



# The Raw Materials Initiative

**Raw Materials and Transport in the High North**  
15.30-15.45 | 24 April 2012 | European Parliament | A3H-1

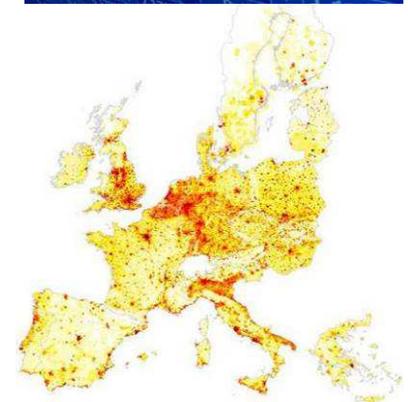
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# Challenges



- **Pressure on demand for raw materials**
  - emerging countries
  - new technologies and materials
- **EU highly dependent on crucial raw materials**
  - market distortions
  - commodity market speculations
- **Exploration, extraction and greenfield developments face:**
  - increasing competition for different land uses
  - time consuming and complex licensing / permitting processes



# Critical raw materials



- Monitor issues of critical raw materials to identify priority actions
- Supply risk scenarios
  - ▶ High share of the worldwide production
  - ▶ Low substitutability
  - ▶ Low recycling rates
- Update list of critical raw materials at least every 3 years
  - ▶ next report is foreseen to be published in 2013
- Policy actions not limited to critical raw materials exclusively

