



REPUBLIC OF SLOVENIA
MINISTRY OF INFRASTRUCTURE

Langusova ulica 4, 1535 Ljubljana

YEAR 2022

BULLETIN

MINERAL RESOURCES

in Slovenia

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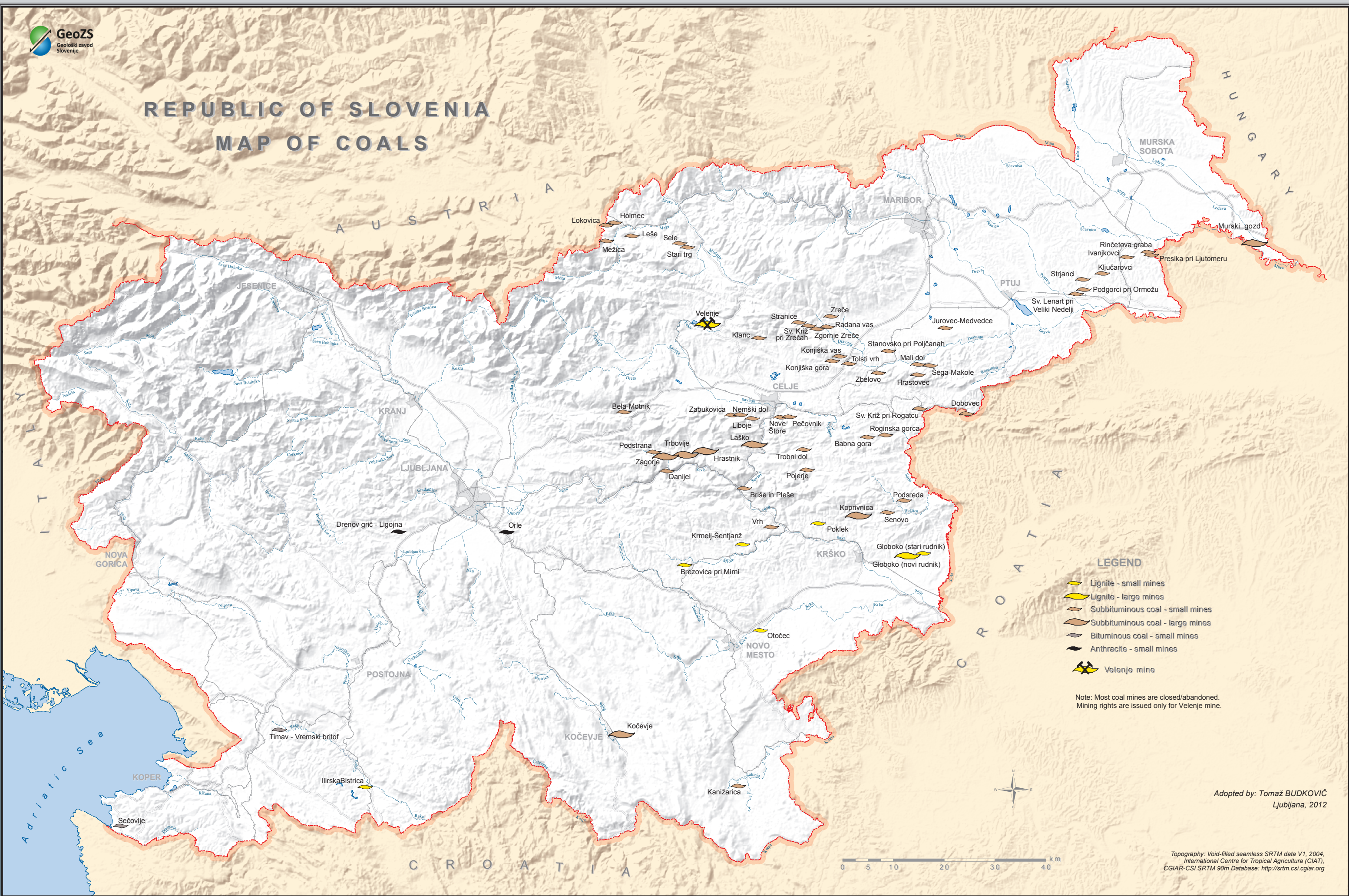
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GeoZS
Geološki zavod
Slovenije

REPUBLIC OF SLOVENIA

MAP OF COALS



FOREWORD

Dear Reader,

We live in a time that sees us facing major changes in our social environment, some of them much anticipated and on the other hand some significantly less anticipated. While in science issues related to climate change were predicted and have been recognized for decades – and as a society we are dealing with them with greater or lesser degrees of success; the problems regarding the supply of raw materials are another matter. Although shortages of raw materials, especially of mineral resources, have been predicted for some time, society lacks awareness of this issue. Recently, we have also been dealing with the problem of supply of energy resources, which is, at present, affecting mainly Europe. The reason for this is the extremely unstable political situation only a short distance away from us.

Science has been warning the society about issues connected with climate change and the supply of mineral resources ever since the first indicators appeared, which was far before the broader public and policymakers understood the scale of the problem and started taking political measures to mitigate the consequences. Once again, we see that the answers to such social challenges can only be based on knowledge. It might seem at first glance that science is not involved in solving topical issues, but the fact is that in crisis situations, when even wider society recognises that action is needed, it is science that plays the crucial role in resolving the problem.

In such circumstances the competence of national and regional geological survey organizations, which are the collectors, interpreters, and custodians of information about everything that lies beneath our feet, has once again become extremely important, even crucial for Europe. Our ideas and recommendations on possible ways of tackling climate, raw materials, and energy challenges were not based on intuition, but are instead based on extensive knowledge and years of research and investigations.

We now see that such complex issues cannot be tackled at the level of individual countries, both in the EU and elsewhere in the world, but only through the effective integration of policymakers, professional organizations, and coherent knowledge

and data. Which is also why the joint operation of the European geological survey organizations continues with the establishment of a geological service for Europe – GSEU, following the successful completion of the GeoERA programme. It is a joint operation of the European geological survey organizations, which, at the end of the programme in the field of mineral resources, aims to offer a harmonised, common classification-based (for example, UNFC) overview of the current state and development potential of Europe's supply of mineral resources.

An important component of the Geological Service programme for Europe will focus on critical mineral resources and on the reuse and/or the use of secondary raw materials. It is fundamental that in the process of planning and the implementation of the GSEU program, the European Commission, which has approved the program, understands that the program is not static but instead needs to be constantly upgraded with new knowledge and new research. We need to intensify these efforts, not only in Europe, but also in neighbouring countries and on other continents.

More intensive research on a global level is also one of the long-term objectives of the PanAfGeo2 programme, by which European geological survey organizations, including GeoZS, transfer knowledge of these and related topics to the African continent. Fortunately, Eurogeosurveys - the Association of European Geological Surveys is not alone in its efforts to establish the sustainable management of mineral resources. At this point we need to mention the Knowledge and Innovation Community (KIC) of EIT Raw Materials, which links the mineral resources knowledge triangle (research – education – innovation) and which devotes part of its activity to researching the possibilities of exploration and exploitation of raw materials in harsh, hard-to-access environments. One example of just such a project is UNEXUP, which is also described in this bulletin.

Most of us were surprised by the political crisis in Eastern Europe and, consequently, the energy raw material supply crisis. However, we are not surprised by the fact that our focus should be directed on obtaining a better understanding of alternatives to the current traditional concept of energy supply.

The geosciences, too, have answers ranging from the knowledge about the use and further potential of geothermal energy, which is also described in this bulletin, to a thorough knowledge of traditional local energy resources, which we are currently abandoning. If we are planning to close and preserve these traditional energy resource facilities properly, so that we could reopen them in the future if the need arose, we can only do so successfully by resorting to and applying our comprehensive knowledge. Society needs to be aware that the answers which science provides don't come instantaneously. They are the result of long-term investments in science and research, which need to be well established long before crises arise, and the broader public comes to recognize them as a serious problem.

Ljubljana, September 2022

Miloš Bavec
Director

Geological Survey of Slovenia (GeoZS)

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WORK OF THE UNIT FOR MINING (WITHIN THE MINISTRY OF INFRASTRUCTURE)



REPUBLIC OF SLOVENIA
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The Unit for Mining (responsible for mineral resources), organized within the Energy Directorate at the Ministry of Infrastructure, 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 (mining rights and exploration permits granting),
- 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 INFRASTRUCTURE

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 current ministry needs (Energy 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 other regulations on implementation,
- expertise in spatial planning,
- support of licensing procedures,
- expertise linked to 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,
- coal mines in Slovenia in light of “green deal” transition,
- 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.

