Assess policy requirements at macro (public) and micro (mining companies) levels and define environmental, socio-economic, societal and sustainable development criteria and indicators to be possibly dealt using EO

Use and develop EO on demonstration sites to demonstrate the capabilities of integrated EO-based methods and tools in:

- monitoring,
- managing,
- contributing reducing the environmental and societal footprints of all phases of a mining project

Contribute making reliable and objective information about affected ecosystems, populations and societies, basis for a sound “trialogue” between industrialists, governmental organisations and stakeholders

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**Scientific and technical objectives**

**EO tools**

- Satellite data
  - Conventional optical sensors: Landsat Thematic Mapper, ASTER, Hyperion, etc.
  - Very high resolution optical sensors, such as Ikonos, Quickbird, SPOT 5, etc.
  - Radar sensors: in particular for INSAR applications

- Airborne data
  - Airborne imaging spectroscopy (hyperspectral) survey
  - Airborne geophysics: radiometric, electromagnetic, aeromagnetic

- In situ monitoring methods
  - Time-lapse electrical resistivity tomography (ALERT)
  - Ground monitoring networks
  - In situ point measurements
  - Field spectroradiometry campaigns
  - Information and/or measurements about vegetation, soil, groundwater and dust
  - Chemical Model and 3D Characterization of the contaminated soils

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**Beneficiary name** | **Country** | **Beneficiary name** | **Country**
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Bureau de Recherches Géologiques et Minières | France | Council for Geoscience | South Africa
British Geological Survey | UK | Anglo Operations Limited, Anglo Technical Division | South Africa
Tel-Aviv University | Israel | Université de Versailles – St Quentin | France
Deutsches Zentrum für Luft- und Raumfahrt e.V. | Germany | Česká Geologická Služba | Czech Republic
Wuppertal Institut für Klima, Umwelt, Energie GmbH | Germany | Sokolovská Uhelná a.s. | Czech Republic
Geoloski Zavod Slovenije | Slovenia | Anglo American Chile Ltda | Chile
Mineral Industry Research Organisation | UK | | |

**Consortium**

**Demonstration sites**

- Los Broncos copper mine, Chile
- Sokolov lignite mine, Czech Republic
- Emalahleni coal mine, South Africa

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