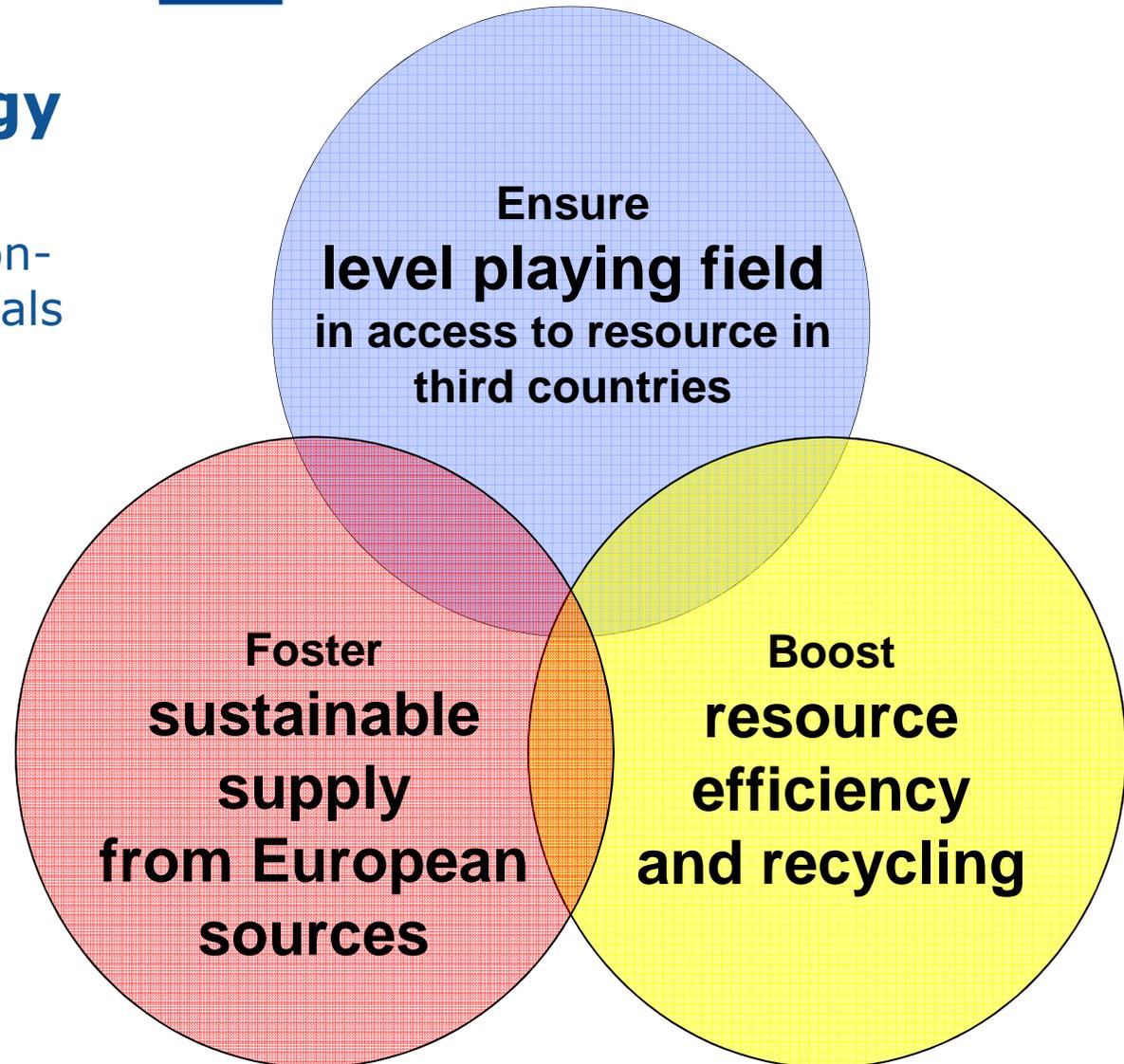


H	He																
Li	Be	B	C	N	O	F	Ne										
Na	Mg	Al	Si	P	S	Cl	Ar										
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	* Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub	Uuq					
		Rare Earth Elements (REE)															
		La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb		
		Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No		

\* Lanthanide series  
\* Actinide series

## 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



# Raw materials diplomacy – Pillar 1



EU raw materials diplomacy with a view to securing access to raw materials through strategic partnerships and policy dialogues

# Reinforce trade strategy – Pillar 1



- Develop bilateral dialogues and strengthen ongoing debates (e.g. G20, UNCTAD, WTO, OECD)
- Include raw material issues in trade negotiations
- Continue to tackle barriers through dialogue, but dispute settlement where justified

