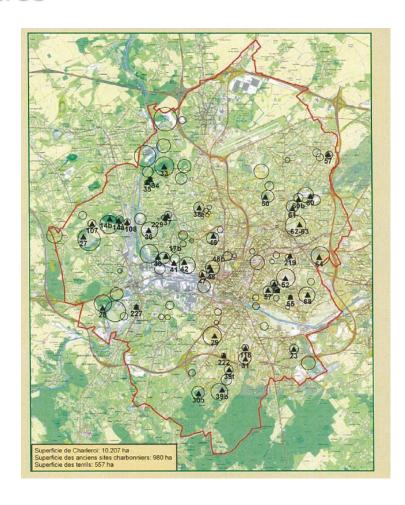


528 coal sites identified in Wallonia, by SPAQuE (of the 6000 sites in the inventory of SPAQuE)

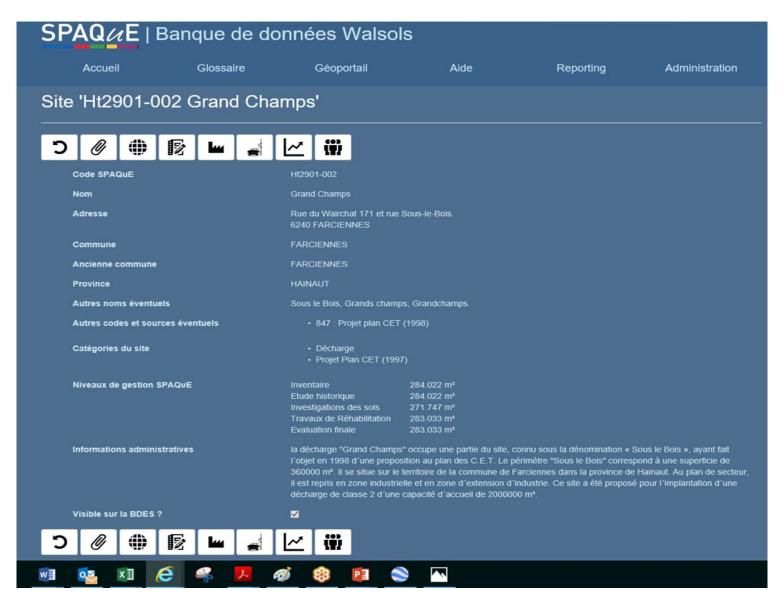
SPAQUE



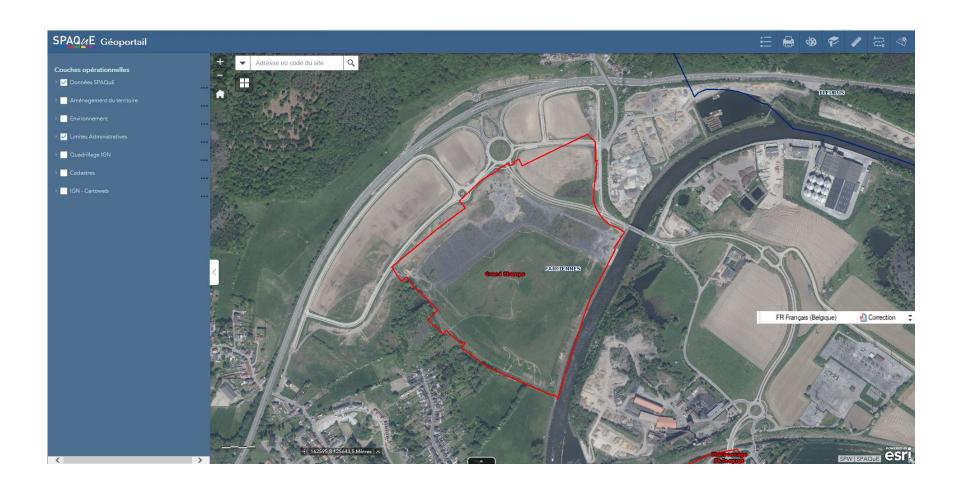
2. Wallonia region and coal extraction activities



Main coal sites in the region of Charleroi – 102 sites (2000)









Grand Champs – landfill for mining residue

2008 – historical overview and start of soil and water characterisation studies

2009-2010 – investigation studies and calculation of the

volumes of polluted soil

2010 – feasability studies

2011-2012 - rehabilitation works



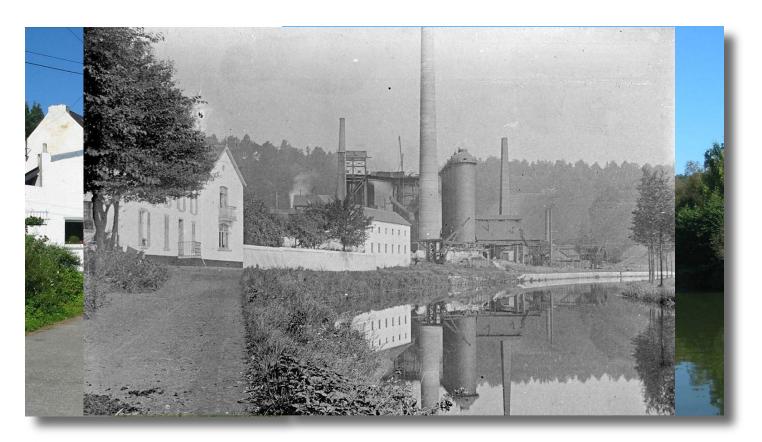


- Occupation, activities
- Identify the sources of the pollution
- Establish the area of past activities
- Information reserach process site visits, archives, maps, aerian pictures, etc.

Why?

In order to better localize the investigations activities, to recommend the type of analyses, to save money for drillings and analysis, to reduce the costs of the rehabilitation activities

historical overview



Before the rehabilitation activities

After the rehabilitation activities





- > 600.000 m³ of mining residue earthworks
- > 700 m³ of polluted soils from hotspots
- > 3200 m³ of polluted soils with Cd
- > 1025 t of soil mixed with asbestos
- > 80.000 m² of geotextile



• Rehabilitation budget: more than 2 mil €

Works

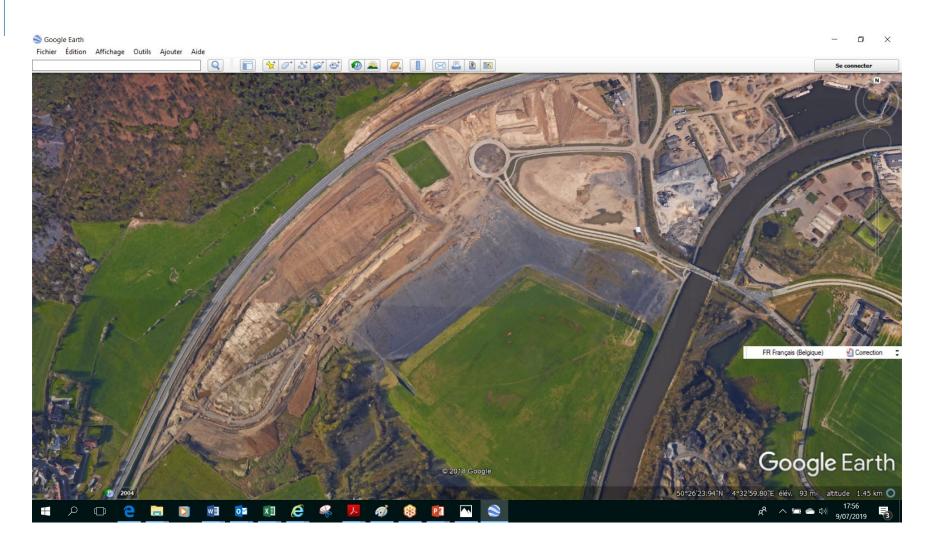
- ✓ Evacuation of waste
- ✓ Excavation of polluted soil
- ✓ Reprofiling of the merlon, implementation of the warning geotextile and a layer of 0.8m of clay
- ✓ Recovery of the area polluted in Cd with a warning geotextile



Travaux(suite):

