



REPUBLIC OF SLOVENIA  
MINISTRY OF NATURAL RESOURCES AND SPATIAL PLANNING

**BULLETIN**

YEAR 2023

# MINERAL RESOURCES

in Slovenia

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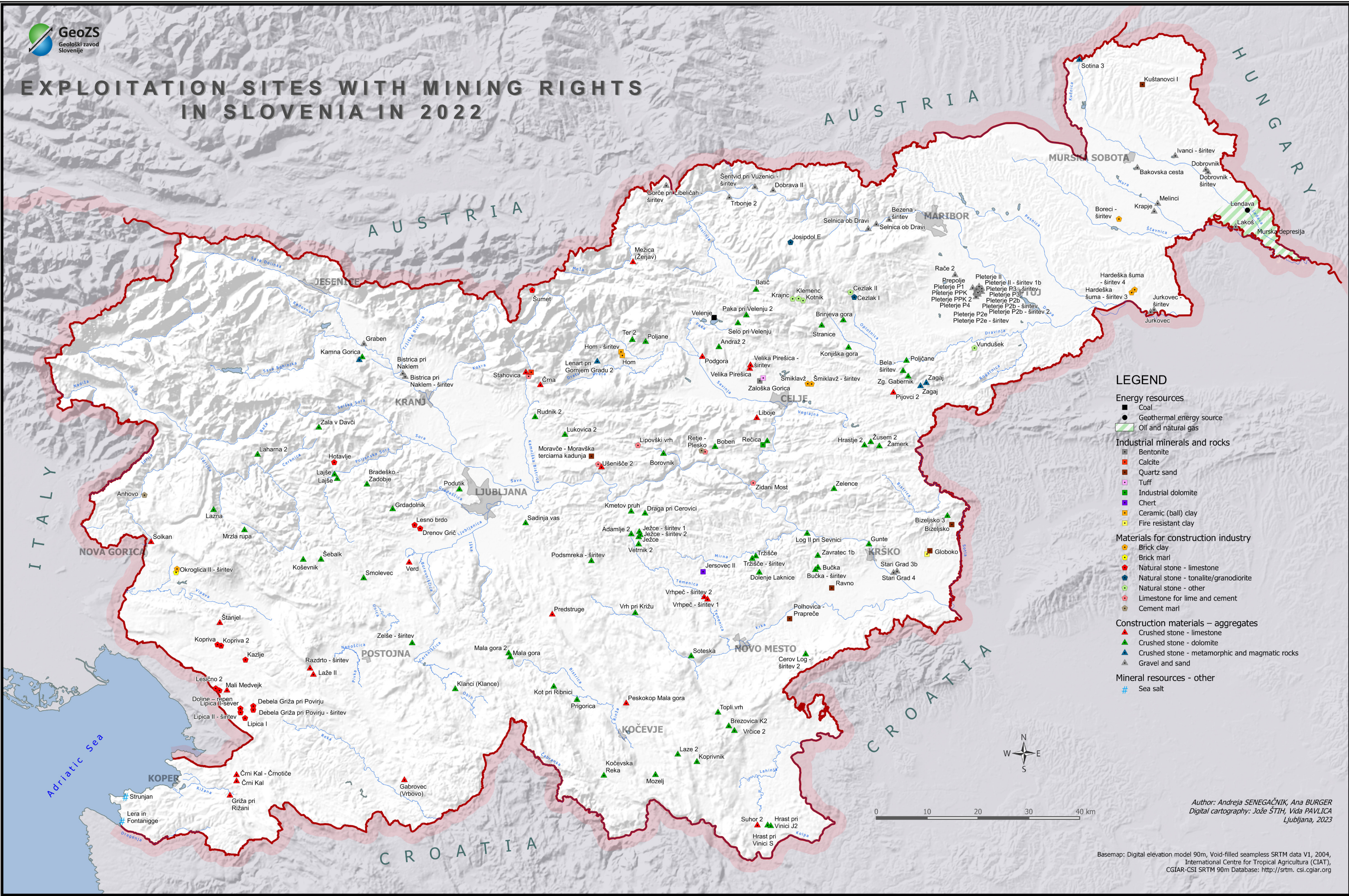
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**GeoZS**  
Geološki zavod  
Slovenije



# EXPLOITATION SITES WITH MINING RIGHTS IN SLOVENIA IN 2022



## LEGEND

### Energy resources

- Coal
- Geothermal energy source
- Oil and natural gas

### Industrial minerals and rocks

- Bentonite
- Calcite
- Quartz sand
- Tuff
- Industrial dolomite
- Chert
- Ceramic (ball) clay
- Fire resistant clay

### Materials for construction industry

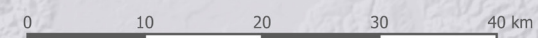
- Brick clay
- Brick marl
- Natural stone - limestone
- Natural stone - tonalite/granodiorite
- Natural stone - other
- Limestone for lime and cement
- Cement marl

### Construction materials – aggregates

- ▲ Crushed stone - limestone
- ▲ Crushed stone - dolomite
- ▲ Crushed stone - metamorphic and magmatic rocks
- ▲ Gravel and sand

### Mineral resources - other

- # Sea salt



Author: Andreja SENEGAČNIK, Ana BURGER  
Digital cartography: Jože ŠTIH, Vida PAVLIČA  
Ljubljana, 2023

Basemap: Digital elevation model 90m, Void-filled seamless SRTM data V1, 2004,  
International Centre for Tropical Agriculture (CIAT),  
CGIAR-CSI SRTM 90m Database: <http://srtm.csi.cgiar.org>



## FOREWORD



Access to, and use of natural resources - land, water, oil and gas, minerals, or precious metals - have been in human history always closely related to the level of the wellbeing achieved, but also to stability, security, conflicts, wars. The whole history of the colonisation of nature, was central also to fairness and equity. Lessons learned recently from the terrible war, pandemic, and the hottest summer since we started to record the temperature, are more than convincing to understand that changing our relationship with nature, is ultimately not only environmental, but also an economic, equality, security, and resilience imperative. This relationship is not stable, nor balanced, and it will be resolved either with collective wisdom and effort, or in a hard and very painful way, through conflicts, hunger, pandemics, migration.... This is the choice we have, and this is the real question behind our sustainability efforts. I hope that this will be well recognised also when designing the follow up of the EGD vision.

The future will be green ... or there will be no future.

Ljubljana, september 2023

dr. Janez Potočnik  
Co-Chair  
UN International Resource Panel

### MINERAL RESOURCES IN SLOVENIA

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Cover photo by Tomo Jeseničnik: Peca Underground - Tourist mine and museum  
Other photos from GeoZS archive  
Mineral data up-dated to 2022

## WORK OF THE UNIT FOR MINING



REPUBLIC OF SLOVENIA  
MINISTRY OF NATURAL RESOURCES AND SPATIAL PLANNING

The Unit for Mining (responsible for mineral resources), organized within the Nature Directorate at the Ministry of Natural Resources and Spatial Planning, carries out various administrative, expert, coordinative, supervisory, and other tasks in the field of mineral management related to exploration and exploitation, including the remediation of degraded areas and procedures of closing mines.

The main activities consist in the following:

- development of mining legislation in line with the Mining Act and National Mining / Mineral Strategy,
- licencing procedures (granting mining rights and exploration permits),
- administrative procedures referring to payments for concessions and remediation,...

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## WORK PLAN OF THE GEOLOGICAL SURVEY OF SLOVENIA FOR THE MINISTRY OF NATURAL RESOURCES AND SPATIAL PLANNING

The basic starting points for the annual GeoZS work program are defined in an annual contract between GeoZS and the ministry responsible for mining and depends on EU mineral sector and the needs of the ministry in charge (Nature Directorate - Unit for Mining).

The work program performed by GeoZS is divided into sets of tasks according to the needs of the Unit for Mining:

### • EXPERTISE

- expertise for National Mining / Mineral Strategy and legislation,
- expertise in spatial planning,
- support of licencing procedures,
- expertise associated within EU mineral sector activities.

### • MINERAL DATA INFRASTRUCTURE

- development and maintenance of the web application “Mining Registry Book”,
- Bulletin Mineral Resources publication,

- national statistics on mineral reserves and resources,
- thematic maps,
- closed mines archive.

### • RESEARCH WORK

- monitoring geological research and storage of samples,
- evaluating exploitation sites,
- geothermal resource studies,
- impact of mine closures.

### • OTHER

- Participation in the Commission charged for determining mineral reserves and resources. The Commission determines the relevance of annual reports of reserves and resources.
- Organization of thematic workshops and congresses, the results of which are published in scientific and professional publications.

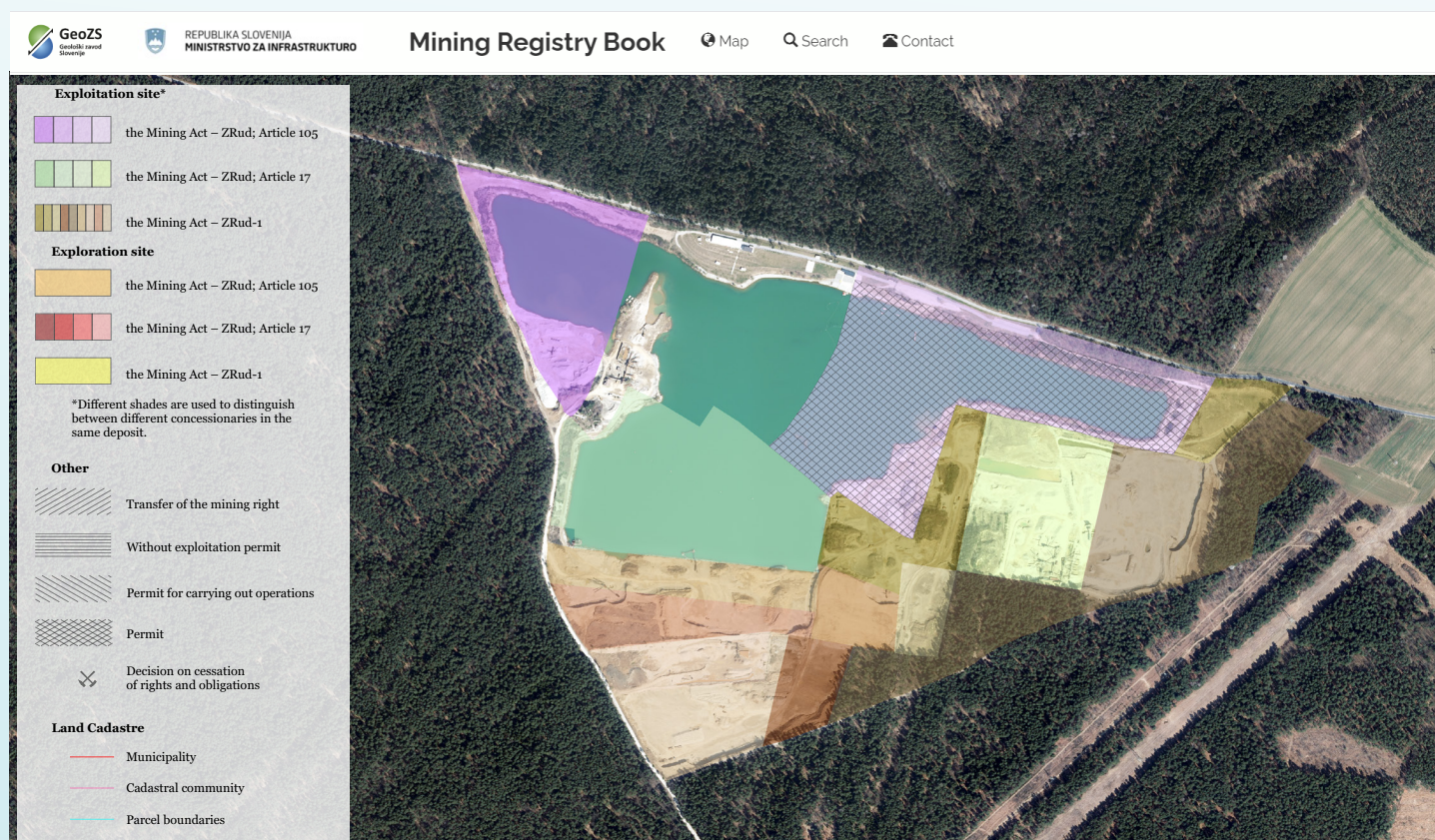


## PUBLIC MINING SERVICE IN SLOVENIA

In accordance with Article 17 and 18 of the Mining Act (*Official Gazette RS, No. 14/14 – official consolidated text a 61/17-GZ, 54/22 and 78/23-ZUNPEOVE*), the Geological Survey of Slovenia, in its role of Public Mining Service, supports the ministry responsible for mining in terms of sustainable mineral management and mineral policy.

