European Commission

Enterprise Directorate-General

The EU non-energy extractive industry and a sustainable access to raw materials

Conference on

Non-energy mining industry in Europe

Bucharest - 15 May 2008

EUROPEAN COMMISSION
DG Enterprise and Industry
Unit G3 Steel, metals, minerals and mineral products

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Structure of presentation

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1) Key figures
2) Competitiveness challenges

Raw materials initiative

3) Economic and political context
4) Key challenges
5) Way forward

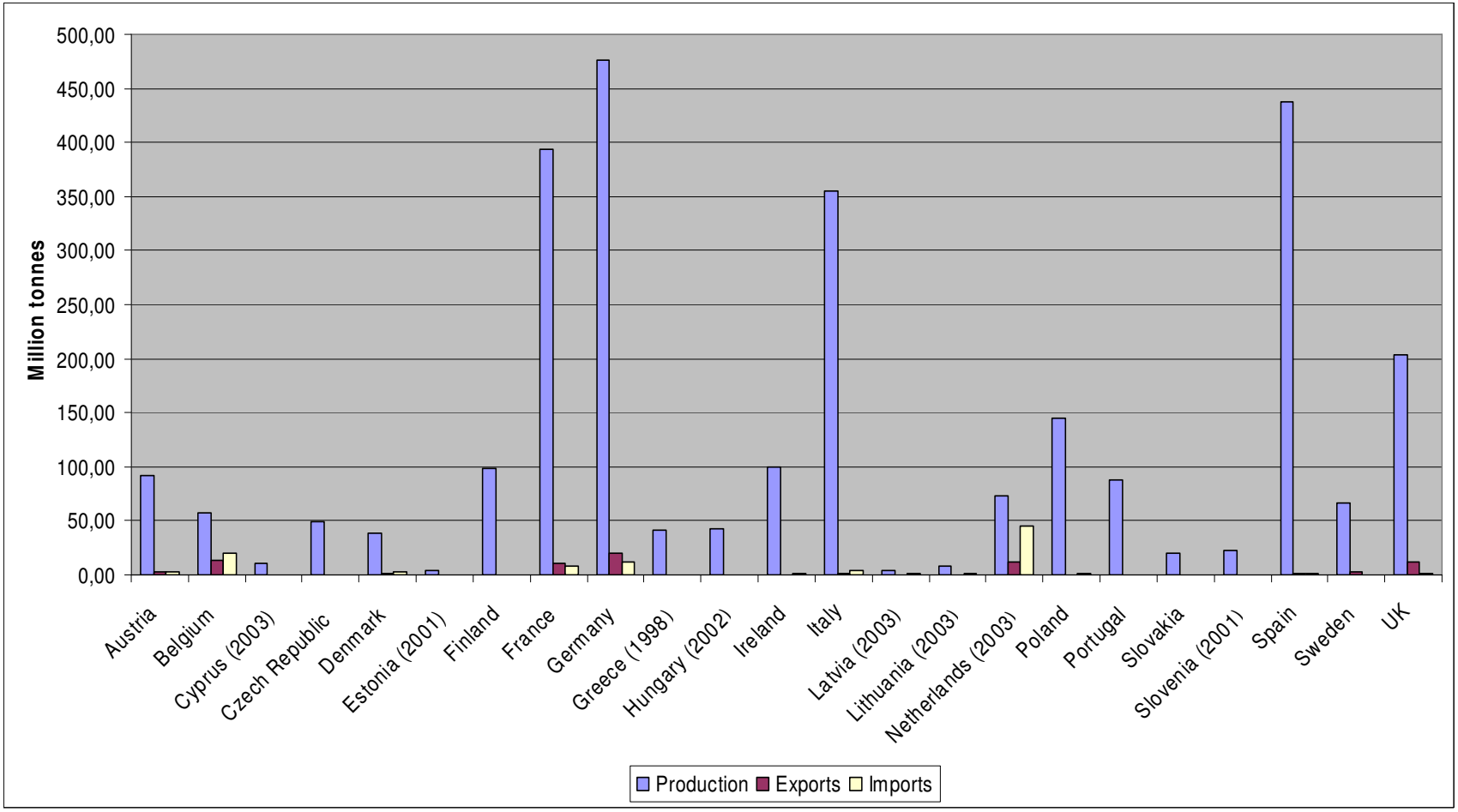
Non-Energy Extractive Industry

1. Key figures

Non-Energy Extractive Industry in EU27 (2005)

- Turnover: 45 billion €
- Employment: 295,000
- Contribution to major downstream sectors
- 3 sub-sectors
  - Construction minerals
  - Industrial minerals
  - Metallic ores

EU production, imports and exports of aggregates



Main global producers of selected industrial minerals and % of global production (2003)