# Access to land – Pillar 2

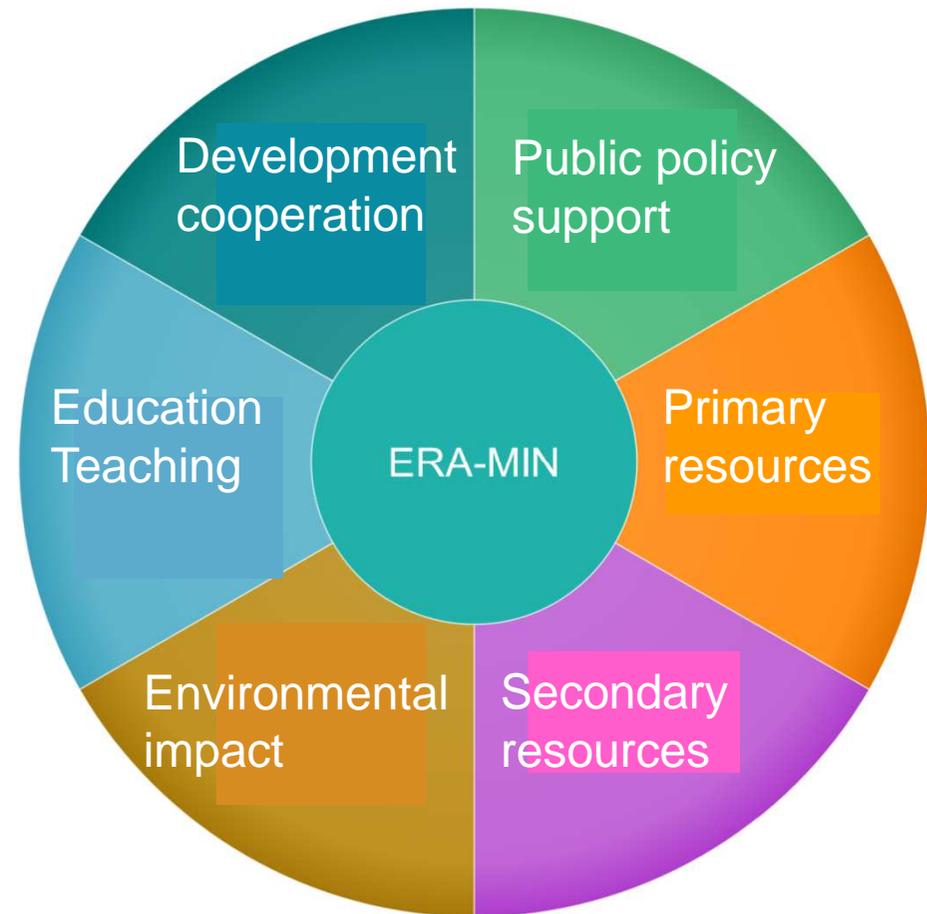


- Promote the exchange of **best practices** in land use planning and administrative conditions for exploration and extraction
- Enhancing the **EU's knowledge base**, e.g. increased cooperation between national geological surveys
- Promote **research and development** in the raw materials value-chain including extraction, processing and substitution



With courtesy by Knauf Gips KG

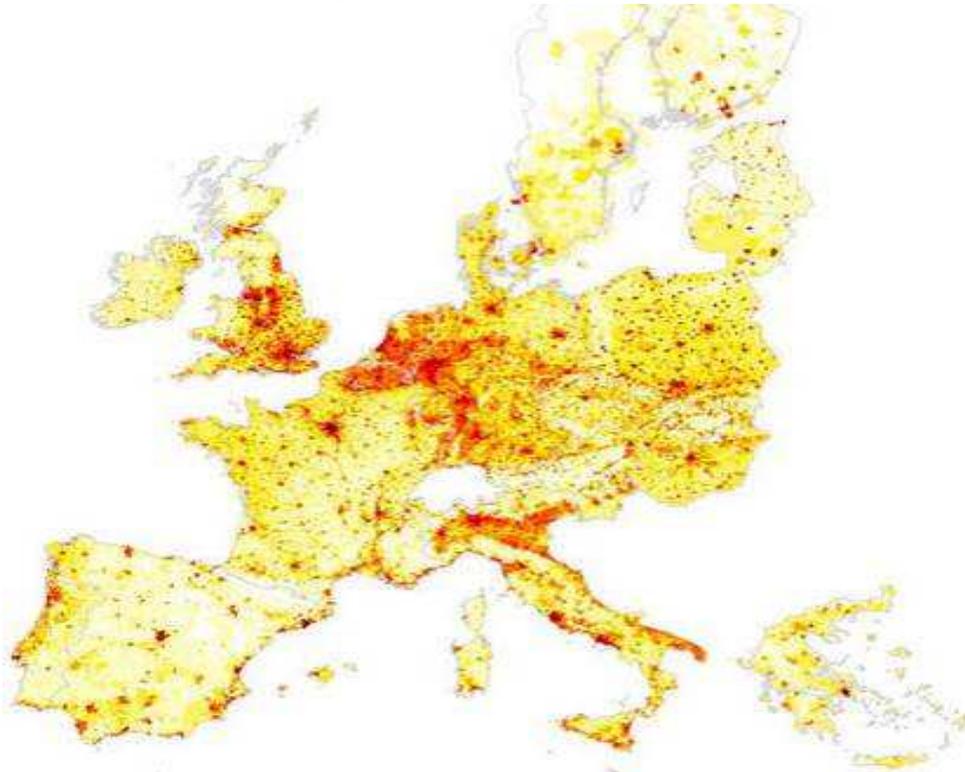
- **2011-2015**
- **1,5 million €** (FP7)
- **11 Partners** from 9 Member States (increasing)
  - Sweden: VINNOVA, SGU
  - Finland: TEKES
- ERA-NET on the **Industrial Handling of Raw Materials for European industries**
- Coordination of research programmes in the field of industrial production and supply of raw materials, in line with the "EU RMI"



# Land Use Planning Policy – Pillar 2



- **Fair** and **equal** consideration of all potential uses of land including the eventual extraction of raw materials.
- **Best Practice:**
  - A national planning framework ensures that minerals are accorded due weight in the land use planning process.