Tasks performed by the Public Mining Service:

- provides expertise for the National Mining / Mineral Strategy,
- spatial planning on the national level and municipality level,
- sampling and material storage, archive of closed mine documentation,
- manage and maintain a Mining Registry Book on the national level, including a chronology of mining rights granted:
  - Mining database,
  - Legislation,
  - Mining and geological studies,
  - Mining notification form,
  - Register of certified persons in the mining industry
- geological prospecting and mapping, evaluation of mineral reserves and resources in terms of supporting licencing.



Screenshot from "Mining Registry Book" – detailed map of mining area.

## MINERAL DATA COLLECTION IN SLOVENIA

All Slovenian concessionaires are required to report annually on production, degraded surfaces, reserves, and resources in their mining areas (Reporting forms on mineral resources). Mineral data is collected by the responsible ministry. Data collected is further processed and evaluated by GeoZS for purposes of mineral statistics on the national level.

Mineral resources in Slovenia are divided into:

- **ENERGY**
  - lignite,
  - oil and natural gas,
  - geothermal energy,
  - brown coal (production until 2012).
- **METALS** (no production in past decades)
- **NON-METALS**
  - **industrial minerals and rocks** (chert, bentonite, quartz sand, calcite, tuff, industrial dolomite, ceramic / ball clay and lake chalk (production until 2003)),
  - **materials for the construction industry** (brick clay, natural stone (limestones, tonalite, other natural stones), raw materials for the lime and cement industries),
  - **construction materials – aggregates** (crushed stone (limestone, dolomite, magmatic and metamorphic rocks), gravel and sand).
- **OTHERS**
  - sea salt.

In 2022, there were 1 exploration sites and 180 exploitation sites with mining rights in Slovenia, dealing with 24 different rocks and minerals and run by 116 mining rights holders.



# MINERAL AND ENERGY RESOURCES IN SLOVENIA IN 2022

## Overview of Slovenia's mineral resources

In Slovenia, which is situated between the Alps, the Pannonian Basin, the Dinarides, and the Adria Plate energy, metallic and non-metallic resources occur in different geological formations. Energy resources include lignite and subbituminous coal, oil and natural gas, uranium, and geothermal energy.

Coal-bearing areas with the greatest resources and proven reserves occur in the Velenje Basin (N Slovenia; Pliocene lignite), the Sava Basin (Eastern Central Slovenia; Oligocene subbituminous ("hard brown") coal), and the Pannonian Basin (E and NE Slovenia; Miocene lignite and "brown" coal). Uranium ore occurs mainly in the area of Žirovski Vrh, west of Ljubljana, in the Permian Val Gardena/Gröden Formation. The most promising area for oil and gas generation and accumulation is the Pannonian Basin. In other areas, hydrocarbons may have been generated in various known source rocks (from the Palaeozoic to Early Tertiary) but were lost (not trapped) during subsequent geological processes. Offshore, in the Adriatic Sea (as in the case of Italy, Croatia, and southwards), sediments and sedimentary rocks might represent a potential area, but Slovenia's claim to the sea is very limited, and no exploration has yet been carried out there. Slovenia has one oil-and-gas field in operation – the Petišovci Dolina field, which has been in operation since 1942. Oil production is only symbolic (less than 300 tons/year). Gas production in the last 15 years has not exceeded 8 million Sm<sup>3</sup>/year, with the exception of 2018, when almost 18.5 million Sm<sup>3</sup> of gas was produced, mainly due to the activation of the two most recent wells Pg-10 and Pg-11A from 2011.



Pg-10 and Pg-11A wells (3,545 and 3,500 m deep).

On the metallogenic map of Slovenia, more than 220 locations of metal mineral deposits and occurrences are marked, a few dozen of which were once mining sites (ore deposits), while the rest represent ore occurrences only. No metal mines are currently active. Potential economic significance can be attributed primarily to sites bearing mercury (Idrija), lead and zinc (Mežica, Litija), uranium (Žirovski vrh) and to a lesser extent copper (Sovodeni), molybdenum (Mežica), antimony (Trojane), manganese (Karavanke), and iron and bauxite.

Non-metallic mineral resources of higher market value (industrial minerals and rocks) for export occur only moderately. Non-metallic mineral resources for us as building and construction materials prevail. They are primarily used domestically or are enriched and used in semi-manufacturing and manufacturing. Domestic non-metallic mineral resources

are used in the construction, ceramic, brick, metallurgy, and metalworking industries, for the environment and water purification, and for glass manufacturing, farming, foodstuffs and similar.

Mining enjoys a long tradition in Slovenia. In the past this consisted in the exploitation of a significant quantity of mercury in Idrija, whereas today it involves technologically advanced underground extraction of lignite in Velenje. After 1990, several underground coal mines, as well as uranium, mercury, and lead and zinc mines, were closed. Only open pit mines of non-metallic mineral resources and one underground lignite mine were still active in 2023. Lignite is produced at the Premogovnik Velenje (Velenje Lignite Mine), while the production of "hard brown coal" in the Trbovlje-Hrastnik Mine concluded in 2012.



Longwall mining using the Velenje method

Coal mining in Slovenia began in the second half of the 18<sup>th</sup> century. Almost all coal mining sites known today were discovered in the 18<sup>th</sup> and 19<sup>th</sup> centuries and were subsequently thoroughly explored; later, they were increasingly exploited in the 20<sup>th</sup> century, especially for the railway and later to produce electrical power at coal-fired power plants. Among the more than 100 coal-mining sites, many had only local significance, as can be gleaned from various historical documentation and maps; but a number operated as full-blown collieries, which produced tens to hundreds of thousands of tons of coal annually. Between 1950 and 1990, annual coal production (mostly underground) increased from 2 to almost 7 million tonnes (Mt). In the period 1962–1976, the run-of-mine calorific value of all excavated coals (lignites and subbituminous coals) in Slovenia from 11 mines varied at around 13 megajoules per kg (MJ/kg). Peak annual productions reached 6.75 Mt in the 1980s (3.35 t/cap.) from 7 coal mines. In the 1980s, the total calorific value of all Slovenian coal production was slightly less than 10 MJ/kg, and coal was used almost exclusively in power plants that produced ca. 37% of the country's electrical energy (about the same as the country's hydro power plants). During this period, maximum annual production in Trbovlje reached 1 Mt of subbituminous ("hard brown") coal, whereas 5 Mt of lignite was produced in Velenje. In the 1990s, coal production was concluded in four coal mines (Laško, Zagorje, Senovo, and Kanižarica), and in 2012 production also wrapped up in Trbovlje-Hrastnik. Over the past two decades, about 4 Mt of lignite with a calorific value of 10.5 MJ/kg has been produced annually in Velenje; yet in recent years less than 3.3 Mt has been produced annually from reserves sufficient for the next ca. 30 years. Lignite exploitation in Velenje is planned to conclude in 2033; but given the present situation (in 2022), which developed very quickly and unexpectedly, it is difficult to determine when this might actually occur.



The uranium mine at Žirovski Vrh, which is the only underground mine in Slovenia opened after the Second World War, has been in the process of closing since 1991. Production of mercury ore in Idrija ended in 1991, and in Mežica the last tonnes of lead and zinc ore were excavated in 1994. Otherwise, the mines in Idrija and Mežica have been in the process of closing since 1987 and 1988, respectively. The Litija Mine closed and concluded its production of lead and zinc already in the 1960s.

As can be seen from the brief description above, the situation in Slovenia has seen a pronounced change in dynamics over the past 30 years in terms of potential mineral resources and overall related economic developments. These changes include the closure of centuries-old metal mines, almost all coal mines except for the Velenje Lignite Mine, and the uranium mine; On the other hand, the country has continued to put significant emphasis on non-metallic mineral resources for the building and construction industries. In view of current trends and economic development programmes, primarily as they relate to infrastructure construction (roads, railways, apartment buildings), we can foresee future needs for individual non-metallic mineral resources – firstly in construction, with other applications also coming into play in the longer term from 2023 onwards. Mineral resources for construction, which will be extracted using surface mining, will continue to represent an important factor in the country's economy and future development. In conclusion, 1 exploration site and 180 exploitation sites with mining rights were operating in Slovenia mining 24 different mineral resources in 2022. These sites were run by 116 mining rights holders.

### Utilization of geothermal energy in Slovenia in 2022

The northeastern region of Slovenia, which belongs to the Pannonian Basin and features greater deep geothermal potential than other parts of the country, has been the subject of intensive investigation over the past 15 years within the framework of various European projects. With a view to promoting more sustainable exploitation through the application of re-injecting thermal water used to produce energy, three reinjection wells are planned: the first one at Moravske Toplice (Terme 3000) within a year or two, and at Dobrovnik and Renkovci, both in northeastern Slovenia, most likely over the next five years. As a result, we have better insight into the characteristics of the geothermal field, the hydrogeological conditions of northeastern and eastern Slovenia, and the potential for direct heat utilization. The northeastern region is characterized by a thin crust and thick Cenozoic sedimentary layers (up to 5.5 km) with an elevated geothermal gradient (above 40 °C/km) in the sediments east of the Maribor-Ptuj line. Today, all production wells situated there exploit thermal water from Neogene aquifers. This most geothermally exploited area is filled with Neogene marine and fresh-water sediments, and at depths of more than 2.5 km thermal fluids reach temperatures of 100 to 200 °C. Clays and marls predominate, with intercalations of porous sands and sandstones of the Upper Pannonian-Pontian Mura Fm, where mineral, thermal, and thermo-mineral waters are found. These hydraulically connected sandy lenses are widely utilized in Slovenia (and in Hungary to the east) and are composed of sand-prone units 50 to 300 m thick found at depth intervals of roughly 0.7 to 1.45 km in the interior parts of the Pannonian Basin, with temperatures ranging from 50 to 72 °C. In recent years, particular attention has been paid to estimating shallow geothermal potential, particularly in urban and some suburban areas (such as Cerkno, Velenje, and partly also Medvode and Maribor).

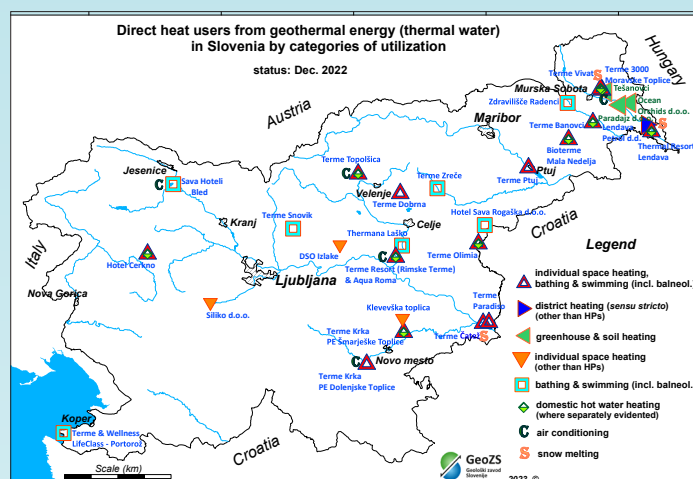


Figure 1: Main categories of direct heat use of geothermal energy from thermal water in Slovenia in 2022 at 29 locations (Tešanovec greenhouse is considered as a separate user).

