The contribution of Research and Innovation to the RMI policy

A Swedish and Polish Contribution to the EU Raw Materials Initiative

27 NOV 2012, Brussels

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Dir G "Industrial Technologies"
R&D in the area of Raw materials is supported by FP7 with nearly €200 million both from the Industrial Technologies and the Environment Programme. Over €60 million are already in running projects in Theme NMP.

• Mining, extraction, handling of raw materials (non energy): PROMINE, I2MINE

• Rare earths exploration and exploitation, EURARE

• Rare earths recycling for high tech waste streams. (Under negotiation) RECLAIM, REMANENCE, RECYVAL NANO,
Ongoing call WP NMP 2013:

- Mineral Extraction and Processing in Extreme Environments (Deep sea/Artic Regions)
- Development of new materials for the substitution of critical metals - coord with Japan
- European Intelligence Network on the Supply of Raw Materials – CSA
Example of collaborative project

Aalto University

ABB
Power and productivity for a better world™

AEM

Boliden

Caterpillar®

commodas ultrasort

DMT

Eurogeosurveys
The Geological Surveys of Europe

Fraunhofer IPA

GIG

Geodata

Ineris

K+S

KGHM

Cuprum

Kompania Węglowa S.A.

Luleå University of Technology

LKAB
The concept of the I²Mine is to develop innovative methods, technologies, machines and equipment necessary for the efficient exploitation of minerals and disposal of waste, all of which will be carried out underground. This will dramatically reduce the volume of surface transportation of both minerals and waste, minimising above ground installations and reducing the environmental impact.


Links with stakeholders

- The European Technology Platforms
  - Sustainable Mineral Resources (ETP-SMR),
  - Manufuture (Manufacturing),
  - EuMaT (Advanced Materials),
  - SusChem (Sustainable Chemistry),
  - Forest-Based Industries (FTP) Construction (ECTP).

- The ERA-NET on Raw materials: ERA-MIN
  - started Nov 2011 aims at improving involvement of Member States authorities and also national stakeholders.
EUROPEAN INNOVATION PARTNERSHIP - RAW MATERIALS
The Context
A matter of survival in a globalised world

- European Raw Materials Strategy
- Innovation Union
- Innovation required for the entire value chain of raw materials – industrial approach

=> European Innovation Partnership on Raw Materials
COM(2012) 82 final - 29 February 2012
Towards EIP endorsement
1. Governance

Three levels of EIP groups

High Level Steering Group (24 members)

+ Sherpa group

Orientation level

Planning / Monitoring

Operational groups

Advice / Implementation

WP1 WP2 WP3 WP4 WP5

Actions/Projects
Towards EIP endorsement
1. Governance

High level steering group

- 6/7 Ministers (Industry/Economy, Environment and Research)
- 10+ CEOs
- EIB/EIF - *high level representative*
- NGO - *high level representative*
- 6 research organisations - *high level representative*
- Commissioner for Industry and Entrepreneurship + Environment Commissioner and Commissioner for Research, Innovation and Science associated
Towards EIP endorsement

2. Council conclusions

- Calls on the Commission to launch the Raw Materials EIP and to develop and finalise the Strategic Implementation Plan (SIP) by the end of 2013.

- Invites the Commission to appoint representatives from Member States at a high political level and other relevant stakeholders to the High-level Steering Group.

- Invites the Commission to report to the Council by the end of July 2013 on progress achieved in the Raw Materials EIP, in particular with regard to the Strategic Implementation Plan.
Towards EIP endorsement

3. Workpackages

- **Technology-focused policy areas**
  - **WP 1** - Exploration, extraction, processing, recycling
  - **WP 2** - Substitution, alternative functionalities and materials

- **Non Technology policy areas**
  - **WP 3** - Improving Europe's raw materials regulatory framework conditions, knowledge base and infrastructure
  - **WP 4** - Improving Europe's recycling regulatory framework conditions and excellence

- **WP 5** - Promoting appropriate international cooperation
The way forward

- First meetings of Sherpa group, HLSG/launch conference and operational groups early 2013

- HLSG to prepare Strategic Implementation Plan (SIP), for adoption ~ June/July 2013

- Communication on SIP, Sept. 2013
  \[\Rightarrow\] SIP implementation to start

- Monitoring and evaluation, late 2014

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<th>EIP Groups Meetings</th>
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After the SIP is endorsed by the EIP Steering Group the Commission issues a Communication in response to the SIP.

The Commission will report on the progress annually.

When necessary, SIP could be updated by the EIP Steering Group.
Raw materials' role and visibility is even more strengthened in Horizon 2020.

- Societal challenge called "Climate Action, Resource Efficiency and Raw Materials"
- Not to forget that there are other places where Raw materials sector can be involved:
  - the production of raw materials is dependent on key enabling and industrial technologies as ICT, materials, biotechnologies and manufacturing which are the core of the Industrial Leadership pillar of Horizon 2020, and
  - raw materials, particularly the critical ones, are essential for high-tech applications in other societal challenges placed under Horizon 2020 as low CO₂ transport and renewable energy

- European Institute of Technology (EIT) has identified Raw materials as one of the 3 areas where the establishment of a new Knowledge and Innovation Community (KIC)

The future KIC shall have strong links with the EIP on Raw materials
THANK YOU FOR YOUR ATTENTION
SIP Document Structure

Introduction
- The Challenges related to Raw Materials Innovation
- A Vision

Objectives

Defining Priority Areas
- Technology-focused policy areas
- Non-Technology policy areas
- International cooperation

Next Steps
- Implementing and monitoring the actions
- Next Steps in the EP, the Council and the European Commission