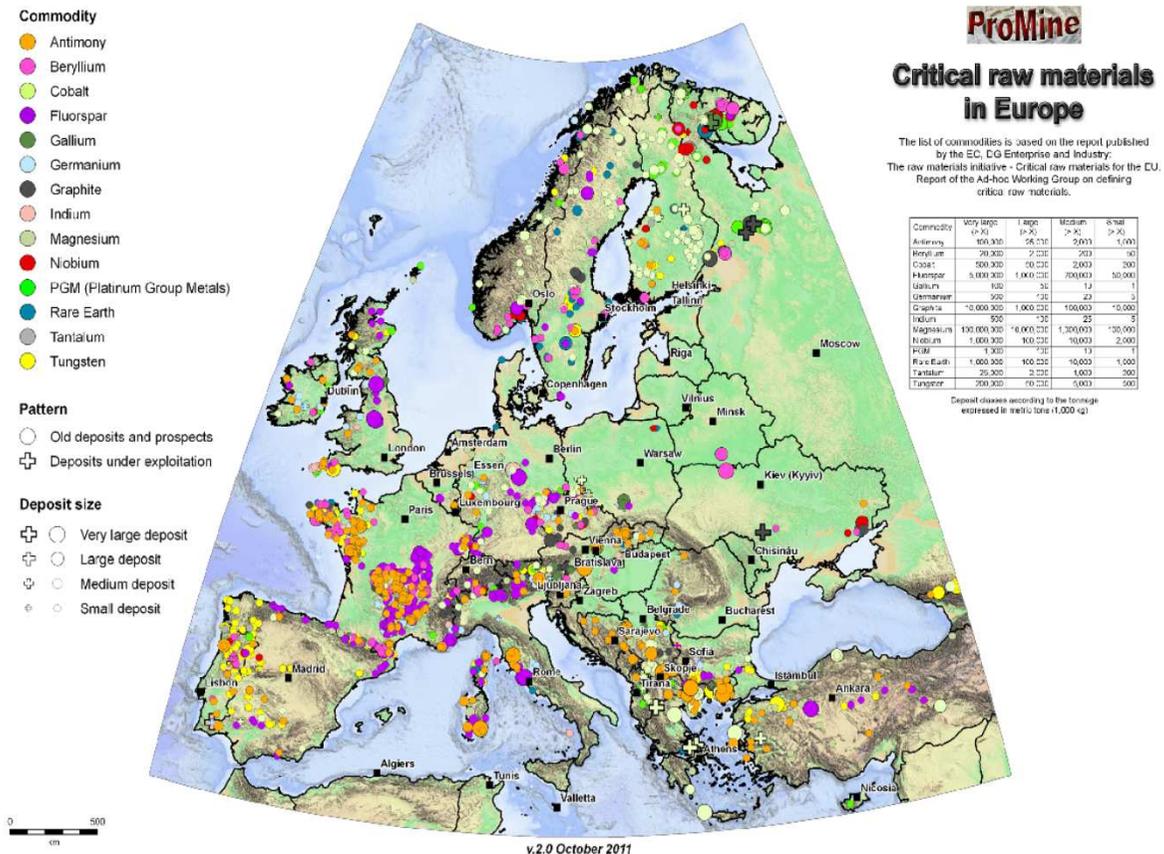


- Robust digital geological knowledge base - information on resources.
- Regional important minerals estimate
  - ▶ Long term demand for these materials,
  - ▶ Means by which this can be translated into a spatial plan,
  - ▶ Recognising the contribution of recycled materials.

