

The Italy of “forgotten” mines: where they are and the treasures they extract

The lead and zinc season, despite the requests, seems to be over, at least for now. But from the mines, materials used in many activities are extracted

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Read here: https://www.ilsole24ore.com/art/l-italia-miniere-dimenticate-dove-sono-e-tesori-che-si-estraggono-ADaHlB5?refresh_ce=1



Resources are not lacking. But mining is not growing. And, once the extraction of metals has ceased, the sector travels with few materials capable of satisfying a part of the domestic market and that of exports. These are the so-called "industrial materials" since the lead and zinc season, despite the requests, seems to be over, at least for now.

In the national panorama, the mining sites, as also emerges from the Ispra census, are about eighty. Mines from which industrial minerals are obtained which are then processed and treated to be present in most of the objects used daily. That is, cement marl, ceramic minerals (feldspar, kaolin, refractories), minerals for industrial use (bentonite, bleaching earth) and rock salt. The sector employs a total of just over three thousand miners distributed in production sites in 14 regions with a high percentage in Piedmont, Sardinia, Tuscany and Sicily. Although the numbers of workers are low, there is a close link between consumer goods used in everyday life and mining.

To highlight this link, with lots of examples, is a study carried out by Assorisorse (formerly assomineraria). In the dossier of the association that represents the companies engaged in the extraction of raw materials from the Italian subsoil, as well as the related supply chain (from energy ones to what is part of industrial processes for the creation of products or as additives) the national scenario.