All over the country, geothermal energy is effectively used in spas and recreation centres, in agriculture, and for individual space and district heating. In 2022, no new users of thermal water from deep wells or thermal springs appeared. The use of deep geothermal energy currently consists of direct heat use of thermal water exclusively. Spa and thermal bath operations no longer suffered as they did during the pandemic. Thermal water from 50 geothermal production wells and 4 thermal springs was utilized. Many users used more thermal water than the year previous. Total extraction of thermal water in 2022 amounted to 6,214,634 m<sup>3</sup>, up 15.4% on 2021, yet down 21.2% on pre-pandemic 2019. Nevertheless, total consumption of geothermal energy as of 2022 was 1,846.6 TJ, with a corresponding installed capacity of 318.4 MW<sub>th</sub>. Geothermal energy from thermal water is used directly at 29 locations (Fig. 1), where installed capacity and geothermal energy consumption amounted to 58.3 MW<sub>th</sub> and 551.9 TJ, respectively. Shallow geothermal energy (heat in the shallow subsurface), which is exploited by approximately 16,135 units of ground-source heat pumps, provided 1,294.7 TJ of geothermal energy out of the total installed capacity of 260.1 MW<sub>th</sub>. Of these, the bigger GSHP units (>20 kW of rated power), of which there are roughly 1036, extracted some 382.1 TJ of shallow geothermal energy. The shallow geothermal energy segment accounted for 70.1% of all heat extracted from underground.

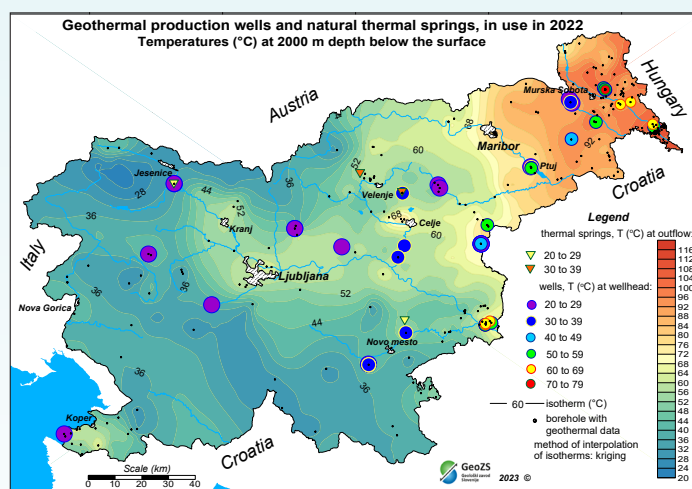
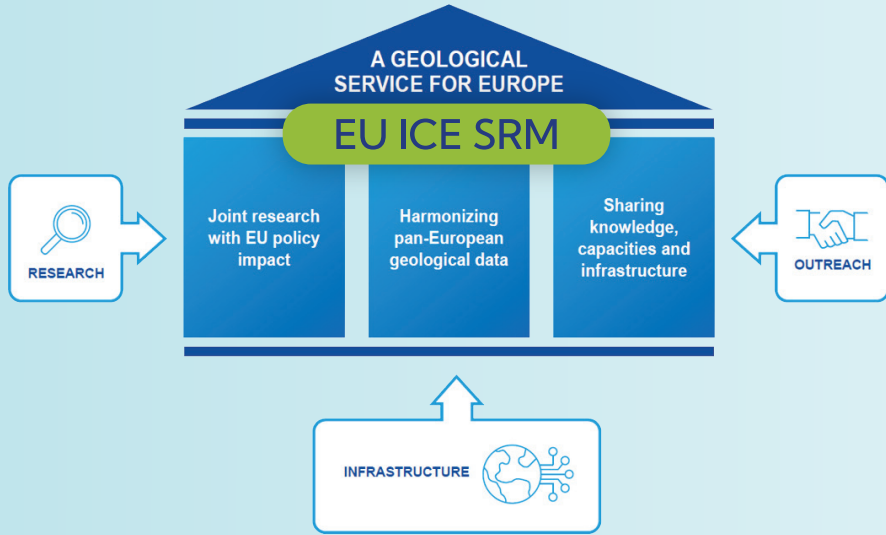


Figure 2: Geothermal production wells and natural thermal springs in use in 2022 in Slovenia (status: July 2023); expected temperatures at a depth of 2000 m below the surface.

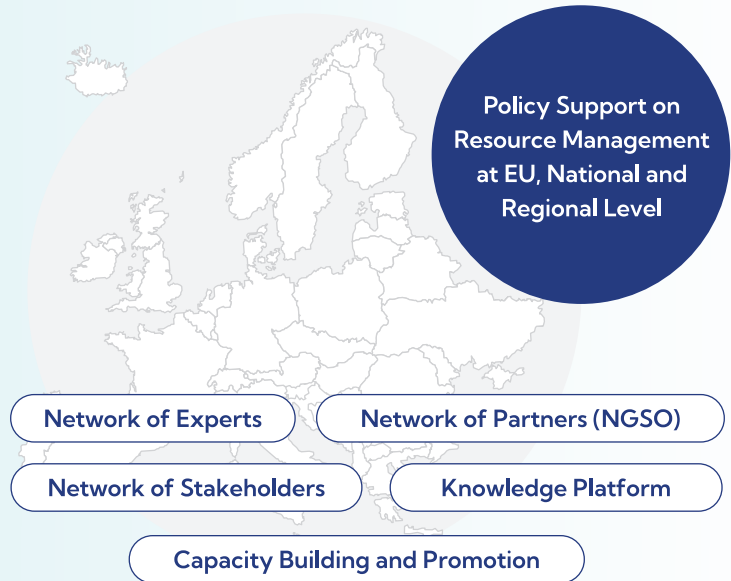
Miloš Markič and Dušan Rajver (GeoZS)



# EU International Centre of Excellence on Sustainable Resource Management

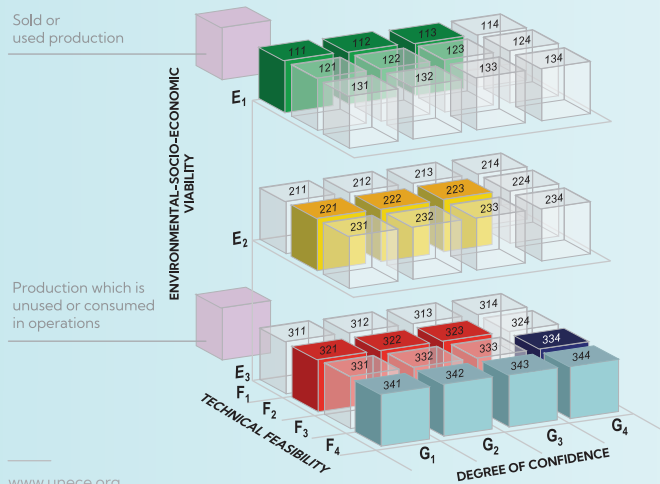


Capacity Building and Knowledge Centre in support of UNFC and UNRMS



## UNECE ICE-SRM

Promotion, Capacity Building on UNFC



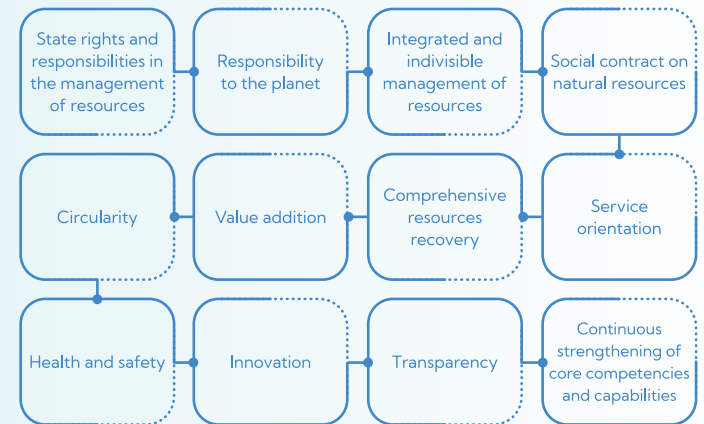
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Support UNRMS, in line with the UN 2030 Agenda for Sustainable Development



www.sdgs.un.org

### UNRMS Fundamental Principles



www.unece.org



## SLOVENIAN ACTIVITIES ASSOCIATED WITH »BRIDGING« NATIONAL MINERAL RESERVES CLASSIFICATION INTO UNFC

The United Nations Economic Commission for Europe (UNECE) has focused on adopting a uniform universal system for the classifications of resources under the UNFC (United Nations Framework Classification for Resources) which also includes mineral deposits. In so doing all data on reserves and resources will be harmonised and rendered comparable to each other. As a result, the existing national and international classifications would be superseded. Data on reserves and resources of all member states will be put on a common denominator. UNFC classification is useful not only for mineral resources but also for other natural and anthropogenic sources, including geothermal, solar, nuclear, and wind energy.

In the frame of Horizon Europe 2021–2027 Cluster 5 (Climate, Energy and Mobility) within the broader scheme of CSA (Coordination and Support Action) activity the new 5-year pan-European project was launched in September 2022 with the purpose of establishing the **Geological Service for Europe (GSEU)**.

GeoZS is participating in this project within several work packages, including WP2 – Critical Raw Materials, the International Centre of Excellence, and the United Nations Framework Classification. In the framework of these GeoZS plays an important role by leading the task of establishment of the European International Centre of Excellence for sustainable resource management (EU ICE SRM) in accordance with UNFC and United Nations Resource Management System (UNRMS) guidelines.

UNFC classification is supported by representatives of several EC Directorates (for Energy, Mineral Resources, Marine and Groundwater etc.), which expressed their expectations at the project kick-off meeting. The Science Advisory Committee and Stakeholder Council have an active part in the dialogue related to actions and project outcomes/deliverables.

UNFC-2019 classification is a global 3-D system for defining tree[three?] key elements/components: E. environmental-socio-economic viability, F. project technical feasibility and maturity; and G. level of confidence depends on geological knowledge. *Guidance for the Application of the United Nations Framework Classification for Resources (UNFC) for Mineral and Anthropogenic Resources in Europe* is published and available at the following link: [https://unece.org/sites/default/files/2022-10/Revised\\_UNFC\\_Guidance\\_Europe\\_as\\_of\\_19.October.2022.pdf](https://unece.org/sites/default/files/2022-10/Revised_UNFC_Guidance_Europe_as_of_19.October.2022.pdf)

The main carriers of knowledge in classifying mineral reserves and resources are experts from national geological surveys and relevant institutions of member states, who prepare bridging documents to transform and transfer various existing national and international systems into the universal UNFC classification system.

In autumn 2021, the Network of Practitioners Europe – NoPE was established with the aim of bridging/transforming existing mineral classifications used in different member states.

The Network of Practitioners was established by UNECE and is led by UNECE in cooperation with the forthcoming EU ICE SRM, represented by GeoZS. The long-term goal of their work is the gradual adjustment and final implementation of UNFC in national legislative frameworks using bridging documents.

Once the Critical Raw Materials Act is adopted the use of UNFC classification will become mandatory for member states in reporting their mineral reserves and resources to the EC. The first training sessions for NoPE members/experts will be organised and led by UNECE, which is located in Geneva, with most sessions held on-line.