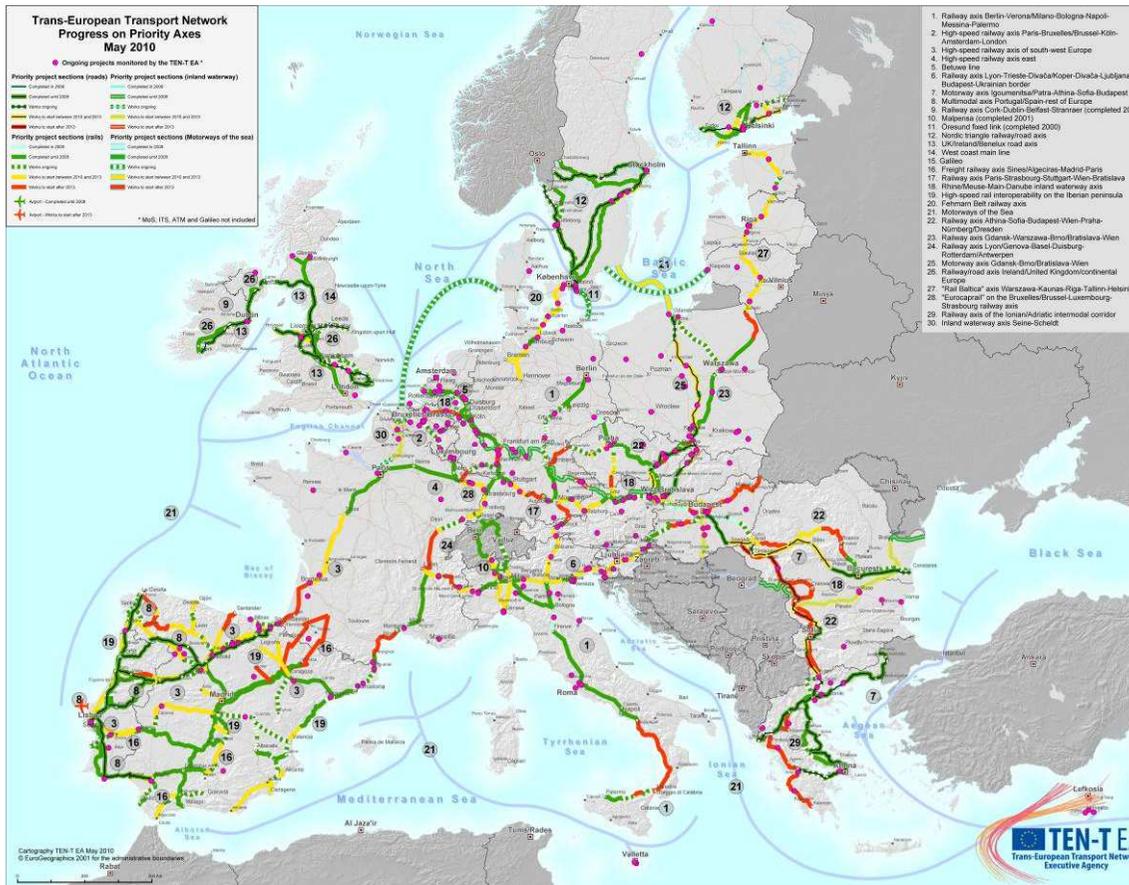
# Knowledge Base – Pillar 2



- In **short term**, Commission to assess with Member States, the scope for increases synergies between national geological surveys
  - increase potential for joint projects (e.g. ERA-MIN)
- In **medium term**, any synergies should contribute to improved European raw materials knowledge base, taking into account GMES



# Trans-European Transport Core Network



## TEN-T

- represent 25 800 km of key European corridors
- connections linking the continent by:
- 9 north-south direction
- 4 east-west direction
- 83 main European ports with rail and road links
- 35 cross border projects to reduce bottlenecks

# High North



- Most relevant connections for the sustainable supply of raw materials from Fennoscandian deposits (Council Conclusion 22.03.2012):
  - **Norrbotniabanan** – defined as “Planned railway” in Core Network.
  - **Luleå**, Stockholm, Göteborg, Trelleborg and Malmö – Core Network Ports
  - **Umeå**, Sundsvall, Gävle – Comprehensive Network Ports

# Secondary Raw Materials – Pillar 3



- **Large potential of EU's urban mines, land-fills, mining waste**
  - **Guidance on inspection** on the management of waste from the extractive industries - Directive 2006/21/EC
- **Review of Thematic Strategy on waste prevention and recycling in 2012**
- **Develop best practices in collection, sorting and treatment of waste**
- **Develop feasible eco-design instruments to promote more efficient use of raw materials and ensure recyclability of products**
- **Waste shipment regulations**
  - efficient tackling of illegal shipment





## Commission intends to:

- Continue the support of the creation of sectoral skills' councils at EU level following an initiative from stakeholders
  - **Erasmus Mundus Mining and Mineral Programme**
- Envisage to enlarge the scope European Institute of Innovation and Technology (EIT)
  - **Knowledge and Innovation Community (KIC) on raw materials along the entire value chain**
- Promote research and development in the raw materials value-chain including extraction, processing and substitution
  - **Projects co-funded under FP7 and other financial schemes (EuroGeoSource, EXPERL, POLINARES, ProMine, I<sup>2</sup>Mine, FREECATS, REFREPERMAG ...)**
  - **ERA-MIN**
  - **Innovation Partnership on 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