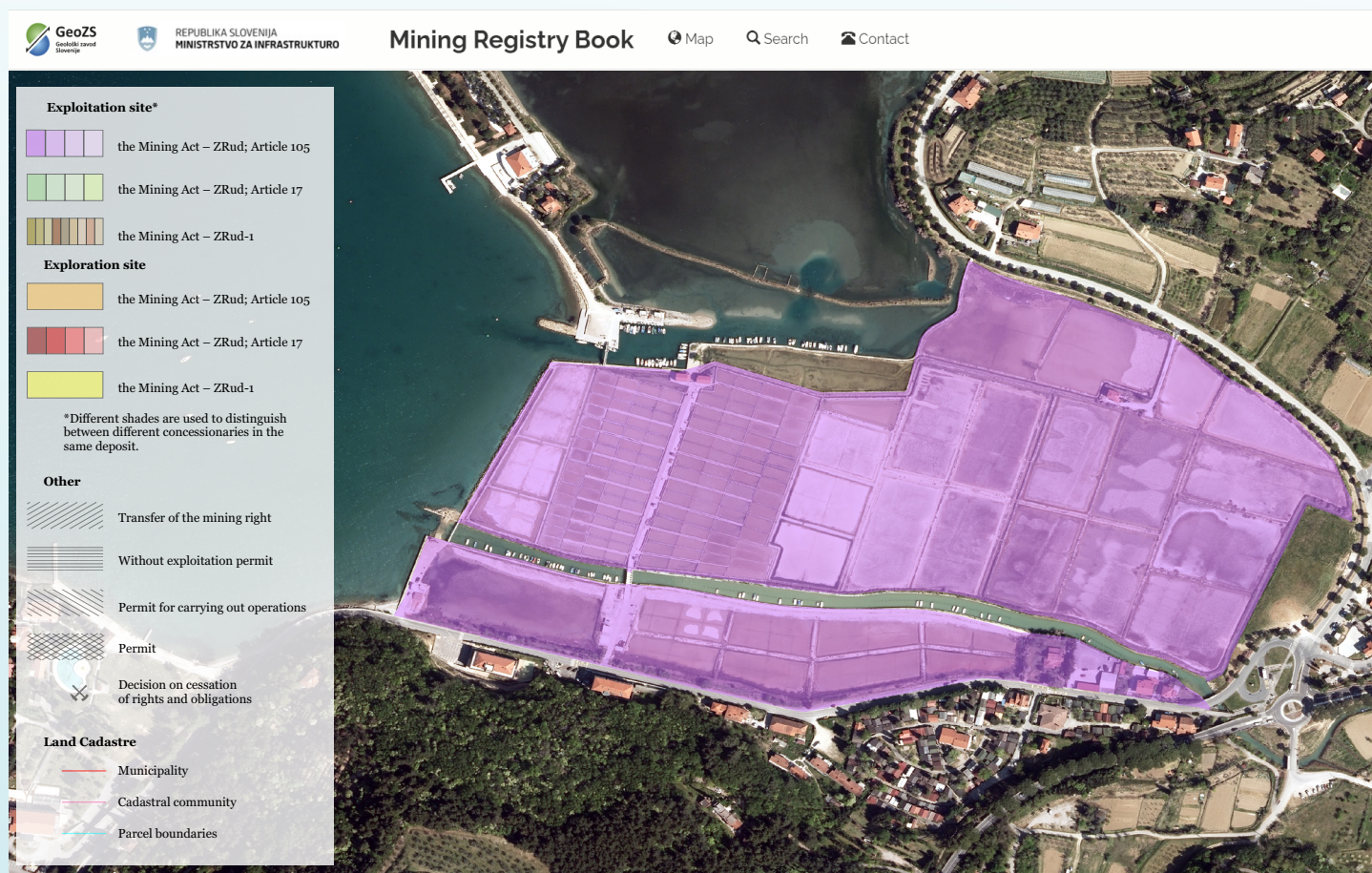
PUBLIC MINING SERVICE IN SLOVENIA

In accordance with Article 17 and 18 of the Mining Act (*Official Gazette RS, No. 14/14 – official consolidated text a 61/17-GZ and 54/22*), 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,
- manage and maintain a Mining Registry Book on the national level, including a chronology of mining rights granted,
- sampling and material storage, archive of closed mine documentation,
- geological prospecting and mapping, evaluation of mineral reserves and resources in terms of supporting licencing.



“Mining Registry Book” as web application for mineral deposits with concessions.

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

- brown coal (production until 2012),
- lignite,
- oil and natural gas,
- geothermal energy.

• METALS (no production in recent decades)

In 2021, there were 2 exploration sites and 208 exploitation sites with mining rights in Slovenia, dealing with 25 different rocks and minerals and run by 130 mining rights holders.

• 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.

MINERAL AND ENERGY RESOURCES IN SLOVENIA IN 2021

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, W 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, operating since 1942. Oil production is only symbolic (less than 300 tons/year). Gas production in the last 15 years did not exceed 8 million Sm³/year, with the exception of 2018, when almost 18.5 million Sm³ of gas was produced, mainly due to the activation of the latest 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) that could be exported occur only moderately. Non-metallic mineral resources of lesser value prevail (mineral resources for building materials and construction), which 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 2022. 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.



Underground lignite mining in Velenje.

Coal mining in Slovenia began in the second half of the 18th century. Almost all coal mining sites known today were discovered in the 18th and 19th centuries and were subsequently thoroughly explored; later, they were increasingly exploited in the 20th century, especially for the railway and later to produce electricity 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 to open 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 2022 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, there were 2 exploration sites and 208 exploitation sites with mining rights in Slovenia mining 25 different mineral resources in 2021. These sites were run by 130 mining rights holders.

Utilization of geothermal energy in Slovenia in 2021

Roughly one-fifth of the country, which belongs to the Pannonian Basin, has significantly greater deep geothermal potential than other parts of the country. Consequently, this northeastern region has been intensively investigated over the past 15 years within the frame of various European projects. The promotion of more sustainable exploitation through the application of reinjecting thermal water used to produce energy is one of most important efforts. In this sense, three reinjection wells at Moravske Toplice (Terme 3000), Dobrovnik, and Renkovci, all in northeastern Slovenia, are planned over the next five years. Better insights have been gained regarding 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. All production wells situated there exploit thermal water from Neogene aquifers, with the exception of those in Maribor. This most geothermally utilized area is filled with Neogene marine and freshwater sediments, and at depths of more than 2.5 km thermal fluids reach temperatures of 100 to 200 °C. Clays and marls dominate, 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 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 from 50 to 72 °C. In recent years, particular attention has been paid to efforts to estimate shallow geothermal potential, particularly in urban and some suburban areas.

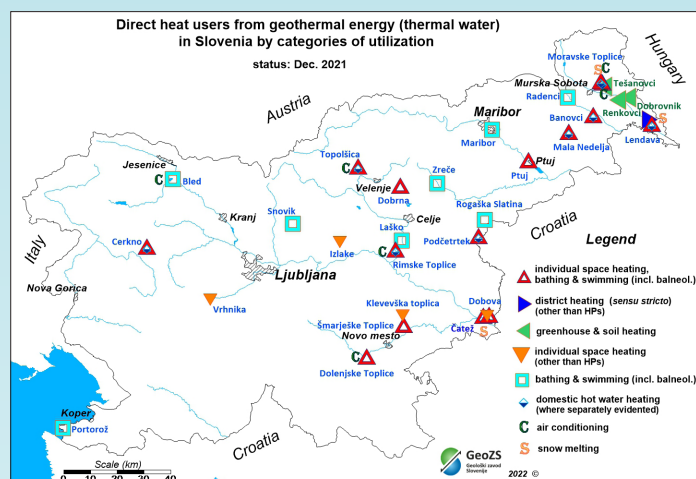


Figure 1: The main categories of direct heat use of geothermal energy from thermal water in Slovenia in 2021 at 31 locations (if the Tešanovci greenhouse is considered as a separate user).

All over the country, geothermal energy is effectively used in spas and recreation centres, in agriculture, and for individual space and district heating. In 2021, 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, and in 2021 it also suffered the consequences of the Covid-19 pandemic, which considerably slowed – and in some places halted – the operation of spas and thermal baths. Thermal water from 53 geothermal production wells and 4 thermal springs was utilized. Some users used significantly less thermal water. The total extraction of thermal water in 2021 amounted to 5,391,131 m³, down 21.2% on pre-pandemic 2019. Nevertheless, total consumption of geothermal energy as of 2021 was 1,671.5 TJ, with a corresponding installed capacity of 298.5 MW_{th}. Geothermal energy from thermal water is used directly at 31 locations (Fig. 1), where installed capacity and geothermal energy consumed amounted to 60.7 MW_{th} and 486.1 TJ, respectively. Shallow geothermal energy (heat in the shallow subsurface), which is exploited by approximately 14,818 units of ground-source heat pumps, provided 1,185.3 TJ of geothermal energy out of the total installed capacity of 237.7 MW_{th}. Of these, the bigger GSHP units (>20 kW of rated power), of which there are roughly 890, extracted some 339.7 TJ of shallow geothermal energy.

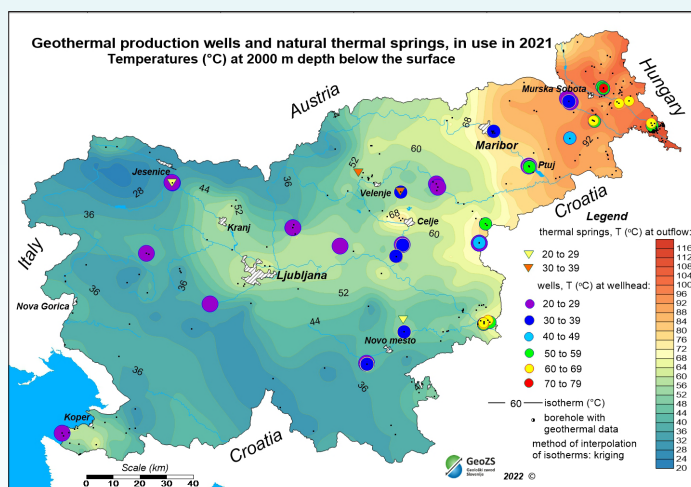


Figure 2: Geothermal production wells and natural thermal springs in use in 2021 in Slovenia (status: Jun. 2022); expected temperatures at a depth of 2000 m below the surface.

Miloš Markič and Dušan Rajver (GeoZS)



PanAfGeo

EUROPEAN-AFRICAN PARTNERSHIP AS SUPPORT FOR GEO-SCIENCES

The PanAfGeo project is the result of a partnership initiative between the Association of European Geological Surveys - EuroGeoSurveys (EGS) and the Organisation of African Geological Surveys (OAGS). It aims to strengthen the knowledge of professionals from African geological surveys through an innovative training program that includes the acquisition and development of the necessary professional and technical skills to complement their professional qualifications.

