



# SERC NEWS

A NEWSLETTER FROM SMART EXPLORATION RESEARCH CENTER

## SPRING 2026

### EARLY START OF FIELDWORK!

The fieldwork season started this year with two major seismic campaigns:

#### Sala

The survey targets a Ni-Cu-PGE-bearing mafic-ultramafic system **south-west of Sala** in central Sweden to better understand mineralisation hosting intrusions and associated large-scale structures. The data acquisition combined seismic and magnetotelluric (MT) methods and included 2112 wireless recorders, 1395 unique shot positions, and a 28 ton seismic vibrator from Geopartner. The seismic survey design used a pseudo-3D-fixed 2D-roll-along setup, simultaneous downhole DAS acquisition, and 100 three-component SeisSolo@ landstreamer sensors. This is the first seismic survey in the area and is expected to shed new light on the geology surrounding the mineral systems. The work is carried out with support from the **Geological Survey of Sweden** (SGU).



#### Canada

Six members from the Uppsala University seismic group conducted a seismic acquisition at the historic **Vauze** mine tailings facility in western Quebec, Canada. The team deployed 496 nodal recorders plus 120 landstreamer-mounted recorders, and shot at 230 unique positions with both vertical and horizontal seismic source. Combined with a pre-installed 1.4 km buried fibre-optic cable used for surface-DAS measurements, this provides exceptional 3D coverage to characterize the site. The dataset will form part of **Viktor Stender's** (UU) PhD work and he will explore the data to provide insights into the tailings volume, internal heterogeneity and stability, which are key factors to know for resource estimation.

*This project is a collaboration between Université du Québec en Abitibi-Témiscamingue, Smart Exploration Research Center, Uppsala University, Natural Resources Canada - Geological Survey of Canada, Abitibi Geophysics, Eagle geoscience, géostack and funded through the alliance grant by Natural Sciences and Engineering Research Council of Canada (NSERC).*



#### Lars Lindblom awarded!

##### Ludvika

Congratulation to the AB Samarkand2015 CEO **Lars Lindblom** who was awarded **Enthusiast of the year** in Ludvika at the Kraftthjulet corporate gala. Lars is a highly evaluated member of the SERC steering board.

### UPDATES

#### Dissertation

Congratulations Dr. **Robert Dunst**, Stockholm University, who in May 4 successfully defended his PhD thesis titled *Hydrothermal alteration in the Bergslagen district, Sweden: Tracing metal mobility during hydrothermal alteration in a Paleoproterozoic metamorphic terrane*. Download at: <http://su.diva-portal.org/smash/record.jsf?pid=diva2:2046144>

#### New postdoc and PhD students

In Lund **Thato N. Seane** has started her PhD project *Direct Current Induced Polarisation Investigations of Mine Tailings for Secondary Mineral Resource Evaluation*.

In Uppsala we welcome **Neethu Sasikumar** as a Postdoc with the project *Integrated Distributed Acoustic Sensing (DAS) for downhole seismic applications*, and **Yang Cui**, PhD student with the project *Machine Learning for Surface-Wave Methods in Mineral Exploration*.

**You are all very welcome to SERC!**

#### SERC webinar series

A SERC online seminar series started in April with **Craig W. Christensen** from **EMerald Geomodelling** presenting *Integrating geophysical, geotechnical, and geological data to holistic ground models. Principles and Mining and Infrastructure cases*.

The second presentation was held in May by **Anna Kjellin** from **Tyréns** titled *Building AI-Ready Spatial Databases for Smarter Mineral Exploration*.

*The series will continue after the summer and will be announced on our website and on LinkedIn (see links in the footer).*

## MEETINGS AND CONFERENCES WITH SERC REPRESENTATION

### PDAC in Toronto, Canada

Our center director Alireza Malehmir and Magdalena Markovic visited Toronto during the Prospectors & Developers Association of Canada in March. Also attending was several of our partners, supporters and Friends, e.g. Nordic Iron, all the Nordic geological surveys, BHP, AngloAmerican, MERC, Viscaria and Inertial sensing.

### Geoscience4CRM in Delft, Netherlands

Center director Alireza Malehmir and coordinator Erik Ogenhall were at a two day Symposium in Delft in March and had a chance to give a keynote talk about the center's activities within the context of Education and Innovation.

### Workshop in Luleå

Swedish Metals & Minerals hosted an Urgent Challenges workshop in Luleå on April 23, focused on access to critical raw materials and mine water management. At the workshop, the Swedish Energy Agency-funded project Innovative Deep Targeting in **Viscaria** Using a Novel Simultaneous Sparse Surface 3D Seismic Array with Integrated Downhole Hydrophone and Distributed Acoustic Sensing System (NAVIS) presented results, with its scope connected to SERC Hubs 1 and 2. Our Research Director, also a project PI Alireza Malehmir and WP2 leader Magdalena Markovic represented NAVIS and took part in discussions on how the initiative can support and encourage more exploration-focused projects.

## MORE

### Epiroc visit in Uppsala

May 6 we had an excellent meeting with representatives **Anders Persson** and **Pavel Vedenev** from our core partner Epiroc. Presentations by our Center Director Alireza Malehmir and PhD student Lea Gyger led to focused brainstorming on possible future development of equipment for Seismic-While-Drilling purposes.



### UppTalk

Professor **Karin Högdahl** from the Department of Earth Sciences in Uppsala held a live popular science seminar on Zoom May 5th with the title "What is hidden in Sweden's bedrock". The presentation can be seen on the [UppTalk YouTube channel](#).

*UppTalk is a popular science seminar series via Zoom where you get to enjoy interesting seminars with researchers from Uppsala University. The seminars revolve around relevant topics where the audience have the opportunity to ask questions to our researchers.*

## Upcoming

### Dissertation

#### Lea Gyger, Uppsala University

Friday June 5 at 10:00 in Hambergsalen, Geocentrum, Lea Gyger will defend her PhD thesis "Advancing Subsurface Imaging for Mineral Exploration Through Broadband Acquisition, Surface DAS, and SWD in Blötberget, Sweden".

### Meetings

#### EAGE Annual 2026 in Aberdeen

Members from SERC will be present at the 87th EAGE Annual Conference & Exhibition in Aberdeen, UK, from 8–11 June 2026.

#### Goldschmidt 2026 in Montreal

SERC will also be represented at the Goldschmidt 2026 in Quebec, Canada, July 12–17.

### GA26!

#### General Assembly August 24-28

The Smart Exploration Research Center's General Assembly, GA26, will take place in Stockholm, Sweden, August 24 to 28 **at Tyréns** on Södermalm. The meeting is an excellent opportunity for the SERC community to share research updates, strengthen collaborations, and discuss the future of smart mineral exploration and critical raw materials.