	First	Second	Third
Bentonite	USA (32%)	**EU (19%)**	Turkey (7%)
Feldspar	**EU (36%)**	China (13%)	Turkey (12%)
Fluorspar	China (52%)	Mexico (17%)	**EU (8%)**
Fullers Earth	USA (72%)	**EU (12%)**	Senegal (4%)
Gypsum	**EU (24%)**	USA (16%)	Iran (12%)
Kaolin	USA (34%)	**EU (23%)**	Brazil (19%)
Magnesite	China (47%)	**EU (17%)**	Turkey (15%)
Perlite	**EU (39%)**	China (20%)	USA (15%)
Potash	Canada (32%)	**EU (16%)**	Russia (16%)
Talc	China (46%)	**EU (20%)**	USA (13%)
Salt	**EU (21%)**	USA (20%)	China (16%)

Data: British Geological Survey

European Mine Production of Metals (2006)

Metal	Annual production (tonnes)	EU32 production as % of global production (%)	European countries with > 1% of global output in 2006
Silver	1,932	8.8	Poland, Sweden, Turkey
Zinc	927,000	8.8	Ireland, Sweden, Poland
Titanium	425,000	7.3	Norway
Lead	238,200	6.8	Ireland, Sweden, Poland
Copper	833,000	5.5	Poland
Chromium	1,007,000	5.2	Finland, Turkey
Tungsten	1,933	2.6	Austria, Portugal
Nickel	33,900	2.2	Greece
Iron	30,158,000	1.7	Sweden
Aluminium (bauxite)	3,251,900	1.9	Greece
Mercury	23	1.6	Finland
Gold	18	0.8	-
Manganese	147,000	0.5	-
Tin	25	-	-

Source: BGS

Non-Energy Extractive Industry

2. Competitiveness challenges

Analysis of competitiveness of the non-energy extractive industry in the EU
Commission Staff Working Document
SEC(2007) 771

- Exploration
- Access to land
- Regulatory framework
- Investment and operating costs
- Availability of skilled workforce
- Research and innovation
- Health and safety

Exploration

- Industry seeks to explore were there is geological potential
- Industry seeks to operate wherever suitable geological resources have been identified and can be worked profitably and securely
- Importance of basic geological surveying and mapping
  Some observations
  - Tendency towards lower grades, below surface, remote areas,...
  - EU's exploration expenditure low compared with others despite potential
  - Different approaches to encourage exploration

Access to land
(conclusions study Leoben University)

- Limited knowledge of importance of NEEI in Europe
- Lack of appreciation of strategic importance of non-energy minerals (in part. aggregates)
- In most Member States non-energy minerals are allocated a low priority
- In most Member States access to mineral deposits is becoming more difficult (in practice)
- Time required for authorisation of mineral extraction tends to be very long and outcome is often uncertain

Access to land - reported challenges

- Developing a policy framework which would make:
  - existing operations more competitive and sustainable;
  - extending existing operations more straightforward;
  - investments in smaller deposits in the EU viable;
  - the administrative burden lighter; and
  - access to new resources simpler and more attractive to investors
    - providing a reliable and cost- and time-efficient permitting procedure which enhances environmental protection and social acceptability

Regulatory Framework

- NEEI regulated at European and National level
- European legislation affecting NEEI is mostly horizontal

- Legislation affecting access to land:
  - Birds (79/409/EEC) and Habitat (92/43/EEC) Directives (Natura 2000 network)
  - EIA (85/337/EEC & 97/11/EC) and SEA (2001/42/EC)

- Legislation affecting operating costs:
  - Management of waste from the extractive industries (2006/21/EC)
  - Seveso II (2003/105/EC)
  - IPPC directive (96/61/EC & current revision)

Investment and operating costs

- Huge differences between sub-sectors
  - Transport (construction minerals 50-70% costs)
  - Energy (notably sub-surface metal mining, beneficiation)

Sub-sector	Estimated energy costs in the EU as proportion of overall site operating costs
Construction minerals (aggregates)	3%
Industrial minerals	11%-19%
Metallic minerals (copper and zinc)	15%-17%

