



## EIT RawMaterials online course:

### ***Social License to Operate in the Raw Materials sector: multi-stakeholders' perspectives and European approach***

#### Course description

The Social License to Operate (SLO) is a multidisciplinary process addressing the relationship between community and business in the high-impact industry of mining. SLO refers to a local or regional community's acceptance of a mining project, beyond formal regulatory permitting processes, and it assumes that stakeholders may be opposed to the project's legitimacy and ability to operate. Therefore, from a mining company perspective, obtaining such social acceptance is crucial for reducing the risk of delays or even project cancellation. Since the SLO processes are multidimensional and cover environmental, social, political, legal, and business aspects, various actors should also be engaged, including mining companies, consulting agencies, non-governmental organisations, research institutes or universities. In Europe, the SLO process is at its maturation stage and needs to be tailored to the European experience.

This short course aims at explaining the basics of SLO as well as related challenges and opportunities. It will start explaining terminology, key stakeholders, and their perspectives. The toolbox developed within the [MIREU](#) project (which aims to establish a network of mining and metallurgy regions) will be presented. The course will explore the community dimension of SLO, as analysed by [MineFacts](#), an EIT RawMaterials funded project targeting municipal authorities and communities living in Swedish and Finnish mining regions. The Non-Governmental Organisation (NGO) perspective will also be analysed by discussing their role at various stages of SLO processes. Furthermore, the business perspective will be explained, especially the organisational and financial aspects of SLO in mining companies. Finally, the industrial view will be presented together with case studies of mining operations in Serbia and Greece.

The course will consist of lectures and engaging activities conducted by experts representing universities, industry, business, research institutes, and NGOs.



## Learning outcomes

Following successful completion of the course, participants will know how to:

- explain what SLO means and where the concept comes from
- theoretically apply the concept of SLO in the European mineral context
- explain the roles of various stakeholders (academia, research, industry, NGOs) in the SLO-related processes
- discuss challenges and opportunities related to SLO from the perspective of different actors (local communities, universities, Research and Technology Organisations (RTOs), mining companies)
- present different approaches to SLO based on case studies in selected countries/regions

## Target groups

- students of mining, geology, geosciences, environmental protection, energy technology, sustainable engineering, mechanical engineering, materials science, metallurgy, mineral exploration, and related disciplines
- academic teachers from universities worldwide
- researchers specialising in the above disciplines and related disciplines
- professionals from the exploration and mining sector
- entrepreneurs, including representatives of start-ups, SMEs
- representatives of geological surveys
- local and regional authorities
- national governments, especially representatives of ministries responsible for science, innovation, technology, mining, environment, climate, or development
- the public



## Course Programme

### Moderation:

Agata Poczminska, EIT RawMaterials, Education Officer, Innovation Hub East

Fabio Ferri, EIT RawMaterials, Education Officer, Innovation Hub South

9:00-9:15	<i>Welcome and Introduction to the course</i>	<b>Patrick Nadoll, EIT RawMaterials</b>
9:15-10:00	<i>Introduction to SLO – history, terminology, and perspectives</i>	<b>Professor Michael Tost, Montanuniversität Leoben (MUL)</b>
10:00-10:25	<i>RTO role at municipal level in social acceptance – Experiences from MineFacts project</i>	<b>Hannu Panttila, Geological Survey of Finland (GTK)</b>
10:25-10:40	Q&A	
10:40-10:55	Break	
10:55-11:20	<i>NGOs and SLO – Roles, challenges, and opportunities</i>	<b>Tobias Kind-Rieper, World Wide Fund for Nature (WWF)</b>
11:20-11:45	<i>SLO – Introduction to real-life examples and the business perspective</i>	<b>Christian Masurenko, EC-TERRA</b>
11:45-12.10	<i>SLO in Eastern and South-Eastern Europe (ESEE) Mining Countries. Lessons Learned</i>	<b>Professor Katerina Adam, National Technical University of Athens (NTUA)</b>
12.10-12:30	<i>Tools to develop and support SLO</i>	<b>Emmy Gazea, Hellas Gold</b>
12:30-12:45	Q&A	
12:45-13:00	<i>Wrap-up and Conclusions</i>	



## Lectures description

Professor Michael Tost: ***Introduction to SLO – history, terminology, and perspectives***

This introductory lecture will provide an overview of the history of SLO (from Jim Cooney to the SLO guidelines developed within the MIREU Horizon 2020 project), introduce the terminology (SLO vs. social acceptance, etc.) and different perspectives (community SLO vs. societal SLO). It will present the concept in detail, i.e. what is currently understood by SLO in the European context and also link SLO to the broader sustainability debate (i.e. to the SUMEX sustainability framework).