The PanAfGeo project is co-funded by the European Commission (EU Development Cooperation Instrument - DCI II - 2014-2020) and a consortium of 12 European national geological institutes coordinated by the French Geological Survey BRGM (<https://panafgeo.eurogeosurveys.org/>).

During the first phase of the project (2016-2019), 42 training courses were delivered (29 in English, 11 in French, and 2 in Portuguese) in 16 African countries attended by 1,068 geological experts from African geological surveys.

The Geological Survey of Slovenia as a project partner in the second project phase (2021–2024) continues to play an important role in providing training in geological mapping, mineral resource assessment and management, geologically induced hazards, geothermal energy, and geoinformatics.

First in the line of planned training session on the topic of “Geohazards and Mining Impact Management” was organised in Douala, Littoral Region, Cameroon, in April 2022. The training, held in French, was attended by 25 experts from 9 Francophone countries of the OAGS African Community. On this occasion, three presentations were given by GeoZS researchers on the following topics: The Circular Economy and Zero Waste, Remediation of Mining Sites, and Landslides.



Lectures and discussions during theoretical part of the training.



Participants in Cameroon, April 2022.

A semi-legal tuff quarry in the northern part of the Littoral Region is managed by local people. The exploitation of tuff in the lower part of the quarry poses a danger to miners due to falling compact upper igneous rock.



Rockfall at a tuff quarry.

In the suburb of Douala, many laterite landslides endanger inhabited areas and destroy entire villages.



Laterite landslide mitigation.



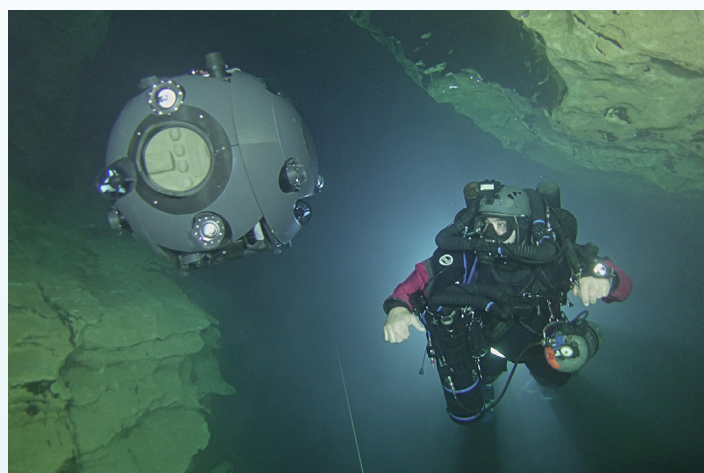
Ekon Nkam river waterfall.

At least 10 more training events are planned within the project, with GeoZS researchers on board.

Kumelj Špela, Duška Rokavec and Šegina Ela (GeoZS)
Moukoury Moume Gay Emmanuel (Ministère des mines, de l'industrie et du développement technologique, Kamerun)

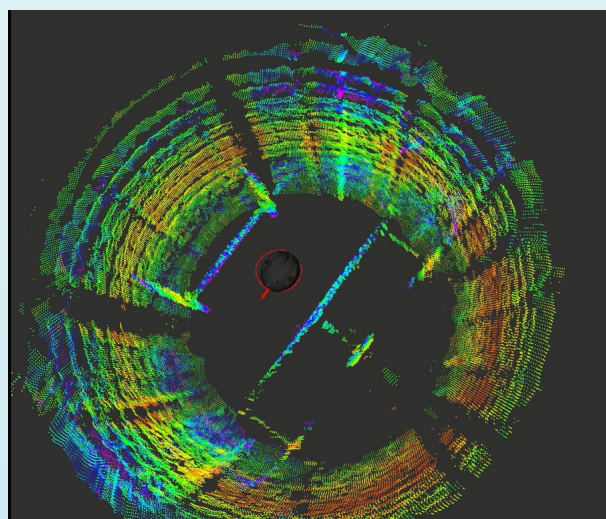
As the world's population continues to grow, the need for raw materials is also increasing. Mining of various commodities has been going on since the beginning of civilization, and because shallow, easily accessible mineral deposits have largely been mined out, new ore deposits are becoming more difficult to find. In order to produce a vast range of everyday products, today we use a variety of elements that have not been used in the past and were therefore often left in the mines. By using modern ore processing technologies, we are also able to economically process lower grade ore, which combined with the rising price of commodities, makes it feasible to re-enter old mines and to explore to greater depths in regions of major current or past production. However, old and abandoned mines are usually flooded, and old data on the geological composition of underground areas has been lost. Obtaining technology that would allow the geological exploration and mapping of flooded parts of mines would greatly assist in the process of determining the efficacy of further investments in exploration. A completely new technology line of autonomous underwater submersibles was developed in the already completed UNEXMIN project, in which GeoZS played a part. Today, the Geological Survey of Slovenia is involved in the UNEXUP project, which aims at further improving autonomous robotic systems for the exploration of flooded mines, and at launching this technology onto the market.

The UNEXUP project, co-funded under the EIT Raw Materials association, is a continuation of the HORIZON 2020 project UNEXMIN, in which a novel exploration technology for underground flooded mines was developed and tested in various abandoned European mines. The objective of UNEXUP is to further test and improve the UNEXMIN robotic system and to commercially deploy a new raw materials exploration/mine mapping service based on explorer robots. For this purpose, the new prototype UX-I NEO underwater robot, which was designed by the project team, had to be equipped with additional instruments, its working depth had to be extended, new batteries had to be installed, and a faster data downloading system had to be established. From the experience gained during field testing of the previous model UX-I, it was recognised that an open-frame robotic hull design would be more suitable for easier installation of the batteries and various instruments, making the exploration dives easier. Together with new improvements in software, this reduced the number of required operators, shortened preparation times, and reduced the cost of underwater investigations. All these improvements were made with the aim of making the services more interesting to potential customers. Since the aim of the project is also to launch this technology onto the market, a lot of emphasis was given to developing a strategy for the commercialisation of such services. Since the start of the project, several companies have expressed interest in underwater investigations using the UNEXUP technology, and in mid-2021 the project team started with first semi-commercial missions. In 2021 four investigations were successfully completed, including a surveying of the mine shaft and underwater tunnels in the Urgeiriça uranium mine in Portugal, investigations of the Csór water well and the Molnár János karst cave system in Hungary, while the most challenging mission was the abandoned Solotvyno salt mine in Ukraine.



UX-I NEO during the dive in the Molnár János karst cave system in Hungary (source: UNEXUP project).

Since the latter mine has the potential to create an environmental disaster as the result of saltwater leakage into the fresh-water aquifer, the old shaft and mine tunnels had to be surveyed and an accurate 3-D model was built using the robot's sonar systems. Water salinity was also measured, and the saturation zone was identified. All the collected data and detailed 3-D mine model will provide crucial information to the engineering team working on the reconstruction of the Solotvyno mine.



3-D model of the shaft at the abandoned Solotvyno salt mine in Ukraine (source: UNEXUP project).

The next step in the final year of the UNEXUP project is to bring the products and services – exploration and mapping of flooded environments – even closer to customers, to promote the service and the company that is offering this service (UNEXMIN Georobotics Ltd), and to prepare promotional datasets.

With the development of an autonomous robotic system for the exploration of flooded mines and with the successful launch of the technology onto the market, the UNEXUP project made mineral exploration safer, cheaper, and more environmentally friendly.

Emil Pučko and Gorazd Žibret (GeoZS)

