



# EUROPEAN UNION RAW MATERIALS KNOWLEDGE BASE (EURMKB) first steps

**Workshop on Best practices on mining policies and technologies  
12-13 June 2014,  
Brussels**

***Slavko SOLAR, Claudia WULZ***

*European Commission, DG Enterprise and Industry  
F3 - « Raw Materials, Metals, Minerals, and Forest-based industries »*



## **1. Rationale**

## **2. European Innovation Partnership – SIP**

## **3. The Building Bricks for EURMKB**

1. Past and on-going projects and studies
2. Future plans (studies & H2020)

# 1. Rationale



## **NEED to**

- **Systematically and continuously collect data and put in system on EU level**
- **Combine data from different sources (projects, MS, ...)**
- **Harmonize and standardise data and information**
- **Report on regular basis (Minerals yearbook) or when needed (CRM list report)**

## **WHY**

- **Data & information for informed (public) debate**
- **Service would reduce supply uncertainties**

# 1. Rationale



- **THE COMMUNITY'S SUPPLIES OF RAW MATERIALS /COM(75) 50 final/**
  - to collect economic information on raw material supplies (inventory of common resources , assessment of needs, possibilities of substitution , recycling and economies in use , ecological constraints)
  
- **RAW MATERIALS INITIATIVE /COM(2008) 699 final/**
  - The sustainable supply of raw materials based in the EU requires that the knowledge base of mineral deposits within the EU will be improved.



## **STRATEGIC IMPLEMENTATION PLAN for THE EUROPEAN INNOVATION PARTNERSHIP on Raw Materials**

- EIP target: European raw materials knowledge base with information, flows and dynamic modelling system for primary and secondary raw materials;



## II.C Priority Area: Knowledge, skills and raw materials flows

- ***Action area n° II.8: EU Raw Materials Knowledge Base***
- Action area n° II.9: Possible EIT Knowledge and Innovation Community
- Action area n° II.10: Optimised raw materials flows along value chains



## EU Raw Materials Knowledge Base

### Actions:

- 1) Appropriate conditions to provide a service
- 2) Organize relevant data input (studies, projects)
- 3) Raw materials intelligence
- 4) Reporting
- 5) Collaboration
- 6) Improvement of data collection



## Action area n° II.8: EU Raw Materials Knowledge Base

- 1) Develop the appropriate conditions to provide a service, with structure that will include information infrastructure and intelligence ...
- 2) Organize relevant data input and establish relevant EU / global standards ensuring that the knowledge base would be interoperable with national databases and other relevant databases (such as FP7 projects).
  - primary and secondary raw materials
  - maps and information
  - materials system analysis
  - techniques/technologies and business models





### **Action area n° II.8: EU Raw Materials Knowledge Base**

3) Raw materials intelligence should use all relevant methods and tools (statistics, LCA, MSA, 2-4 D modelling, forecasting, analysis on policy, regulations, and trade issues)

4) Reporting public data, based on EU / international reporting guidelines (internet and publications - EU European minerals yearbook, regular (annual) reports and early warning system, economic expertise and judgement skills at EU and Member State level to evaluate primary deposits or secondary potentials.



### **Action area n° II.8: EU Raw Materials Knowledge Base**

5) Collaboration with the rest of the world on raw materials information with countries

- 1) with high-performance raw materials information systems (US, Japan, Australia, Canada ....
- 2) that are large or potential supplier of raw materials to Europe,
- 3) international organizations or initiatives
- 4) neighbouring countries

6) Improvement of data collection of raw resources at national and regional level in the EU and subsequent access to data.



### **II.A Priority Area: Improving Europe's raw materials framework conditions**

- **Action area n° II.1: Minerals Policy Framework**
- Communication
  - 12) Develop guidelines with EU reporting standards based on internationally accepted conventions with regard to raw materials. This will include the standardized input, data and outputs, supply chain due diligence as well as the transparency of sources and information. Develop national and EU mineral reporting schemes (including mineral yearbooks, reporting on reserves and resources) based on standard terminology.