## **Objectives:**

- Reduce **import dependency**
- Provide **alternatives in supply**
- Push **Europe to the forefront** in raw materials sectors
- Mitigate negative **environmental impacts**

# Key components



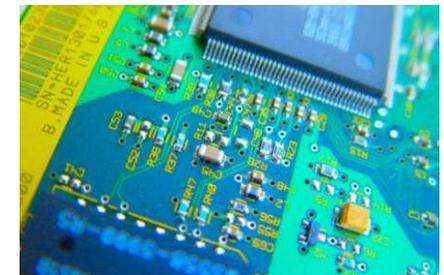
- **Technology-focused policy areas**

- WP1 - Exploration, extraction, processing, recycling ...
- WP2 - Substitution, alternative functionalities and materials



- **Non Technology policy areas**

- WP3 - Improving Europe's **raw materials** regulatory framework conditions, knowledge base and infrastructure
  - ▶ e.g. data interoperability and availability
- WP4 - Improving Europe's **recycling** regulatory framework conditions and excellence
  - ▶ e.g. public procurement, private initiatives



- **WP5 - International cooperation**

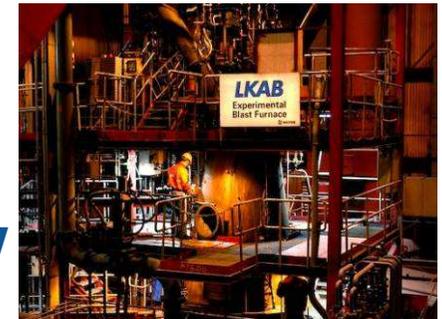
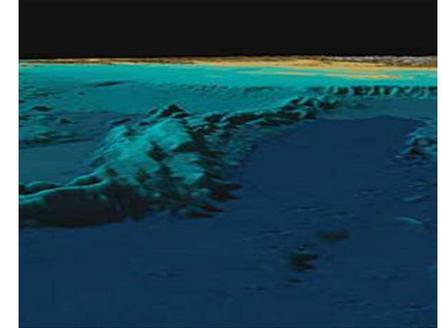
- Promoting appropriate international cooperation
  - ▶ various policy issues possible e.g. geology, research, trade, competitiveness and investment conditions



# 2020 targets



- EU standardised instruments for the survey of resources/reserves and 3-D geological map
- **dynamic modeling of trends: link demand and supply with reserves and complete LCA**
- **Up to 10 innovative pilot actions, e.g. demonstration pilot plants → exploration, mining, processing, collecting and recycling**
- **Substitutes for at least 3 applications of critical raw materials**
- Network of Research, Education and Training Centres on sustainable raw materials management
- Pro-active strategy of EU at bilateral and multilateral level



# The way forward



- **First steps foreseen: setting HLSG, Sherpa group and operational groups**

⇒ **call for expression of interest**

NB: If Council conclusions in December 2012

- **HLSG to prepare Strategic Implementation Plan (SIP), for adoption ~ Sept. 2013**

- **Communication on SIP, late 2013**

=> **SIP implementation to start**





## References

- EU raw materials webpage:

[http://ec.europa.eu/enterprise/non\\_energy\\_extractive\\_industries/raw\\_materials.htm](http://ec.europa.eu/enterprise/non_energy_extractive_industries/raw_materials.htm)

European Innovation Partnership on Raw Materials:

[http://ec.europa.eu/enterprise/policies/raw-materials/innovation-partnership/index\\_en.htm](http://ec.europa.eu/enterprise/policies/raw-materials/innovation-partnership/index_en.htm)

- Report on critical raw materials:

[http://ec.europa.eu/enterprise/policies/raw-materials/critical/index\\_en.htm](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](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](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](http://trade.ec.europa.eu/doclib/docs/2010/june/tradoc_146207.pdf)

- 2011 JRC report on critical metals and energy technologies:

<http://setis.ec.europa.eu/newsroom/library/setis-presentations/jrc-report-on-critical-metals-in-strategic-energy-technologies>