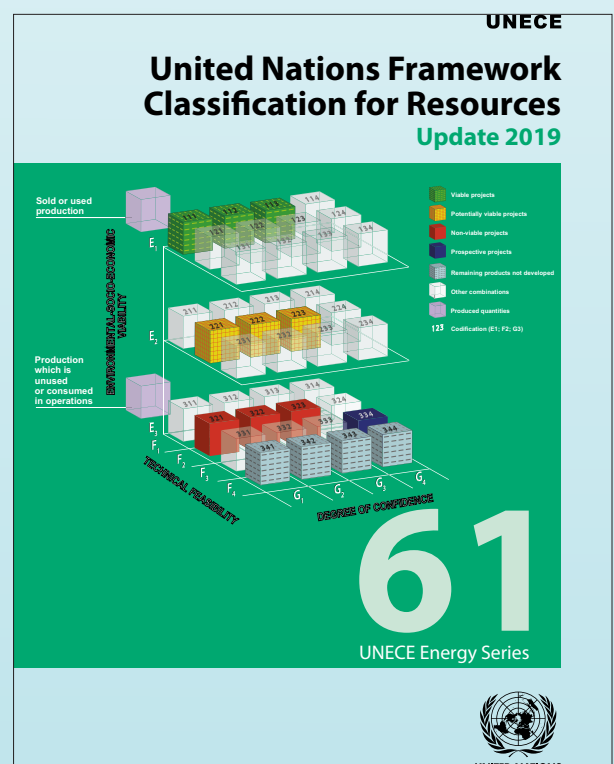
UNECE **Resource Management Week 2023** was held at the Palais des Nations in Geneva in late April 2023. This regular event is organised every year by UNECE around a topic related to sustainable management of mineral resources, and is attended by experts and scientists from all over the world.

The proposal of the organisational scheme and activities planned by the European International Centre of Excellence for sustainable resource management were presented by GeoZS on this occasion.

Within the GSEU project (WP-2, Task T2.4) GeoZS prepared the report on the transformation of mineral reserves data entitled **Mineral data management and harmonisation to UNFC classification – Case Slovenia**. An abstract of licencing procedures in Slovenia (»Mining licencing in Slovenia«) was also prepared. One of the initial activities of EU ICE SRM was the creation of a questionnaire. Based on the results of the questionnaire the level of implementation of UNFC in partner countries was determined.

Expert translation of »**United Nations Framework Classification for Resources – update 2019**« was provided by GeoZS, which offered explanations of fundamental rules and key guidelines related to the use of UNFC classification. UNFC will apply for a variety of »sources projects« regardless of origin (natural or anthropogenic) including solar, nuclear, wind energy and more.

Duška Rokavec, Meta Dobnikar, Snježana Miletić (GeoZS)





# OVERVIEW OF EXPLOITATION SITES AND MINERAL PRODUCTION

## LIST OF EXPLOITATION SITES WITH MINING RIGHTS IN SLOVENIA IN 2022

	Mineral commodity	Exploitation sites	Concessionaire		Mineral commodity	Exploitation sites	Concessionaire
1	Coal	Velenje	PREMOGOVNIK VELENJE, d.o.o.	60	Crushed stone - limestone	Mali Medvejk	P.G.M. INŽENIRING proizvodnja gradbenih in drugih materialov d.o.o
2	Oil and natural gas	Murska depresija	GEOENERGO, raziskave in pridobivanje surove nafte in zemeljskega plina d.o.o.	61	Crushed stone - limestone	Mežica (Žerjav)	GRABENI MATERIALI, podjetje za proizvodnjo gradbenih materialov d.o.o.
3	Geothermal energy source	Lendava	PETROL, Slovenska energetska družba, d.d., Ljubljana	62	Crushed stone - limestone	Peskokop Mala gora	O-PROJEKT, Gradbeno projektiranje in inženiring d.o.o., Kočevje
4	Bentonite	Zaloška Gorica	MONTANA, pridobivanje in predelava nekovinskih rudnin, d.o.o.	63	Crushed stone - limestone	Pijovci 2	GRAMOZ - AP proizvodnja, trgovina in storitve, d.o.o.
5	Calcite	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.	64	Crushed stone - limestone	Podgora	KAMTEH GmbH, Predstavnštvo Šmartno ob Paki
6	Quartz sand	Bizeljsko	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	65	Crushed stone - limestone	Predstruge	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.
7	Quartz sand	Globoko	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	66	Crushed stone - limestone	Razdrto – širitev	CPK, d.d., družba za vzdrževanje cest, gradbeništvo in druge poslovne storitve
8	Quartz sand	Kušanovci I	Murexin, gradbeni materiali, d.o.o.	67	Crushed stone - limestone	Solkán	SALONIT ANHOVO, Kamnolomi, d.o.o.
9	Quartz sand	Moravče - Moravška terciarna kadunja	TERMIT, rudarsko podjetje za pridobivanje kremenovih peskov d.d.	68	Crushed stone - limestone	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.
10	Quartz sand	Polhovica - Prapreče	KREMEN d.o.o., industrija in rudniki nekovin	69	Crushed stone - limestone	Suhor 2	AGM Starešinič, avtoprevozi, gradbeništvo in mehanizacija, d.o.o.
11	Quartz sand	Ravno	KREMEN d.o.o., industrija in rudniki nekovin	70	Crushed stone - limestone	Štanjel	KAMNOLOM ŠTANJEL IN MINERSTVO DUŠAN ŽERJAL s.p.
12	Tuff	Zaloška Gorica	MONTANA, pridobivanje in predelava nekovinskih rudnin, d.o.o.	71	Crushed stone - limestone	Ušenišče 2	IAK, INDUSTRIJA APNA KRESNICE, d.o.o.
13	Industrial dolomite	Rečica	GRATEX, Pridobivanje in predelava dolomitskega agregata in kurivoprodaja d.o.o., Laško	72	Crushed stone - limestone	Velika Pirešica	APOC, kamnolom in predelava gradbenih odpadkov d.o.o.
14	Chert	Jersovec II	P-D KREMEN, Pridobivanje drugih rudnin in kamnin, d.o.o.	73	Crushed stone - limestone	Velika Pirešica - širitev	CM CELJE, d.d. - Ceste mostovi Celje, družba za nizke in visoke gradnje - v stečaju
15	Ceramic (ball) clay	Hom	Gorenje Keramika, d.o.o.	74	Crushed stone - limestone	Verd	KAMNOLOM VERD Podjetje za proizvodnjo kamnitih agregatov, d.o.o.
16	Ceramic (ball) clay	Hom - širitev	Gorenje Keramika, d.o.o.	75	Crushed stone - limestone	Vrhpeč - širitev 1	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
17	Fire resistant clay	Globoko	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	76	Crushed stone - limestone	Vrhpeč - širitev 2	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
18	Brick clay	Boreci - širitev	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	77	Crushed stone - dolomite	Adamlje 2	KAMNOLOM JEŽCE, JOŽE ADAMLJE, S.P.
19	Brick clay	Hardeška šuma - širitev 3	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	78	Crushed stone - dolomite	Andraž 2	EKOMINERAL, svetovanje, storitve, proizvodnja, d.o.o.
20	Brick clay	Hardeška šuma - širitev 4	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	79	Crushed stone - dolomite	Batič	GRABENIŠTVO PERŠE UROŠ PERŠE s.p.
21	Brick clay	Okroglica II – širitev	GORIŠKE OPEKARNE d.o.o.	80	Crushed stone - dolomite	Bela - širitev	KLAS PRODAJALNA NOVE IN RABLJENE KMETIJSKE TER GRADBENE MEHANIZACIJE, STARO ZA NOVO STANISLAV HACE S.P.
22	Brick clay	Šmiklavž	VOC Ekologija, urejanje okolja d.o.o..	81	Crushed stone - dolomite	Bizeljsko 3	AGRAD podjetje za trgovino, gradbeništvo in gostinstvo d.o.o.
23	Brick clay	Šmiklavž - širitev	VOC Ekologija, urejanje okolja d.o.o..	82	Crushed stone - dolomite	Boben	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
24	Brick marl	Okroglica II – širitev	GORIŠKE OPEKARNE d.o.o.	83	Crushed stone - dolomite	Borovnik	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
25	Natural stone – limestone	Debela Griža pri Povirju	KAMNOSEŠTVO TAVČAR pridobivanje in obdelava kamna d.o.o.	84	Crushed stone - dolomite	Bradeško – Zadbje	IZKOPI IN PREVOZI JANEZ BRADEŠKO S.P.
26	Natural stone – limestone	Debela Griža pri Povirju - širitev	KAMNOSEŠTVO TAVČAR pridobivanje in obdelava kamna d.o.o.	85	Crushed stone - dolomite	Brezovica K2	KOGRAD gradbeništvo d.o.o.
27	Natural stone - limestone	Doline – repen	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	86	Crushed stone - dolomite	Brinjeva gora	ECOBETON proizvodnja, trgovina, storitve d.o.o.
28	Natural stone - limestone	Drenov Grič	MINERAL, obdelava naravnega kamna, d.o.o.	87	Crushed stone - dolomite	Bučka	AVTOPREVOZNIŠTVO - TGM - MKI JOŽEF TOMAŽIN S.P.
29	Natural stone - limestone	Hotavljje	MARMOR HOTAVLJE, družba za obdelavo kamna, d.o.o.	88	Crushed stone - dolomite	Bučka - širitev	AVTOPREVOZNIŠTVO - TGM - MKI JOŽEF TOMAŽIN S.P.
30	Natural stone - limestone	Kazlje	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	89	Crushed stone - dolomite	Cerov Log - širitev 2	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
31	Natural stone - limestone	Kopriva 2	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	90	Crushed stone - dolomite	Dolenje Laknice	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
32	Natural stone - limestone	Kopriva	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	91	Crushed stone - dolomite	Draga pri Cerovici	DRAGA Separacija peska, d.o.o., Litija
33	Natural stone – limestone	Lesično 2	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	92	Crushed stone - dolomite	Grdadolnik	TGM IN PRIDOBIVANJE PESKA FRANC GRDADOLNIK S.P.
34	Natural stone - limestone	Lesno brdo	MINERAL, obdelava naravnega kamna, d.o.o.	93	Crushed stone - dolomite	Gunte	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
35	Natural stone - limestone	Lipica I	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	94	Crushed stone - dolomite	Hrast pri Vinici J2	PRIDOBIVANJE IN PRODAJA PESKA ZDRAVKO JURŠINIČ S.P.
36	Natural stone - limestone	Lipica II - sever	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	95	Crushed stone - dolomite	Hrast pri Vinici S	AGM Starešinič, avtoprevozi, gradbeništvo in mehanizacija, d.o.o.
37	Natural stone - limestone	Lipica II - širitev	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	96	Crushed stone - dolomite	Hrastje 2	LIO, Storitve in posredništvo, Leja Škoberne s.p.
38	Natural stone - limestone	Šumet	MEDARD ŠUMET	97	Crushed stone - dolomite	Ježce	
39	Natural stone - tonalite	Cezlak I	MINERAL, obdelava naravnega kamna, d.o.o.	98	Crushed stone - dolomite	Ježce - širitev 1	PESKOKOP KEPA SUZANA KEPA s.p.
40	Natural stone – tonalite (granodiorite)	Jospidol E	ECOBETON proizvodnja, trgovina, storitve d.o.o.	99	Crushed stone - dolomite	Ježce - širitev 2	
41	Natural stone - other	Cezlak II	MINERAL, obdelava naravnega kamna, d.o.o.	100	Crushed stone - dolomite	Kamna Gorica	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.
42	Natural stone - other	Klemenc	KAMNOLOM KLEMENC SILVESTER KLEMENC s.p	101	Crushed stone - dolomite	Klanci (Klance)	GREĐIN gradbeno in transportno podjetje Markovec d.o.o.
43	Natural stone - other	Kotnik	KAMNOLOM KLEMENC MILAN KLEMENC S.P.	102	Crushed stone - dolomite	Kmetov pruh	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija
44	Natural stone - other	Krajnc	PREDELAVA OKRASNEGA KAMNA SIMON KRAJNC S.P.	103	Crushed stone - dolomite	Kočevska Reka	SNEŽNIK podjetje za proizvodnjo in storitve, d.o.o.
45	Natural stone – other	Vundušek	ŽOLGER JOŽEF S.P. - GRADBENE STORITVE AVTOPREVOZNIŠTVO ŽOLGER	104	Crushed stone - dolomite	Konjiška gora	KONGRAD gradbeno, obrtno, instalacijsko in proizvodno podjetje d.d.
46	Limestone for lime and cement	Lipovški vrh	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	105	Crushed stone - dolomite	Koprivnik	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija
47	Limestone for lime and cement	Retje - Plesko	Lafarge Cement, d.o.o., Trbovlje	106	Crushed stone - dolomite	Koševnik	DOLOMIT GRADBENA MEHANIZACIJA-SEPARACIJA PESKA JANKO KOSMAC S.P.
48	Limestone for lime and cement	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.	107	Crushed stone - dolomite	Kot pri Ribnici	KLUN - PESKOKOP, TRANSPORT IN USLUGE TGM KLUN JOŽE S.P.
49	Limestone for lime and cement	Ušenišče 2	IAK, INDUSTRIJA APNA KRESNICE, d.o.o.	108	Crushed stone - dolomite	Laharna 2	RASPET, Podjetje za proizvodnjo materialov in gradbene storitve d.o.o.
50	Limestone for lime and cement	Zidani Most	APNENEC d.o.o., Proizvodnja apnenčeve moke	109	Crushed stone - dolomite	Lajše	STORITVE S TEŽKO GRADBENO MEHANIZACIJO MARJAN VEHAR S.P.
51	Cement marl	Anhovo	SALONIT ANHOVO Gradbeni materiali, d.d.	110	Crushed stone - dolomite	Lajše	TOPOS HOTAVLJE, gradbeništvo, proizvodnja, trgovina in storitve, d.o.o.
52	Cement marl	Retje - Plesko	Lafarge Cement, d.o.o., Trbovlje	111	Crushed stone - dolomite	Laze 2	RIGLER, peskokop, prevoznništvo in storitve gradbene mehanizacije, d.o.o.
53	Crushed stone - limestone	Črna	CALCIT, proizvodnja kalcitnih polnil d.o.o.	112	Crushed stone - dolomite	Lazna	SOŠKO GOZDNO GOSPODARSTVO TOLMIN d.o.o.
54	Crushed stone - limestone	Črni Kal	CPK, d.d., družba za vzdrževanje cest, gradbeništvo in druge poslovne storitve	113	Crushed stone - dolomite	Log II pri Sevnici	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
55	Crushed stone - limestone	Črni Kal - Črnotiče	SALONIT ANHOVO, Kamnolomi, d.o.o.	114	Crushed stone - dolomite	Lukovica 2	STRABAG gradbene storitve d.o.o.
56	Crushed stone - limestone	Gabrovec (Vrbovo)	SALONIT ANHOVO, Kamnolomi, d.o.o.				
57	Crushed stone - limestone	Griža pri Rižani	VOC Ekologija, urejanje okolja d.o.o.				
58	Crushed stone - limestone	Laže II	KOLEKTOR CESTNO PODJETJE NOVA GORICA, Družba za vzdrževanje in gradnjo cest, d.o.o.				
59	Crushed stone - limestone	Liboje	VOC Ekologija, urejanje okolja d.o.o.				



