The course is endorsed by European Federation of Geologists

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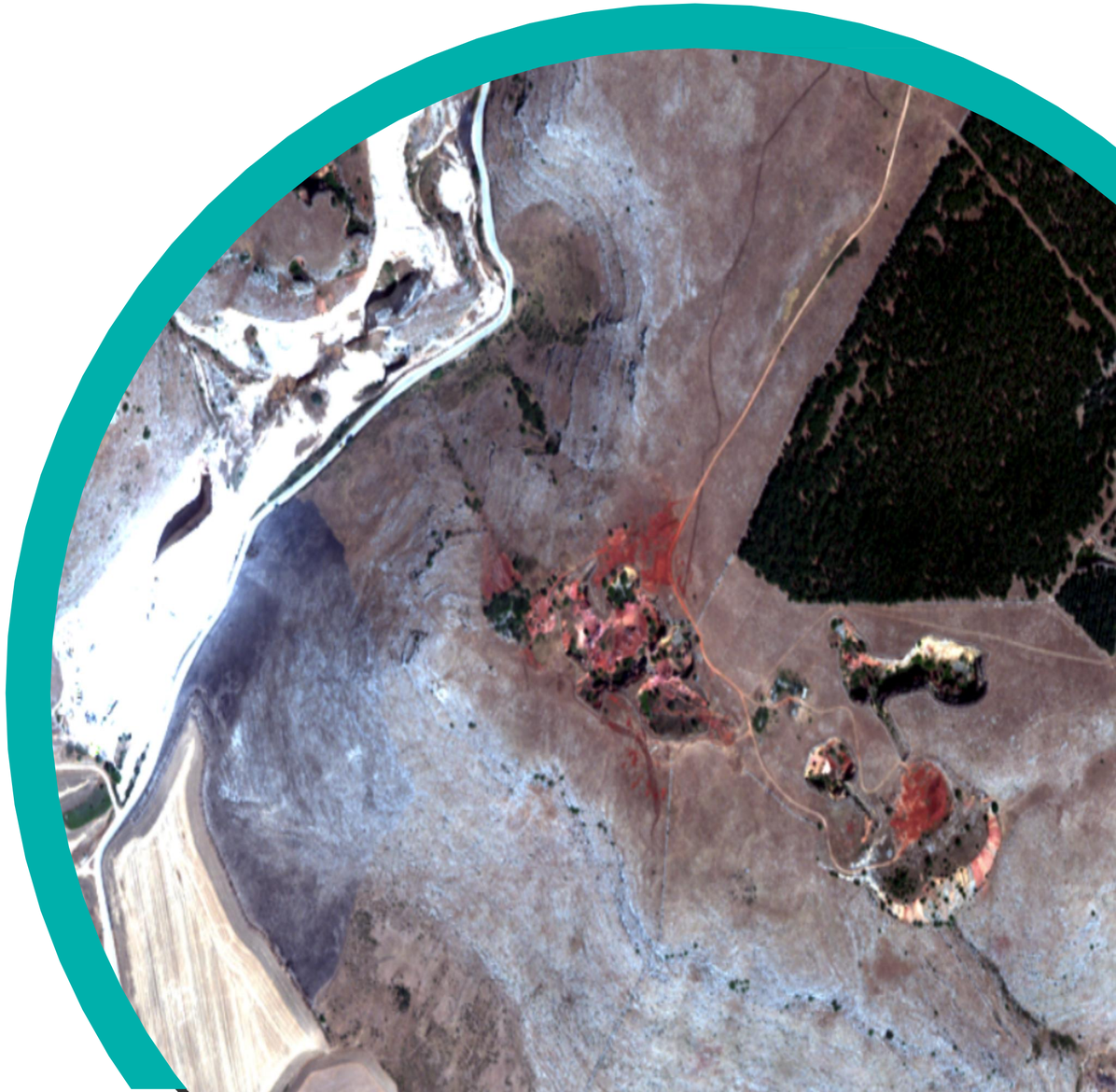
RawMatCop Academy

Advanced Course on Remote Sensing for the RawMaterials Sector

(7,9,14 and16 October 2025, Online)

https://rawmatcop.eitrawmaterials.eu/



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Course Details

Earth observation technologies provide great innovation potential in the raw materials sector. RawMatCop Alliance offers an advanced course with hands-on learning to demonstrate how Copernicus can provide cost-effective and safe solutions while complying with environmental regulations. Advanced approaches highlighting scalability, accuracy assessment, and time-series of imagery are offered in the course and provide valuable support to informed decision-making.

Advanced Course Topics

- Efficient handling of time-series and large datasets
- Scalable analysis of satellite data for raw materials
- Best practices of data integration
- Leveraging Copernicus data and open tools to revolutionize the sector

Case Studies & Exercises

- Exploring mineral resources - opportunities & challenges
- Exploring environmental impacts of mining using Sentinel-2
- Monitoring mining operations - surface activities & material
- Monitoring Ground Motion - mapping InSAR temporal series

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Course Details

Entrepreneurs and industry professionals from the exploration, mining, and processing sectors who are looking for innovative techniques to monitor and manage raw materials in their organization will benefit from the course. We also welcome geoscientists, development and environmental experts, researchers, master and doctoral students as well as remote sensing practitioners interested in learning raw materials applications.