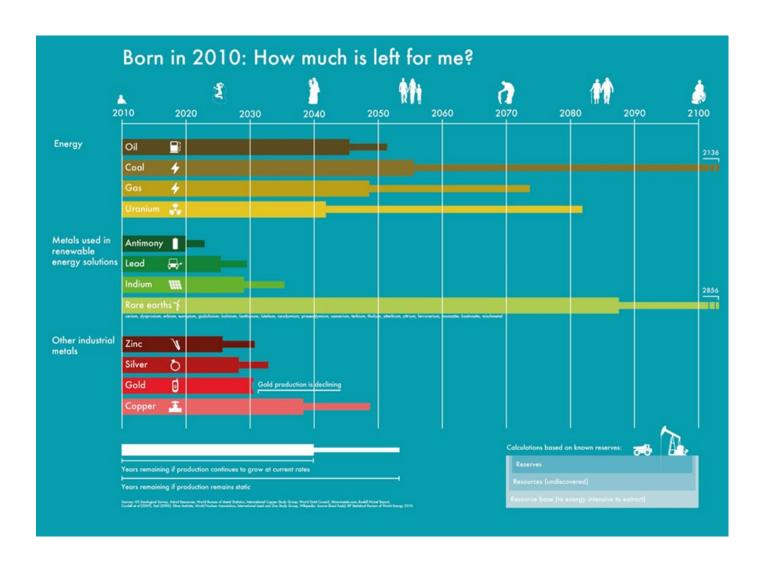
- ✓ Creation of two areas for economic activities and the unloading platform for transport on the river
- ✓ Creation of a plateau for photovoltaic pannels
- √ General leveling
- ✓ Implementation of a layer of topsoil of 20cm on the plateau and its embankments
- ✓ Seeding of the plateau





4. Tools and methods for the rehabilitation of coal mining sites

- Auditsite Auditsoil sofware for the selection of sites for rehabilitation and new economical activities
- Geophysical investigation methods
- Limit the risks of combustion
- Mono industrial/mining waste landfills



- New mining code in the Wallonian Region
- New tools EU projects: SMARTGROUND, NEW MINE, RAWFILL
- Urban pressure recover land
- Raw materials recovery
- Ecosystems protection and biodiversity Natura 2000 areas, etc.
- Circular economy Urban mining
- Recovery of critical and other raw materials from mining waste and landfills

JRC report –

In May 2019, the Commission issued the report 'Recovery of critical and other raw materials from mining waste and landfills - state of play on existing practices'

https://ec.europa.eu/newsroom/growth/item-detail.cfm?item_id=651846



landfil mining activities

RAWFILL Interreg NWE project in landfill mining

 $\sim 100~000$ LFs (MSW and mining waste) \rightarrow dormant potential for resource recovery

- Cost-effective standard LF inventory framework
- Innovative method for LF characterisation by geophysical imaging and guided sampling
- DST to allow smart LFM project prioritisation
- → demonstrated on 40 landfills



Thank you!

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Palivový kombinát Ústí, s. p. Platform for Coal Regions in Transition



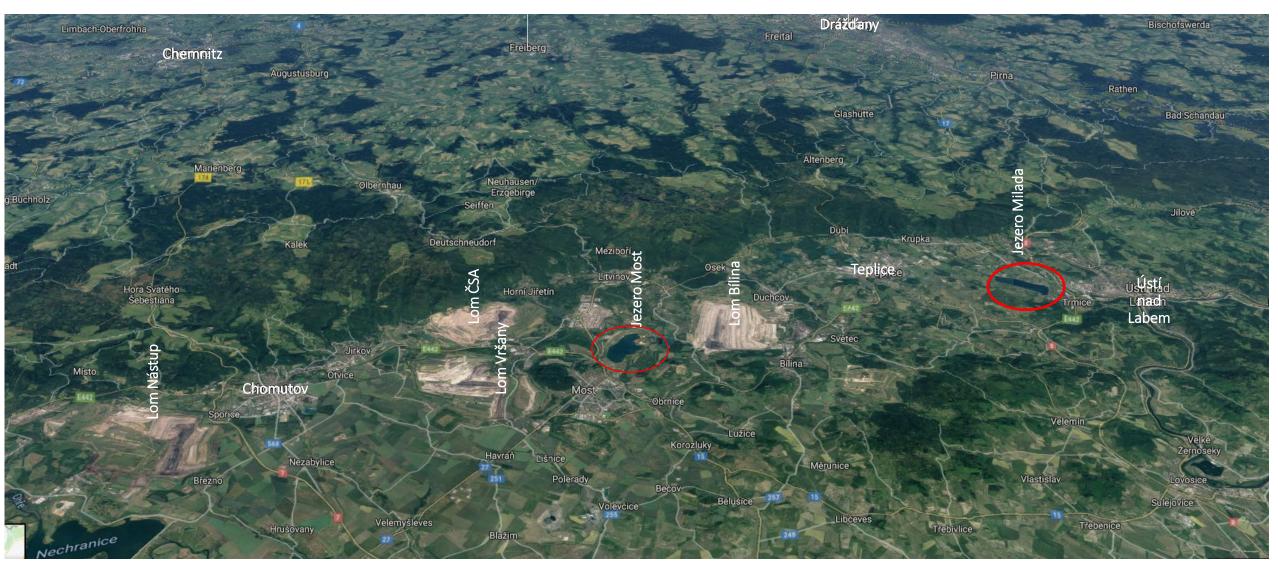




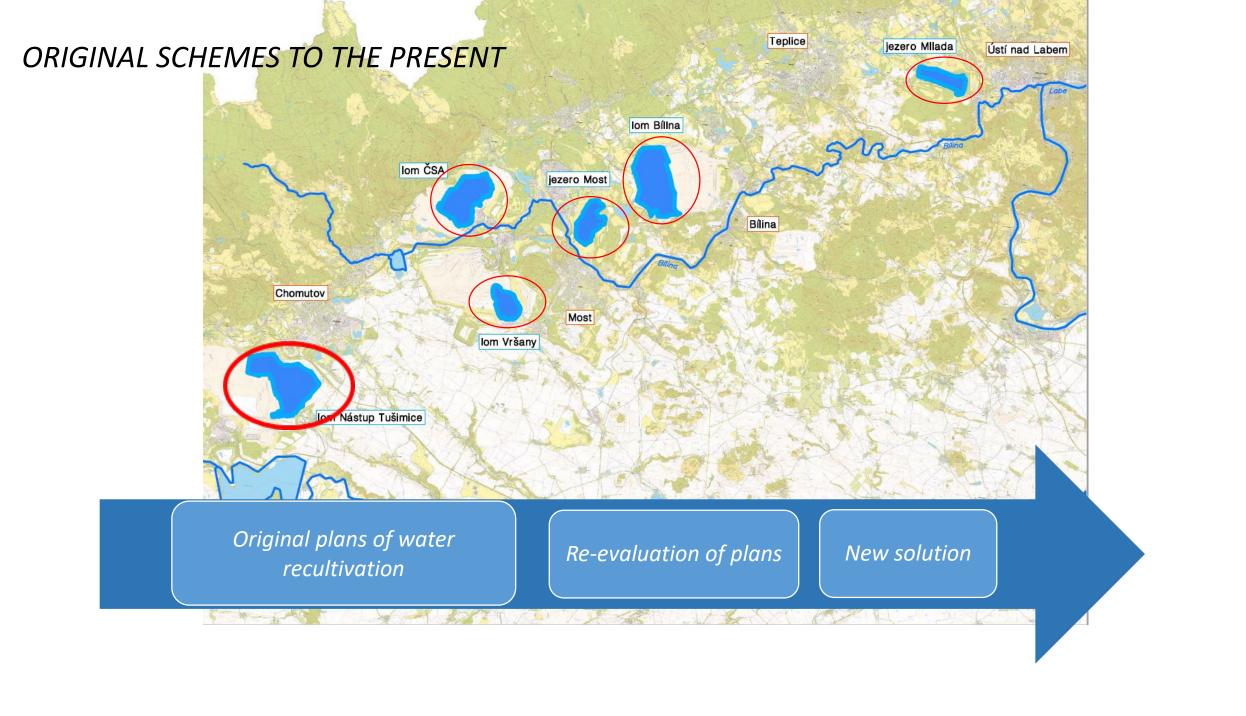




Mining affected areas



Mining affected areas Ústí nad Labem Teplice Lom Chabařovice Lom Bílina Lom ČSA Bílina Ležáky - Most Lom Vršany Chomutov Lom Libouš cca 400 km2 of affected area



Remediation of the residual pit of the Chabařovice mine

Start of flooding: June, 2001

End of flooding: August, 2010

Reclamation area: 1541 ha

Flooded area: 252,2 ha

Volume of water: 35,6 mil. m³

The length of the perimeter road of

the bank line: 8 700 m

Elevation spot: 145,7 m n.m.