OVERVIEW OF EXPLOITATION SITES AND MINERAL PRODUCTION

LIST OF EXPLOITATION SITES WITH MINING RIGHTS IN SLOVENIA IN 2021

	Mineral commodity	Exploitation sites	Concessionaire		Mineral commodity	Exploitation sites	Concessionaire
1	Coal	Velenje	PREMOGOVNIK VELENJE, d.o.o.	69	Crushed stone - limestone	Griza pri Rižani	VOC Ekologija, urejanje okolja d.o.o.
2	Oil and natural gas	Murska depresija	GEOENERGO, raziskave in pridobivanje surove nafte in zemeljskega plina d.o.o.	70	Crushed stone - limestone	Laže I	KOLEKTOR CESTNO PODJETJE NOVA GORICA, Družba za vzdrževanje in gradnjo cest, d.o.o.
3	Geothermal energy source	Lendava	PETROL, Slovenska energetska družba, d.d., Ljubljana	71	Crushed stone - limestone	Laže I – širitev	VOC Ekologija, urejanje okolja d.o.o.
4	Bentonite	Zaloška Gorica	MONTANA, pridobivanje in predelava nekovinskih rudnin, d.o.o.	72	Crushed stone - limestone	Liboje	VOC Ekologija, urejanje okolja d.o.o.
5	Calcite	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.	73	Crushed stone - limestone	Mali Medvejk	P.G.M. INŽENIRING proizvodnja gradbenih in drugih materialov d.o.o.
6	Chalk	Srpenica	TKK Proizvodnja kemičnih izdelkov d.o.o.	74	Crushed stone - limestone	Malin dol	KRAJEVNA SKUPNOST LOKOVEC
7	Quartz sand	Bizeljско	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	75	Crushed stone - limestone	Mežica (Žerjav)	GRADBENI MATERIALI, podjetje za proizvodnjo gradbenih materialov d.o.o.
8	Quartz sand	Globoko	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	76	Crushed stone - limestone	Peskopok Mala gora	O-PROJEKT, Gradbeno projektiranje in inženiring d.o.o., Kočevje
9	Quartz sand	Kušanovci I	Murexin, gradbeni materiali, d.o.o.	77	Crushed stone - limestone	Podgora	KAMTEH GmbH, Predstavnštvo Šmartno ob Paki
10	Quartz sand	Moravče - Moravska terciarna kadunja	TERMIT, rudarsko podjetje za pridobivanje kremenovih peskov d.d.	78	Crushed stone - limestone	Predstruge	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.
11	Quartz sand	Polhovica - Prapreče	KREMEN d.o.o., industrija in rudniki nekovin	79	Crushed stone - limestone	Razdrto	CPK, d.d., družba za vzdrževanje cest, gradbeništvo in druge poslovne storitve
12	Quartz sand	Ravno	KREMEN d.o.o., industrija in rudniki nekovin	80	Crushed stone - limestone	Razdrto – širitev	GOZDNO GOSPODARSTVO BLE D.o.o.
13	Quartz sand	Štebih	KREMEN d.o.o., industrija in rudniki nekovin	81	Crushed stone - limestone	Rovtarica	GOZDNO GOSPODARSTVO BLE D.o.o.
14	Tuff	Zaloška Gorica	MONTANA, pridobivanje in predelava nekovinskih rudnin, d.o.o.	82	Crushed stone - limestone	Rudno polje	GOZDNO GOSPODARSTVO BLE D.o.o.
15	Industrial dolomite	Rečica	GRATEX, Pridobivanje in predelava dolomitskega agregata in kurivoprodaja d.o.o., Laško	83	Crushed stone - limestone	Solkan	SALONIT ANHOVO, Kamnolomi, d.o.o.
16	Chert	Jersovec II	P-D KREMEN, Pridobivanje drugih rudnin in kamnin, d.o.o.	84	Crushed stone - limestone	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.
17	Ceramic (ball) clay	Hom	Gorenje Keramika, d.o.o.	85	Crushed stone - limestone	Suhor 2	AGM Starešinič, avtoprevozi, gradbeništvo in mehanizacija, d.o.o.
18	Ceramic (ball) clay	Hom - širitev	Gorenje Keramika, d.o.o.	86	Crushed stone - limestone	Štanjel	KAMNOLOM ŠTANJEL IN MINERSTVO DUŠAN ŽERJAL S.P.
19	Fire resistant clay	Globoko	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	87	Crushed stone - limestone	Ušenišče 2	IAK, INDUSTRIJA APNA KRESNICE, d.o.o.
20	Brick clay	Boreci - širitev	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	88	Crushed stone - limestone	Velika Pirešica	CM CELJE, d.d. - Ceste mostovi Celje, družba za nizke in visoke gradnje - v stečaju
21	Brick clay	Hardeška šuma - širitev 3	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	89	Crushed stone - limestone	Velika Pirešica - širitev	KAMNOLOM VERD Podjetje za proizvodnjo kamnitih agregatov, d.o.o.
22	Brick clay	Hardeška šuma - širitev 4	Wienerberger, proizvodnja in prodaja gradbenega materiala, d.o.o.	90	Crushed stone - limestone	Verd	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
23	Brick clay	Okroglica II – širitev	GORIŠKE OPEKARNE d.o.o.	91	Crushed stone - limestone	Vrhpeč - širitev 1	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
24	Brick clay	Šmiklavž	VOC Ekologija, urejanje okolja d.o.o.	92	Crushed stone - limestone	Vrhpeč - širitev 2	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
25	Brick clay	Šmiklavž - širitev	VOC Ekologija, urejanje okolja d.o.o.	93	Crushed stone - dolomite	Adamlje 2	IZKOPI IN PREVOZI JANEZ BRADEŠKO S.P.
26	Brick marl	Okroglica II – širitev	GORIŠKE OPEKARNE d.o.o.	94	Crushed stone - dolomite	Andraž 2	KOGRAD gradbeništvo d.o.o.
27	Natural stone – limestone	Debela Griza pri Povirju	KAMNOSEŠTVO TAVČAR pridobivanje in obdelava kamna d.o.o.	95	Crushed stone - dolomite	Batič	ECOBETON proizvodnja, trgovina, storitve d.o.o.
28	Natural stone – limestone	Debela Griza pri Povirju - širitev	KAMNOSEŠTVO TAVČAR pridobivanje in obdelava kamna d.o.o.	96	Crushed stone - dolomite	Bela - širitev	AVTOPREVOZNIŠTVO IN PRIDOBIVANJE PESKA IN GRAMOZA - JANEZ AMBROŽIČ S.P.
29	Natural stone - limestone	Doline – repen	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	97	Crushed stone - dolomite	Bereča vas	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
30	Natural stone - limestone	Drenov Grič	MINERAL, obdelava naravnega kamna, d.o.o.	98	Crushed stone - dolomite	Bizenjsko 3	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
31	Natural stone - limestone	Hotavlje	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	99	Crushed stone - dolomite	Boben	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
32	Natural stone - limestone	Kazlje	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	100	Crushed stone - dolomite	Borovnik	AGM NEMEC, podjetje za proizvodnjo, trgovino in storitve d.o.o.
33	Natural stone - limestone	Kopriva	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	101	Crushed stone - dolomite	Bradeško – Zadobje	IZKOPI IN PREVOZI JANEZ BRADEŠKO S.P.
34	Natural stone - limestone	Lesno brdo	MINERAL, obdelava naravnega kamna, d.o.o.	102	Crushed stone - dolomite	Brezovica K2	KOGRAD gradbeništvo d.o.o.
35	Natural stone – limestone	Lesično 2	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	103	Crushed stone - dolomite	Brinjeva gora	ECOBETON proizvodnja, trgovina, storitve d.o.o.
36	Natural stone - limestone	Lipica I	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	104	Crushed stone - dolomite	Bučka	AVTOPREVOZNIŠTVO - TGM - MKI JOŽEF TOMAŽIN S.P.
37	Natural stone - limestone	Lipica II	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	105	Crushed stone - dolomite	Bučka - širitev	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
38	Natural stone - limestone	Lipica II - širitev	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	106	Crushed stone - dolomite	Cerov Log - širitev 2	GMP LUZAR Škocjan, nizke gradnje d.o.o.
39	Natural stone - limestone	Šumet	MEDARD ŠUMET	107	Crushed stone - dolomite	Červivec	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
40	Natural stone - limestone	Tomaj	MARMOR, Podjetje za pridobivanje in obdelavo naravnega kamna Sežana, d.d.	108	Crushed stone - dolomite	Dolenje Laknice	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija
41	Natural stone - tonalite	Cezlak	EKOREN, podjetje za zbiranje in ravnanje z odpadki, d.o.o.	109	Crushed stone - dolomite	Draga	DRAGA Separacija peska, d.o.o., Litija
42	Natural stone - tonalite	Cezlak I	MINERAL, obdelava naravnega kamna, d.o.o.	110	Crushed stone - dolomite	Draga pri Cerovici	TGM IN PRIDOBIVANJE PESKA FRANC GRDAD-OLNIK S.P.
43	Natural stone – tonalite (granodiorite)	Josipdol E	ECOBETON proizvodnja, trgovina, storitve d.o.o.	111	Crushed stone - dolomite	Gradolnik	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
44	Natural stone - other	Cezlak II	MINERAL, obdelava naravnega kamna, d.o.o.	112	Crushed stone - dolomite	Gunte	PRIDOBIVANJE IN PRODAJA PESKA ZDRAVKO JURŠINIČ S.P.
45	Natural stone - other	Klemenc	KAMNOLOM KLEMENC SILVESTER KLEMENC S.p	113	Crushed stone - dolomite	Hrast pri Vinici J2	AGM Starešinič, avtoprevozi, gradbeništvo in mehanizacija, d.o.o.
46	Natural stone - other	Kotnik	KAMNOLOM KLEMENC MILAN KLEMENC S.P.	114	Crushed stone - dolomite	Hrast pri Vinici S	AGM Starešinič, avtoprevozi, gradbeništvo in mehanizacija, d.o.o.
47	Natural stone - other	Krajnc	PREDELAVA OKRASNEGA KAMNA SIMON KRAJNC S.P.	115	Crushed stone - dolomite	Ježce	PESKOPOK KEPA SUZANA KEPA S.p.
48	Natural stone - other	Loška gora	ČREŠNAR ANTON	116	Crushed stone - dolomite	Ježce - širitev 1	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.
49	Natural stone - other	Ovčar	OVČAR ALOJZ - DOPOLNILNA DEJAVNOST NA KMETIJI	117	Crushed stone - dolomite	Ježce - širitev 2	GREDIN gradbeno in transportno podjetje Markovec d.o.o.
50	Natural stone - other	Premancan	INGEN - Gradbeni inženiring, d.o.o.	118	Crushed stone - dolomite	Kamna Gorica	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija
51	Natural stone – other	Vundušek	ŽOLGER JOŽEF S.P. - GRADBENE STORITVE AVTOPREVOZNIŠTVO ŽOLGER	119	Crushed stone - dolomite	Klanci (Klance)	SNEŽNIK podjetje za proizvodnjo in storitve, d.o.o.
52	Limestone for lime and cement	Lipovski vrh	InterCal Slovenija, proizvodnja apna in apnenca d.o.o.	120	Crushed stone - dolomite	Kmetov pruh	KONGRAD gradbeno, obrtno, instalcijsko in proizvodno podjetje d.d.
53	Limestone for lime and cement	Retje - Plesko	Lafarge Cement, d.o.o., Trbovlje	121	Crushed stone - dolomite	Kočevska Reka	TRGOGRAD trgovina in gradbeništvo, d.o.o., Litija
54	Limestone for lime and cement	Stahovica	CALCIT, proizvodnja kalcitnih polnil d.o.o.	122	Crushed stone - dolomite	Konjiška gora	DOLOMIT GRADBENA MEHANIZACIJA-SEPARACIJA PESKA JANKO KOSMAČ S.P.
55	Limestone for lime and cement	Ušenišče 2	IAK, INDUSTRIJA APNA KRESNICE, d.o.o.	123	Crushed stone - dolomite	Koprivnik	KLUN - PESKOPOK, TRANSPORT IN USLUGE TGM KLUN JOŽE S.P.
56	Limestone for lime and cement	Zidani Most	APNENEC d.o.o., Proizvodnja apnenčeve moke	124	Crushed stone - dolomite	Koševnik	RASPET, Podjetje za proizvodnjo materialov in gradbene storitve d.o.o.
57	Cement marl	Anhovo	SALONIT ANHOVO Gradbeni materiali, d.d.	125	Crushed stone - dolomite	Kot pri Ribnici	STORITVE S TEŽKO GRADBENO MEHANIZACIJO MARJAN VEHAR S.P.
58	Cement marl	Deskle	SALONIT ANHOVO Gradbeni materiali, d.d.	126	Crushed stone - dolomite	Laharna	TOPOS HOTAVLJE, gradbeništvo, proizvodnja, trgovina in storitve, d.o.o.
59	Cement marl	Deskle - Lastivnica - Perunk - širitev	SALONIT ANHOVO Gradbeni materiali, d.d.	127	Crushed stone - dolomite	Laharna 2	RIGLER, peskopok, prevoznništvo in storitve gradbene mehanizacije, d.o.o.
60	Cement marl	Retje - Plesko	Lafarge Cement, d.o.o., Trbovlje	128	Crushed stone - dolomite	Lajše	SOŠKO GOZDNO GOSPODARSTVO TOLMIN d.o.o.
61	Cement marl	Rodež	SALONIT ANHOVO Gradbeni materiali, d.d.	129	Crushed stone - dolomite	Lajše	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
62	Crushed stone - limestone	Bitenjska planina	GOZDNO GOSPODARSTVO BLE D.o.o.	130	Crushed stone - dolomite	Laze 2	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
63	Crushed stone - limestone	Brezovica	VODNOGOSPODARSKO PODJETJE d.d.	131	Crushed stone - dolomite	Lazna	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
64	Crushed stone - limestone	Črna	CALCIT, proizvodnja kalcitnih polnil d.o.o.	132	Crushed stone - dolomite	Log II pri Sevnici	CGP, družba za gradbeništvo, inženiring, proizvodnjo in vzdrževanje cest, d.d.
65	Crushed stone - limestone	Črni Kal	CPK, d.d., družba za vzdrževanje cest, gradbeništvo in druge poslovne storitve				
66	Crushed stone - limestone	Črni Kal - Črnotiče	SALONIT ANHOVO, Kamnolomi, d.o.o.				
67	Crushed stone - limestone	Gabrovce (Vrbovo)	SALONIT ANHOVO, Kamnolomi, d.o.o.				
68	Crushed stone - limestone	Gorjuše	GOZDNO GOSPODARSTVO BLE D.o.o.				

