

Integrated mineral technologies for more sustainable raw material supply.



ITERAMS Newsletter 1 (August 2017)

PROJECT

The EU Horizon 2020 ITERAMS project "Integrated Mineral Technologies for More Sustainable Raw Material Supply" intends to reinvent the role of water and waste in mining. The project targets at significantly reducing water consumption by circulating process waters as well as the amounts of tailings waste through valorization of the mineral matrix. Developed water and waste efficient concepts will be jointly validated by industrial and research partners at partners' mine sites in Finland, Portugal and either in Chile or South Africa. Created knowledge is used for the industrially relevant water recycling testing protocol development. New developed holistic water and waste concepts and systems result in higher technical, economic, and environmental performance in raw materials production. After ITERAMS, the EU has the potential to be in the forefront with regard to minimal wastes, minimal energy and minimal water consumption in the mining sector.



ITERAMS Coordinator



ITERAMS Partners





SUSTAINABLE MINERAL SUPPLY IN THE EU

Economical, environmental and social sustainability



MINIMIZATION OF ENVIRONMENTAL FOOTPRINT

- No effluents to environ No fresh water intake No dam failures
- Area conserved
- Enhanced mining Enhanced tailings value





KICK-OFF MEETING

The ITERAMS consortium met in Pori, Finland, 1-2.6.2017 in order to kick off the three-year project, which will run until 31 May 2020. The consortium with 16 partners coordinated by VTT Technical Research Centre of Finland is multidisciplinary covering well the disciplines of geology, mining, minerals processing, microbiology, thermodynamics, chemistry, water and sustainability, process environmental sciences, modelling and simulation in a close cooperation between academia and industry. Partners discussed main technical issues through the presentation of the activities in each WP. Work to be done during the first semester of the project was scheduled. Outotec hosted the kick-off meeting at its research centre in Pori, where partners also had the possibility to attend the laboratory and pilot plant tour.



SAMPLING CAMPAIGNS

Three mining partner sites at Boliden (Finland), Somincor (Portugal) and Anglo American (Chile or South Africa) provide samples to the project. Developed ITERAMS water and waste efficient concepts will later be jointly validated at these mine sites, which were selected to provide various conditions e.g. in mineralogy and in geographical area. The first summer sampling campaigns started in July in Boliden Kevitsa mine above the arctic circle. The orebody mineralogy



Greenbelta













STARTED





and potential suitable geopolymer locations were identified and first samples from blast benches and tailings area were collected for ore property modification and geopolymer studies. Water sampling also started from different parts of the process for water circulation studies. Sampling campaigns at Somincor and Anglo American mines are planned for late summer. Successful sampling campaigns enable the ITERAMS project to continue the development of efficient water and waste methods.



Read ITERAMS Press Release 30-8-2017 <u>here</u> Visit ITERAMS website <u>here</u>











Copyright © 2017 VTT, All rights reserved.

You are on our ITERAMS mailing list as we believe the content of this newsletter is of general interest to you and your organisation.

Our mailing address is:

VTT

Biologinkuja 7

Espoo 02150

Finland

Add us to your address book

Want to change how you receive these emails? You can <u>update your preferences</u> or <u>unsubscribe from this list</u>.





This Project has received funding from the European Union H2020