

European Strategy on Raw Materials – Recent Developments

FEM 2011 Conference
Levi, Finland 1 November 2011



European Commission
Enterprise and Industry

A b r a ã o C a r v a l h o
H e a d o f U n i t
Metals, Minerals, Raw Materials

Introduction

- A little story about the evolution of political and economic ideas in a quarter of a century (1986-2011)
- The ill fated concept of « declining industries »
 - ▶ Mining, steel, shipbuilding, textiles
- The economic and financial crisis of 2008 and the rethinking of the role of Industry in our economies (moving from old fashionable concepts of « sunset » industries to the reality of the markets)
- The importance of mining as the upstream link of the whole industrial value chain

The EU raw materials policy milestones

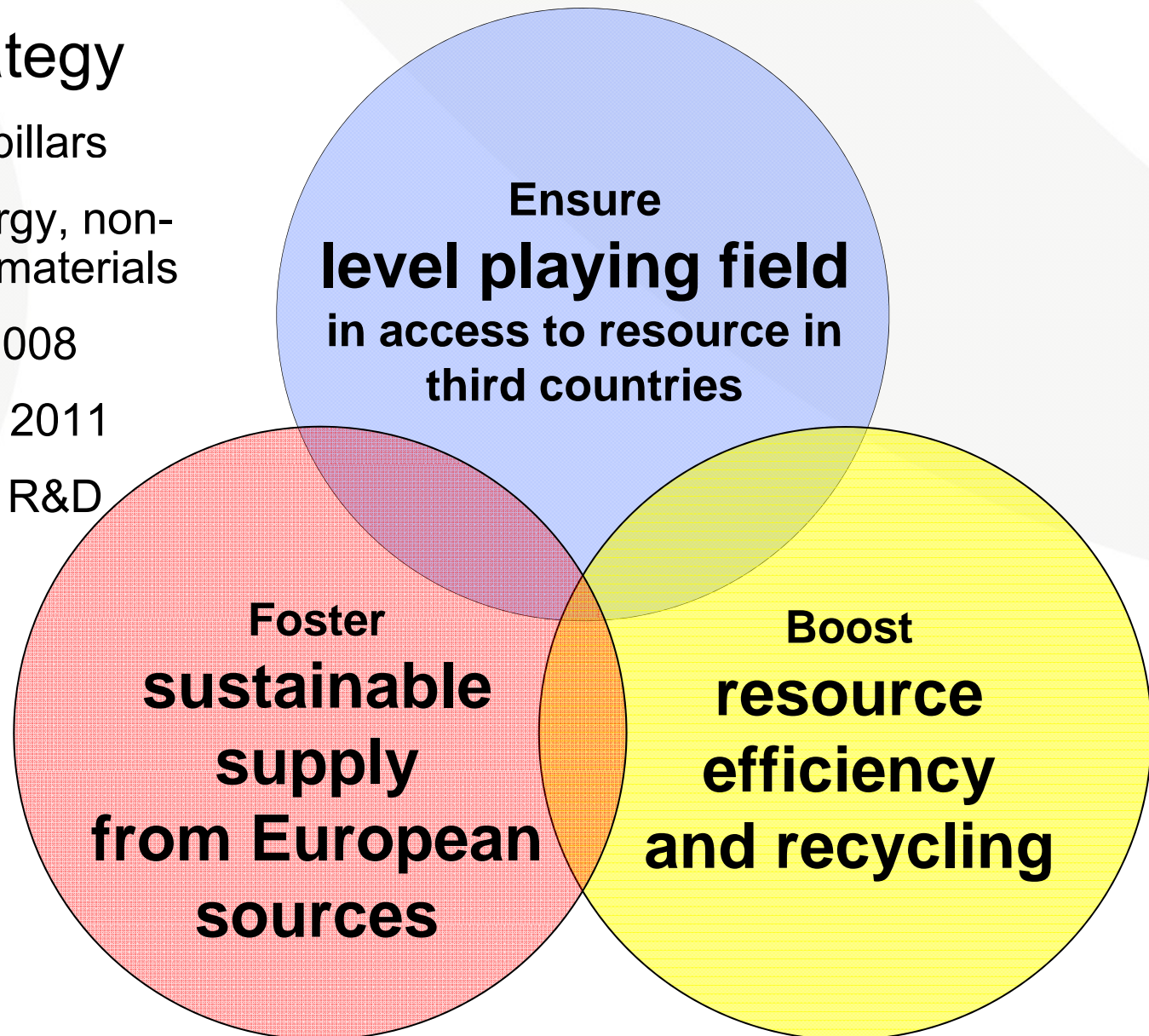
I

- ▶ Until 2006
- ▶ 2006 – 2008 The EU awakening
- ▶ 2008 Raw materials Initiative (Commissioner Verheugan)
- ▶ 2010 The world awakening: the case of rare earths
- ▶ 2011
 - Second Communication on Raw Materials (VP Tajani)
 - Council Conclusions of March
 - European Parliament Resolution of 13 September (Butikofer Report)

The Raw Materials Initiative

Integrated strategy

- based on three pillars
- area of non-energy, non-agricultural raw materials
- launched Nov. 2008
- Reinforced Feb. 2011
- Underpinned by R&D and Innovation





Fostering the sustainable supply from European sources

Exchange of best practices on access to land

- Exchange of **best practice** in land-use planning and administrative conditions for exploration and extraction
 - ▶ **Guidelines promoting the compatibility of NEEI in relation to Natura 2000 conservation goals**
- Encourage **better networking** between national **geological surveys** to increase the EU's knowledge base



With courtesy by Knauf Gips KG

- **Developing** medium to long term strategies to integrate sub-surface components and **spatial information** into land-use planning (GMES)

Other internal policies

- Promote skills through effective partnerships between universities, geological surveys and industry.
- Promoting clusters in the value chain:
 - ▶ equipment manufacturers, transport networks, service providers, environment experts
- Promote research along the value chain



Pillar 3 Recycling

- Mobilise EoL products **for proper collection**
 - ▶ Improve overall organisation, logistics and efficiency of recycling chains
 - ▶ Promote research on system optimisation and recycling of technically- challenging products and substances
