

InRec Stakeholder meeting

The InRec project focuses on the development and the implementation of the geometallurgical concept in the Norwegian mining industry.

The geometallurgical concept shows a high potential for increasing resource efficiency and value from the Norwegian mining industry. By obtaining better control of variations in in-situ properties, (modal mineralogy, mineral textures, ore hardness, etc.) and creating 3D economic block models based on grades and other important properties, it is postulated that it is possible to enhance production by means of capacity and yield as well as other variables specific for the raw material in question.

Geometallurgy has globally been thought of as a tool for ore producing mines (base metals). Geometallurgy related problems encountered in the industrial mineral industry are both comparable and not comparable to the problems known from the ore mining industry. In this project we study the Norwegian mining industry in a geometallurgical perspective and aim at identifying and describing some of the issues that are special for the industrial minerals sector.

Geometallurgy combines geological and metallurgical information along the whole mining value chain and aims at creating spatially-based (3D and 4D) predictive models to be used in production management.

The main objective of the WP1 is establishment of so called geometallurgical flowsheet and to do a spatial investigation and characterisation of the Limestone at Verdalskalk AS. WP2 aims to implement elements of geometallurgy into the value chain of Sibelco Nordic, Stjernøy. Material characterization, considered to be the most relevant task of the work-package, will provide key knowledge of the material exploited and produced. In addition, this WP has had an activity on sample preparation and sampling. The overall objective of WP3 is to develop a MWD-based comprehensive spatial statistical models describing in-situ raw material variability in the Brønnøy Kalk marble and suggest usage of such models in sampling strategy development and mine planning.

This stakeholder meeting will highlight the results of the project and look ahead. Welcome!

When: 24.04.2019 - 25.04.19

From lunch (11.30) to lunch (13.00)

Where: Scandic Lerkendal

Kløbbeveien 127, 7031 Trondheim

24.04.2019

From	To	Duration	What	Who
11:30	12:30	01:00	Lunch	
12:30	12:35	00:05	Welcome and introduction	Steinar Ellefmo, NTNU
12:35	13:20	00:45	Predictive Geometallurgy: State of the Art	Sandra Birtel, Helmholtz-Zentrum Dresden-Rossendorf
13:20	13:35	00:15	The InRec-project. Overview	Steinar Ellefmo, NTNU
13:35	13:50	00:15	Intro Verdalskalk AS	Juan Rojas Ruiz and Håkon Mork, Verdalskalk AS
13:50	14:05	00:15	Intro Sibelco Nordic AS	Roar Sandøy, Sibelco Nordic AS
14:05	14:20	00:15	Intro Norsk Mineral AS	Trond Watne, Norsk Mineral AS
14:20	14:50	00:30	Coffee break	
14:50	14:55	00:05	WP1 Intro	Kurt Aasly, NTNU
14:55	15:25	00:30	WP1 - Geometallurgical flowsheet modelling and Spatial Characterization	Aleksandra Lang, NTNU
15:25	16:10	00:45	Discussion, implementation of results, where to go next. End of day one	Juan Rojas Ruiz, Håkon Mork, Roar Sandøy, Trond Watne

19:00	Dinner at Scandic Lerkendal			
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25.04.2019

From	To	Duration	What	Who
09:00	09:05	00:05	WP 2 Intro	Kurt Aasly, NTNU
09:05	09:35	00:30	WP2 - EMC, spatial variation and domaining	Camilo Silva, NTNU
09:35	09:45	00:10	WP2 - Sample preparation for automated mineralogy	Ida Røisi and Kurt Aasly, NTNU
09:45	10:15	00:30	Discussion, implementation of results, where to go next	Juan Rojas Ruiz, Håkon Mork, Roar Sandøy, Trond Watne
10:15	10:30	00:15	Coffee break	
10:30	10:35	00:05	WP 3 Intro	Steinar Ellefmo, NTNU
10:35	11:05	00:30	WP3 - MWD-analysis	Veena Sajith Vezhapparambu, NTNU
11:05	11:35	00:30	Discussion, implementation of results, where to go next	Juan Rojas Ruiz, Håkon Mork, Roar Sandøy, Trond Watne
11:35	11:50	00:15	Coffee break	
11:50	11:55	00:05	Session intro	Steinar Ellefmo, NTNU
11:55	12:25	00:30	3D modelling of project results, including discussion	Jonas Dombrowsky, NTNU
12:25	12:45	00:20	Advisory Board	Håkan Schunnesson, Luleå Technical University, LTU
12:45	13:00	00:15	InRec-summary, future dissemination and project initiatives	Steinar Ellefmo, NTNU
13:00	14:00	01:00	Lunch	
14:00			End of meeting. Safe travels	