Hannu Panttila: ***RTO role at municipal level in social acceptance – Experiences from MineFacts project***

This lecture will provide presentations on RTO's role in social acceptance at the municipal level. The experiences from the MineFacts project, funded by EIT RawMaterials, will be shared, including topics such as: What is neutral information and why it is needed? What is the role of municipality and permitting authorities? How do the roles of universities and RTOs differ?

Tobias Kind-Rieper: ***NGOs and SLO – Roles, challenges, and opportunities***

In this lecture, participants will learn about the role of NGOs for the SLO at various stages. The lecture will also identify relevant (for this topic) NGOs in Europe. The challenges and opportunities for NGOs involved in SLO-related processes will be discussed.

Christian Masurenko: ***SLO – Introduction to real-life examples and the business perspective***

This part of the course will introduce the business aspects of the SLO, meaning the perspective of companies that deal with social acceptance. The required competencies for employees to successfully perform their tasks, the financial aspects, and required costs will be discussed. The lecture will be completed by practical examples from Germany, Africa, and Brazil.

Professor Katerina Adam: ***SLO in Eastern and South-Eastern Europe (ESEE) Mining Countries. Lessons Learned***

ESEE countries like Greece and Serbia have significant potential in primary and secondary raw materials, as shown in RESEERVE West Mineral Register and other EU databases. However, limited trust in the governmental regulation mechanisms and the social responsibility of the raw materials industry have caused significant delays or temporary cancellations of major mining and metallurgical projects in the last decades. To circumvent these challenges and enhance the SLO, the raw materials industry - in cooperation with governments, RTOs, universities, and local communities - has developed and applies new processes and tools to improve the sector's environmental performance and ensure the active community involvement in the life cycle of a mining/metallurgical project. In this part of the course, the tools used in ESEE region will be presented, including participation in R&D projects to improve resources efficiency, educational projects to enhance the capacities of technical and scientific personnel towards the achievement of SDGs, and reporting in line with international standards.

Emmy Gazea: ***Tools to develop and support SLO***

To enrich and complete the course with real-life examples, the tools and procedures used to develop and support SLO in a Base and Precious Metals Mining complex in Greece will be presented.



## Moderators

**Agata Poczminska**

EIT RawMaterials

Education Officer, Innovation Hub East



**Fabio Ferri**

EIT RawMaterials

Education Officer, Innovation Hub South



## Speakers



**Patrick Nadoll** is a Senior Advisor - Exploration and Resource Assessment at EIT RawMaterials. He is an expert in the sustainable discovery and supply of strategic minerals and metals and their value chains. He has worked on a wide range of projects with academic, government, and industry partners across the globe. Patrick's current focus lies in fostering smart solutions and breakthrough innovations in Europe's raw materials sector. He believes that responsibly sourced minerals and metals are the key enablers for the digital transformation and the e-mobility and energy transition.

**Michael Tost** is the Professor for Sustainable Mining Engineering at Montanuniversitaet Leoben, Austria. Michael has a PhD in Mining and an Environmental Engineering Master's degree from Montanuniversitaet Leoben and various post-graduate courses at London Business School, UK and AGSM in Sydney, Australia. He is a passionate and motivated sustainable development and mining professional. Before joining Montanuniversitaet Leoben, Michael was Head of External Affairs, Europe & North America for Vale, based in Switzerland and Head of Mining and Metals at the World Economic Forum, Switzerland, where he initiated the project "Mining & Metals in a Sustainable World" and was focused on the advancement of responsible mineral development. Prior to that, he was with Rio Tinto where he worked for over 12 years in various sustainable development, health, safety, and environment related roles in Austria, UK, and Canada.