Maximum depth: 25,3 m

Average depth: 15,5 m



Remedation and reclamation of Lake Milada area





- Reclamation and remediation work was carried out on the territory of the former brown coal mine Chabařovice and the main object of the hydric reclamation is Lake Milada.
- The whole lake area was designed as a suburban relaxation zone and opened to the public on 30 May 2015.
- At the moment we are preparing urbanization and resocialization solutions

Approach to the process of restoration and resocialization of Lake Milada

Extraction of energy raw materials

Remediation and land reclamation of the area

Revitalization of the area

Resocialization of the area

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.

Issues with restoration and resocialization process of residual pits

- Energy development
 - Development dynamics
 - Reaction on development
- Climate changes
 - Preparation for climate conditions changes
- Change of mining, remedation and reclamation dates
- Technical solution
 - Slopes stability, water supply,...



COMPREHENSIVE APPROACH PKÚ s. p.

ENERGY

- Pumped-storage hydroelectric power plants
- geothermal use of mine water
- Floating photovoltaic and wind power plants

AGRICULTURE AND FORESTRY

- Effective management of forest stands
- Creating quality agricultural land
- Growing energy-efficient plants

URBANIZATION

 Creation of urban and architectural solutions and their coordination with territorial planning documentation The former area of auxiliary operations

Classification of object and land composition

IMMEDIATE PROCEDURE IN THE CSA LOM

- Ensuring adequate protection of the unloaded part of the bearing
- Extraction of brown coal in slopes
- Hydric reclamation dimension

WATER MANAGEMENT

Connected system of lakes

THE WHOLE PROCESS RESULT?

- a region using its energy focus, but in the area of clean energy sources
- a region with the potential for significant water resources to combat climate change
- a region restoring quality agricultural land and forests
- a region applying modern approaches to its development based on SMART CITY and SMART VILLAGE







Thanks for attention!



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Ownership rights in mine closure

Coal transition platform Brussels 15.-16.7.2019

About us

- OKD (Ostravsko karvinské doly) is the only hard coal producer in the Czech Republic. Its coal is mined in the southern part of the Upper-Silesian Coal Basin – in the Ostrava-Karviná coal district.
- OKD is owned by PRISKO a.s. and controlled by Ministry of Finance
- Annual production about 4 mil. tons
- Approximately 8 500 employees
- OKD operates 5 active mines
- OKD supplies its coking coal production to major steel makers in Central Europe and thermal coal production to regional electricity producers.
- Land area approx. 1300 ha in Karvina region 13 mining areas, of which 6 are already closed or in a preservation mode

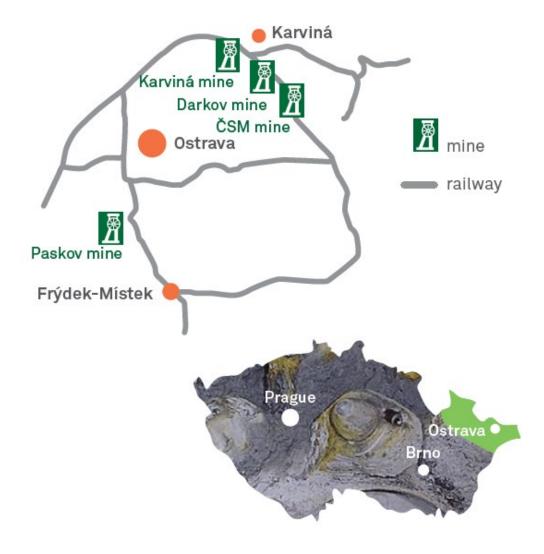








Mine locations





Regulations and obligations

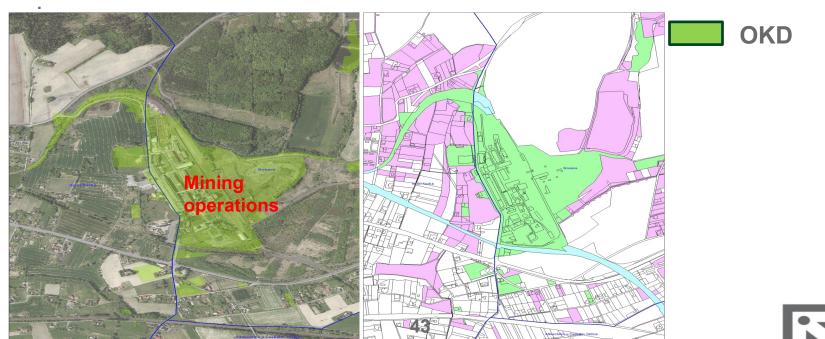
- Obligation to reclaim land affected by mining impacts regardless of ownership
- Responsibility for covering mining damages regardless of ownership
- No obligation to transfer its own land/property to third entities (state or municipality) after mining closure
- No obligations or rights to expropriate land owned by third entities
- Transfer of property from OKD state owned company to any other entity only:
 - after mandatory reclamation
 - by sale in accordance with public tendering process (to avoid public unauthorized support) and
 - with the approval of the Czech government

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Future property development

- Current regulation prevents the future property development after mining closure
- The State has no obligation to take into account future redevelopment
- Transfer of land to public sector only by sale for the appraisal price
- No mechanism how to use the obligatory reclamation and mine closure process to support the future development
- Each case / project has to be dealt with individually, undergoing the entire process
- Timing for solution of ownership rights counts in years and is uncertain



Request for solutions

- Methodology for cooperation of the state owned OKD and the Region / local municipalities to support the future site development and local economy
- Methodology for property transfer from the state owned company to the public sector without charges
- Solutions and regulations to prevent the "public support" to projects
- Possibility to use the available reclamation funds together with other public and EU funds to support the area development









Spółka Restrukturyzacji Kopalń S.A.

SRK w liczbach

2000 14

3 tys.

90 mln m3 wody

SRK in figures

593 mln PLN

8 tys.

15 tys.

73

- Spółka powstała w sierpniu 2000 roku.
- Skupiamy 14 kopalń na terenie 27 gmin.
- Zatrudniamy ponad 3 tysiące osób.
- Pompujemy z kopalń ok. 90 mln metrów sześciennych wody rocznie.
- Szacowana wartość prac związanych z ochroną środowiska do 2027 roku wyniesie ok. 593 mln zł.
- Ograniczamy emisję gazów cieplarnianych do atmosfery o ponad 8 tys. Mg/rok.
- Posiadamy ponad 15 tysięcy mieszkań o powierzchni 630 tys. m kw.
- Nieruchomości i pozostałe składniki majątku SRK znajdują się w 73 gminach na terenie Śląska i Zachodniej Małopolski.

- The company was established in 2000.
- We have gathered 14 mines in 27 communes.
- We employ over 3,000 employees.
- We pump about 90 million cubic meters of water/year from mines.
- The estimated value of works related to environmental protection shall amount to PLN 593 million by 2027.
- We reduce greenhouse gas emissions by over 8,000 Mg/year
- We have over 15,000 apartments with an area of 630,000 sq m.
- SRK properties and other assets are located in 73 communes in Silesia and Western Lesser Poland.



Misja

Spółki Restrukturyzacji Kopalń S.A.

- Efektywne zagospodarowanie, rekultywacja i rewitalizacja przejmowanych terenów pogórniczych.
- Dbałość o środowisko naturalne.
- Zabezpieczanie przed zniszczeniem obiektów stanowiących dziedzictwo kulturowe i przemysłowe.

Wizja

Przywracanie do życia terenów i obiektów pogórniczych sprzyja rozwojowi innych sektorów gospodarki. Pozyskanie inwestorów pozwoli stworzyć alternatywne wobec górnictwa miejsca pracy.

Mission

- Effective management, reclamation and revitalization of post-mining areas.
- Caring for the natural environment.
- Protection against destruction of cultural and industrial heritage.

Vision

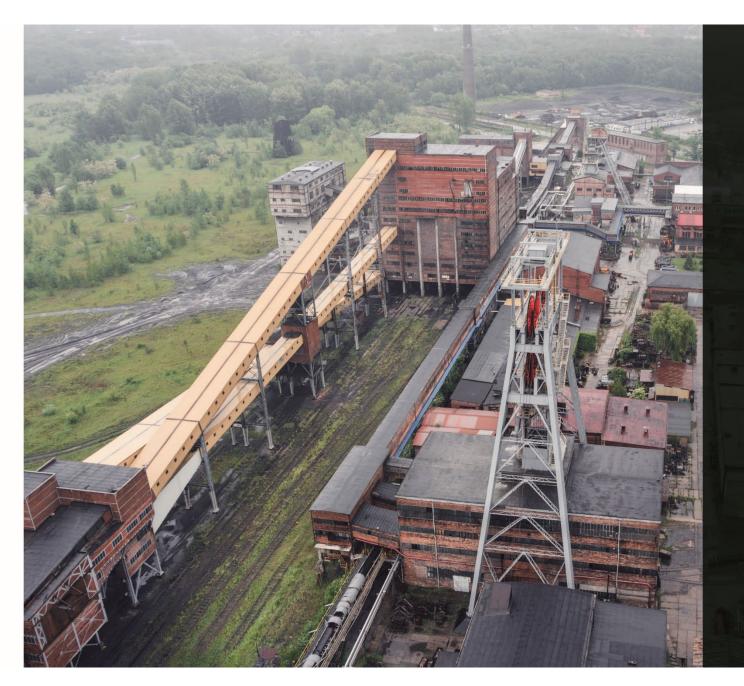
 Recovery of land and post-mining facilities drives development of other economy sectors. Creation of alternative jobs to mining industry by attracting new investors.