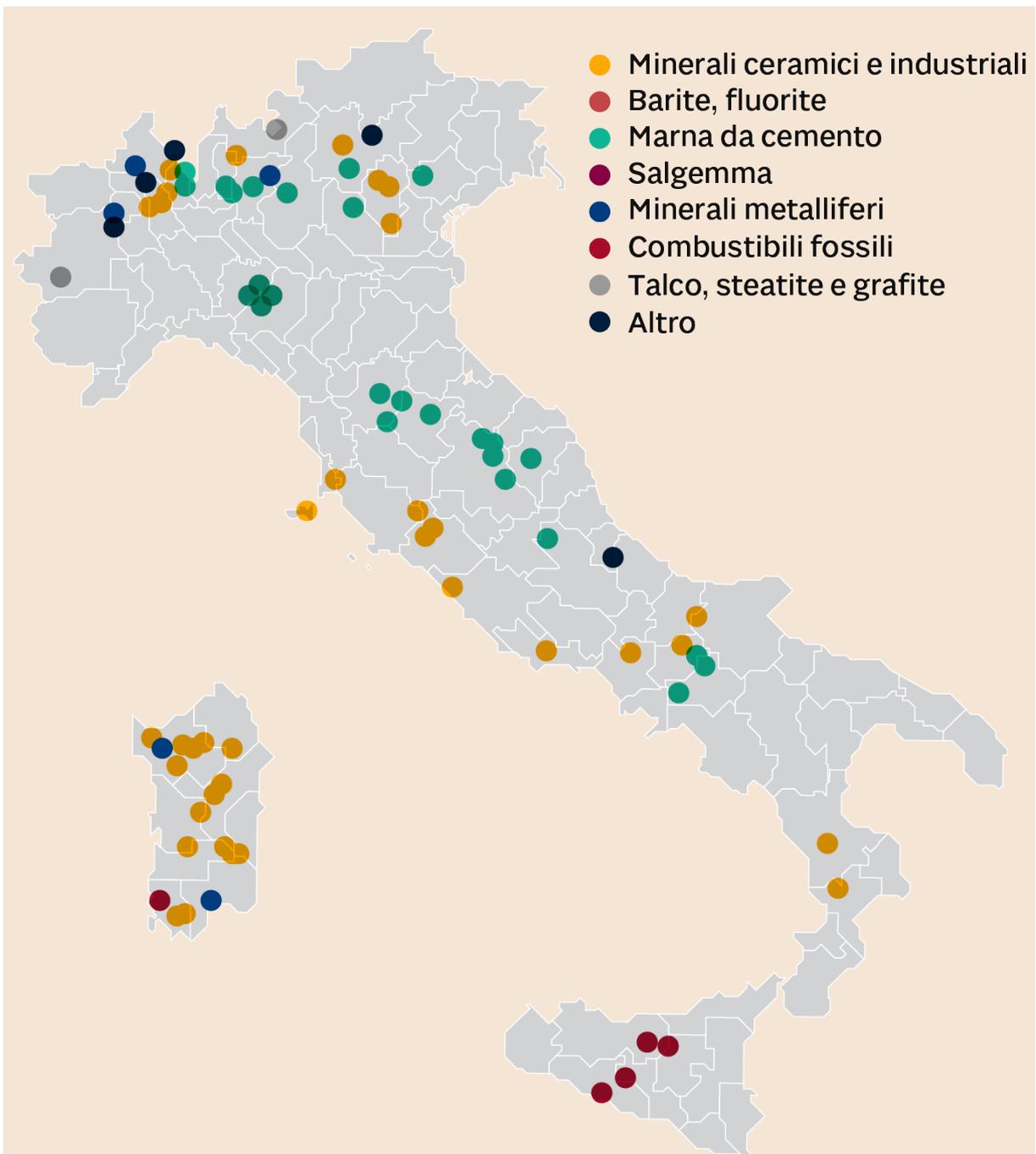


The Cogne mine

The mining primates of Italy

The numbers speak of a production of over 10 million tons equal to "10% of Europe" and some records like the third place in the world and the second in Europe in the production of feldspar, the tenth place in the world in the production of talc (third in Europe). Not only that, industrial minerals, according to the report "fuel a significant flow of exports: 56% of Italian exports of mineral resources move from this sector and the main destination markets are Asia (46%) and Europe. (37%)".

As for the examples: "A car can contain up to 150 kg of industrial minerals", while to build a house up to "150 tons" can be used. Then there are ceramics and glass «main sectors of application, as they can contain up to 100% of industrial minerals». And feldspar and quartz, which «together with sands, are the main protagonists in the production of glass of all types (hollow, flat, lighting) and ceramic materials (sanitary ware, tiles, enamels)».



"Despite an overall critical trend and their not particularly significant unit value, industrial minerals have a series of characteristics that enhance their undoubted relevance for the economy of our country, also thanks to their high quality processing - explains **Monica Giarda** , sector director of **Assorisorse** -: they are essential inputs for most of the manufacturing and construction industries which, together, represent 20

According to the director, the sector is "crucial for the manufacturing industry present in the area as it represents essential raw materials for numerous other sectors such as paints, electronics, metal casting and foundries, paper, plastics , glass, ceramics, detergents, pharmaceuticals, cosmetics, building materials and agriculture ».

The raw materials that Italy does not exploit

"Minerals for industry - continues Monica Giarda - are also used in food and feed processing and play an increasingly important role in environmental engineering, as well as being present in the objects we use every day".

However, that's not all. "Unfortunately for Italy, despite the availability of raw materials, the conditions for their development do not seem to exist: due to environmental constraints and slow and cumbersome bureaucracy - continues the manager -. Italy risks being a country destined to depend on abroad with the loss of a large part of the economic repercussions. "It is certainly no coincidence that the mines of galena and blenda (from which lead and zinc are obtained) of Sulcis Iglesiente find themselves with production stopped for years and get ready to live a new life of tourism and scientific research.

The crisis and closure between the 70s and 80s

"The Italian metal mines, which all operated underground, suffered in the seventies and eighties the repercussions of a crisis that had already begun in the previous decade linked to the progressive development in depth of mining sites and the increase in labor costs compared to developing countries at the time - said **Antonio Martini** , a mining engineer with long experience in the sector -; situation that has found its epilogue with the energy crisis: production costs were no longer competitive and gradually those mines closed although with a 1982 law the State attempted to revive the sector by fielding huge public resources to support the activities from mining research to production ».

Then the turning point in the 90s and the changes, with the tourist activity starting from 2000. "Currently - argues Martini who was sole administrator of the last coal mine in Nuraxi Figus - many opencast mines still operate for the extraction of industrial minerals while the last ones active underground are those of talc in the Alps (two) and those of rock salt in Sicily (three), after the closure of the last coal mine in Sardinia in 2018 ".

The "do it yourself" technological evolution

For the mining engineer then there is an aspect that should not be underestimated or forgotten. And concerning research, innovation and technology: "I think I can affirm that the systematic search for innovation and the use of cutting-edge technologies are inherent in the mining industry due to the high level of technical challenge - keep it going -. There are many examples also in Italy but perhaps it is worth remembering the ingenious system of loading merchant ships directly from the mining silos dug in the cliff of Porto Flavia and the invention of the Montevecchio-pile car by the mechanics of the workshop of the homonymous mine, but later patented by Atlas-Copco ».

In Gorno, in the province of Bergamo, the Italo-Australian Alta zinc group has been carrying out for some years the project for the relaunch of the lead and zinc mine closed in the 1980s by Eni. Projects are at an advanced stage, investments and mineral contents are positive, and production is expected to start.

The future of sites depends on sustainability

For Franco Manca, long-time geologist and mining manager and manager for years, the future passes through what is called the sustainability process. «We must first say that today we can no longer do what we did yesterday in terms of the use of natural resources and raw materials - he says -. Today there is a word so dear also to European institutions which is called sustainability. And this concept must also be demonstrated in the activities that are to be carried out in the extractive field ». An example? «Think of cobalt, in Europe (one of the last cases is in Spain) there is almost a rush to recover old mining sites of this material that is used in the use of energy accumulators - he argues -. It is clear that the productions will have to be done at

And then another aspect. "The future of mines must be linked to that of reclamation and rehabilitation of old landfills which, in many cases, turn out to be real gold mines".