# 3. Building bricks



## Projects and studies with data input - PAST

- **Data input project – portals and databases**
  - EuroGeoSource, Promine,
  - One Geology
- **Data input project – data and information**
  - EO-MINERS (EO project), Polinares (RM diplomacy) , SARMa (aggregates)



## Projects and studies with data input – **PAST & ON-GOING**

- **Minventory** - (2013-2014)
- The European Intelligence Network on the Supply of Raw Materials (**M4EU**) (start 2013)
- Study on Data Needs for a Full Raw **Materials Flow Analysis** (2012)
- Study on Data Inventory for the Raw Material System Analysis: Roadmap and test of the Fully Operational **MSA** for Raw Materials (2014-2015)

# 3. Building bricks



## Project and studies with data input - FUTURE

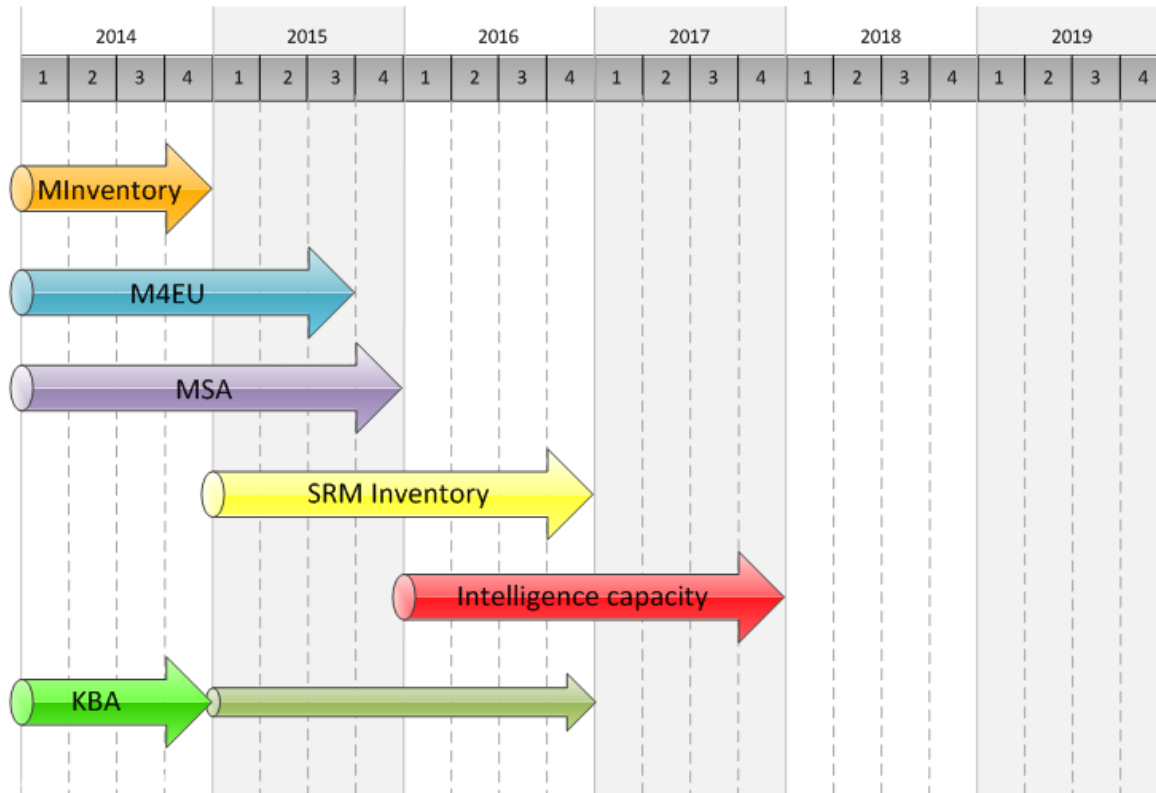
- **Data input project – portals and databases**
  - Towards near-zero waste at European and global level
    - Secondary raw materials inventory (2014)
  - Coordinating and supporting raw materials research and innovation
    - Raw materials intelligence capacity (2015)
- **Data input project – data and information**
  - Coordinating and supporting raw materials research and innovation
    - Mineral deposits of public importance, Innovation friendly minerals policy framework, A European near-zero waste stakeholder platform, Strategic international dialogues and co-operation on raw materials (2014-2015)

# 3. Building bricks



## timeline

EURMKB Timeline



# 3. Building bricks



## DG Joint Research Centre

### JRC Ispra

- **Life Cycle Assessment data**
- **Critical raw materials**
- **INSPIRE**

### JRC Petten

- **Materials Information System - SETIS**
- **CRM for energy sector / technologies**

### JRC Sevilla

- **C&D Waste**



# 3. Building bricks



## EUROSTAT

- **11<sup>th</sup> DATA CENTRE on Raw Materials**  
**(10 existing Data Centres /waste, products, natural resources, land use, soil, forest, chemicals)**
- **Official EU level statistics**



