



## Secondary Mineral Resources Characterization workshop

25-26/10/2023

### - Agenda of the meeting -

20 min talk + 10 min discussion = 30 min/talk

#### Wednesday 25/10/2023

##### **9:00 – 9:30 : Introduction (Tina & Pauline):**

- Presentation of the workshop (5 min) (Tina & Pauline)
- Lessons learned from the ROBEHA project (10 min) (Tina Martin)
- Lessons learned from the NWE-REGENERATIS project (10 min) (Pauline Kessouri)

##### **Session 1: Geophysical Field Case studies**

- **9:30-10:00: Virginie Leroux (SGU, Sweden):** “Results from ERT/IP, tTEM and RMT measurements on several tailing repositories in Sweden: comparisons between sites, methods, measured and recovered material properties.”
- **10:00-10:30: Ayse Kaslilar (Uppsala U., Sweden):** “Delineation of mine tailings by seismic ambient noise methods: some preliminary results from Blötberget, Sweden”

##### **15 min break**

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##### **Session 2: Geochemistry**

- **10:45-11:15: Patrick Casey (SGU, Sweden)** “Experiences from analysis of secondary resources from Sweden, sample collection through analysis and UNFC classification.”
- **11:15-11:45: Douglas PINO-HERRERA, Jérôme Jacob (BRGM, France):** “Characterization of a deposit of sludge from lime treatment of acid mine drainage”
- **11:45-12:15: Sylvain Delchini (BRGM, France)** “Real-time chemical and mineralogical characterization with the new SOLSA combined XRF-XRD analytical solution”

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##### **LUNCH**

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### Session 3: Mineralogy

- **14:00-14:30: Möckel et al. (HIF, Germany)** - "Importance of mineralogical characterization for secondary resources - lessons learned from slags, tailings and batteries"
- **14:30-15:00: Bachmann et al. (HIF, Germany)** - "Tailings - from quantitative mineralogical data to geometallurgical models".

### Session 4: Machine learning/geostatistics

- **15:00-15:30: Itzel Isunza-Manrique/Fred Nguyen (U. Liège, Belgium)**: "Quantitative interpretation of geophysical data in anthropogenic waste deposits and disposal sites for resource recovery and remediation"

**15 min break**

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### Session 5: Geophysical Modelling

- **15:45-16:15: Matthias Bücker (TU Braunschweig, Germany)**: "Modelling of IP response of metallic particles"
- **16:15-16:45: Alexis Maineult (SU, France)**: "On the simulation of the complex electrical resistivity of sand-pyrite mixtures using impedance networks, with application to real data"
- **16:45-17:15: Konstantin Titov (St. Petersburg State University, Russia)**: "An extension of the Pelton model of the complex resistivity to account explicitly for the surface capacitance and the redox reactions at the surface of the metallic particles"

**17:15-17:45: Wrap-up (Tina & Pauline)**

**Thursday 26/10/2023**

**9:30-9:45: Summary of the talks and prospective (Tina & Pauline)**

**9:45-10:00: Round the table (all participants)**

**10:00-11:00: Discussions (into small groups)**

**15 min break**

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**11:15-12:00: Wrap-up and outlook for future collaborative projects**

**End of the workshop**

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