	Mineral commodity	Exploitation sites	Concessionaire		Mineral commodity	Exploitation sites	Concessionaire
133	Crushed stone - dolomite	Lukovica 2	STRABAG gradbene storitve d.o.o.	174	Crushed stone – meta-morphic and magmatic rocks	Sotina 3	POMGRAD - CESTNO PODJETJE, družba za vzdrževanje in gradnjo cest d.d.
134	Crushed stone - dolomite	Maček	STORITVE Z GRADBENO MEHANIZACIJO MARJAN MAČEK S.P.	175	Crushed stone – meta-morphic and magmatic rocks	Zagaj	TRIK kamenine d.o.o.
135	Crushed stone - dolomite	Mala gora	TANKO podjetje za nizke gradnje in hidrogradnje in trgovino na debelo, d.o.o.	176	Crushed stone – meta-morphic and magmatic rocks	Zagaj	POSREDNIŠTVO IVAN MIJOŠEK S.P.
136		Mala gora 2		177	Gravel and sand	Bakovska cesta	POMGRAD, gradbeno podjetje d.d.
137	Crushed stone - dolomite	Mozelj	TRGOGRAD KAMNOLOMI, Proizvodnja in storitve v gradbeništvu, d.o.o.	178	Gravel and sand	Bezena - širitev	PREVOZNIŠTVO, GRADBENA MEHANIZACIJA, POSREDNIŠTVO, GRAMOZNICA BEZENA SILVA BRAČKO S.P.
138	Crushed stone - dolomite	Mozelj	JAVNO KOMUNALNO PODJETJE KOMUNALA KOČEVJE d.o.o.	179	Gravel and sand	Bistrica pri Naklem	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.
139	Crushed stone - dolomite	Mrak	MRAK LEOPOLD	180	Gravel and sand	Bistrica pri Naklem - širitev	MARALD-MARSEL gradbena mehanizacija-gramoz d.o.o.
140	Crushed stone - dolomite	Mrzla rupa	"GRAMEH" GRADBENA MEHANIZACIJA BOJAN JEREB S.P.	181	Gravel and sand	Dobrava II	NOGRAD, gradbeno in trgovsko podjetje d.o.o.
141	Crushed stone - dolomite	Paka pri Velenju 2	RGP d.o.o. rekonstrukcije, gradnje, proizvodnja	182	Gravel and sand	Dobrovnik	
142	Crushed stone - dolomite	Podskrajnik	JAVNO PODJETJE KOMUNALA CERKNICA d.o.o. Cerknica	183	Gravel and sand	Dobrovnik - širitev	
143	Crushed stone - dolomite	Podsmreka – širitev	PESKOKOP UNIVERSAL proizvodnja gradbenega materiala d.o.o. Ivančna Gorica	184	Gravel and sand	Gorče pri Libeličah	GRAMOZNICA PAČNIK, separacija, prodaja in storitve, d.o.o.
144	Crushed stone - dolomite	Podutik	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.	185	Gravel and sand	Gorče pri Libeličah -širitev	
145	Crushed stone - dolomite	Poljane	PREVOZNIŠTVO - PESKOKOP, KRIVEC JANEZ S.P.	186	Gravel and sand	Graben	GORENJC, družba za inženirske dejavnosti, d.o.o.
146	Crushed stone - dolomite	Poljčane	TRIK kamenine d.o.o.	187	Gravel and sand	Ivanci - širitev	POMGRAD, gradbeno podjetje d.d.
147	Crushed stone - dolomite	Prigorica	RIGLER, peskokop, prevozništvo in storitve gradbene mehanizacije, d.o.o.	188	Gravel and sand	Jurkovec	ŽIHER podjetje za trgovino, proizvodnjo, prevozništvo in storitve d.o.o.
148	Crushed stone - dolomite	Rečica	GRATEX, Pridobivanje in predelava dolomitskega agregata in kurivoprodaja d.o.o., Laško	189	Gravel and sand	Jurkovec - širitev	ŽIHER podjetje za trgovino, proizvodnjo, prevozništvo in storitve d.o.o.
149	Crushed stone - dolomite	Rudnik 2	Avtoprevozništvo in gradbena mehanizacija Klemen Uršič s.p.	190	Gravel and sand	Krapje	SEGRAP rudarstvo, proizvodnja in gradbenišтво d.o.o.
150	Crushed stone - dolomite	Sadinja vas	KPL, družba za gradnjo in vzdrževanje cest, zelenih površin ter inženiring d.o.o.	191	Gravel and sand	Lakoš	E-PREVOZI, prevozniške storitve, d.o.o.
151	Crushed stone - dolomite	Selo pri Velenju	VEGRAD d.d. Gradbeno industrijsko podjetje - v stečaju	192	Gravel and sand	Melinci	T G P OZMEC - trgovsko, gradbeno in prevozniško podjetje d.o.o.
152	Crushed stone - dolomite	Smolevec	STORITVE S TEŽKO GRADBENO MEHANIZACIJO PRIDOBIVANJE PESKA IN GRAMOZA RAJKO ČERIN S.P.	193	Gravel and sand	Pleterje II	CESTNO PODJETJE PTUJ D.D.
153	Crushed stone - dolomite	Soteska	GOZDNO GOSPODARSTVO NOVO MESTO d.d.	194	Gravel and sand	Pleterje II - širitev 1b	
154	Crushed stone - dolomite	Stranice	VOC Ekologija, urejanje okolja d.o.o.	195	Gravel and sand	Pleterje P1	EPSON, trgovina, gostinstvo in storitve, d. o. o.
155	Crushed stone - dolomite	Šebalk	SOŠKO GOZDNO GOSPODARSTVO TOLMIN d.o.o.	196	Gravel and sand	Pleterje P2b	
156	Crushed stone - dolomite	Šmarje – Sap	KG-EKO, Proizvodnja in predelava agregatov, d.o.o.	197	Gravel and sand	Pleterje P2b - širitev	CESTNO PODJETJE PTUJ D.D.
157	Crushed stone - dolomite	Ter 2	PRIDOBIVANJE PESKA IN GRAMOZA TEREZIJA BURJA S.P.	198	Gravel and sand	Pleterje P2b - širitev 2	
158	Crushed stone - dolomite	Topli vrh	GMP PESKOKOP ALEN MUJAKIČ S.P.	199	Gravel and sand	Pleterje P2e	CESTNO PODJETJE PTUJ D.D.
159	Crushed stone - dolomite	Tržišče	AGM PUNGERČAR, d.o.o., avtoprevozništvo, gradbena mehanizacija, peskokop	200	Gravel and sand	Pleterje P2e - širitev	
160		Tržišče – širitev		201	Gravel and sand	Pleterje P3	TLAKOVEC podjetje za proizvodnjo in trgovino d.o.o.
161	Crushed stone - dolomite	Vettnik 2	REKON gradbenišтво, inženiring, trgovina, d.o.o.	202	Gravel and sand	Pleterje P3 - širitev	
162	Crushed stone - dolomite	Vrčice 2	CGP, družba za gradbenišтво, inženiring, proizvodnjo in vzdrževanje cest, d.d.	203	Gravel and sand	Pleterje P4	EPSON, trgovina, gostinstvo in storitve, d. o. o.
163	Crushed stone - dolomite	Vrh pri Križu	GOSTGRAD, Gostinstvo, gradnje in storitve d.o.o. Žužemberk	204	Gravel and sand	Pleterje PPK	DUJARDIN gradbeno, transportno, špeditsko, trgovsko, gostinsko in proizvodno podjetje d.o.o.
164	Crushed stone - dolomite	Zala v Davči	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.	205	Gravel and sand	Pleterje PPK 2	BETON - BETONSKI IZDELKI DUŠAN KUCHAR S.P.
165	Crushed stone - dolomite	Zavratec 1b	GRADNJE gradbenišťvo in prevozništvo d.o.o. Boštanj	206	Gravel and sand	Prepolje	GOKOP gradbeno, gostinsko in trgovsko podjetje d.o.o.
166	Crushed stone - dolomite	Zelence	STEDO proizvodnja, trgovina in storitve d.o.o.	207	Gravel and sand	Rače 2	PANEL avtoprevozništvo, storitve z gradbeno mehanizacijo, trgovina, gradbenišťvo in svetovanje d.o.o.
167	Crushed stone - dolomite	Zelše - širitev	KAMNOLOM ZELŠE, d.o.o.	208	Gravel and sand	Selnica ob Dravi	KONSTRUKTOR VGR gradbenišťvo, proizvodnja, trgovina in storitve,d.o.o. - v stečaju
168	Crushed stone - dolomite	Zg. Gabernik	PREVOZNE STORITVE, ZEMELJSKA DELA, PRIDOBIVANJE KAMNA ANDREJ JAGODIČ S.P.	209	Gravel and sand	Selnica ob Dravi	MAGDA GODEC družba za proizvodnjo, trgovino in storitve d.o.o.
169	Crushed stone - dolomite	Žamerk	KRAJEVNA SKUPNOST LOKA PRI ŽUSMU	210	Gravel and sand	Stari Grad 3b	Kostak, komunalno in gradbeno podjetje, d.d.
170	Crushed stone - dolomite	Žusem 2	KRAJEVNA SKUPNOST LOKA PRI ŽUSMU	211	Gravel and sand	Stari Grad 4	Kostak, komunalno in gradbeno podjetje, d.d.
171	Crushed stone – meta-morphic and magmatic rocks	Kamna Gorica	GORENJSKA GRADBENA DRUŽBA, projektiranje, inženiring, gradnja in vzdrževanje objektov visoke in nizke gradnje d.d.	212	Gravel and sand	Šentvid pri Vuzenici	GRADBENIŠTVO KLUSTER, nizke in visoke gradnje, d.o.o.
172	Crushed stone – meta-morphic and magmatic rocks	Lenart pri Gornjem Gradu 2	"TUFKA" PESKOKOP TUFKA KANOLŠČICA PETER BEZOVSČEK S.P.	213	Gravel and sand	Šentvid pri Vuzenici - širitev	
173	Crushed stone – meta-morphic and magmatic rocks	Martinček	GOZDNO GOSPODARSTVO BLED d.o.o.	214	Gravel and sand	Trbonje 2	JAVNO KOMUNALNO PODJETJE DRAVOGRAD d.o.o.
				215	Gravel and sand	Lera in Fontanigge	SOLINE Pridelava soli, d.o.o.
				216	Sea salt	Strunjan	SOLINE Pridelava soli, d.o.o.
				217	Sea salt		