**Hannu Panttila** has a Masters degree in Quaternary Geology and Science Communication from the University of Oulu, Finland. He has experience of ore exploration in Finland, Sweden, and Norway. Science communication, combined with experiences of ore exploring, have fostered an interest in SLO and in ore exploration and mining. His work has included mining environmental studies of closed and active mines and drone technologies in geological and geophysical fieldwork. Currently, Hannu is working for Geological Survey of Finland.

**Tobias Kind-Rieper** is the Global Lead for Mining & Metals at WWF (World Wide Fund For Nature). He holds a Master of Arts in Political Science focusing on environmental policies. Prior to joining WWF, he worked at a political thinktank in Germany. He is an advisory board member for various research projects, supports certification and standards initiatives in steering committees and working groups, and consults businesses on responsible mining and metals supply chains. He is representing WWF's policy work related to environmental impacts along the supply chain of metals, aggregates and fossil fuels to the United Nations, EU and on a national level. He is a member of the EIP Expert Group on Raw Materials at the European Commission, member of the OECD Expert Working Group for the Development of a Practical Tool on Environmental Due Diligence in Mineral Supply Chains, and expert member to the German government on transformation of the German automotive industry.



**Christian Masurenko** is an economic geologist (EurGeol) with more than 25 years of managerial, technical, operational, and project experience in a wide range of business, and cultural environments, as well as commodities. He has managed development programmes, pre-feasibility and feasibility studies, conceptual evaluations, scoping and acquisition studies and has provided technical audits for project financing. Christian's extensive feasibility study experience includes the Putu Iron Ore Project in Liberia, Horizonte Minerals Ni Project in Brazil, KHA Ta Project in Mozambique, and European Nickel in Turkey and Philippines. He has led or been a key member of long-term technical

development and co-operation programmes at Ghana Manganese Company in Ghana, European Nickel in Albania/Serbia/Turkey/BiH, Araguaia Nickel Project in Brazil and with the ICMM in Kosovo. He has hands-on



experience in the management and business development of a range of exploration, mining, and consulting companies with offices in Germany, Australia, and Sri Lanka. Christian is a visionary with regards to responsible mining, geo-ethics, transparent supply chains, social development, and environmental protection, and transforming the mining world. He recently initiated the “Fair Tantalum Liberia” project with the support of EIT RawMaterials, aiming to implement responsible small-scale mining of Coltan combined with a fully transparent supply chain to Europe.



**Katerina Adam** is the professor in the School of Mining and Metallurgical Engineering at the National Technical University of Athens (NTUA). She studied Mining and Metallurgical Engineering at NTUA and acquired her M.Sc. and Ph.D. as an NSF scholar from the School of Chemical Engineering and Materials Science, University of Minnesota, USA. She joined NTUA as academic staff in 2007, and prior to that she worked as a Senior Engineer and Manager in Research Institutes, Mining & Metallurgical Industry and Environmental Consultancy firms for the development and environmental management of Greek and International Mineral Resources and the implementation of mine reclamation projects. Her research interest lies in Project & Environmental Management, Sustainable Development of Natural Resources, Raw Materials

Education, reclamation of old mine sites, and Health and Safety. She acted as the coordinator or senior researcher in more than 55 national, EC, and international research projects, and she conducted, as an expert on behalf of UNDP, several mine reclamation studies in the Balkans. She participated in drafting Greek legislation on Environmental Permitting and Auditing, Extractive Waste Management, and in drafting the Special Land Planning for Mineral Resources in Greece. She authored or co-authored 95 articles in scientific journals and conference proceedings, and more than 120 technical, feasibility, and environmental impact studies. Since 2018, Katerina has been actively involved in the activities of EIT RawMaterials. She is presently the Chair of the Eastern Co-Location Centre (CLC) Steering Committee, member of the Education Committee of the Eastern CLC and acts as the Education Advisor of the EIT Raw Materials Regional Hub in Greece.

**Emmy Gazea** is a chartered Mining and Metallurgical Engineer, National Technical University of Athens (NTUA). She is the Environmental Manager of HELLAS GOLD SA and has more than 25 years of industrial experience in the environmental management of the mining sector. Her main activities involve design and coordination of integrated environmental monitoring and management plans, extractive waste and liquid effluents management, environmental protection, and reclamation projects as well as elaboration of technical, environmental, and social impact assessment studies. She has participated in several R&D projects and has more than 20 publications in international journals and conference proceedings.