- Need to further implement existing **waste shipment rules** – how could this be done?
 - ▶ through better inspection standards for waste?
 - ▶ via promote research on technologies for detection illegal shipments?
 - ▶ through clearer guidance for ESM treatment? Certification system ?
- The specific case of mining waste

Ensure a level playing field in access to resource in third countries

Ensure **better and more effective coordination** and coherence among EU external policies at various levels:

- ▶ Raw Materials is now (since end 2010) an integral part of the **EU Africa Joint Action Plan** and covers :
 - Good governance
 - Investments/infrastructures
 - Geological issues and skills
- ▶ **USA** Raw materials is an integral part of the **Transatlantic Economic Council**
- ▶ Other industrialised regions
 - **Canada**
 - **Japan**
 - **Australia**
- ▶ **The case of the Barents Region** (Finland, Sweden, Norway and Russia)

TEC Transatlantic Economic Council (EU/USA)

- • Strategies to improve the investment and innovation climate to accelerate the sustainable development of raw materials industries, thereby improving global supply.

Possible initiatives include:

- o Identification and removal of barriers to sustainable, transparent investment in global raw materials;
- o Identification of possible research topics of common interest;
- o Encouragement of policies, through appropriate international fora, that accelerate the development of efficient recycling of key materials and facilitate the use of innovative materials throughout the economic value chain;

TEC Transatlantic Economic Council (EU/USA)

- Development of innovative solutions for safe, economical, sustainable, and energy-efficient extraction, processing and recycling of industrial raw materials;
- o Development of viable alternatives for critical raw materials;
- o Working with U.S. and EU industries to develop a “best practices” list for the economical, sustainable, and energy-efficient extraction, processing, recycling and transportation of industrial raw materials.

Multilateral

- Eliminate illegal Trade barriers through action under WTO and promoting Free Trade Agreements
- Promote **enhanced international cooperation** (e.g. G8, G20, OECD, UNCTAD, World Bank, International Study Groups, Intergovernmental Forum on Mining .)
 - ▶ Dialogues on Arctic, deep sea mining and international trade routes;
 - ▶ Support of international initiatives (e.g. Kimberley Process, EITI, EITI++).