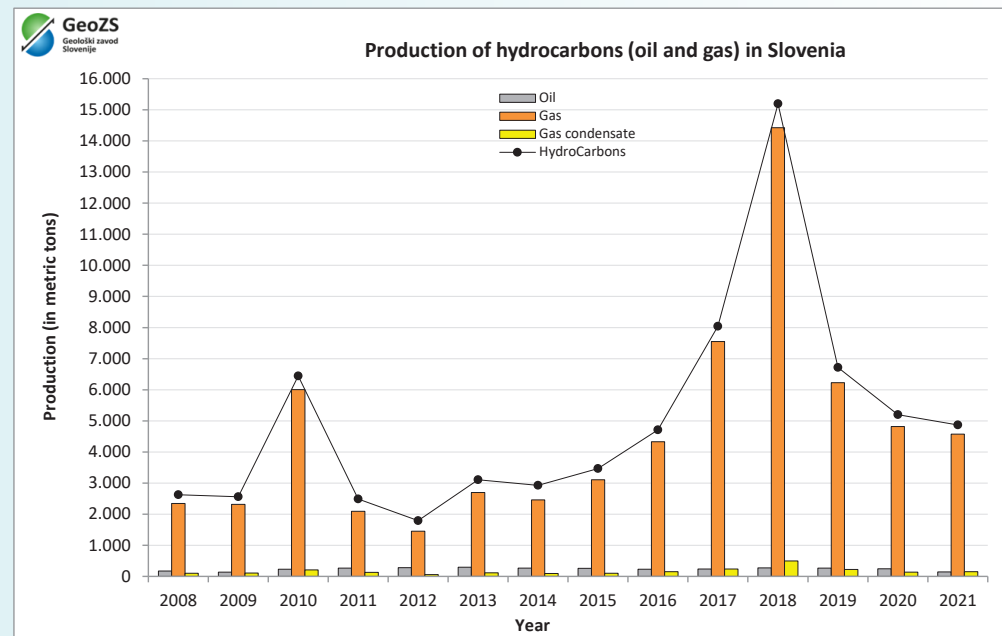
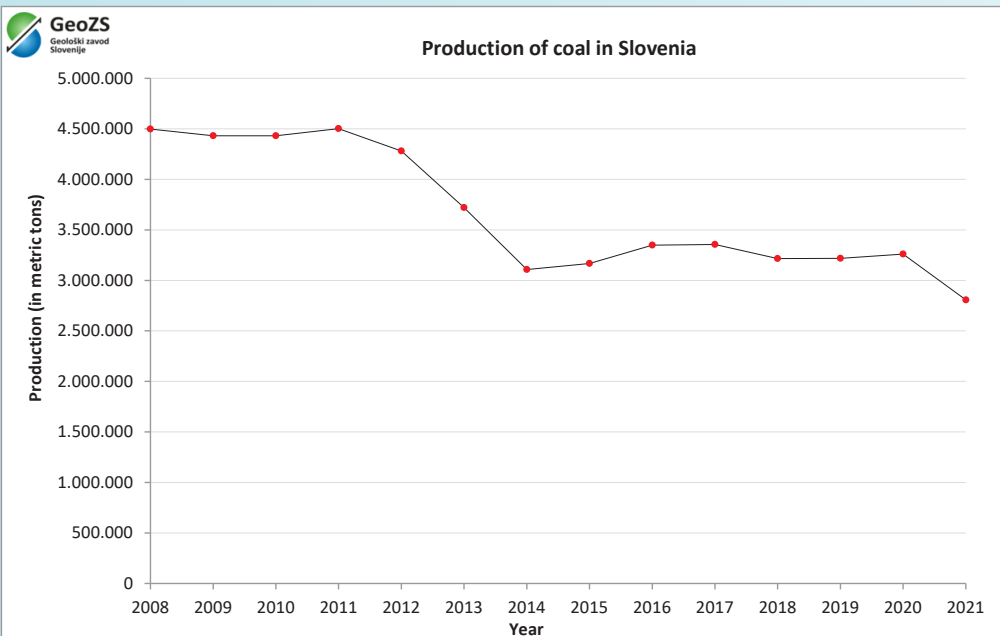
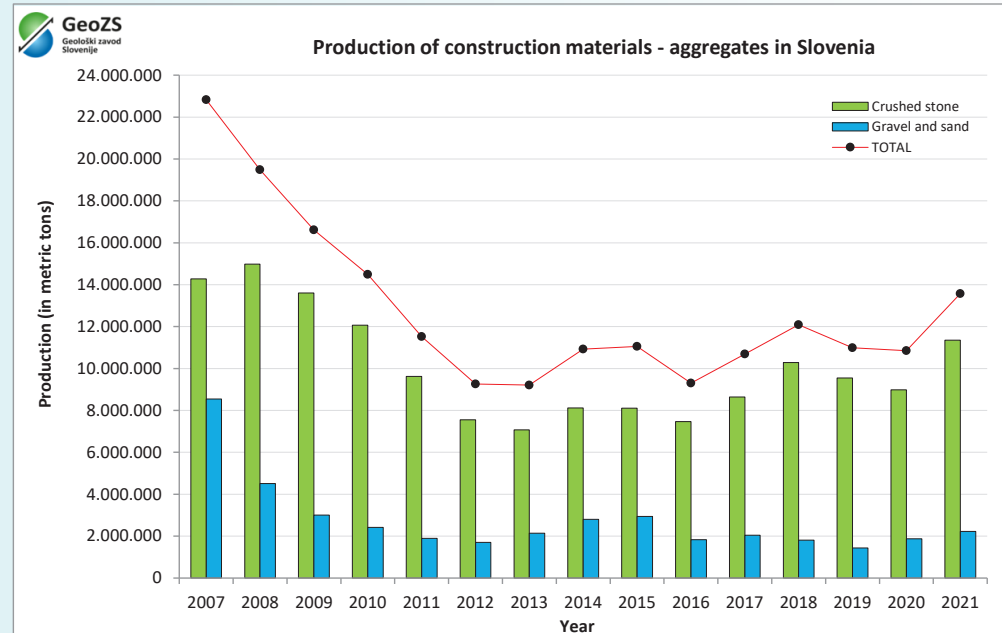
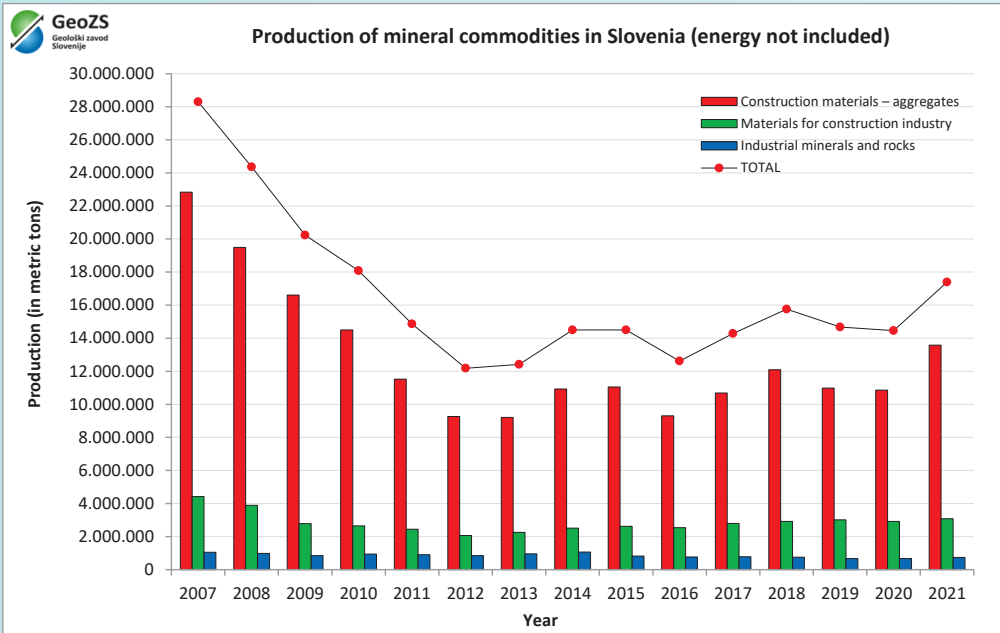
NUMBER OF EXPLOITATION SITES (NON-ENERGETIC) IN SLOVENIA