Zadania Spółki

- Podstawowym zadaniem Spółki jest prowadzenie likwidacji kopalń, zabezpieczenie sąsiednich zakładów górniczych przed zagrożeniem wodnym, gazowym czy pożarowym.
- Spółka zagospodarowuje majątek oraz sprzedaje nieruchomości likwidowanych kopalń.
- Realizuje zadania związane z usuwaniem szkód górniczych i rekultywacją terenów pogórniczych.
- Wprowadzona w 2015 roku nowelizacja ustawy z 7 września 2007 roku nałożyła na SRK kolejne zadania związane z procesem restrukturyzacji górnictwa. Spółka może teraz nabywać kopalnie, zakłady górnicze lub ich oznaczone części w celu przeprowadzenia likwidacji i restrukturyzacji zatrudnienia.



The Company's objectives

- The main Company's objective is to close down mines and preserve the active mining plants from water, gas and fire risks.
- The company manages assets and sells properties of the liquidated mines.
- It implements tasks connected with removal of mining damages and reclamation of post-mining areas.
- The 2015 amendment introduced to the Act of 7 September 2007 obliged SRK to further tasks connected with the mining restructuring process.
 The company may now acquire mines, mining plants or their parts to liquidate and restructure employment.



Dbamy o środowisko naturalne

Prawo geologiczne i górnicze nakazuje Spółce likwidującej kopalnie, w całości lub części, ochronę środowiska oraz rekultywacie gruntów po działalności górniczej. Tak też czynimy.

Przy dofinansowaniu z środków Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej realizujemy 7 dużych przedsięwzięć związanych z rekultywacją osadników, hałd i terenów zdegradowanych w Chrzanowie, Bytomiu, Jaworznie, Nowej Rudzie, Piekarach Śląskich i Wałbrzychu.

Określiliśmy 44 przedsięwzięcia, których realizacja przywróci wartość użytkową prawie 5200 hektarom oraz ograniczy emisję gazów cieplarnianych do atmosfery o ponad 8 tys. Mg/rok. Szacowana wartość tych prac do końca 2027 roku wyniesie ponad 593 mln zł.

We care for the natural environment

The geological and mining geological law obliges a Company that liquidates mines to protect the environment and reclaim post-mining land, in whole or in part. That's what we do.

With funding from the National Fund for Environment Protection and Water Management we have implemented 7 major projects related to the reclamation of tanks, heaps and degraded areas in Chrzanów, Bytom, Jaworzno, Nowa Ruda, Piekary Śląskie and Wałbrzych.

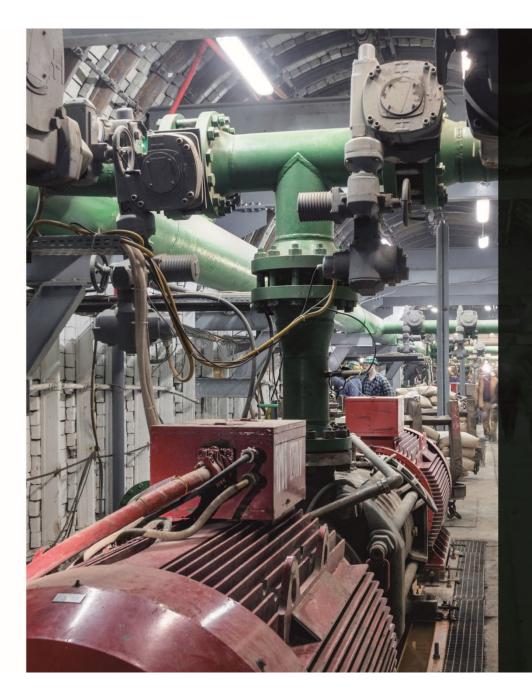
We have identified 44 projects that shall restore the utility value of almost 5,200 hectares and reduce the emission of greenhouse gases into the atmosphere by over 8,000 Mg/year the estimated value of these works by the end of 2027 will amount to over PLN 593 million.

Odwadniamy kopalnie i zagospodarowujemy wodę

- Odwadniamy 13 kopalń i zabezpieczamy przed zagrożeniem wodnym 7 czynnych zakładów górniczych.
- Zrzucamy do zlewni Wisły i Odry prawie połowę wody wypompowywanej przez górnictwo węgla kamiennego.
 To prawie 90 mln metrów sześciennych na rok.
- Centralny Zakład Odwadniania Kopalń SRK posiada 13 pompowni.
- Zaprzestanie odwadniania zlikwidowanych kopalń spowodowałoby sukcesywne zatapianie i zagrożenie wodne dla wszystkich, 18 kopalń w regionie.
- Zwiększamy wykorzystanie wody do celów przemysłowych.
 Pracujemy nad projektem uzdatniania wody i dostarczania jej mieszkańcom woj. śląskiego.

Wykorzystujemy metan

- Z trzech kopalń skupionych w SRK pozyskujemy metan.
 W 2018 roku sprzedaliśmy ponad 25 mln metrów sześciennych tego gazu.
- Zwalczając zagrożenie metanowe, ograniczając jego emisje do atmosfery dbamy o środowisko naturalne.

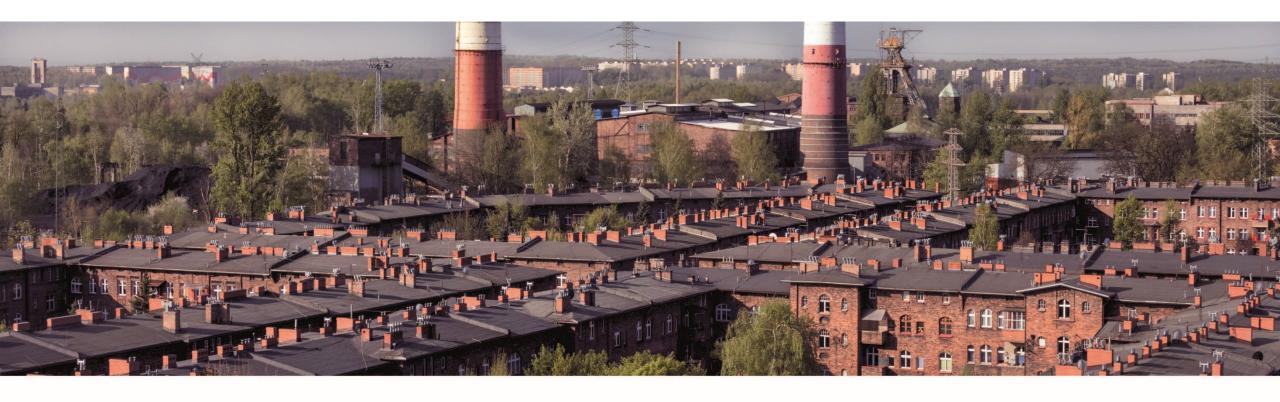


We drain mines and manage water

- We drain 13 mines and protect 7 active mining plants from water risks.
- We discard into the basins of the Wisła and Odra rivers almost half of the water pumped by coal mining.
 It equates to about 90 million cubic meters per year.
- Central Mine Drainage Plant SRK has 13 pumping stations.
- If the liquidated mines were not drained, all 18 mines in the region would be successively flooded.
- We increase the use of water for industrial purposes.
 We work on the project to treat water and provide it to the residents of Silesia.

We use methane

- We capture methane from three mines in SRK.
 In 2018 we sold over 25 million cubic meters of this gas.
- We protect the natural environment by reducing the methane hazard and its emissions.