A role for EU companies outside the EU ?

- Can we regain some of the lost leadership in mining ?
- Can we « export » our industries and compete in Africa or in South America ?
- What can other countries (eg Canada or USA) do that we can't do ?
- What are the possibilities to forge better cooperation with these countries?
- The case of Greenland .

Looking Ahead

THE CONTEXT - EUROPE 2020

Raw material strategy is particularly relevant for 4 Flagships Initiatives

- ▶ An industrial policy for the globalisation era
- ▶ Resource Efficient Europe
- ▶ An agenda for new skills and jobs
- ▶ Innovation Union



Resource Efficient Europe

- Increasing pressure on natural resources
- The need to be more efficient both for
 - ▶ **ECONOMIC** and
 - ▶ **ENVIRONMENTAL** reasons
- Recycling

Raw Materials

- ▶ **Urban Mining**
- ▶ **collecting, sorting, treatment** of key waste streams



Innovation Union

- A matter of survival in a globalised world
- It is about
 - ▶ **technology** – crucial stepstone
 - ▶ but also:
 - **Processes**
 - **Best practices**
 - **Standards**
 - **Procurement**
 - **Regulations**



**European
Innovation
Partnership (EIP)**



Raw Materials
along the entire value chain

EIP – novel concept

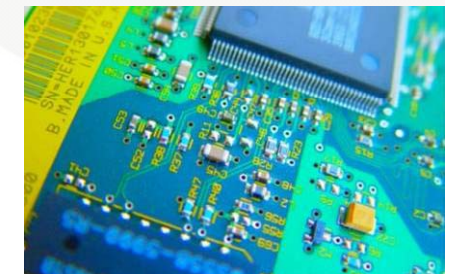
- Speed up breakthrough innovations
 - ▶ by pooling resources through a challenge-driven approach
 - ▶ and acting across research and innovation cycle
 - ▶ bringing together all relevant actors.

Raw Materials

- Innovation required for the entire value chain of raw materials – industrial approach
 - ▶ Exploration, exploitation, processing, using, recycling, substitution, etc.
 - ▶ **Sectors:** mining, engineering, pulp and paper, product design, robotics, etc.

Key components

- **Technology-focused policy areas**
 - ▶ Exploration, Extraction, processing, recycling (WP1)
 - ▶ Substitution (WP2)
- **Non Technology policy areas**
 - ▶ Improving Europe's raw materials regulatory framework, knowledge and infrastructure base, e.g. access to land. (WP3)
 - ▶ Promotion of excellence, resource efficiency and recycling, e.g. public procurement and private initiatives.(WP4)
- **International cooperation**
 - ▶ Promoting appropriate international cooperation. May deal with different policy issues such as geology, research, trade and investment conditions. (WP5)



Potential 2020 targets

■ Standards and Statistic

- ▶ Resources and Reserves (continental and marine)
- ▶ 3-D-geological maps
- ▶ dynamic modeling of trends – demand and supply
 - Economically viable resources – complete LCA



■ 10 innovative pilot activities

- ▶ Demonstrating pilot plants ▶ mining, processing, production, recycling and collecting
- ▶ Substitutes for at least 3 applications of critical raw materials
- ▶ European Institute for training and education of sustainable raw materials management (M³)

