



EARSC Statement

European Critical Raw Materials Act

The European Association of Remote Sensing Companies ([EARSC](https://www.earsc.org)) is a trade association based in Brussels, representing the European downstream services sector. EARSC counts more than 135 members across 25 countries in Europe.

EARSC welcomes the European Commission's consultation on the European Critical Raw Materials (CRM) Act with the main objective to secure a sustainable supply of critical raw materials to support the green and digital transitions and strengthen EU resilience by building on pillars such improving the EU's monitoring, risk management and governance in the field of CRM.

Raw materials are a fundamental aspect of the global economy and vital for the growth and to maintain the living standards of the Earth's ever-growing population. The global demand for raw materials continues to grow and the extraction of these materials is placing pressure on the finite resources of the Earth. Europe is becoming more aware of its raw material needs and the security of supply.

Extracting companies must become more efficient at identifying, monitoring and abstracting raw materials and satellite-derived data and services have a role to play in this. The information derived from Earth Observation satellites provides a continuous flow of information along the entire life-cycle of raw materials in a consistently up-to-date and stand-alone manner; from the monitoring and management of subsidence, geology, biology, ecology, socio-economic development, resource availability and much more. It can also provide data about very remote and inaccessible areas contributing to a safe and sustainable supply of mineral resources through improving the efficiency of operations and monitoring capabilities of major aspects in the materials value chain such as exploration, efficiency, exploitation safety, and waste tracking of mineral resources. Each of these phases requires specific data to progress. The data that is required is for the most part

‘geoinformation’ as it relates to the physical, structural, developmental/social and chemical properties of the Earth. The [Copernicus programme](#) with freely available data with a high revisit time enables a deeper understanding of areas of interest along the entire life-cycle of raw materials in a consistently up-to-date and stand-alone manner.

EARSC through the [EO4RM project](#)¹ has identified specific elements of geoinformation that may be required in more than one phase of the mining cycle. For example, geotechnical information is required for both exploration and construction. During exploration, the detail required is about deep structural faults that might be indicative of a geological feature that could be mineralised, while during construction the focus is more on relation to the detection of shallow voids that could be problematic for the structural stability. Each item of geoinformation is catalogued and discussed individually within the relevant mining phase. Moreover, EARSC through the **[FIRE, the industry-led Forum for Innovation and Research in European Earth Observation](#)** organised a user consultation for the raw materials sector which included **two rounds of Focus Group discussions** and two **[FIRE Forum events](#)**. At the focus group discussions with the help of [EIT Raw Materials](#), **26 market representatives** were brought together to better understand the needs and challenges across the sector’s value chain, the expectations towards EO solutions to address these needs and challenges and the barriers holding back the uptake of EO solutions in the sector.²

Good geoinformation is fundamental to managing risk and preventing failures. Solutions are required to provide cost-effective high-quality data for all phases of a mining operation to identify and manage risk; and EO can be part of the solution. EO providers must engage closely with both mining companies and regulators to ensure that technologies advance in line with the requirements of the industry. Furthermore, EO providers must work with the industry to educate them on new technologies and to ensure that employees have the requisite skills to effect the change.

¹ EO4RM project at <https://earsc-portal.eu/display/EO4RawMaterials/Materials?preview=/67404141/88212358/D1.2%20EO4RM%20Geoinformation%20Report%20Ver%205%20FINAL%20for%20publication%20.pdf>

² The results of the two discussions can be accessed [here](#) (1st one) and [here](#) (for the 2nd, from slides 19-24). A very nice graphical recording can also be accessed [here](#).

The outcomes of these events will be delivered to the European Commission for inclusion in Horizon Europe planning. This document, the roadmap of the sector will be available by the end of this year. Recently we have also produced a dedicated video on [Raw Materials](#) which presents very nicely the major challenges of the raw materials sector and how earth observation can address them.

From conception to decommissioning, satellite-derived data and services support the mining sector to explore and extract raw materials efficiently and safely, and solving associated environmental, logistical and technical challenges. Consequently, **EARSC believes that the European Critical Raw materials Act should specify that satellite-derived data and added-value services are operational solutions, which shall be used for the raw materials management framework.** EARSC remains at your disposal to work together on this objective.