Nieruchomości i "mieszkaniówka" SRK

- Nieruchomości i pozostałe składniki mienia SRK znajdują się w 73 gminach na terenie Śląska i Zachodniej Małopolski.
- Posiadamy 14,1 tys. działek na 3,5 tys. hektarach oraz 6,4 tys. budowli i 4,7 tys. budynków.
- Dysponujemy tysiącami maszyn i urządzeń, które sprzedajemy lub dzierżawimy.
- Posiadamy 3 tys. budynków, gdzie znajduje się prawie 16 tys. mieszkań z blisko 37 tys. lokatorów.
- Łączna powierzchnia tych lokali wynosi 630 tys. m kw.
- Zarządzaniem budynkami mieszkalnymi zajmuje się specjalnie powołany do tego oddział SRK Administracja Zasobów Mieszkaniowych.

Properties and SRK "houses"

- SRK properties and other assets are located in 73 communes in Silesia and Western Lesser Poland.
- We have 14,100 plots on 3,500 hectares, 6,400 constructions and 4,700 buildings.
- Furthermore, we have thousands of machines and devices that we sell or rent.
- We have 3,000 buildings with almost 16,000 apartments and 37,000 tenants.
- The total area of these properties is 630,000 sq. m.
- The appointed SRK department Residential Property Management is responsible for the management of the buildings.

Restrukturyzacja zatrudnienia

Spółka Restrukturyzacji Kopalń jest głównym ogniwem procesu restrukturyzacji zatrudnienia w górnictwie węgla kamiennego.

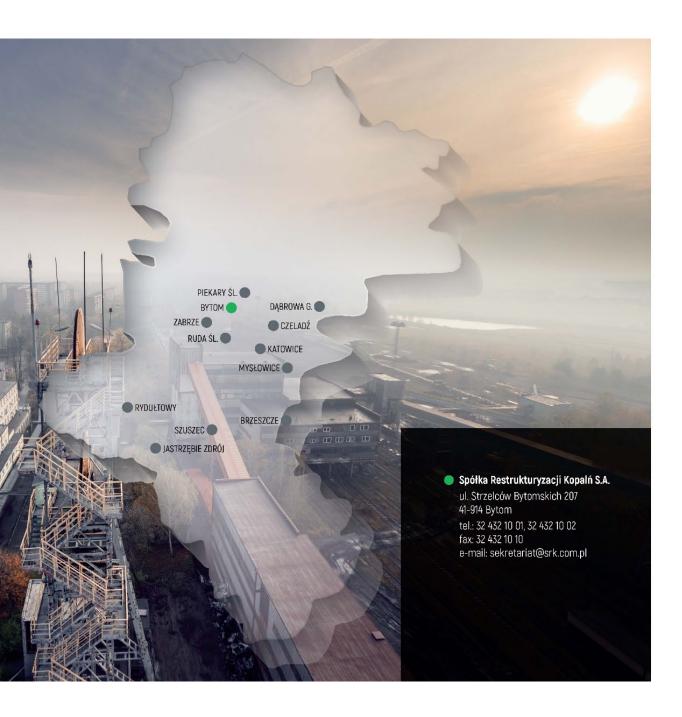
Od 1 maja 2015 roku do 31 grudnia 2018 roku spółka przejęła wraz z 16 kopalniami przeznaczonymi do likwidacji ponad 13,3 tys. pracowników.

Ponad 10 tysięcy osób złożyło wnioski o osłony socjalne przewidziane w ustawie o funkcjonowaniu górnictwa węgla kamiennego.

Ostatecznie z urlopów górniczych skorzystało ponad 6 tysięcy pracowników dołowych i ponad 600 zatrudnionych w zakładach przeróbki mechanicznej węgla. Ponad 3 tys. osób otrzymało jednorazowe odprawy pieniężne.







Oddziały

Branches

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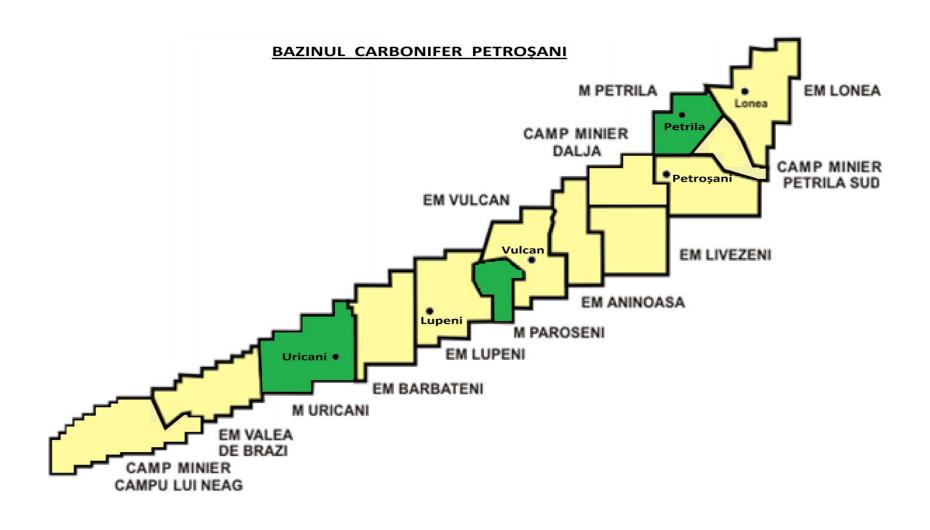
RoMedia-Art ul. Jordana 25, 40-056 Katowice romedia@romedia.pl, www.romedia.pl



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JIU VALLEY COALFIELD





General information on company



Establishment:

November 1, 2012 with the perspective of operating until December 31, 2021, the deadline for completion of the closing and greening works under the notified closure Plan.

Main object of activity:

- exploitation of open hard coal reserves to their depletion;
- the phased execution of the closure works to secure the mines underground and the execution of the greening works and the rehabilitation of the areas affected by the mines to be closed.

Background:

- Closure plan prepared and notified to the European Commission according to the provisions of Decision 787/2010 / EU on the closure of uncompetitive coal mines;
- Decision C (2012) 1020 final, Decision C (2015) 8066 final and Commission Decision C (2018) 1001 final;
- Government decisions to allocate State Aid and to approve the Income and Expenditure Budget (BVC)

Deadline for completion of closure work to safely secure mine underground

31st of December 2019.

Deadline for completion of closure works and surface greening:

31st of December 2021.

General information on company



Number of employees:

- 2443 employees; at the date of company's establishment
- 373 employees, on 1st of June 2019.

Products: steam hard coal, with LHV of 3500 kcal/kg.

Beneficiary of hard coal production: Societatea Complexul Energetic Hunedoara.

Scope of works: Organized closure of mining exploitation by:

- 1. Closure works and works related to safely secure the underground
- 2. Rehabilitation of former mining sites;
- 3. Recultivation of surface soils that have been used by mining;
- 4. Applying measures to mitigate social consequences due to closure,

in the context of fulfilling the provisions of the CLOSURE PLAN notified and authorized by the European Commission, and financing through a State Aid scheme, during 2011-2021, allocated annually by Government Decisions.

Coal production: is lowering, reaching zero at the end of 2017, according to the closure plan;

The volume of closure and greening works: it is increasing until completion of works (end of year 2021) and is performed according to the approved technical Projects according to the regulations in force.

Company's structures and deadline for closure works









Sucursala Mina Petrila

- End of extraction: 31
 December 2015
 (achieved on 30
 October 2015)
- Deadline for closure and greening works: 31 December 2017

Sucursala Mina Paroșeni

- End of extraction: 31 December 2017
- (achieved on 22 December 2017)
- Deadline for closure and greening works: 31 December 2020

Sucursala Mina Uricani

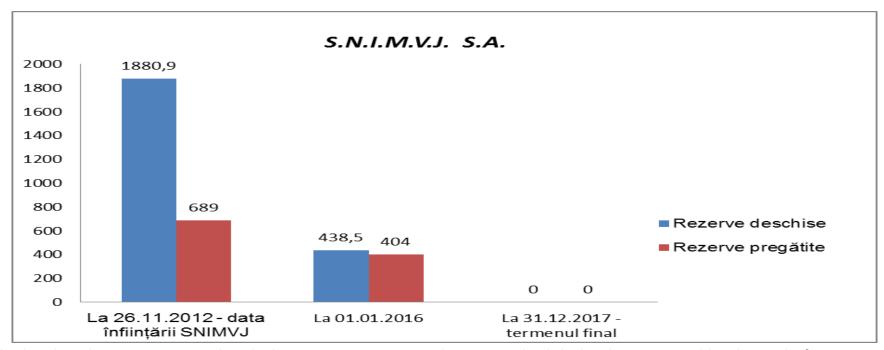
- End of extraction: 31 December 2017
- (achieved on 22 December 2017)
- Deadline for closure and greening works:
 31 December 2020

Status of main indicators: Hard coal reserves



Evolution of open and prepared coal reserves

Thousand tones



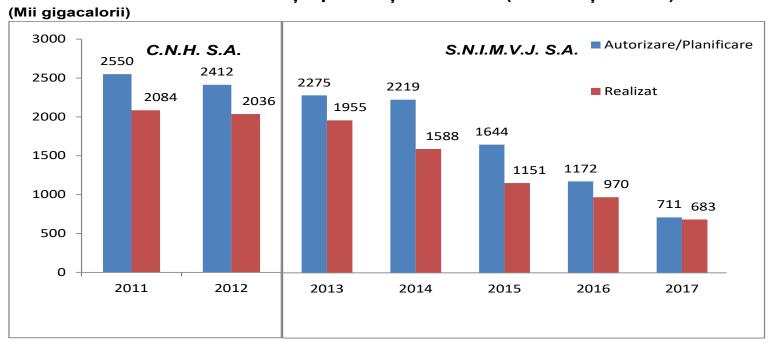
The hard coal reserves opened with the current mining works were scheduled to be extracted by the end of 2017. Their exploitation status is shown in the graph above.

