

IL NUOVO QUADRO GEO-GIACIMENTOLOGICO DELLA SARDEGNA DALLA CARTA METALLOGENICA E DELLE GEORISORSE IN SCALA 1: 250.000.

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Riassunto

La nuova Carta Metallogenica e delle Georisorse della Sardegna in scala 1: 250.000 aggiorna e ridefinisce il quadro geo-giacimentologico e metallogenico dell'isola, sulla base delle acquisizioni della geologia di base, delle ricerche giacimentologiche e delle esplorazioni minerarie degli ultimi 30 anni. La carta comprende le indicazioni relative a 563 giacimenti, depositi e indizi mineralizzati, includendo minerali metallici, minerali energetici, minerali e rocce per l'industria e gli usi civili, lapidei ornamentali, acque minerali e termominerali. I criteri utilizzati per la legenda metallogenica tengono conto dei diversi aspetti scientifico-tecnici (tipologie giacimentologiche, genesi, età, giacitura, paragenesi mineralogiche, minerali utili e di ganga, strutture/tessiture, etc.) ed economici degli elementi rappresentati. Nell'insieme, la carta costituisce uno strumento di base per la ricerca scientifica, l'esplorazione mineraria e la pianificazione a scala regionale.

Abstract

In the past centuries, Sardinia has been the most important mining region in Italy. From Early Paleozoic, the tectonic, metamorphic and sedimentary events that marked the geological evolution of the island, also caused repeated metallogenic phenomena, which generated a variety of ore deposits. From the researches of the last 30 years in Sardinia seven metallogenic epochs have been defined, spanning from the Cambrian to Late Cenozoic times. Up to now, the most important source of information about the mineral resources of Sardinia has been the Metallogenic Map (*Carta Metallogenica*) assembled by the EMSA (*Ente Minerario Sardo*- Sardinian Mining Agency) in 1978, when most part of the traditional mining districts of the region were still working. This map was a detailed and very innovative representation of Sardinian ores and mineral deposits as known in the mid-1970's: now, after 30 years, not only the general overview of the mining industry in the island is deeply changed, but the actual framework and inventory of Sardinian geological resources has to be re-ordered and renewed. In particular, after the closure of the Pb-Zn districts, the focus of the mining activities in Sardinia shifted towards Industrial Minerals, as feldspars and other raw materials for ceramic industry, bentonites, silica sands for glass industry, talc, and ornamental stones, as granites and marbles; important coal, fluorspar, gold and bauxite mines are also operating. At the same time, the studies on the tectonic, metamorphic and magmatic evolution of Sardinia, not only changed the main geological concepts about the island, but also led to new significant discoveries in the field of its mineral resources, with the definition, among them, of new gold districts (Cenozoic porphyry/epithermal Au-Cu-Te and Au-Ag, and Paleozoic mesothermal "orogenic" Au deposits), a huge albitite district (albitite belt of central Sardinia) and large silica sands, bentonite and zeolite minerals deposits. The new 1:250.000 metallogenic and geological resources map of Sardinia represents 563 ore deposits and occurrences, including ore and industrial mineral deposits and the most relevant ornamental

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and dimension stone districts. The new map is a complete revision of the old EMSA's *Carta Metallogenica* and has been totally re-designed, implementing the mineral deposit records of the last 30 years and employing an up-to date 1:250.000 geological map of the island, with the main goal of designing an useful tool for mining industry, scientific researches and regional-scale economic and territorial planning.