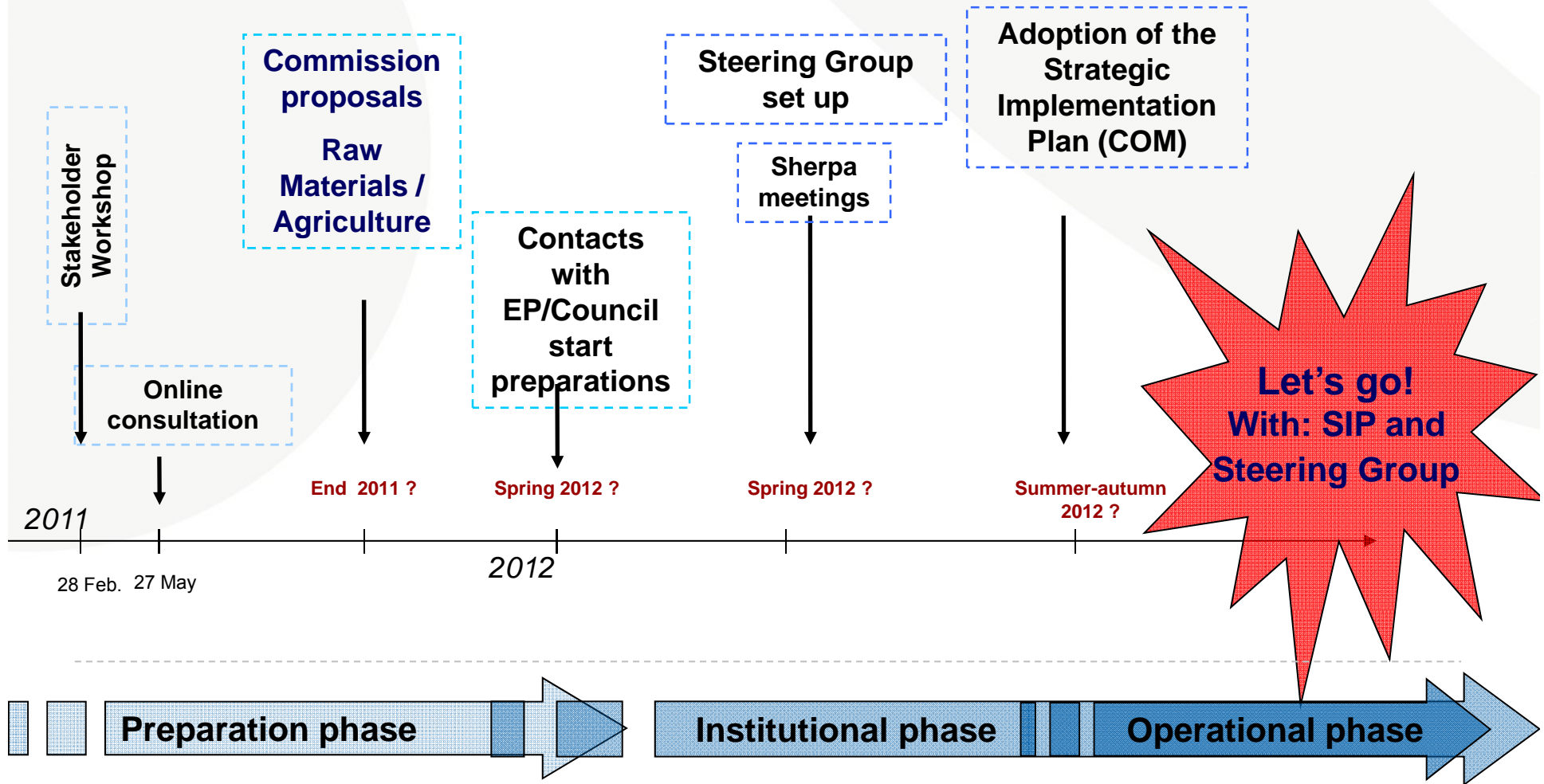


■ Establishment of international raw materials dialogue

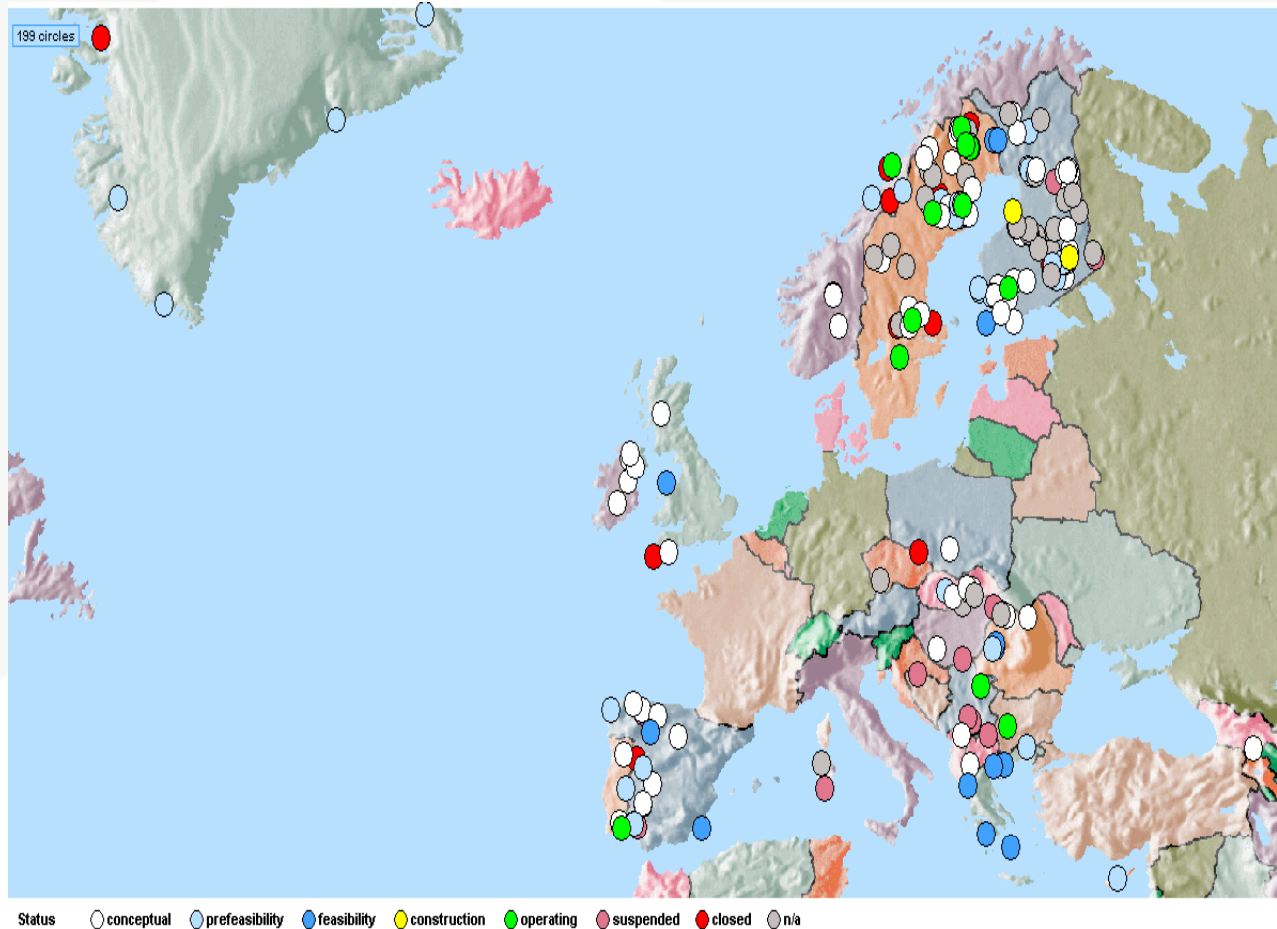


EU Innovation Partnership – *Milestones*

all dates are indicative and do not commit the Commission !!!!!



Mining in Europe : There is a Future



•Source RMG

Thank you for your attention !

References:

Communications

http://ec.europa.eu/enterprise/non_energy_extractive_industries/raw_materials.htm

<http://ec.europa.eu/avservices/ebs/schedule.cfm?page=1&date=11/04/2008&institution=0#73887>

Report on critical raw materials:

http://ec.europa.eu/enterprise/policies/raw-materials/critical/index_en.htm

Report on best practices in area of land use planning, permitting and geological knowledge:

http://ec.europa.eu/enterprise/policies/raw-materials/sustainable-supply/index_en.htm

Natura 2000 guidelines:

http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

Trade raw materials activity report 2009:

http://trade.ec.europa.eu/doclib/docs/2010/june/tradoc_146207.pdf

Communication on the EU 2020 Flagship Initiative Innovation Union:

http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf