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## D19.2 GoldenRAM Website

version 1

### **Work Package 19 – Dissemination, communication I**

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## Introduction

This deliverable contains original unpublished work, except where clearly indicated otherwise. Previously published material and any work done by others has been acknowledged using appropriate citation, quotation, or both. Reproduction is authorised provided the source is acknowledged. The GoldenRAM website which can be accessed here: <https://goldenram-project.eu/>

**Deliverable:** As part of the tasks of Work Package 19 and following D19.1 “Communication and Dissemination Strategy and Action Plan” delivered in M2, our consortium has developed the G-RAM project website (D19.2), to be released in M3. This will be complemented with a series of other communication outputs and activities.

**Main goals:** The main goals of the website are to (i) establish an online presence, (ii) communicate the project’s objectives and methodology, news, and developments, and (iii) enable access to downloadable materials as well as specific knowledge and information relevant to different





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stakeholders. Besides incremental improvements, subsequent website updates will be carried out at M12, M21, M30.

**Audience:** The website was conceived with the core aim of interacting and benefiting its audience stakeholders which is mainly mining (tech) companies, national and international raw materials policy and decision-makers, digital raw materials solution providers, international mining associations and networks, EU and national projects, investors and venture capitalists, research community in the field of raw materials. It is also serving the public at large, which is interested in digital technologies in the field of raw materials.

**Content:** Given the scientific and technical nature of the topic our consortium opted for an easily navigable website with a sleek and modern interface which puts user experience at the forefront.

Overall, the website provides information about the project and consortium, the use cases through applications and field trials, the technologies used, as well as other relevant material such as multimedia content, press releases, articles and events. Additionally, a dedicated section has been created to host key publications and deliverable documents.

The website was developed using the WordPress content management system and with a template that is easily configurable to accommodate any additional or evolving needs of G-RAM. The website is compliant with the relevant EC directives for Horizon Europe projects and the GoldenRAM GDPR compliance statement can be found in the relevant [privacy policy section](#) of the website. The G-RAM website will be regularly updated with relevant content in line with the phases and milestones of the project needs related to reaching the set target audiences and other aspects which were highlighted in the communications action plan (deliverable D19.1).

**In the sections below, we briefly introduce the main features of the website.**





## 1. Intro page





2. About page with the following sub-pages or sub-sections:
  - o About the project
  - o Consortium (Team page)
  - o Contact information / form
  - o Deliverables/publications

## Why We Need Critical Raw Materials

Europe requires critical raw materials (CRMs) for several key reasons, chiefly among them the continent's commitment to a sustainable and digital future. CRMs such as lithium, cobalt, and rare earth elements are vital for renewable energy technologies, electric vehicles, and digital devices, all of which are central to reduce carbon emissions and achieving climate neutrality and reach the European Union's Green Deal and digital transition goals. CRMs are however highly vulnerable to supply disruptions, and as global demand for rare earth metals and lithium is set to increase six-fold by 2030 and seven-fold by 2050, Europe must ensure strong, resilient, and sustainable value chains for critical raw materials to realise its decarbonisation and digital transition goals.

### The Role of GoldenRAM

The GoldenRAM platform contributes to Europe's CRM ambitions by providing Earth Observation-based tools to a variety of stakeholders in the mining industry such as mining companies, non-governmental organisations, and EU Member States, creating a platform for improved cooperation along the CRM value chain and between the EU and partner countries.







3. Use Cases page - focusing on Applications and Field Trials
  - o Present the foreseen use cases
  - o Present the involved mines/companies/targeted areas of exploration
  - o Present the involved targeted areas of exploration.
  - o Applicable domains of expertise

**Applications**

**Exploration**

To support exploration activities, the platform will utilise EO imagery and geological data to automatically map minerals across spatial scales. Hyperspectral imagery is used for mineral prospecting, drill core analysis and secondary mineral deposit mapping to facilitate resource evaluation.

EO Mineral Mapping

Mineral Prospectivity Mapping

Drill Core Mineral Mapping

Mapping Secondary Raw Materials Deposits

**Production, Operations & Safety**

To support ongoing mining activities, the platform will enable the monitoring of key assets like open pit and tailings dams' stability, as well as volume change monitoring to account for waste materials in real-time.

Open Pit and TSF Dam

Tailings Storage Facility

Volume Change Monitoring





# Field Trials

 <b>SOKLI</b> <b>Finland</b>	Savukoski, Finnish Lapland
 <b>KEVITSTA</b> <b>Finland</b>	Sodankylä, Finnish Lapland
 <b>AITIK</b> <b>Sweden</b>	Gällivare, Swedish Lapland
 <b>ABRUD</b> <b>Romania</b>	Alba County, Transylvania
 <b>UKRAINIAN SHIELD</b> <b>Ukraine</b>	Ukrainian Crystalline Massif, East European craton
 <b>BARROSO</b> <b>Portugal</b>	Boticas area, Northern Portugal





4. Technologies page – technologies used for the project
  - o Data sources used
  - o Present the AI knowledge packs
  - o Processing techniques/algorithms

# Technologies

## AI Natural Language Processing

The GoldenRAM Graphical User Interface (GUI) integrates Watson IBM, functioning as a GEO AI Assistant within the GUI. Users engage with geospatial data via natural language queries, enhancing accessibility and ease of use. This capability simplifies data retrieval and analysis processes. Data is indexed within the PostGIS database, optimizing query performance and document retrieval. Users employ natural language queries like "show me," "like," "all," "near" "since" "between" and "in" to locate data. The natural language queries result in data retrieval in both a tree-like folder structure and comprehensive Table view.

## AI Knowledge Packs

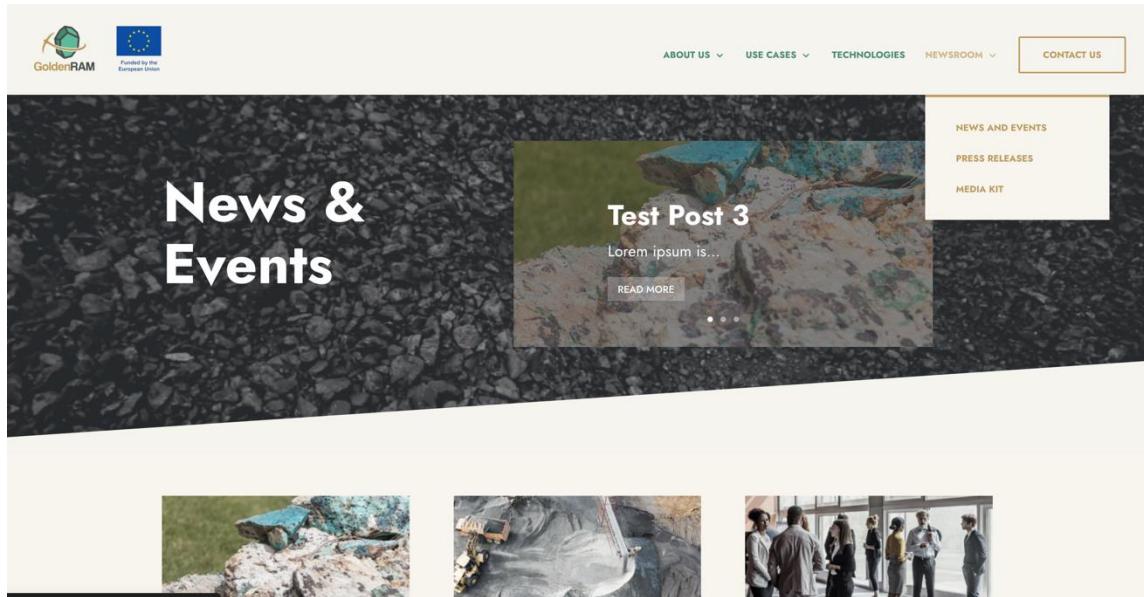
AI Knowledge Packs (AIKPs) are modules within the backend component (OCLI) of the GoldenRAM platform.

5. Platform page – about the GoldenRAM platform (with link to actual front-end of platform once available). This page may have visualisations, possibly animated, which should be supported by the page. In any case, an alignment with the team that develop the platform will be part of the design of this specific page, to guarantee a smooth user experience of going on the platform through this page.





## 6. News and Events with a side-section for Press releases (to be uploaded as PDF files)



7. Social media buttons
8. Legal notice: privacy policy and cookies
9. Newsletter subscription opt in