	Mineral commodity	Exploitation sites	Concessionaire		Mineral commodity	Exploitation sites	Concessionaire
115	Crushed stone - dolomite	Mala gora	TANKO podjetje za nizke gradnje in hidrogradnje in trgovino na debelo, d.o.o.	151	Crushed stone – meta-morphic and magmatic rocks	Zagaj	POSREDNIŠTVO IVAN MIJOŠEK S.P.
116		Mala gora 2					
117	Crushed stone - dolomite	Mozelj	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija	152	Gravel and sand	Bakovska cesta	POMGRAD, gradbeno podjetje d.d.
118	Crushed stone - dolomite	Mrzla rupa	"GRAMEH" GRADBENA MEHANIZACIJA BOJAN JEREB S.P.	153	Gravel and sand	Bezena - širitev	SILVA BRAČKO d.o.o., družba za prevozištv, gradbeništvo, posredništvo, trgovino in gramoznica Bezena, d.o.o.
119	Crushed stone - dolomite	Paka pri Velenju 2	RGP d.o.o. rekonstrukcije, gradnje, proizvodnja	154	Gravel and sand	Bištrica pri Naklem	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.
120	Crushed stone - dolomite	Podsmreka – širitev	PESKOKOP UNIVERSAL proizvodnja gradbenega materiala d.o.o. Ivančna Gorica	155		Bištrica pri Naklem - širitev	
121	Crushed stone - dolomite	Podutik	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.	156	Gravel and sand	Dobrava II	MARALD-MARSEL gradbena mehanizacija-gramoz d.o.o.
122	Crushed stone - dolomite	Poljane	PREVOZNIŠTVO - PESKOKOP, KRIVEC JANEZ S.P.	157	Gravel and sand	Dobrovnik	NOGRAD, gradbeno in trgovsko podjetje d.o.o.
123	Crushed stone - dolomite	Poljčane	TRIK kamenine d.o.o.	158		Dobrovnik - širitev	
124	Crushed stone - dolomite	Prigorica	RIGLER, peskokop, prevozištv in storitve gradbene mehanizacije, d.o.o.	159	Gravel and sand	Goče pri Libelcih - širitev	GRAMOZNICA PAČNIK, separacija, prodaja in storitve, d.o.o.
125	Crushed stone - dolomite	Rečica	GRATEX, Pridobivanje in predelava dolomitskega agregata in kurivprodaja d.o.o., Laško	160	Gravel and sand	Graben	GORENJC, družba za inženirske dejavnosti, d.o.o.
126	Crushed stone - dolomite	Rudnik 2	Avtoprevozištv in gradbena mehanizacija Klemen Uršič s.p.	161	Gravel and sand	Ivanci - širitev	POMGRAD, gradbeno podjetje d.d.
127	Crushed stone - dolomite	Sadinja vas	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.	162	Gravel and sand	Jurkovec	ŽIHER podjetje za trgovino, proizvodnjo, prevozištv in storitve d.o.o.
128	Crushed stone - dolomite	Selo pri Velenju	VEGRAD d.d. Gradbeno industrijsko podjetje - v stečaju	163		Jurkovec - širitev	ŽIHER podjetje za trgovino, proizvodnjo, prevozištv in storitve d.o.o.
129	Crushed stone - dolomite	Smolevec	STORITVE S TEŽKO GRADBENO MEHANIZACIJO PRIDOBIVANJE PESKA IN GRAMOZA RAJKO ČERIN S.P.	164	Gravel and sand	Krapje	SEGRAP rudarstvo, proizvodnja in gradbeništvo d.o.o.
130	Crushed stone - dolomite	Soteska	GOZDNO GOSPODARSTVO NOVO MESTO d.d.	165	Gravel and sand	Lakoš	E-PREVOZI, prevozištske storitve, d.o.o.
131	Crushed stone - dolomite	Stranice	VOC Ekologija, urejanje okolja d.o.o.	166	Gravel and sand	Melinci	T G P OZMEC - trgovsko, gradbeno in prevozištsko podjetje d.o.o.
132	Crushed stone - dolomite	Šebalk	SOŠKO GOZDNO GOSPODARSTVO TOLMIN d.o.o.	167	Gravel and sand	Pleterje II	CESTNO PODJETJE PTUJ D.D.
133	Crushed stone - dolomite	Ter 2	PRIDOBIVANJE PESKA IN GRAMOZA TEREZIJA BURJA S.P.	168		Pleterje II - širitev Ib	
134	Crushed stone - dolomite	Topli vrh	GMP PESKOKOP ALEN MUJAKIČ S.P.	169	Gravel and sand	Pleterje P1	EPSON, trgovina, gostinstvo in storitve, d. o. o.
135	Crushed stone - dolomite	Tržišče	AGM PUNGERČAR, d.o.o., avtoprevozištv, gradbena mehanizacija, peskokop	170	Gravel and sand	Pleterje P2b	CESTNO PODJETJE PTUJ D.D.
136		Tržišče – širitev		171		Pleterje P2b - širitev	
137	Crushed stone - dolomite	Vetnik 2	REKON gradbeništvo, inženiring, trgovina, d.o.o.	172		Pleterje P2b - širitev 2	
138	Crushed stone - dolomite	Vrčice 2	CGP družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.	173	Gravel and sand	Pleterje P2e	CESTNO PODJETJE PTUJ D.D.
139	Crushed stone - dolomite	Vrh pri Križu	GOSTGRAD, Gostinstvo, gradnje in storitve d.o.o. Žužemberk	174	Gravel and sand	Pleterje P2e - širitev	CESTNO PODJETJE PTUJ D.D.
140	Crushed stone - dolomite	Zala v Davči	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.	175		Pleterje P3	
141	Crushed stone - dolomite	Zavratec 1b	GRADNJE gradbeništvo in prevozištv d.o.o. Boštanj	176	Gravel and sand	Pleterje P3 - širitev	EPSON, trgovina, gostinstvo in storitve, d. o. o.
142	Crushed stone - dolomite	Zelence	STEDO proizvodnja, trgovina in storitve d.o.o.	177	Gravel and sand	Pleterje PPK	DUJARDIN gradbeno, transportno, špeditsko, trgovsko, gostinsko in proizvodno podjetje d.o.o.
143	Crushed stone - dolomite	Zelše - širitev	KAMNOLOM ZELŠE, d.o.o.	178		Pleterje PPK 2	
144	Crushed stone - dolomite	Zg. Gabernik	PREVOZNE STORITVE, ZEMELJSKA DELA, PRIDOBIVANJE KAMNA ANDREJ JAGODIČ S.P.	179	Gravel and sand	Prepolje	BETON - BETONSKI IZDELKI DUŠAN KUCHAR S.P.
145	Crushed stone - dolomite	Žamerk	KRAJEVNA SKUPNOST LOKA PRI ŽUSMU	180	Gravel and sand	Rače 2	GOKOP gradbeno, gostinsko in trgovsko podjetje d.o.o.
146	Crushed stone - dolomite	Žusem 2	KRAJEVNA SKUPNOST LOKA PRI ŽUSMU	181	Gravel and sand	Selnica ob Dravi	PANEL avtoprevozištv, storitve z gradbeno mehanizacijo, trgovina, gradbeništvo in svetovanje d.o.o.
147	Crushed stone – meta-morphic and magmatic rocks	Kamna Gorica	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.	182	Gravel and sand	Selnica ob Dravi	MAGDA GODEC družba za proizvodnjo, trgovino in storitve d.o.o.
148	Crushed stone – meta-morphic and magmatic rocks			183	Gravel and sand	Stari Grad 3b	Kostak, komunalno in gradbeno podjetje, d.d.
149	Crushed stone – meta-morphic and magmatic rocks	Lenart pri Gornjem Gradu 2	"TUFKA" PESKOKOP TUFKA KANOLŠČIČA PETER BEZOVIŠEK S.P.	184	Gravel and sand	Stari Grad 4	Kostak, komunalno in gradbeno podjetje, d.d.
149		Sotina 3	POMGRAD - CESTNO PODJETJE, družba za vzdrževanje in gradnjo cest d.d.	185	Gravel and sand	Šentvid pri Vuženic - širitev	GRADBENIŠTVO KUSTER, nizke in visoke gradnje, d.o.o.
150	Crushed stone – meta-morphic and magmatic rocks	Zagaj	TRIK kamenine d.o.o.	186	Gravel and sand	Trbonje 2	JAVNO KOMUNALNO PODJETJE DRAVOGRAD d.o.o.
150				187	Gravel and sand	Lera in Fontanigge	SOLINE Pridelava soli, d.o.o.
				188	Sea salt	Strunjan	SOLINE Pridelava soli, d.o.o.
				189	Sea salt		