The coal exploitation at Petrila mine was stopped, on October 30, 2015, the mine was cleared and the unexploited reserve secured, while at Paroşeni and Uricani mine, on December 22, 2017, the exploitation activity was stopped, the mine was cleared and secured the unexploited reserves.

Status of main indicators : Coal production



Evoluția producției de huilă (extrasă și livrată)



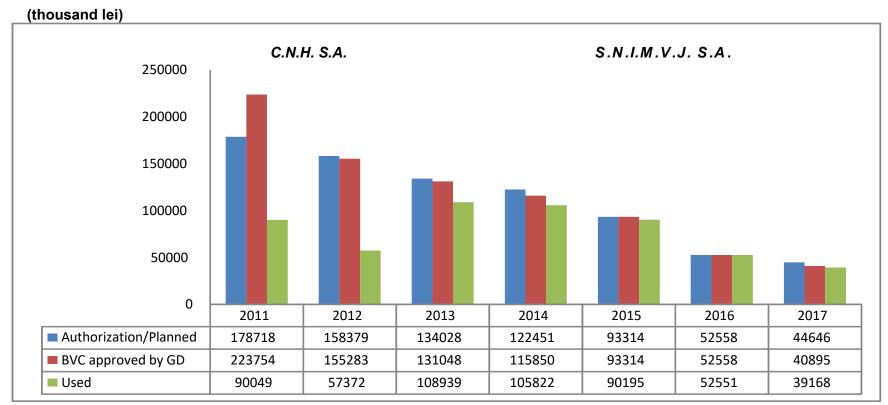
Hard coal production has been decreasing, as set out in the Closure Plan, corresponding to the depletion and closure of production capacities. We would like to point out that the operation of the three branches within SNIMVJ SA has ceased definitively and irrevocably:

- on October 30, 2015 at Mina Petrila, the deadline set in the Closue Plan being 31 December 2015;
- on December 22, 2017 at Paroseni Mine and Uricani Mine, the deadline set in the Closure Plan being 31 December 2017.

Status of main indicators : State Aid Art. 3



State Aid for closure (art.3, Decision 2010/787/EU)



The used value of the Closure Aid was lower than the authorized amount of coal production per year. The unused amounts of this aid are due to the reduction in the difference between the costs and the actual revenues achieved during each coal year compared to the provisions of the Closure Plan.

Status of main indicators: State Aid, Art. 4



State aid provided for in Article 4 of the Decision - Aid to support exceptional costs (according to Article 4 of Decision 2010/787 / EU).

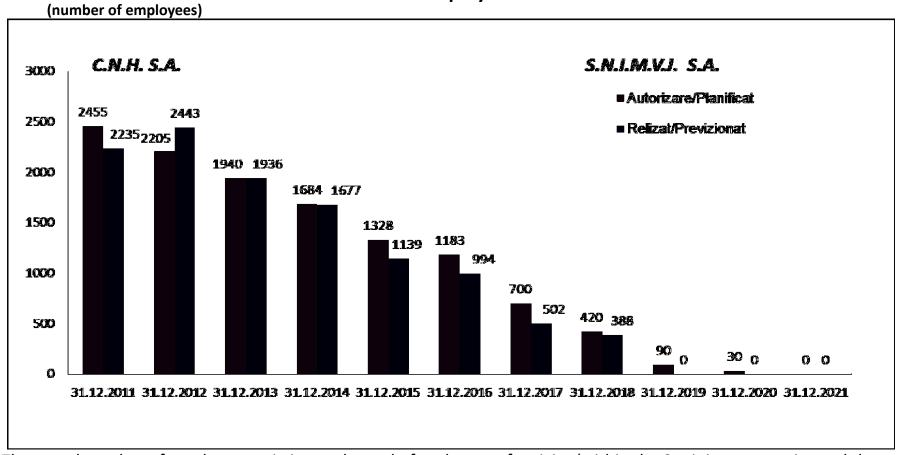
The components of the Aid for exceptional cost support are:

- 1. Expenses on severance pay, on dismissal;
- 2. Expenses related to labor reconversion training programs;
- 3. Expenses related to facilities granted to pensioners;
- 4. Expenses related to the execution of the works for the closure and for the safety of the underground;
- 5. Expenses related to the rehabilitation of former mining sites;
- 6. Expenses related to the recultivation of surface soils that have been used by mining.

Status of main indicators: Number of employees



Number of employees

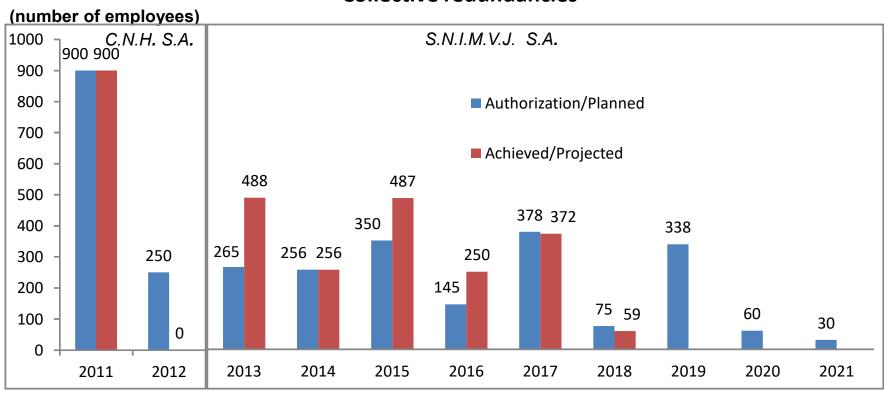


The actual number of employees existing at the end of each year of activity (within the 3 mining companies and the administrative body) is presented in the graph above.

Status of main indicators : Plan for collective redundancy



Collective redundancies



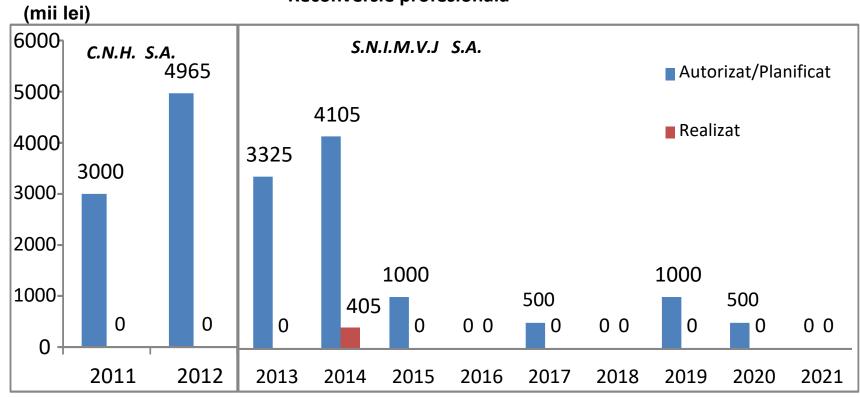
Among the restructuring measures contained in the Closure Plan, collective redundancies are provided until the end of the company's activity, which will include all staff employed at the three coal production units.

According to Decision C (2012) 1020 final, Commission Decision C (2015) 8066 final and Commission Decision C (2018) 1001 final, the number of redundant employees, for each year, is shown in the graph above.

Status of main indicators : Labor reconversion







Another measure of social protection provides for employees to take part labor reconversion training programs prior to collective redundancies, according to their options. The number of personnel to be included in reconversion training courses is shown above.

