

## Geochemical Interpretation Tools for Exploration and Mining Geologists: Examples from SE Ireland

**Event Date:** Friday, May 18, 2018 - 09:00

**Location:** Shearwater Hotel Ballinasloe, Ireland

**Registration:** <http://www.iaeg.org/geochemistry-course>

Multi-element trace geochemical surveys are a standard tool in detailed and regional geochemical exploration. Whilst in the past univariate anomaly detection along with a thorough analysis of ore element assemblages were considered routine interpretation workflows, affordable trace element geochemistry now provides the necessary tools to interpret bedrock geology, mineralisation systems and further applications in mining and mineral processing.

Most governmental geological surveys make regional geochemical datasets available which are of invaluable use to exploration geologists. The Tellus SE Ireland dataset will be investigated during this workshop and implications for regional prospectivity discussed.

Participants will be required to bring a laptop and ioGAS software which can be downloaded as a demo version from <http://reflexnow.com/iogas/>.

The workshop aims to introduce the following themes:

1. Geochemistry tools in mining and mineral exploration – examples from Ireland, Finland and Sub-Saharan Africa.
2. Introduction to the Tellus SE Ireland dataset and regional geology
3. Digests, analytical techniques and detection limits
4. Dataset QC and ioGAS workflow overview
5. Univariate anomaly mapping
6. Ore element assemblages and mapping
7. Applications of trace element geochemistry in regional mapping and mineral systems analysis

### **About the speaker:**

**Benedikt Steiner** is the MSc Programme Director of Exploration and Mining Geology at the Camborne School of Mines, UK, & a consultant to the mining industry through his consultancy firm XPLORE GLOBAL Ltd.

Benedikt started his career in regional petroleum exploration in the Eastern FSU, before moving on to work on Rio Tinto Exploration's uranium & copper exploration projects in Southern Africa, developing best practice. More recently, he carried out projects in France, Rwanda, Sierra Leone and Myanmar.

Benedikt has specialist knowledge in interpreting geochemical datasets and integrating the results with other geoscientific data in order to aid exploration targeting.