



Training course endorsed by the  
European Federation of Geologists

# RawMatCop Academy 2020

## Copernicus for Raw Materials

# Agenda

**DAY 1**  
13 October

09:30 - 10:00

**Welcome and housekeeping**  
Eliane Furuyama, EIT RawMaterials

10:00 - 10:30

**Raw materials' challenges**  
Patrick Nadoll, EIT RawMaterials

10:30 - 11:00

**Why is Earth Observation relevant for raw materials applications?**  
Irene Benito, EIT RawMaterials

11:00 - 11:15

**BREAK**

11:15 - 12:00

**Q&A on pre-course material Sentinel-2**

12:00 - 12:10

**BREAK**

12:10 - 13:00

**Exercise:**  
- Group 1: iron features  
- Group 2: AMD  
- Group 3: vegetation

13:00 - 13:30

**Conclusion and solution to the exercise**

## DAY 2

15 October

|               |   |
|---------------|---|
| 09:30 - 10:15 | <b>Applications of Copernicus and commercial satellite data for mining market intelligence</b><br>Christian Lelong, Kayrros   |
| 10:15 - 10:25 | <b>BREAK</b>  |
| 10:25 - 11:10 | <b>Q&amp;A ON SAM, UNSUPERVISED AND SUPERVISED CLASSIFICATION</b>   |
| 11:10 - 11:20 | <b>BREAK</b>  |
| 11:20 - 12:20 | <b>Exercise:</b> <ul style="list-style-type: none"><li>- Group 1: unsupervised classification</li><li>- Group 2: supervised classification</li><li>- Group 3: SAM</li></ul> |
| 12:30 - 13:00 | <b>Conclusion and solution to the exercise</b>  |

## DAY 3

20 October

|               |  |
|---------------|--|
| 09:30 - 10:15 | <b>Monitoring mines with in-situ and remote sensing measurements</b><br>Toni M. del Hoyo, Worldsensing |
| 10:15 - 10:25 | <b>BREAK</b>   |
| 10:25 - 11:10 | <b>Q&amp;A ON SENTINEL-1 THEORY: RADAR IMAGE, DISTORTIONS AND TARGET INTERACTION</b>                   |
| 11:10 - 11:20 | <b>BREAK</b>   |
| 11:20 - 12:20 | <b>Exercise:</b> <ul style="list-style-type: none"><li>- S1: water detection</li></ul>                 |
| 12:30 - 13:00 | <b>Conclusion and solution to the exercise</b>   |

**DAY 4**  
22 October

09:30 - 11:15

**Introduction to Advanced Differential SAR interferometry (In-SAR) and its application to the analysis of ground movements in mining areas**

Juan López, Geological Survey of Spain

11:15 - 11:30

**BREAK**

11:30 - 12:15

**FINAL Q&A SESSION (SENTINEL-1 AND SENTINEL-2)**

12:15 - 12:30

**BREAK**

12:30 - 13:15

**Assessment**

Online exam to get certificate

13:15 - 13:30

**Wrap-up**

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