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Bentonite		1	1	1	1	1	1	1	1	1	1	1	1
Calcite		1	1	1	1	1	2	1	1	1	1	1	1
Chalk		1	1	1	1	1	1	1	1	1	1	1	1
Quartz sand		7	7	7	7	7	7	7	7	7	7	7	7
Tuff		1	1	1	1	1	1	1	1	1	1	1	1
Industrial dolomite		2	2	2	2	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	4	5	4	5	5	5	3	3	3
Industrial minerals and rocks		18	18	18	18	18	18	18	18	18	16	16	16
Brick clay		9	8	7	5	6	5	6	5	5	5	6	7
Natural stone	limestone	13	12	12	11	13	14	15	14	14	13	13	14
	tonalite/granodiorite	3	3	3	3	3	3	2	1	1	1	2	3
	other	15	14	14	13	13	13	12	10	10	9	8	8
Natural stone		31	29	29	27	29	30	29	25	25	23	23	25
Raw materials for lime		6	6	6	6	6	5	5	5	5	5	5	5
Raw materials for cement		6	6	6	5	5	5	4	4	4	4	5	5
Materials for construction industry		52	49	48	43	46	45	44	39	39	37	39	42
Crushed stone	limestone	26	26	26	27	29	36	33	32	32	30	30	31
	dolomite	101	101	94	95	94	84	86	85	84	80	79	78
	other	4	4	4	4	6	6	5	5	5	5	6	6
Crushed stone		131	131	124	126	129	126	124	122	121	115	115	115
Gravel and sand		47	45	41	47	44	38	34	31	32	31	36	39
		178	176	165	173	173	164	158	153	153	146	151	154
Construction materials – aggregates		178	176	165	173	173	164	158	153	153	146	151	154
TOTAL		248	243	231	234	237	227	220	210	210	199	206	212

PRODUCTION OF MINERAL COMMODITIES IN SLOVENIA

(in metric tons)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Bentonite	130	130	160	104	135	168	98	143	199	232	182	147	113	99	77	75
Calcite	271.509	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
Kaolin																
Chalk																
Quartz sand	278.041	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
Tuff	88.013	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
Industrial dolomite	294.645	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
Chert	15.445	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
Ceramic clay	86.443	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
Industrial minerals and rocks	1.034.226	1.054.004	979.353	851.085	937.900	898.246	852.035	950.889	1.063.133	822.792	773.628	783.197	749.652	672.757	677.877	736.690
Brick clay	638.329	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
Natural stone																
limestone	52.459	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
tonalite/granodiorite	56.587	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
other	24.392	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
Natural stone	133.438	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
Raw materials for lime	2.089.495	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
Raw materials for cement	1.324.803	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
Materials for construction industry	4.186.065	4.419.906	3.896.628	2.779.554	2.650.841	2.443.691	2.064.651	2.250.704	2.513.050	2.625.268	2.534.325	2.803.093	2.914.655	3.014.746	2.924.399	3.080.667
Crushed stone																
limestone	7.242.777	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
dolomite	6.712.996	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
other	257.546	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
Crushed stone	14.213.319	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
Gravel and sand	6.871.519	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
Construction materials – aggregates	21.084.838	22.829.214	19.488.636	16.611.019	14.495.303	11.526.561	9.264.886	9.210.908	10.922.593	11.051.983	9.304.165	10.690.284	12.092.668	10.987.740	10.853.769	13.576.394
TOTAL	26.305.129	28.303.124	24.364.617	20.241.658	18.084.044	14.868.498	12.181.572	12.412.501	14.498.776	14.500.043	12.612.118	14.276.574	15.756.975	14.675.243	14.456.045	17.393.751
brown coal	587.912	483.417	488.828	510.769	419.466	435.800	314.262									
lignite	3.932.842	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
coal	4.520.754	4.521.183	4.497.270	4.432.515	4.430.396	4.502.078	4.281.326	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
oil	284	344	174	138	233	263	279	298	366	261	229	241	270	267	247	142
gas condensate	154	167	104	105	207	131	60	114	95	98	150	240	499	223	138	154
gas	3.751	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
oil and gas	4.189	3.589	2.626	2.560	6.446	2.489	1.793	3.110	2.924	3.468	4.710	8.035	15.192	6.715	5.200	4.871
sea salt	1.624	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



PARTIAL LIST OF EU-FUNDED MINERAL RESOURCES PROJECTS (on-going)							
Programme	Project acronym	Project title	Start	End	Duration (months)	Lead partner	Project summary
KIC EIT RawMaterials	UNEXUP	UNEXUP, UNEXMIN Upscaling	Jan '20	Dec '22	36	University of Miskolc, Hungary	UNEXUP stands for UNEXMIN Upscaling, a project funded under EIT Raw Materials and a direct continuation of the Horizon 2020 UNEXMIN project. Efforts have been made at UNEXMIN towards the design, preparation, and testing of an innovative exploration technology for underground flooded mines. The main goal of UNEXUP is to launch the UNEXMIN technology onto the market, while further improving the system's technology and capabilities. A real service-to-client approach will be demonstrated, supporting mineral exploration and mine surveying efforts in Europe using unique data from flooded underground environments that cannot be obtained without incurring high costs or risk to human lives. Improvements will be made to the UX-1 research prototype, raising technology readiness to TRL 7/8. Specific goals of the UNEXUP project include improving the system's hardware, software, and capabilities, testing the robot's performance in four different pilot tests, commercialising this innovative technology, and launching the service on the market.
KIC EIT RawMaterials	INSite	Insitu ore grading system using LIBS in harsh environments	Jan '20	Dec '22	36	INESC TEC Instituto de Engenharia de Sistemas e Computadores do Porto, Portugal	INSite brings together a multidisciplinary research team with a renowned spectroscopy company to take a new smart LIBS (Laser Induced Breakdown Spectroscopy) technology to the market. LIBS is a powerful spectroscopy technique used for element analysis with very promising features for real time assessment of composition. Recently, however, the INESC team has developed novel methods that allow LIBS technology to perform accurate analytical operations with even complex mineral samples, thus enabling real time ore grading. INSite thus aims to bring to market a unique and integrated LIBS technology that can perform accurately in harsh mining environments with true analytical capabilities. These kinds of analytical capabilities in situ is also an asset in many other applications and potential markets, e.g. geosciences research/services, oil and gas research, and various development fields.
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 South East Europe is exacerbated by improper waste management; a significant percentage of industrial waste ends in landfills. GEORIS will transfer to the RIS area an innovative geopolymerization technology that utilize 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 the commercialisation of the technology.
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 the Dy in magnets, which was 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 with 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	RC ADRIA	Regional center ADRIA, EIT RawMaterials Hub	Jan '18	Dec '22	60	Geological Survey of Slovenia (GeoZS), Slovenian National Building and Civil Engineering Institute (ZAG), University of Zagreb (UNIZG-RGNF), Croatia	RC Adria is a hub for mineral raw material stakeholders focused primary on Slovenia and Croatia, with outreach to South-East European countries (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia). It acts as an interface between local environments (knowledge triangle) and EIT RawMaterials, enabling access to information on EIT RawMaterials projects and activities. Some of the main objectives of the RC Adria include the promotion of networking, exchanging project ideas, and offering support to potential new partners of the EIT RawMaterials community. It represents an informational “one stop shop” for EIT RawMaterials knowledge transfer for all local stakeholders – businesses, educational institutions, research organisations, and local authorities. At the same time, it connects local raw materials communities with their international EIT RawMaterials counterparts.
KIC EIT RawMaterials	RM@Schools 4.0	Raw Matters Ambassadors at Schools 4.0	Jan '21	Mar '24	40	Consiglio Nazionale delle Ricerche (CNR), 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 many 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	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 mineral resource exploration demand of the EU. The geographical location of the four partnering universities helps to improve the mineral exploration workforce supply to the EU, including two of the 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, in underground and underwater environments. Students will also be trained in sustainability, social responsibility, and social licence to operate.
Horizon 2020	ROBOMINERS	Resilient Bio-inspired Modular Robotic Miner	Jun '19	May '23	48	Universidad Politecnica de 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, will be able to reach the deposit 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, or places that have formerly been explored but where exploitation was considered economically unviable due to the small size of the deposits or the difficulty in accessing them.
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 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 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.
	PanAfGeo-2	Pan-African Support to the EuroGeoSurveys-Organisation of African Geological Surveys (EGS-OAGS) Partnership	May '21	Apr '24	36	Bureau de Recherches Géologiques et Minières (BRGM), France	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 African geological knowledge and skills required for sustainable mineral exploration, exploitation, and related infrastructures. PanAfGeo-2 will contribute to the more sustainable management of natural resources in tackling climate change based on science and technology.
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 and Spatial Planning, Slovenia	LIFE IP RESTART will focus on overcoming obstacles to achieving EU recycling targets, and on achieving the 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, 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 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.