## NUMBER OF EXPLOITATION SITES (NON-ENERGETIC) IN SLOVENIA

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Bentonite	1	1	1	1	1	1	1	1	1	1	1	1	
Calcite	1	1	1	1	2	1	1	1	1	1	1	1	
Chalk	1	1	1	1	1	1	1	1	1	1	1	0	
Quartz sand	7	7	7	7	7	7	7	7	7	7	7	6	
Tuff	1	1	1	1	1	1	1	1	1	1	1	1	
Industrial dolomite	2	2	2	1	1	1	1	1	1	1	1	1	
Chert	1	1	1	1	1	1	1	1	1	1	1	1	
Ceramic clay	4	4	4	5	4	5	5	5	3	3	3	3	
<b>Industrial minerals and rocks</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>14</b>	
Brick clay	8	7	5	6	5	6	5	5	5	6	7	7	
Natural stone	limestone	12	12	11	13	14	15	14	14	13	13	14	14
	tonalite/granodiorite	3	3	3	3	3	2	1	1	2	3	2	
	other	14	14	13	13	13	12	10	10	9	8	8	5
Natural stone	29	29	27	29	30	29	25	25	23	23	25	21	
Raw materials for lime	6	6	6	6	5	5	5	5	5	5	5	5	
Raw materials for cement	6	6	5	5	5	4	4	4	4	5	5	2	
<b>Materials for construction industry</b>	<b>49</b>	<b>48</b>	<b>43</b>	<b>46</b>	<b>45</b>	<b>44</b>	<b>39</b>	<b>39</b>	<b>37</b>	<b>39</b>	<b>42</b>	<b>35</b>	
Crushed stone	limestone	26	26	27	29	36	33	32	32	30	31	24	
	dolomite	101	94	95	94	84	86	85	84	80	79	70	
	other	4	4	4	6	6	5	5	5	5	6	5	
Crushed stone	131	124	126	129	126	124	122	121	115	115	115	99	
Gravel and sand	45	41	47	44	38	34	31	32	31	36	39	36	
<b>Construction materials/aggregates</b>	<b>176</b>	<b>165</b>	<b>173</b>	<b>173</b>	<b>164</b>	<b>158</b>	<b>153</b>	<b>153</b>	<b>146</b>	<b>151</b>	<b>154</b>	<b>135</b>	
<b>TOTAL</b>	<b>243</b>	<b>231</b>	<b>234</b>	<b>237</b>	<b>227</b>	<b>220</b>	<b>210</b>	<b>210</b>	<b>199</b>	<b>206</b>	<b>212</b>	<b>184</b>	



## PRODUCTION OF MINERAL COMMODITIES IN SLOVENIA

(in metric tons)

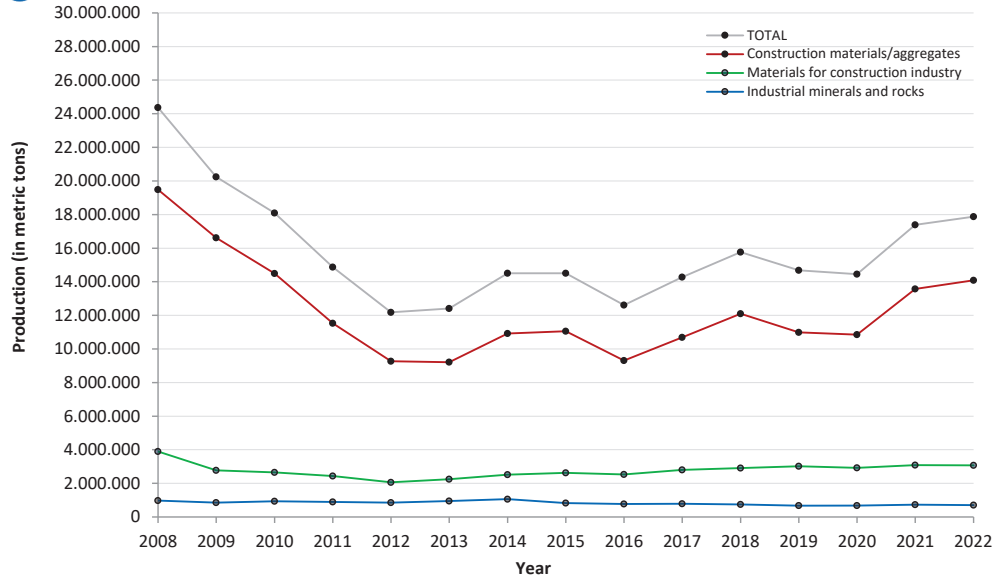
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Bentonite	130	160	104	135	168	98	143	199	232	182	147	113	99	77	75	68
Calcite	273.745	348.152	405.467	459.926	458.800	474.152	555.663	646.542	268.677	255.709	220.771	204.914	221.767	229.111	249.264	253.835
Kaolin																
Chalk																
Quartz sand	295.667	289.529	215.065	253.866	230.908	219.481	224.387	207.381	343.455	338.080	359.476	343.683	311.954	325.318	371.143	362.884
Tuff	90.319	109.949	58.062	39.401	24.639	23.732	19.171	8.872	9.116	8.840	9.144	8.633	9.133	8.257	8.873	8.691
Industrial dolomite	299.177	177.715	146.214	156.179	154.721	119.317	136.516	177.338	172.697	150.545	172.656	129.821	102.619	88.275	82.893	66.420
Chert	16.745	21.648	16.695	16.114	18.907	9.960	11.530	15.340	21.041	20.272	15.525	20.436	20.773	21.485	18.372	7.238
Ceramic clay	78.221	32.200	9.478	12.279	10.103	5.295	3.479	7.461	7.574		5.478	42.052	6.412	5.354	6.070	300
<b>Industrial minerals and rocks</b>	<b>1.054.004</b>	<b>979.353</b>	<b>851.085</b>	<b>937.900</b>	<b>898.246</b>	<b>852.035</b>	<b>950.889</b>	<b>1.063.133</b>	<b>822.792</b>	<b>773.628</b>	<b>783.197</b>	<b>749.652</b>	<b>672.757</b>	<b>677.877</b>	<b>736.690</b>	<b>699.436</b>
Brick clay	706.866	420.360	235.348	296.118	374.020	159.746	180.748	154.944	194.852	202.540	167.898	159.615	180.088	273.771	392.826	422.161
Natural stone																
limestone	47.983	71.260	73.156	55.045	25.109	21.006	21.158	79.005	99.541	101.991	107.630	91.231	69.155	58.109	43.394	62.247
tonalite/granodiorite	65.715	67.400	39.787	36.855	45.930	23.374	41.016	23.749	26.995	26.746	28.544	41.793	25.078	17.839	27.041	80.606
other	27.124	21.959	21.573	19.724	11.896	11.526	8.332	9.917	9.790	7.690	6.151	3.615	2.660	16.370	24.675	34.772
Natural stone	140.822	160.619	134.516	111.624	82.935	55.906	70.506	112.671	136.326	136.427	142.325	136.639	96.893	92.318	95.110	177.625
Raw materials for lime	2.082.593	1.631.391	1.221.197	1.260.446	1.103.163	896.241	860.890	919.528	1.103.283	1.046.293	1.174.038	1.212.883	1.186.037	1.025.514	1.118.370	953.432
Raw materials for cement	1.489.625	1.684.258	1.188.493	982.653	883.573	952.758	1.138.560	1.325.907	1.190.807	1.149.065	1.318.832	1.405.518	1.551.728	1.532.796	1.474.361	1.525.508
<b>Materials for construction industry</b>	<b>4.419.906</b>	<b>3.896.628</b>	<b>2.779.554</b>	<b>2.650.841</b>	<b>2.443.691</b>	<b>2.064.651</b>	<b>2.250.704</b>	<b>2.513.050</b>	<b>2.625.268</b>	<b>2.534.325</b>	<b>2.803.093</b>	<b>2.914.655</b>	<b>3.014.746</b>	<b>2.924.399</b>	<b>3.080.667</b>	<b>3.078.726</b>
Crushed stone																
limestone	7.134.305	7.541.043	6.284.804	5.773.480	4.034.597	3.264.404	2.813.266	3.060.104	3.486.409	3.164.109	3.824.938	4.757.905	4.557.967	4.447.674	5.441.039	5.600.430
dolomite	6.909.947	7.291.259	7.175.362	6.143.336	5.440.918	4.223.692	4.127.357	4.901.721	4.427.094	4.280.306	4.808.753	5.516.316	4.984.010	4.484.334	5.766.679	5.761.219
other	235.002	150.258	149.562	155.716	151.276	69.335	127.272	161.762	194.610	26.018	9.190	7.781	8.662	51.910	143.478	152.473
Crushed stone	14.279.254	14.982.560	13.609.728	12.072.532	9.626.791	7.557.431	7.067.895	8.123.587	8.108.113	7.470.433	8.642.881	10.282.002	9.550.639	8.983.918	11.351.196	11.514.122
Gravel and sand	8.549.960	4.506.076	3.001.291	2.422.771	1.899.770	1.707.455	2.143.013	2.799.006	2.943.870	1.833.732	2.047.403	1.810.666	1.437.101	1.869.851	2.225.198	2.577.923
<b>Construction materials/aggregates</b>	<b>22.829.214</b>	<b>19.488.636</b>	<b>16.611.019</b>	<b>14.495.303</b>	<b>11.526.561</b>	<b>9.264.886</b>	<b>9.210.908</b>	<b>10.922.593</b>	<b>11.051.983</b>	<b>9.304.165</b>	<b>10.690.284</b>	<b>12.092.668</b>	<b>10.987.740</b>	<b>10.853.769</b>	<b>13.576.394</b>	<b>14.092.045</b>
<b>TOTAL</b>	<b>28.303.124</b>	<b>24.364.617</b>	<b>20.241.658</b>	<b>18.084.044</b>	<b>14.868.498</b>	<b>12.181.572</b>	<b>12.412.501</b>	<b>14.498.776</b>	<b>14.500.043</b>	<b>12.612.118</b>	<b>14.276.574</b>	<b>15.756.975</b>	<b>14.675.243</b>	<b>14.456.045</b>	<b>17.393.751</b>	<b>17.870.207</b>
brown coal	483.417	488.828	510.769	419.466	435.800	314.262										
lignite	4.037.766	4.008.442	3.921.746	4.010.930	4.066.278	3.967.064	3.721.188	3.108.203	3.168.001	3.348.889	3.355.664	3.216.735	3.218.696	3.259.309	2.807.476	2.745.022
<b>coal</b>	<b>4.521.183</b>	<b>4.497.270</b>	<b>4.432.515</b>	<b>4.430.396</b>	<b>4.502.078</b>	<b>4.281.326</b>	<b>3.721.188</b>	<b>3.108.203</b>	<b>3.168.001</b>	<b>3.348.889</b>	<b>3.355.664</b>	<b>3.216.735</b>	<b>3.218.696</b>	<b>3.259.309</b>	<b>2.807.476</b>	<b>2.745.022</b>
oil	344	174	138	233	263	279	298	366	261	229	241	270	267	247	142	0
gas condensate	167	104	105	207	131	60	114	95	98	150	240	499	223	138	154	127
gas	3.078	2.348	2.317	6.006	2.095	1.454	2.698	2.463	3.109	4.331	7.554	14.423	6.225	4.815	4.575	3.882
<b>oil and gas</b>	<b>3.589</b>	<b>2.626</b>	<b>2.560</b>	<b>6.446</b>	<b>2.489</b>	<b>1.793</b>	<b>3.110</b>	<b>2.924</b>	<b>3.468</b>	<b>4.710</b>	<b>8.035</b>	<b>15.192</b>	<b>6.715</b>	<b>5.200</b>	<b>4.871</b>	<b>4.009</b>
sea salt	3.029	535	2.924	59	4.291	5.684	3.360	0	2.191	2.417	2.335	2.018	1.437	805	1.671	2.342