Conclusions:



According to the provisions of EC Decision 2010/787 / EU of 10 December 2010 on State aid to facilitate the closure of uncompetitive coal mines, it has been drawn-up the Closure Plan for accessing State aid necessary to facilitate the closure of uncompetitive mines within the former Hard Coal Company (Compania Naţională a Huilei - S.A. Petroşani. This plan was notified to the European Commission on 19 August 2011, which issued Decision C (2012) 1020 final of 22 February 2012 on State aid SA.33033 - Romania, Compania Naţională a Huilei Petroşani.

Subsequently, the closure plan was modified in accordance with the provisions of Art. 7, par. 3 of Council Decision 2010/787 / EU by: Decision C (2015) 8066 final and Decision C (2018) 1001 final.

These modifications consisted in extending the period of granting the aid and redistributing aid to cover exceptional costs, so that work to secure the underground, to close the surface connections and clean up the premises of former mines be completed in accordance with the rules and legislation in force, by the end of 2021.

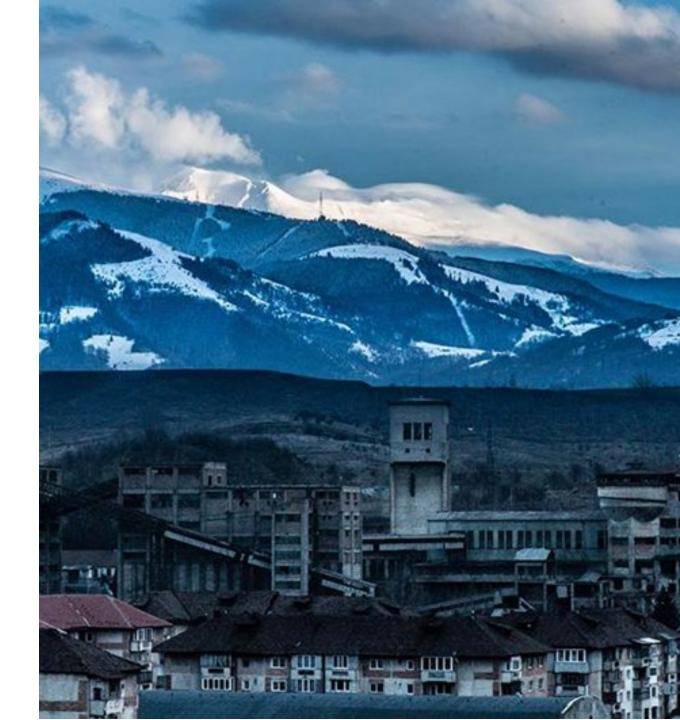


motivation

But can we achieve sustainability without being settled? Without treating our setting, the surrounding bioregion and its climate, customs and agricultural produce [..] as home? Without being rooted in place and responsible for the stewardship of that place?

These are pressing questions to ponder when rethinking architecture and the city, our lifestyles and cultures.

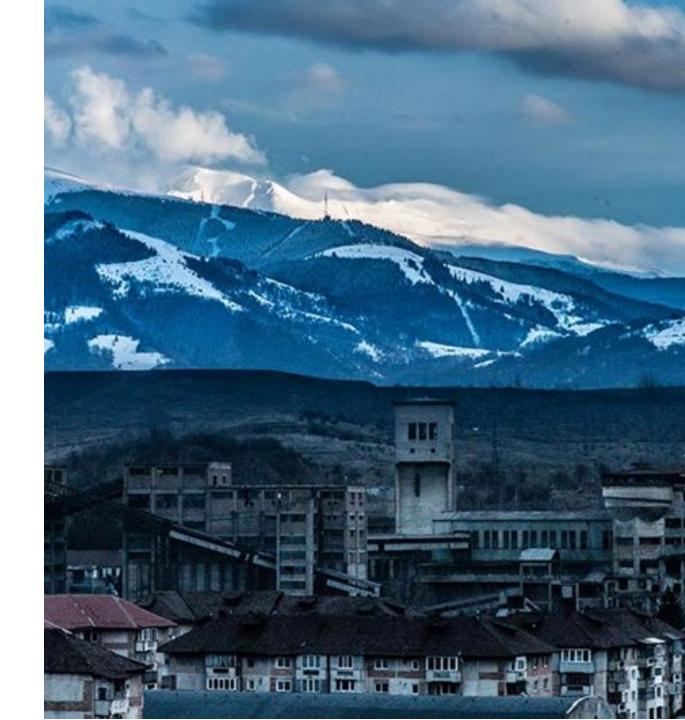
Buchanan, 2012b



JV scenario

vision: a resilient 100k inhabitants polycentric FUA, exploiting its natural resources sustainably and being one of the most important touristic destinations in Romania

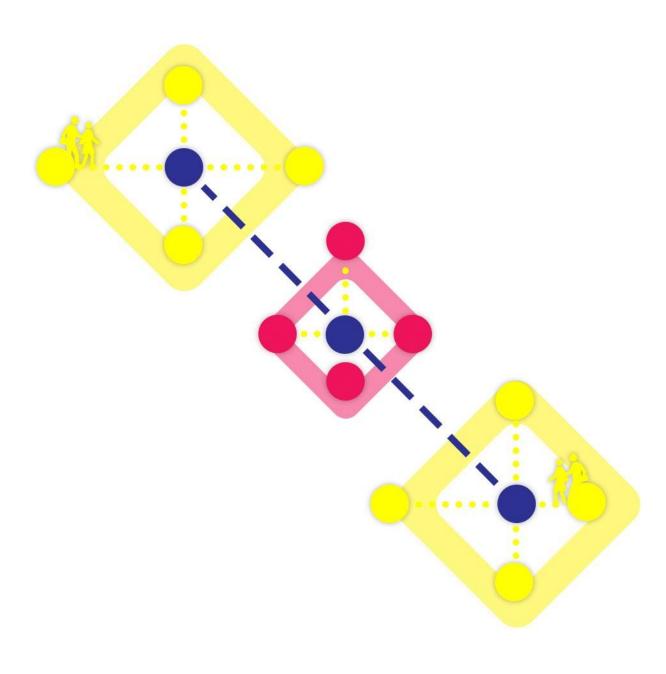
realistic objectives: reinvent and adapt to sustainable local resources - smaller cities but performing much better than before