TOMOGRAPHY AS A TOOL FOR DETERMINING THE COMPACTNESS OF NATURAL STONE

The compactness of natural stone is of great importance in the stone industry, as it determines whether a block of rock is economically viable to exploit as natural stone and what price can it achieve on the market.

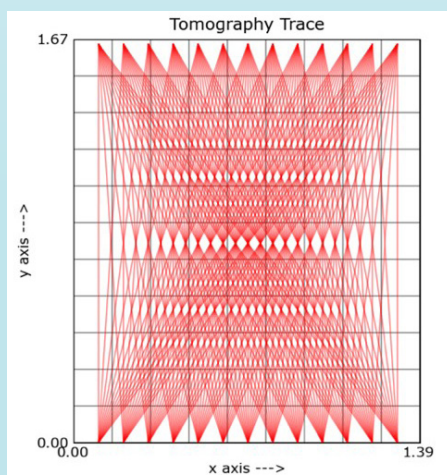
Natural stone is a type of rock that has an appealing appearance and exhibits properties that make it easy to treat and install. Like any other rock, it is susceptible to different geological processes that either form and change rocks, or that contribute to their destruction.

Processes that affect the stability and compactness of rocks are tectonic processes, which are therefore a very important factor in the stone industry. The territory of Slovenia is particularly subjected to such tectonic processes.

In natural stone quarries, different crack systems can be present in blocks of rock and can occur very randomly. It is not uncommon for a block of rock that appears to be very solid and without cracks, to have several voids or filled cracks hidden inside. All of these instances reduce the value of natural stone and can sometimes even jeopardize the economic sustainability of the quarry.

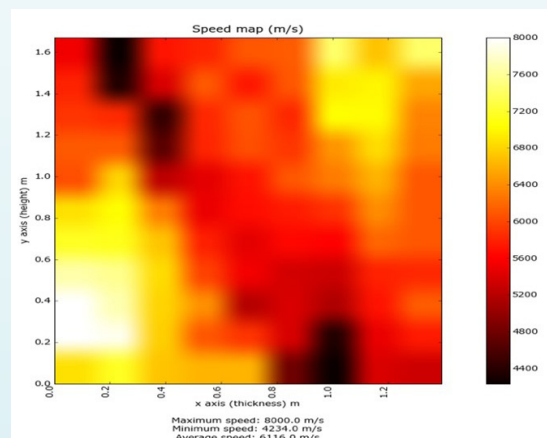
With the increase in the supply of natural stone on the market and the demand to maximize panel size, a requirement arose that called for the issue of quality guarantees for every block sold. Until recently, it was impossible to provide such quality guarantees, but with new emerging methods assessing the compactness of natural stones is becoming an everyday practice and is a welcome tool in the industry.

By developing non-invasive investigation methods, such as tomography, the inside structure of rocks is no longer a mystery. To examine the natural stone with tomography, observation profiles must be placed along the examiner. The denser the profiles, the more accurate the measurements. It is also very important to select the right number of profiles, as profiles that are too densely positioned can cause errors in the program that calculates speeds. Apart from that, the work requires a considerable amount of time – time we are not always prepared to spend.



Display of the collected data using software.

A variety of different software are used to calculate the speeds of passage through the rock. The advantage of these programs is that they display the results graphically, as two-dimensional speed maps. Different speeds are displayed in different colours, which makes it easier to identify anomalies in the material and thus interpret the data.



Results of calculations using software.

Problematic sections of a rock are identified and are indicated in black, whereas different shades of other colours present parts that are not critical and indicate deviations due to the structure of the material.



Existence of discontinuities on stone blocks confirming the correctness of the results of tomography.

Tomography is a relatively precise method for examining the inside of a natural stone but can also be extremely time consuming. Investigating large-size blocks using this method requires a considerable amount of time, which is not desirable in the industry. Tomography is ideal for reconstruction work or for restorations, where we can obtain a quality picture of the damage in an element based on a small number of profiles. It also allows us to better assess materials that can achieve particularly high prices in the market. In such cases, blocks of rocks need to be carefully inspected; afterwards, decisions need to be made, like what these materials will be used for. Tomography can therefore help reduce costs, speed up production, and minimise risks.

Andrej Kos and Jasmina Rijavec (Marmor, Sežana d.d.)

BOOSTING WASTE RECYCLING INTO VALUABLE PRODUCTS BY SETTING THE ENVIRONMENT FOR A CIRCULAR ECONOMY IN SLOVENIA

LIFE IP RESTART will focus on overcoming the 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 launched this year and will continue until 2030. The lead partner of the project is the Ministry of the Environment and Spatial Planning of The Republic of Slovenia, while the other 16 partners, including Geological Survey of Slovenia, represent research, industry, and academia.

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, and to achieve maximum material self-sufficiency and greater circular yields in the waste-to-resource sector. In order to achieve this main objective, project activities will be aimed at achieving three specific objectives:

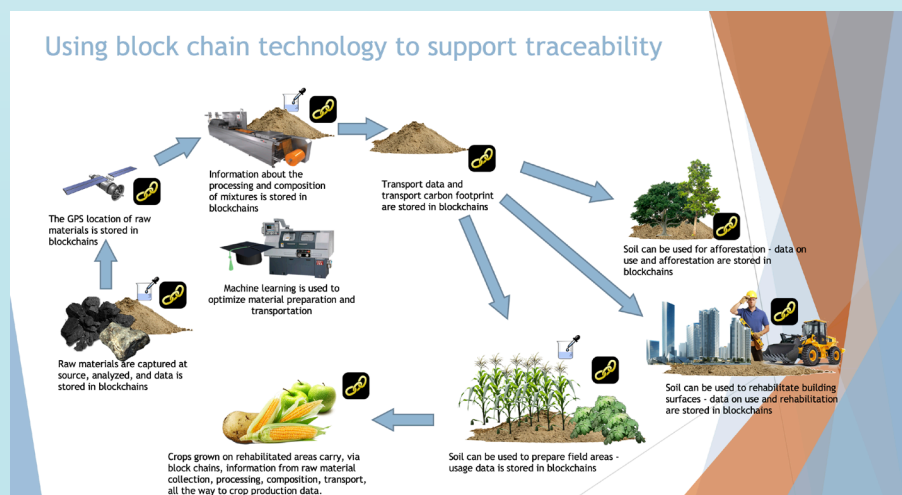
1. To provide a continuous WMPP assessment mechanism and ensure its ongoing improvement and actualisation based on the digital, technical, and social excellence established by the project,
2. To demonstrate 6 circular solutions for several problematic and voluminous waste streams as best-case examples for the implementation of WMPP objectives,
3. To ensure wider uptake of the best available solutions and to achieve the coherent and integrated implementation of WMPP objectives.

The EU Waste Framework Directive (WFD) defines two major quantitative targets aimed at a circular society with a high level of resource efficiency: by 2020, Member States will reuse and recycle 50% of municipal waste, and 70% of Construction and Demolition Waste (CDW), excluding backfilling with naturally occurring materials. In Slovenia, the National Waste Management Programme and Waste Prevention Programme (WMPP) aim at defining measures necessary for Slovenia to meet the requirements of the WFD. Currently, Slovenia's municipal waste recycling rate is growing faster than the EU average.

The project will contribute to the implementation of the EU Waste Framework Directive, Roadmap to a Resource Efficient Europe, the European Green Deal, and the Circular Economy Action Plan for a cleaner and competitive Europe.

Expected results:

- Reduce CO₂ emissions by 20% through improved waste collection, treatment, and disposal activities and materials recovery;
- Reduce waste by 60% through recycling, such that 9 years after the conclusion of the project we see an increase in recycling of roughly 18% (2% per year). During the large-scale demonstration activities, some 9,000 tonnes of various waste materials will be recycled;
- Recycle 50% of non-hazardous CDW. During the implementation of the large-scale demonstration action, approximately 4,500 tonnes of non-hazardous CDW will be recycled;
- Recycle 99% of non-hazardous waste from thermal processes. During the project, approximately 1,500 tonnes of non-hazardous waste from thermal processes will be recycled;
- Achieve a 70% recycling rate of municipal waste;
- Reduce non-metal mineral resource consumption by 20% (3.4 million tonnes). The large-scale demonstration will contribute to savings of approx. 9,000 tonnes of virgin raw materials;
- Improve 10% of the soil surface. In Slovenia, 3,230 ha of land is intended for surface mining works, for surface exploitation of mineral resources. The results of the project will encourage a reclamation rate of at least 10% (or 323 ha) of the area by 2030 using various new products. During the project period, some 8,000 m² of degraded area will be revitalised;
- Increase of 15% in green jobs (almost 7,000 jobs) related to the circular economy and waste management/prevention. The project will directly create around 250 new jobs.



Source: <https://webgate.ec.europa.eu/life/publicWebsite/project/details/5813>

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Društvo tehničnih vodij
površinsko odkopavanje

SURFACE MINING ASSOCIATION (“DTV PO”)

The Surface Mining Association has been operating continuously for 26 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 2021 it had 156 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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