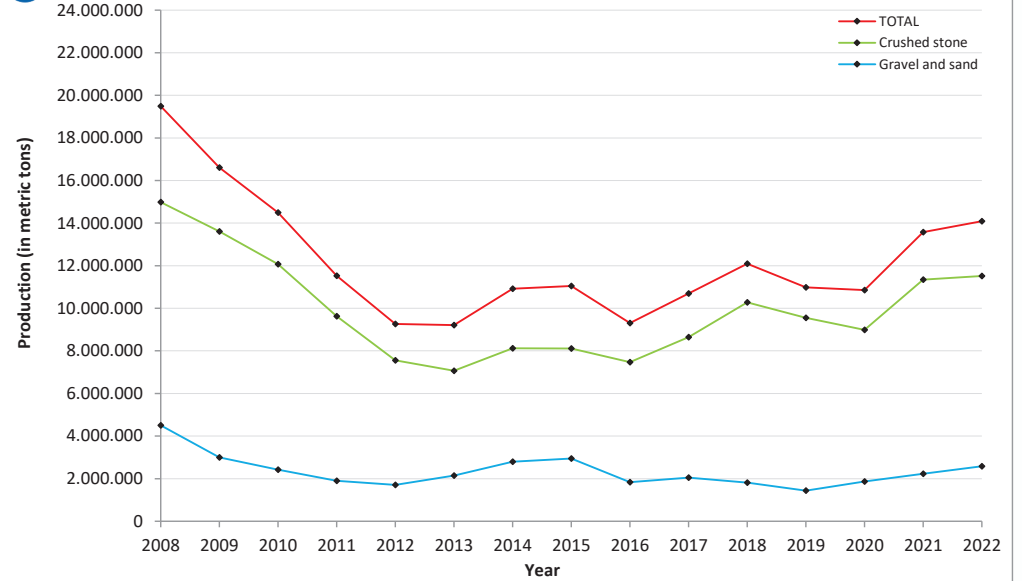
GeoZS  
Geološki zavod  
Slovenije

### Production of mineral commodities in Slovenia (energy not included)



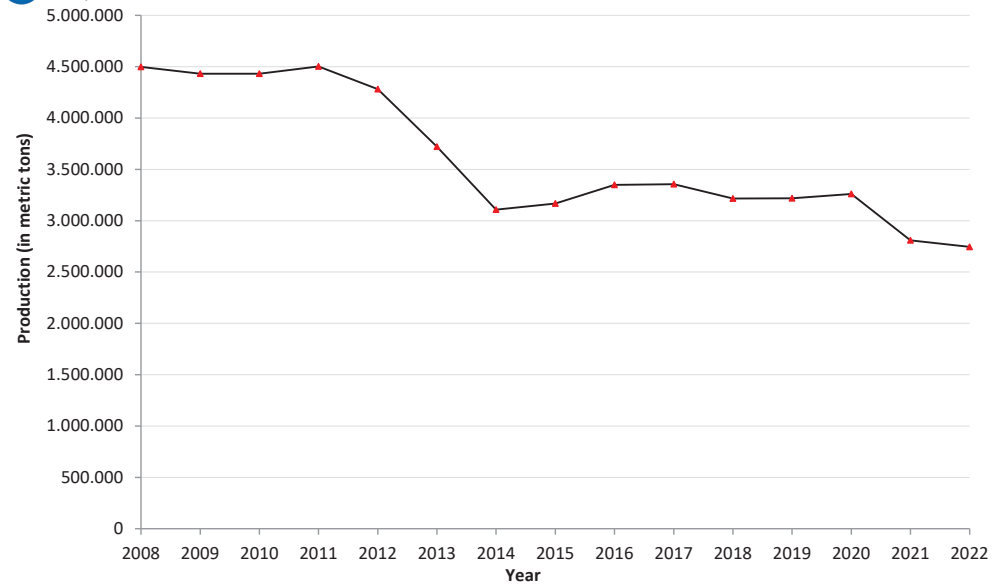
GeoZS  
Geološki zavod  
Slovenije

### Production of construction materials/aggregates in Slovenia



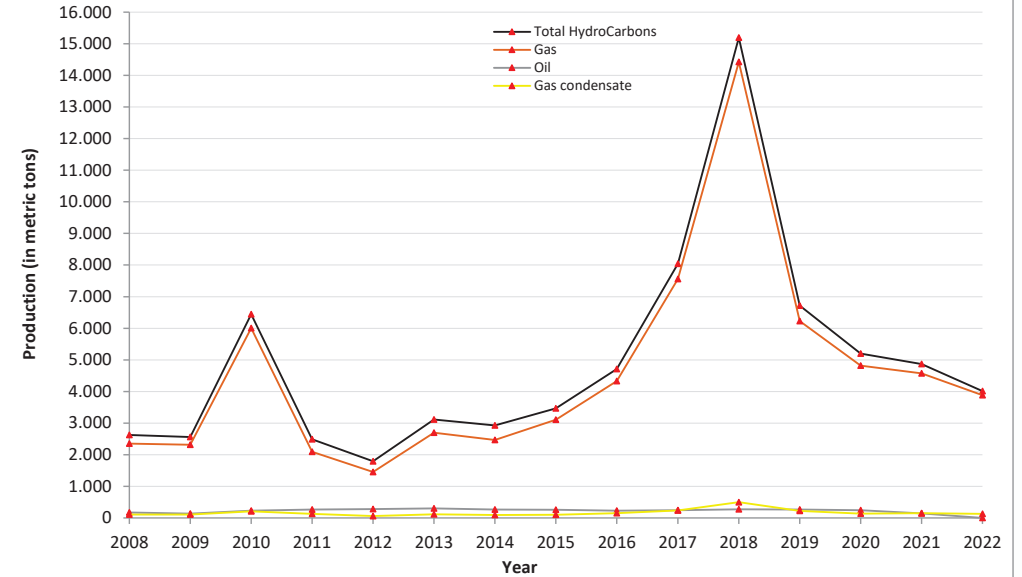
GeoZS  
Geološki zavod  
Slovenije

### Production of coal in Slovenia



GeoZS  
Geološki zavod  
Slovenije

### Production of hydrocarbons (oil and gas) in Slovenia





PARTIAL LIST OF SOME EU-FUNDED MINERAL RESOURCES PROJECTS (on-going)

Programme	Project acronym	Project title	Start	End	Duration (months)	Lead partner	Project summary
Horizon Europe	GSEU	Geological Service for Europe	Sep '22	Aug '27	60	EuroGeoSurveys, Belgium	The Geological Service for Europe (GSEU) is a Horizon Europe, CSA project designed to establish permanent co-operation between European geological survey organisations with the aim of providing European institutions, national decision-makers, industry, the professional public, and EU residents, as well as other users, with high-quality geological data about the European subsurface. The general goal of the project is to develop and enable access to pan-European coordinated data and information services on primary and secondary sources of critical mineral raw materials, geothermal resources, underground water, etc. GeoZS is one of the most active project partners. GeoZS's most important tasks consist in assuming a leading role in the establishment of the European Centre of Excellence for Sustainable Resource Management, the establishment of the information and technological framework of the future European service (EGDI – European Geological Data Infrastructure) and the implementation of communication and dissemination activities related to the project
Horizon Europe	FUTURAM	Future Availability of Secondary Raw Materials	Jun '22	May '26	48	WEEE FORUM, Belgium	The FutuRaM project seeks to develop knowledge on the availability and recoverability of secondary raw materials (SRMs) within the European Union (EU), with a special focus on critical raw materials (CRMs), to enable fact-based decision making for their exploitation in the EU and third countries, and to disseminate this information via a systematic and transparent Secondary Raw Materials Knowledge Base (SRM-KB). The FutuRaM project will establish a methodology, reporting structure, and guidance to improve the raw materials knowledge base up to 2050 and facilitate the exploitation of SRMs. The project will integrate SRM and CRM data to model their current stocks and flows, and consider economic, technological, geopolitical, regulatory, social, and environmental factors to further develop, demonstrate, and align SRM recovery projects with the United Nations Framework Classification for Resources (UNFC). The project will address the following waste streams: Batteries; Waste Electrical and Electronic Equipment; End-of-Life Vehicles; Mining Waste; Slags and Ashes; and Construction and Demolition Waste
Horizon 2020	SCRREEN2	Solutions for CRITICAL Raw materials – a European Expert Network 2	Nov '20	Oct '23	36	CEA - The French Alternative Energies and Atomic Energy Commission	The aim of the SCRREEN2 project is to ensure sustainable access to primary and secondary raw materials, and in particular Critical Raw Materials (CRMs) in the EU by providing expert advice to better understand the value chains of the raw materials studied and screened in the CRMs assessment. SCRREEN2 will further develop and strengthen the expert network already established in the SCRREEN project. Based on the expertise of the expert network, a CRM factsheet will be validated and improved to provide up-to-date information on CRMs available in primary and secondary resources and their material flow.
Horizon 2020	ROBOMINERS	Resilient Bio-inspired Modular Robotic Miner	Jun '19	Nov '23	54	Polytechnic University of Madrid, Spain	The project aims to develop a bio-inspired, modular, and reconfigurable robot-miner for small and difficult to access deposits. The robot will be able to mine underwater, underground, or above water; and due to its unique modular design, be able to reach deposits via a large diameter borehole. The use of the robot miner will be especially relevant for mineral deposits that are small or difficult to access. This covers both abandoned, flooded mines that are no longer accessible using conventional mining techniques, and sites that have been previously explored but where exploitation was considered economically unviable due to the small size of the deposits or the difficulty accessing them.
KIC EIT RawMaterials	RIS hub ADRIA	EIT RawMaterials RIS hub Adria	Mar '23	Dec '25	34	Geological Survey of Slovenia Slovenian National Building and Civil Engineering Institute, University of Zagreb Croatia, Ljubljana University Incubator	The basic objective of the EIT RawMaterials RIS hub Adria is to increase innovation performance in the ADRIA region, primarily covering Croatia and Slovenia and also reaching out to the South East European countries (Albania, Bosnia and Herzegovina, Montenegro and Northern Macedonia). RIS hub Adria is already a well-established "one-stop shop" for information, which was founded and started its work in spring 2018. It will continue its efforts and aim to attract and facilitate the integration of potential new partners and support capacity building, business creation, research and innovation in the Adria region by establishing and implementing support programmes from early stage idea development to application for KAVA /ESIF or other regional/national funding mechanisms, assisting potential idea holders and start-ups in applying, promoting strategic partnerships in KTI and facilitating business creation along the RM value chain.
KIC EIT RawMaterials	GEORIS	Innovative technologies for waste processing in ESEE region	Sep '22	Aug '24	24	ENALOS R&D, Greece	Extractive, raw materials processing, and metallurgical industrial activities in the EU generate a large volume of environmentally hazardous waste. This situation in East and Southeast Europe is exacerbated by improper waste management, as a significant percentage of industrial waste ends in landfills. GEORIS will transfer to the RIS area an innovative geopolymerization technology that utilizes industrial waste to produce materials for the construction industry (pavement blocks & fire-resistant tiles/panels) and the catalytic converters market (a powder replacing PGMs), with lower production costs and superior technical specifications and environmental performance than existing solutions. Project partners will transfer the geopolymerization technology to RIS countries and showcase its competitive advantages in applications on urban infrastructure (GR) and buildings (SI, RS), improve waste management and limit landfilling, and accelerate commercialisation of the technology.
KIC EIT RawMaterials	HEI4S3-RM	Building Ecosystem Integration Labs at HEI to foster Smart Specialization and Innovation on Sustainable Raw Materials	Jul '22	Jun '24	24	University of Oviedo, Spain	HEI4S3- RM is carried out within the EIT HE Initiative and links 6 HEI and 3 non-academic partners. The project aims to strengthen partnerships between universities, companies, and research institutions by developing an innovative pathway for entrepreneurial universities. The new operational framework will be introduced through Ecosystem Integration Labs (EILs), which will be developed and implemented by each participating university.
KIC EIT RawMaterials	RECO2MAG	Grain boundaries engineered Nd-Fe-B permanent magnets	Jan '22	Dec '23	24	Jožef Stefan Institute, Slovenia	RECO2MAG builds on recent research innovations to create radically more raw-material-efficient permanent magnets by utilising novel grain boundary diffusion via electrophoresis to reduce Dy levels in magnets, a technique developed by the Jozef Stefan Institute and by re-engineering the processing of sintered Nd-Fe-B PMs currently produced by the Slovenian PM manufacturer Magneti Lj. These new PMs have been developed to laboratory scale (TRL 3-5) for use in next-generation high-efficiency electric motor designs (constructed by automotive supplier Valeo). These technical innovations are assessed using comprehensive LCA and LCC analysis performed by the Swedish Environmental Research Institute and are coupled with a comprehensive rare-earth-element (REEs) discovery and feasibility study undertaken by the Geological Survey of Slovenia and the Universities of Zagreb and Beograd. This study will identify and connect REE deposit owners with technology developers and potential processors and users in the European region and help further reduce imports and ensure a more sustainable and independent EU PM and raw materials industry.
KIC EIT RawMaterials	TIMREX	T-Shaped Master Programme for Innovative Mineral Resource Exploration	Jan '22	Dec '24	36	University of Miskolc, Hungary	The TIMREX EIT-labelled MSc programme aims to train earth science specialists, primarily geologists and geologist engineers, to help meet the demands of mineral resource exploration in the EU. The geographical location of the four partnering universities helps to improve the mineral exploration workforce supply to the EU, including two geographically important EU mining and exploration hubs – Scandinavia and the ESEE region. The TIMREX programme will train T-shaped earth science specialists with a strong background in the classical disciplines of geology and geophysics, complemented with modern 3D modelling, as well as data processing and interpretation skills. These cross-boundary competences will cover skills in innovative mineral exploration techniques and technologies used in the field, in laboratories, and in underground and underwater environments. Students will also be trained in sustainability, social responsibility, and social licence to operate.
KIC EIT RawMaterials	RM@Schools 4.0	Raw Matters Ambassadors at Schools 4.0	Jan '21	Mar '24	40	National Research Council, Italy	Raw Matters Ambassadors at Schools 4 (RM @Schools 4.0) is a continuation of the RM@Schools 3.0 project, in which the consortium continues to develop a strategic dissemination capacity and methodology to promote science education and careers in the raw materials sector for students aged 10–19, by combining technical knowledge and soft skills such as creativity and communication. Students will have plenty of unique opportunities to interact with relevant experts and researchers through an active learning pathway (hands-on educational toolkits, excursions to industry, and dissemination activities), and then to become, in turn, young RM ambassadors who share their knowledge with other students (peer-to-peer education) and the wider public. In addition, a RM@Schools handbook will be created, containing all the information on different RM topics and toolkits created within the project in order to train teachers to become RM ambassadors themselves and to promote the project methodology.
KIC EIT RawMaterials	PhD Balticteach.	PhD Schools on Sustainable Materials for RIS region	Jan '23	Jun '25	30	Tallin University of Technology, Estonia	The main objective of the project is to train future talents for industry by organizing three PhD schools providing 6 ECTS credits per education event. The project will identify doctoral students in the Baltic States and RIS regions of Italy, Slovenia, and Slovakia and help them with the upscaling and commercialization of PhD student research development into viable business ideas in the field of sustainable materials.
LIFE	LIFE IP RESTART	Boosting waste recycling into valuable products by setting the environment for a circular economy in Slovenia	Jan '22	Dec '30	108	Ministry of the Environment, Climate and Energy, Slovenia	LIFE IP RESTART will focus on overcoming obstacles to achieving EU recycling targets, and on achieving full implementation of the National Waste Management Programme and Waste Prevention Programme (WMPP) in Slovenia. The project's main objective is to deploy a holistic set of complementary technical, digital, environmental, social, and circular solutions to unlock all the potentials of the WMPP in order to achieve maximum material self-sufficiency and increased circular yield in the waste-to-resource sector. In order to achieve this main objective, project activities will be aimed at achieving three specific objectives: 1. To provide a continuous WMPP assessment mechanism and ensure its ongoing improvement and actualisation, based on the digital, technical, and social excellence established by the project; 2. To demonstrate 6 circular solutions for several problematic and voluminous waste streams as best-case examples of implementing WMPP objectives; 3. To ensure wider uptake of best available solutions and to achieve a coherent and integrated implementation of WMPP objectives.
	PanAfGeo-2	Pan-African Support to the EuroGeoSurveys-Organisation of African Geological Surveys (EGS-OAGS) Partnership	May '21	Apr '24	36	BRGM – The French Geological Survey	PanAfGeo (Pan-African Support to the EuroGeoSurveys - Organisation of African Geological Surveys (EGS-OAGS) Partnership) is a project that supports the training of geoscientific staff from African Geological Surveys through the development of an innovative training programme. The project includes a variety of geological topics, from mineral resources to geohazards. In terms of mineral resources, it aims to increase geological knowledge and skills across Africa required for sustainable mineral exploration, exploitation, and related infrastructures. PanAfGeo-2 will contribute to a more sustainable management of natural resources in tackling climate change based on science and technology.



