



Sustainable Low Impact Mining solution for exploitation of small mineral deposits based on advanced rock blasting and environmental technologies

SLIM FINAL PROJECT EVENT AND AGENDA

DATE: OCTOBER 27, 2020, 09:00 TO 15:30 CET

VENUE: REMOTE

CONTACT: José A. Sanchidrián, ja.sanchidrian@upm.es, Horst Hejny, horst.hejny@minpol.com

- **About SLIM Sustainable Low Impact Mining** www.slim-project.eu

SLIM aimed to develop cost-effective and sustainable selective low impact mining solutions. They were targeted for the exploitation of small mineral deposits, including those with chemically complex ore-forming phases. The solutions based on non-linear rock mass fragmentation by blasting models, damage extension in the remaining rock mass, airborne particulate matter, vibration affections and nitrate leaching mitigation actions. This was achieved through a new generation of explosives, off the shelf monitoring tools, and an advanced automatic blast design software, which is based on improved rock mass characterisation and fragmentation models to achieve optimum fragmentation as well as minimum rock damage and far-field vibrations. Complimentary to the purely technical aspects of SLIM, the environmental, social and economic dimensions of the project, addressing topics of worker safety, environmental impact and all planned exploitation and business model-related activities were addressed.

- **Aim of the final project event**

The event will present the achievements of the SLIM project, but will also be organized as a clustering event, where other running EU projects of the mineral resources sector will present their projects and share their opinions. Beside the SLIM project, seven further relevant H2020 projects will be introduced:

- **RE-SOURCING** – A Global Stakeholder Platform for Responsible Sourcing, <https://re-sourcing.eu/>

The project has a focus on the Renewable Energy, Mobility and Electronics sectors, it develops roadmaps on responsible sourcing, addressing sector-specific needs and challenges. RE-SOURCING aims at supporting primarily industrial actors to ensure responsible sourcing of minerals along the supply chain.

- **INTERMIN**, <https://interminproject.org/>

The project will create a self-sustainable long-term lasting international network of training centres for professionals. It involves educational and research institutions in the EU and the leading counterparts in third countries, based on specific country expertise in the primary and secondary raw materials sector.

- **MIREU**, <https://mireu.eu/>

The MIREU projects aims to establish a network of European mining and metallurgy regions. It will bring together European mining and metallurgy regions to work together on improving the conditions for the responsible development and secure supply of raw materials in the EU.

- **ROBOMINERS**, <https://robominers.eu/>

The project was funded within strategic objective to facilitate EU access to mineral raw materials. ROBOMINERS' innovative approach combines the creation of a new mining ecosystem with novel ideas from other sectors, in particular with the inclusion of disruptive concepts from robotics.

- **Dig_IT**, <https://cordis.europa.eu/project/id/869529>

The project is addressing the needs of the mining industry to move towards a human-centred, environmentally oriented and society-driven approach. To improve the efficiency and sustainability of mining operations by connecting cyber and physical systems, it will develop a smart industrial IoT platform.

- **BIORECOVER**, <https://biorecover.eu/>

The project's main objective is based on the research and development of a new sustainable and safe process, essentially based on biotechnology, for selective extraction of a wide range of Critical Raw Materials (CRMs).



- **TARANTULA**, <https://h2020-tarantula.eu/>

The project's overarching objective is to develop a toolkit of novel, efficient and flexible metallurgical technologies with high selectivity and recovery rates with respect to Tungsten, Niobium and Tantalum occurring as by-products in mining and processing waste streams.

AGENDA

Time	Agenda Item	Who
09:00 – 09:05	Welcome to the meeting	José A. Sanchidrian (UPM)
09:05 – 09:10	Introduction to remote conference rules	Zabala
09:10 – 09:20	Statement of the European Commission	Marko Cacanowski (EASME)
09:20 – 09:35	European Raw Materials Alliance: A vision for a sustainable future	Massimo Gasparon (EIT RawMaterials)
09:35 – 09:50	SLIM, innovations for mining, an overview	José A. Sanchidrian (UPM)
09:50 – 10:30	The economic and societal dimension of SLIM results	Marius-Febi Matei (Gate2Growth), Jaques Villeneuve (BRGM), Juan Capeáns (Zabala)
10:30 – 10:45	RE-SOURCING – A Stakeholder Platform for Responsible Sourcing	Noe Barrière (WU)
10:45 – 11:00	INTERMIN your specialized portal of global raw materials training	Manuel María Regueiro González-Barros (IGME)
11:00 – 11:15	Coffee break	
11:15 – 11:30	Sustained long-term relationship between mining and metallurgical operations and their hosting regions - MIREU	Kaisa Turunen (GTK)
11:30 – 11:50	Improvement of surface blasting by software for blast design and blast analysis	Andreas Gaich (3GSM)
11:50 – 12:05	Resilient Bio-inspired Modular Robotic Miners - ROBOMINERS	Claudio Rossi (UPM)
12:05 – 12:25	Sustainable explosive and blast design developments	Paulo Costa, Fernando Beitia (MAXAM)
12:25 – 12:45	Vibration optimised blasting patterns and the link to downstream mining processes	Philipp Hartlieb (MUL), Florian Bleibinhaus (MUL), Peter Schimek (VA Erzberg)
12:45 – 13:00	A Human-centred Internet of Things Platform for the Sustainable Digital Mine of the Future - Dig_IT	María García Camprubí (ITAINNOVA)
13:00 – 14:00	Lunch break	
14:00 – 14:15	Development of an innovative sustainable strategy for selective biorecover of critical raw materials - BIORECOVER	Alba Trueba (CETIM)
14:15 – 14:30	Recovery of Tungsten, Niobium and Tantalum occurring as by-products in mining and processing waste streams: a general overview of TARANTULA project	Lourdes Yurramendi Sarasola (TECNALIA)
14:30 – 14:50	Benefits of SLIM Project for Minera de Órgiva, S.L.	Rafael Navarro (Orgiva)
14:50 – 15:20	Q&A session, discussions	all
15:20 – 15:30	Concluding remarks	José A. Sanchidrian (UPM)
15:30	End of conference	