

# Our distinctive Idea: Global Observatory and Support Center for Post-Extractive Land Transition (GOSC-PELT) (1/2)

## The challenge

Land degradation from extractive industries is accelerating - threatening biodiversity, climate resilience, infrastructure stability, and community prosperity.

Mining footprints may appear limited compared to agriculture or grasslands. Yet post-mining legacies create deep, systemic, and long-term impacts - across ecosystems, groundwater, infrastructure networks, and regional economies.

These impacts unfold:

- Across multiple spatial scales
- Over long temporal horizons
- At the surface and at depth
- Across administrative and sectoral boundaries

Yet governance remains largely project-based and site-centric.

## The System Gap

The problem is no longer data scarcity.

The problem is data fragmentation and institutional disconnect.

A structural gap persists between:

- Open-access Earth observation archives (Sentinel, Landsat)
- High-frequency commercial datasets (e.g., Planet)

There is no institutional platform capable of fusing these streams into decision-grade intelligence.

Decision-makers receive:

- Either fragmented datasets
- Or aggregated reports with insufficient spatial granularity

What is missing: an integrated, trusted observatory for post-extractive land transition.

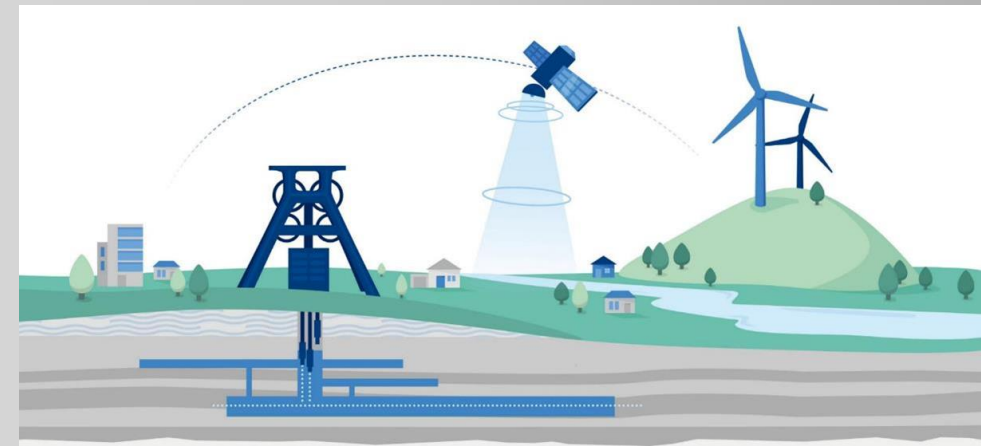
# Global Observatory and Support Center for Post-Extractive Land → From mining projects to resilient, post-extractive landscapes

## Our solution!

The Global Observatory & Support Center for Post-Extractive Land Transition (GOSC-PELT). A neutral, science-based observatory platform that: Integrates multi-source geospatial intelligence, Captures regionally interconnected post-mining impacts, Operates across spatial and spatiotemporal scales and Translates complexity into executive-level decision support

## Why this matters now?

- Resource security and landscape integrity are no longer separate challenges
- Decarbonization, electrification, and digitalization are accelerating a new global race for critical raw materials
- Mining is expanding into ecologically sensitive and socio-economically fragile regions
- Without early, integrated planning, today's investments risk becoming tomorrow's stranded landscapes



# The type and role of partner(s) we are seeking

## From a georesource race to responsible landscapes – globally

### The gap we address

Current extractive projects still operate project-by-project, with post-mining considered too late. There is no global, trusted platform that:

- Anticipates long-term land, social, and economic impacts before extraction
- Aligns mining with spatial planning and regional development
- Integrates post-mining transition from day one

**GOSC-PELT closes this gap towards →**



### What GOSC-PELT enables

- Early-stage foresight on land-use, social, and ecological impacts
- Alignment of extraction with regional development strategies
- Science-based decision support for governments, investors, and industry
- Reduced long-term liabilities and increased social license to operate
- Scalable models for post-extractive landscape transformation

We are looking for strategic partners to finance, scale, and institutionalize GOSC-PELT:

- **Public funders & R&I agencies** → To anchor the platform within European and global innovation ecosystems
- **Development banks & impact investors** → To de-risk investments through early land-use intelligence
- **Industry & raw material alliances** → To embed responsible landscape planning into supply chains
- **Regions, cities & planning authorities** → To translate foresight into implementable land-use pathways
- **Research & data partners** → To strengthen interoperability, modelling, and global coverage

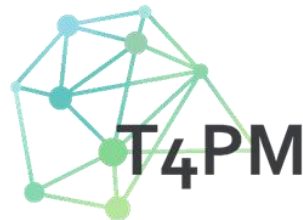
# The interdisciplinary team at the Post-mining research centre

We bring together a diverse range of expertise to shape the future of post-mining landscapes:

- Specialists from key fields including mining, geology, geotechnics, deposit geology, hydrogeology, chemistry, electrical engineering, IT, materials science, land development, mine surveying, geography and economics
- A broad, interdisciplinary network has evolved around this core – actively collaborating at national and international levels.
- Our team brings together diverse and multilingual experts. Our team have diverse expertise and previous work experience at the various multilateral organizations like UN, NATO, EU, Global MNCs and government.



# Overview of our scientific and technological expertise in our EU funded Projects



Raising awareness of small local communities in the process of coal mining transition



hcc.ruhr: Heritage  
Conservation Center  
Ruhr



**Thank you for your attention!**  
**Glück auf!**

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