# “MINING REGISTRY BOOK” IN SLOVENIA

## INTRODUCTION

The web application »Mining Registry Book« was developed and published on-line at the end of 2016 by GeoZS experts from the »Public Mining service« unit. Initially, only basic data related to mining and exploration areas in Slovenia was accessible to the public, which included data and maps of mining and exploration areas, surface of mining areas, lowest points of permitted levels of exploitation, data on concession contracts and relevant permits etc.

In accordance with the Act on Amendments to the Mining Act (*Official Gazette of the Republic of Slovenia, No. 54/22*) the Mining Registry Book recently underwent a significant upgrade.

## MINING REGISTRY BOOK

GeoZS manages and maintains the Mining Registry Book in accordance with the Mining Act in force.

The Mining Registry Book is defined as a web application currently consisting of the following modules/layers:

- **Mining database** (covers info related to mining sector, as described in text below),
- **Legislation** (includes links acts/laws and decrees relevant for mining sector),
- **Mining and geological studies** (contain reports including crushed stone inventories and locations by Slovenian municipality),
- **Mining notification form** (provides link for electronic submission of mining notification form),
- **Register of certified persons in the mining industry.**

The Mining Registry Book is available on the web at: <https://ms.geo-zs.si/>; and is available in the national (Slovene) language, with the main parts also available in English.

## MINING DATABASE

The »Mining database« web application is divided into public and non-public portals.

**Public data** in the Mining database is data related to legal entities with mining rights (exploration and exploitation), concessions, relevant decrees and permits. All documents containing said data are attached and available in .pdf format. The cadastral maps, orthophotos and sketches of current and closed mining and exploration areas are attached as well. Data on illegal quarries is available in a separate section.

**Non-public data** in the Mining database contains notification forms for the payment of concessions, notification forms for payments for remediation and related legal acts, technical documentation of mines, exploration reports and results, data on mineral reserves, resources, and annual production/extraction. This data is available to the responsible ministry and mining inspectorate, with each user required to enter a username and password.

## PLANS FOR THE FUTURE

The Mining Registry book is constantly being updated and upgraded. Its goal is to support the work of the ministry and inspectors, as well as concessionaires and planners, to enable a quick review of data related to their particular mining areas





and provides users with accurate and useful information. This year it is planned to add data on closed coal mines, coal occurrences, and abandoned metal mines. This data will be displayed separately in an additional section.

## CONCLUSIONS

Over the several years of its operation, we have seen the number of users of our web application grow, with the field of application expanding as well.

As a result, it is no longer used only by the mining sector, but also by local administrative bodies, various legal entities, nature conservation organizations, experts on the preservation of cultural heritage, the economic sector, and others. At the Geological Survey of Slovenia, we try to modify applications as much as possible for various users and to ensure relevant and reliable information. This way, we provide professional support both to users in relevant ministry and to concessionaires, technical managers, and other interested parties.

**Ana Burger, Andreja Senegačnik, Aljaž Srša, Matija Krivic, Barbara Karničnik and Ines Piščanec** (*GeoZS*)

## GEOLOGICAL MEDIA FOR HYDROGEN STORAGE

One of the biggest challenges in the fight against climate change is finding solutions that reduce carbon emissions in the production and use of energy. Using hydrogen, along with hydrogen-related technologies, is often cited as a good solution for generating clean energy. A number of hydrogen storage options are under consideration, including storage underground (Internet 1).

1. Salt domes are by far the most suitable geological formations for hydrogen storage. Caverns with volumes of up to 1,000,000 m<sup>3</sup> can be created within these domes through drilling and dissolving of salt. Notably, salt domes are found primarily in Europe in the North Sea, in northern Germany, Poland, and in Ukraine; and to a lesser extent, in the United Kingdom, Denmark, etc. Significant advantages of salt domes are the chemical purity of salt (which contains minimal impurities) and the high impermeability of the cavern walls. Salt domes also prevent substantial chemical reactions from occurring. Additionally, layered deposits of rock salt (such as alternating layers of rock salt and carbonate rocks like limestone or dolomite), can also be suitable for hydrogen storage, although these are not as optimum as salt domes. One such example is the deposit of rock salt near Tuzla in Bosnia and Herzegovina. However, hydrogen storage at this location may not be feasible due to ongoing salt extraction activities there.
2. A second possible option for hydrogen storage could lie in abandoned or depleted hydrocarbon reservoirs. In Slovenia, such reservoirs exist within the Dolina-Petišovci oil and gas field on the eastern edge of the Mura Depression,

which ranges in depth from approx. 1200 m to 1750 m (Internet 2). The term “field” refers to the geographical area (such as the Dolina-Petišovci oil and gas field), while individual hydrocarbon-bearing layers are referred to as reservoirs. Abandoned hydrocarbon reservoirs in Slovenia could prove a good hydrogen storage solution owing to the availability of reliable data regarding these reservoirs, and to their impermeability (minimal gas losses are anticipated during storage). These potential reservoirs for hydrogen storage, as well as for the storage of carbon dioxide (CCS technology), share several properties in common. However, the former involves temporary storage and filling (similar to the storing of imported natural gas), while CCS technology involves permanent storage. Hydrogen can be stored in either gaseous or liquefied form. Gaseous storage requires significant volumes and pressures (200–500 bar), whereas liquefied storage requires extremely low temperatures (approximately -250°C) yet smaller volumes, which is a distinct advantage. Nevertheless, large volumes are required for hydrogen storage, mainly due to its notably low density.

3. Furthermore, hydrogen can also be stored in abandoned underground mines, which are relatively abundant in Slovenia. However, this type of storage is notably more complex compared to salt domes and repurposed hydrocarbon reservoirs since tectonic structures in abandoned and exploited underground mines could potentially cause gas leaks.

Internet 1: Underground hydrogen storage - a review ([lyellcollection.org](http://lyellcollection.org))

Internet 2: <https://www.geologija-revija.si/index.php/geologija/article/view/775/839>

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**Društvo tehničnih vodij**  
površinsko odkopavanje

### SURFACE MINING ASSOCIATION (“DTV PO”)

The Surface Mining Association has been operating continuously for 27 years. It brings together more than 90% of all Slovenian mining companies – holders of mining rights, experts from public institutions responsible for mineral resource management and planning, researchers, and the private sector.

The Association organizes professional training courses and capacity building of expertise in the fields of geology, mining, environmental protection, sustainable exploitation of natural resources, safety practices, and other solutions. It also actively participates as a stakeholder in the implementation of national mining legislation.

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### SLOVENIAN MINING ASSOCIATION OF ENGINEERS AND TECHNICIANS (“SRDIT”)

The Slovenian Mining Society of Engineers and Technicians (SRDIT) is a non-governmental non-profit organization of miners and geotechnologists. The SRDIT’s mission is to facilitate the mining and geotechnical profession in Slovenia and beyond. SRDIT assumes the role of arbitrator in assessing the professionalism of its membership, organizes international networking, works to improve the level of expert knowledge of its membership, and organizes social events. At the time of its founding in 1991, the Slovenian Mining Association of Engineers and Technicians counted 53 members; at the end of 2022 it had 171 members. The SRDIT is an organizer and co-organizer of educational seminars, expert meetings, and consultations (the “Jump over the leather skin” meeting and the “St. Barbara” meeting), technical meetings, workshops for miners and expert international consultants, and conferences (Waste Management - GzO and Urban Mining).

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