## Knowledge Base Architecture

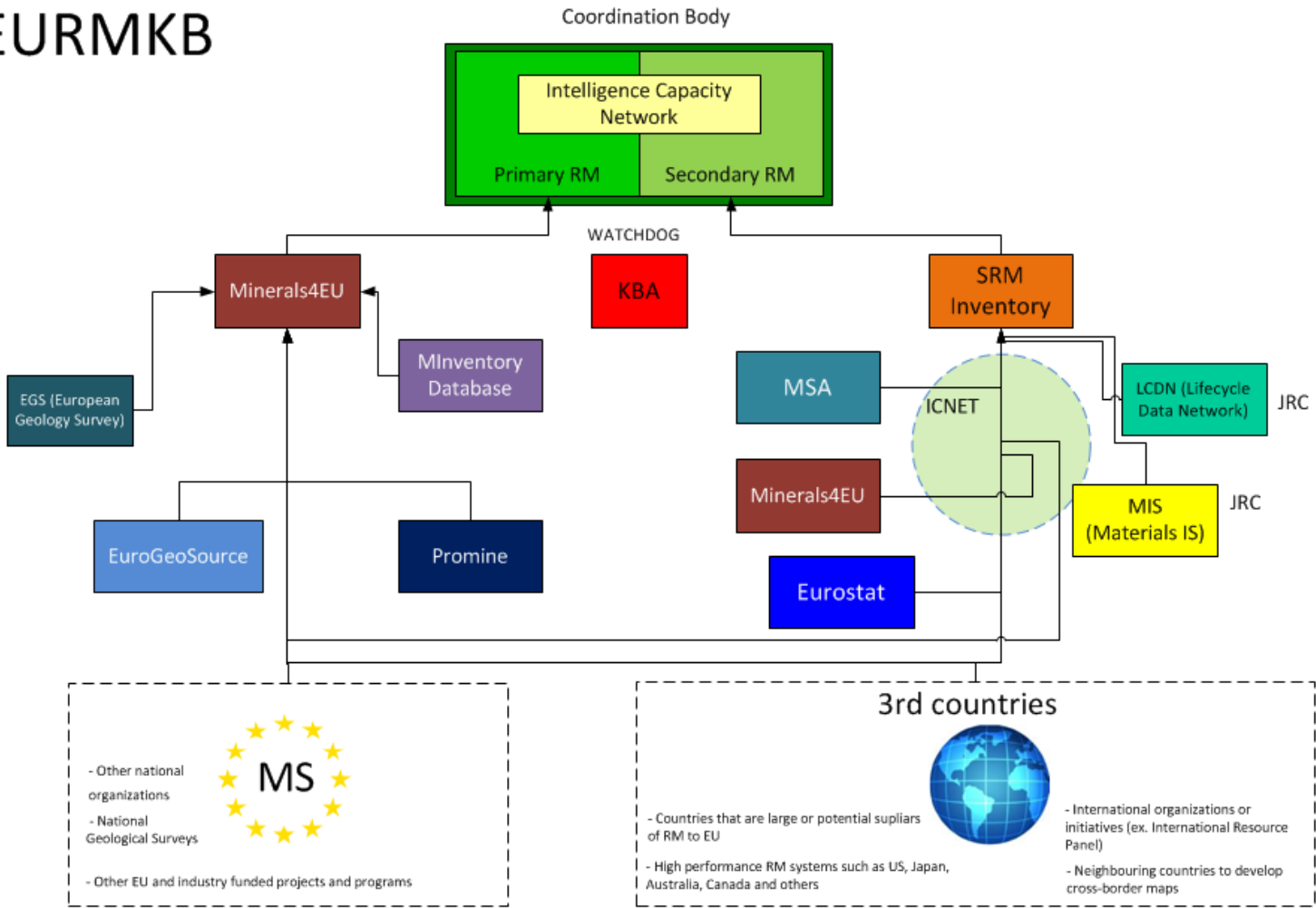
**Preliminary tasks to set up the framework:**

- **Constraints,**
- **Instructions,**
- **Incorporate databases,**
- **Analyse,**
- **Architecture proposal**

# 3. Building bricks



## EURMKB



# Way forward



- **DG ENTR is in charge of the raw materials, including EIP SIP & H2020 implementation**  
**DG ENTR trying to coordinate different raw materials data and information activities**
- **EURMKB is to become an European framework to provide a service on data and information on primary and secondary mineral raw materials**