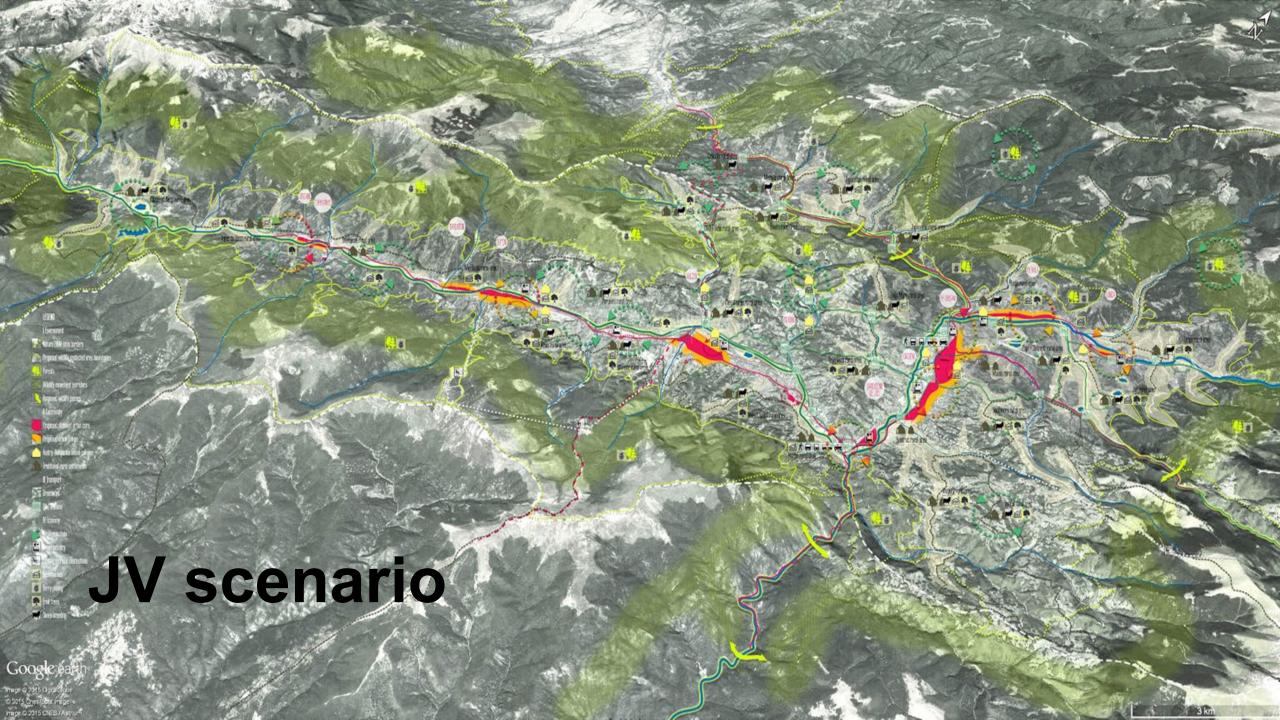


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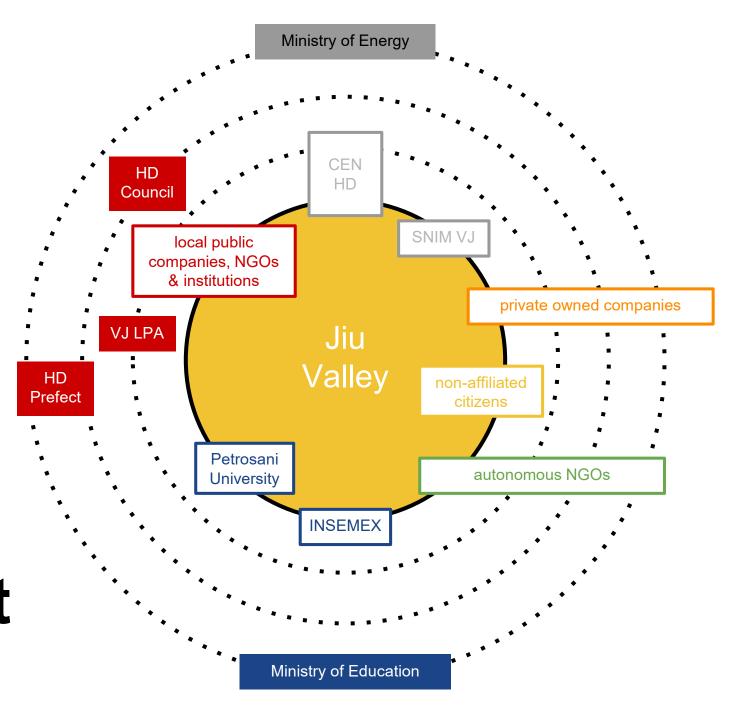




the most important stakeholders are the public owned/subordinated organizations.

 consultation of private companies, NGOs and local initiative groups is optional.

main public & private input



Planeta Petrila

vision: Mina Petrila - the administrative, economic and socio-cultural center of Petrila

objectives: conversion of the former coal mine, a mining museum, the headquarters of the local town hall, R&D, industry 4.0, (re)connection to the city, new public spaces, restoration of the river shores



Coal mine companies have:

- moral authority;
- the most valuable assets;
- high number of employees;
- direct communication to the national public body;
- administrative capacity;
- technical and professional capacity.

Coal mine companies lack:

- the possibility of changing objectives according to circumstances;
- vision for sustainable local development;
- knowledge of good international practice.



divergent objectives+actions

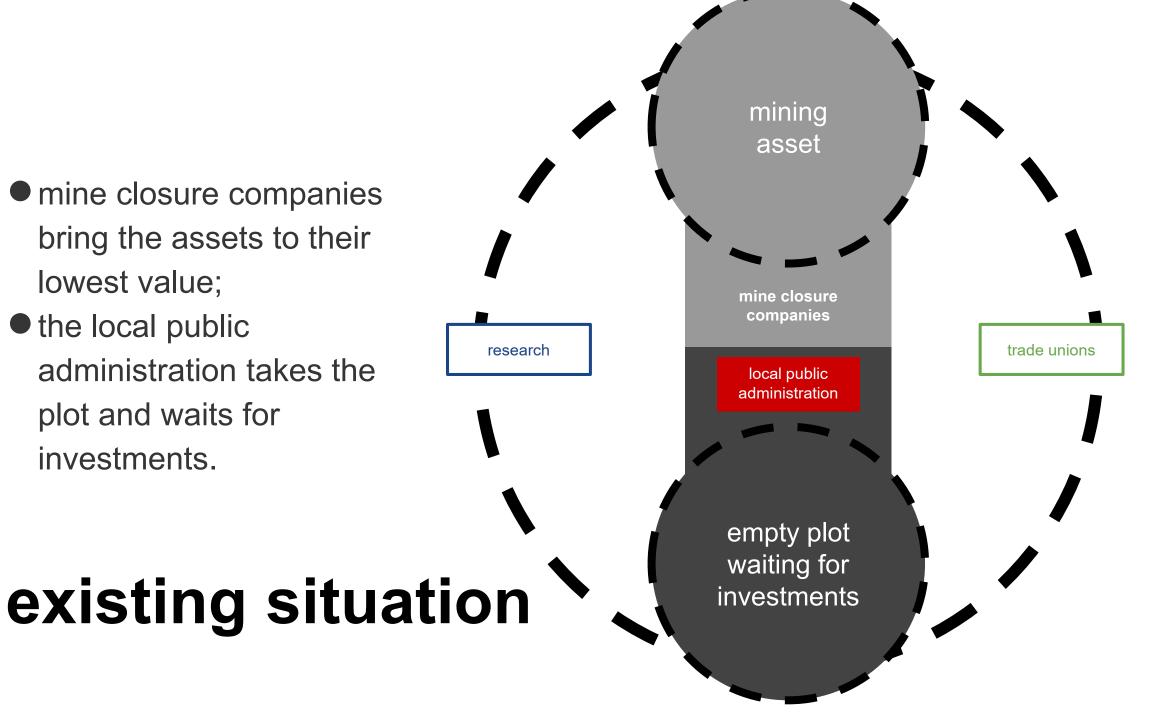
coal mine closure companies

- allow the market value of former industrial assets to be reduced, implementing mine closure plans that limit future perspectives on the assets:
- have a limited running life, considering the assets as goods to be valued at fair value;
- act according to rigid national regulations and necessary standard safety procedures;
 - top-down process

urban regeneration promoters

- seek for the valuable assets and search for the best repurposing options, considering the regional economic transition;
- consider the assets (buildings, infrastructures and sterile heaps) as valuable resources for regeneration;
- act flexible, according to circumstances
 and international best practices in the field;
- bottom-up process

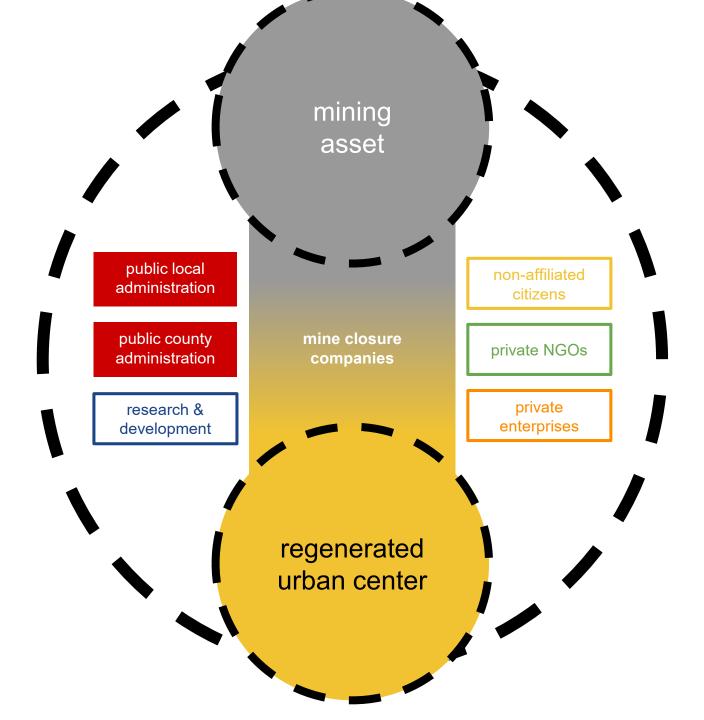
- mine closure companies bring the assets to their lowest value;
- the local public administration takes the plot and waits for investments.



mine closure companies take a more complex role:

- evolution from coal activity closure management to urban regeneration process management;
- economic regeneration agents, supporting links to international partners.

proposal



example of good cooperation

 Partnership for Planeta Petrila cultural events and tourist visits in 2018-19, through the adaptive reuse of former industrial interior and exterior spaces at Mina Petrila, ensemble listed as a heritage ensemble of National importance;

Support from the Ministry of Energy.



