

ProMine

ProMine addresses the European Commission's concerns over the annual 11 billion € trade deficit in metal and mineral imports. Europe has to enhance the efficiency of its overall production chain by putting higher quality and added value products on the market. ProMine focuses on two parts of this chain, by targeting both extractive and end-user industries.

Upstream, the first ever Pan-EU GIS based mineral resource and advanced modelling system for the extractive industry will be created, showing known and predicted, metallic and non-metallic mineral occurrences across the EU. Detailed 4D computer models will be produced for four metalliferous regions. Upstream work will also include demonstrating the reliability of new (bio)technologies.

Downstream, a new strategy will be developed for the European extractive industry which looks not only at increasing production but also at delivering high value, tailored nano-products which will form the new raw materials for the manufacturing industry. ProMine research will focus on five nano-products, (conductive metal fibres, rhenium and rhenium alloy powders, nano-silica, iron oxyhydroxysulphate and new nano-particle based coatings for printing paper), which will have a major impact on the economic viability of the extractive industry. These will be tested at bench scale, and a number selected for development to pilot scale for characterization and testing by end-user industries. The new materials will be evaluated through economic evaluation, life cycle cost analysis, and environmental sustainability.

With 27 partners from 11 EU Member States, ProMine has a strong industrial involvement while knowledge exploitation will transfer our results to the industrial community.

*A 21st century VISION of new ways
of mining & product development
& processes across 4 mineral belts
in Europe*



<http://promine.gtk.fi>

Organised by

Technical Research Centre of Finland (VTT)

VTT provides research services that enhance the international competitiveness of companies, society and other customers at key stages of their innovation process, and thereby creates the prerequisites for growth, employment and wellbeing. VTT is a not-for-profit organization and operates in accordance with Finland's technology, industrial and energy policies, also playing an active role in their formulation.

<http://www.vtt.fi/>

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ProMine

*Nano-particle products from new
mineral resources in Europe*

ProMine Information Day

*Future nano technology
aspects of printing surfaces*

&

*Conductive inks by means of
nanometals*

30 September 2010

12:00 – 17:00

VTT

Metallimiehenkuja 2

Espoo, Finland

PROGRAMME

A research and technological development project co-funded by the European Commission's Seventh Framework Programme within Theme 4: NMP - Nanosciences, Nanotechnologies, Materials and new Production Technologies.



PURPOSE OF INFORMATION DAY

This Information Day introduces the ProMine EU-funded Project, its objectives and research, to potential industrial end users and the interested public in general. Furthermore, it will elaborate on the role and contribution of VTT within ProMine to introduce the new products and processes being developed in Finland. Specifically, it will be focusing on the scientific and economic potential of future nano technology aspects of **printing surfaces & conductive inks** by means of **nanometals**. This is one of many events that are being planned with the intention of creating a forum around the central theme "what are your needs, what can we offer?" This event aims to promote dialogue between the scientific researchers participating in ProMine and European industry.

The purpose of this Information Day is:

- To provide information on the objectives of ProMine
- To make the industry aware of the potential of nano-powders and metal fibres being developed in ProMine
- To activate contacts with potential industrial partners

PARTICIPANTS

To achieve our objectives, ProMine welcomes the active participation from:

- Industry
- R&D community
- Decision-makers
- The interested public

PROGRAMME

12:00-13:00 Registration and refreshments

13:00-13:10 Opening of ProMine Information Day
Dr. Ali Harlin
Team Leader - VTT
Technical Research Centre of Finland

13:10-13:25 ProMine – What are your needs? What can we offer?
Gabor Gaál
ProMine Technical Coordinator - GTK
Geological Survey of Finland

13:25-13:40 Building the ProMine Communication Platform – an invitation to join!
Dirk De Ketelaere
ProMine Project Partner - IRMCo
Integrated Resources Management Company Ltd, Malta

13:40-14:00 Nano-silica from silicate minerals as paper coating - Processing
Dr. Sebastian Tier
ProMine Project Partner - VTT
Technical Research Centre of Finland

14:00-14:20 Nano-silica from silicate minerals as paper coating – Application and end use
Dr. John Kettle
ProMine Project Partner - VTT
Technical Research Centre of Finland

14:20-14:40 Functional inks in ink-jet printing
Dr. Juha Sarlin
ProMine Project Partner - VTT
Technical Research Centre of Finland

14:40-15:00 Metal nanoparticles in conductive inks
Dr. Ali Harlin
Team Leader - VTT
Technical Research Centre of Finland

15:00-15:30 Coffee break

15:30-17:00 Questions and Discussion

VENUE

The ProMine Information Day will be held at VTT, Metallimiehenkuja 2, Espoo, Finland.

REGISTRATION

Registrations for the Information Day should be sent latest on 24th September 2010 to:

Research Scientist **Matti Koponen**
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with copy to **Dr. John Kettle**
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