4-Day Course

Online

EXPECTED BACKGROUND

- **BASIC CODING EXPERIENCE**
- **BASICS OF REMOTE SENSING**

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DAY 1

Course introduction and warm-up

Exploring mineral resources

- Classification using self-organizing maps
- Mineral prospectivity mapping and targeting

DAY 2

Exploring environmental impacts of mining

- Supervised land-cover classification
- Time-series analyses

DAY 3

Monitoring Mining Operations

- Activity and environmental monitoring
- Detecting significant changes using radar data"

DAY 4

Monitoring Ground Motion

- Exploring the Copernicus EGMS tool
- InSAR time-series analysis for Ground Deformation mapping

Final Evaluation

Meet our Experts

Prof. Thorkild M. Rasmussen

Exploration Geophysics at Luleå University of Technology, Expert in Mineral Exploration, Airborne Geophysical and Satellite Data

Dr. Louis Andreani

Independent Consultant in Remote Sensing

Dr. Elsy Ibrahim

RawMatCop Researcher at University of Liège and Independent Consultant in the Earth Observation sector (NOVOJY SPRL)

Dr. Sara Kasmaee

Mining Engineer and Researcher of Georesource at University of Bologna

Dr. Christian Köhler

Lecturer and Researcher at Institute of Mine Surveying and Geodesy at TU Bergakademie Freiberg

Dr. Ignacio Marzán

Researcher at IGME-CSIC (Spanish National Research Council)

NOVOJY

LULEÅ UNIVERSITY OF TECHNOLOGY

CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

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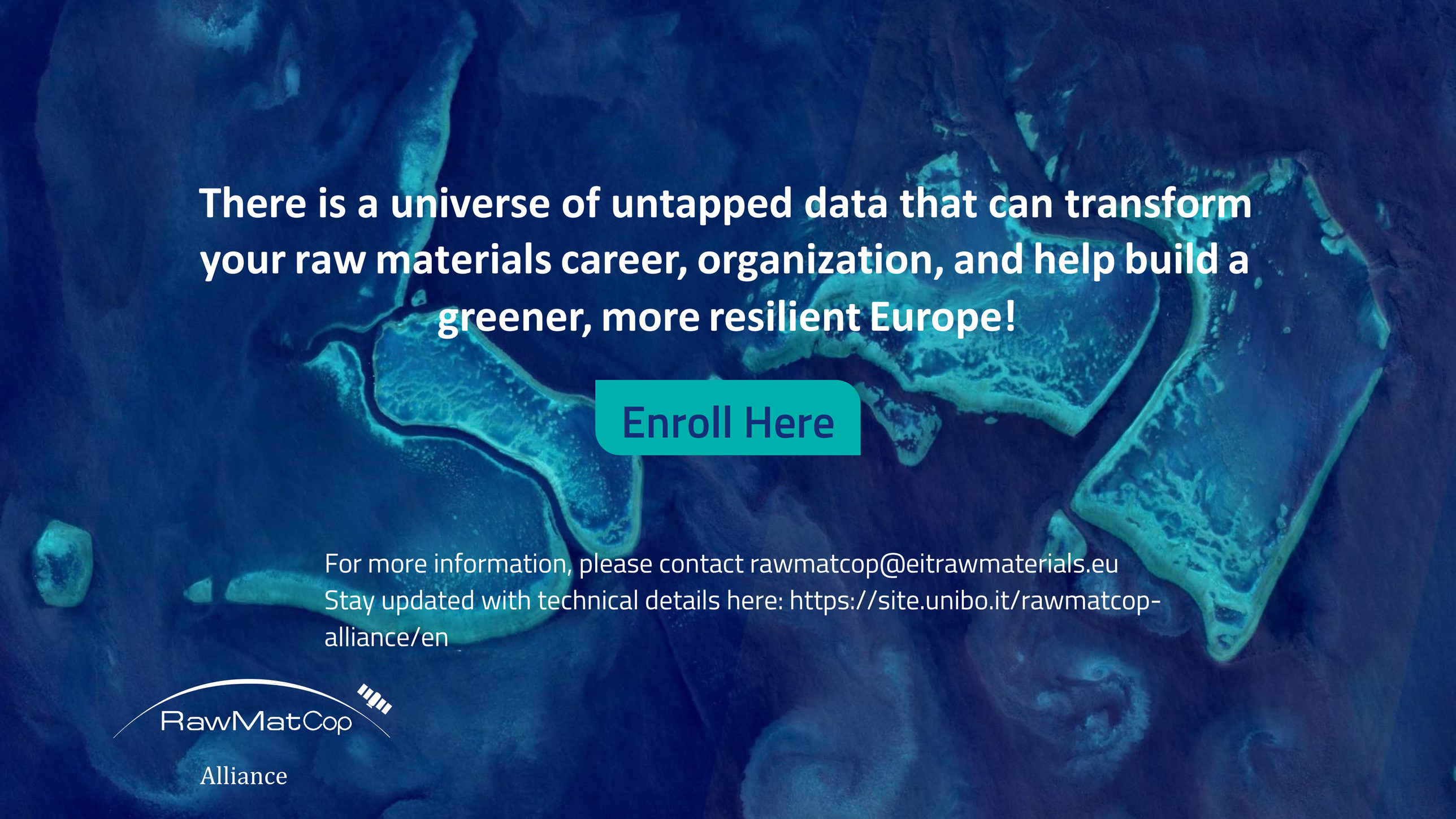
There is a universe of untapped data that can transform your raw materials career, organization, and help build a greener, more resilient Europe!
Enroll Here
For more information, please contact rawmatcop@eitrawmaterials.eu
Stay updated with technical details here: https://site.unibo.it/rawmatcop-alliance/en
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