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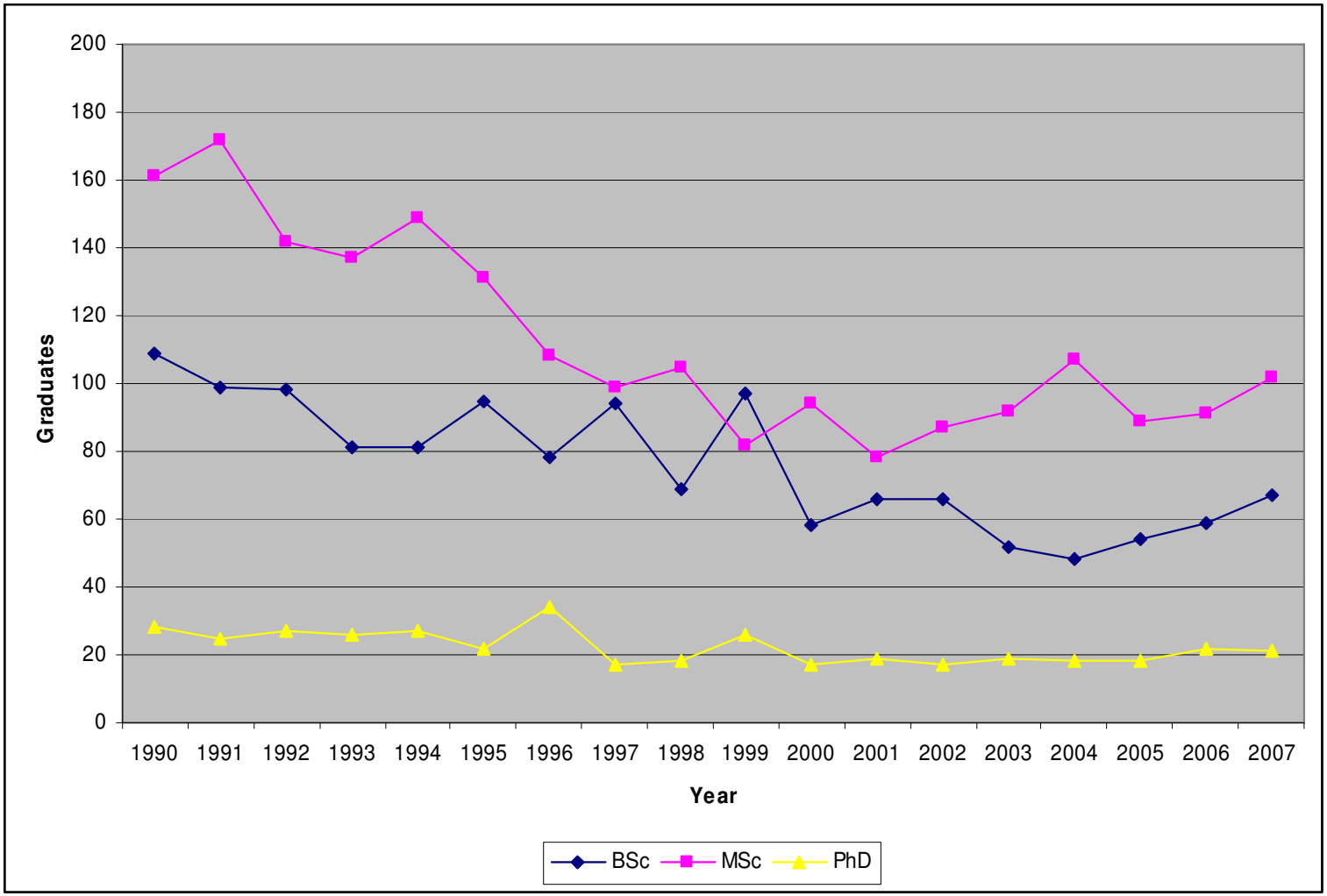
Availability of skilled workforce

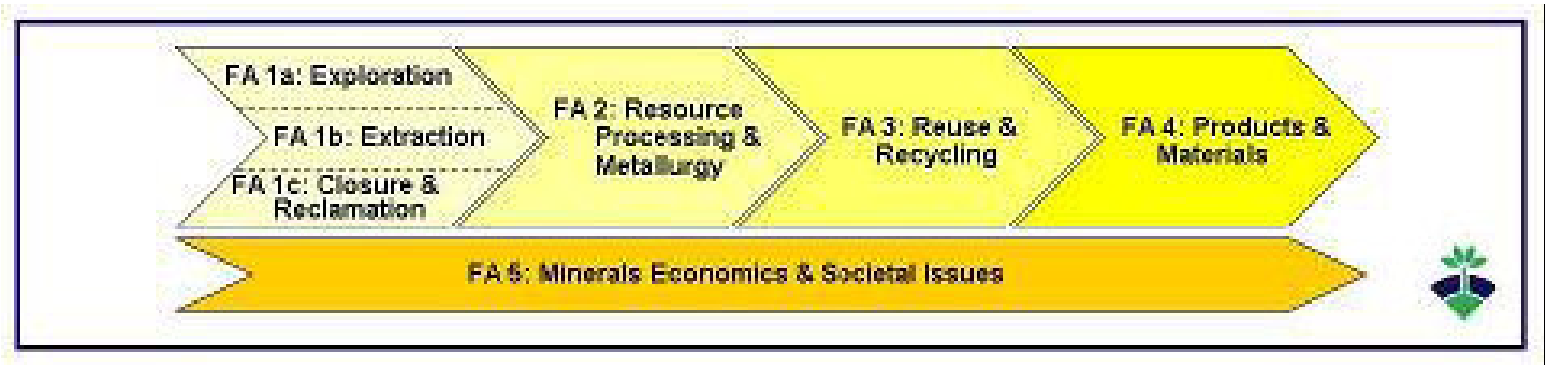
Number of graduates from mining engineering programmes in Europe 1990-2007



Source: Commission Staff Working Document SEC(2007) 771

Research and innovation

- Develop a common European platform for coordinating and disseminating results, and for identifying areas for future research
- Role of the European Technology Platform for Sustainable Mineral Resources: http://www.etpsmr.org



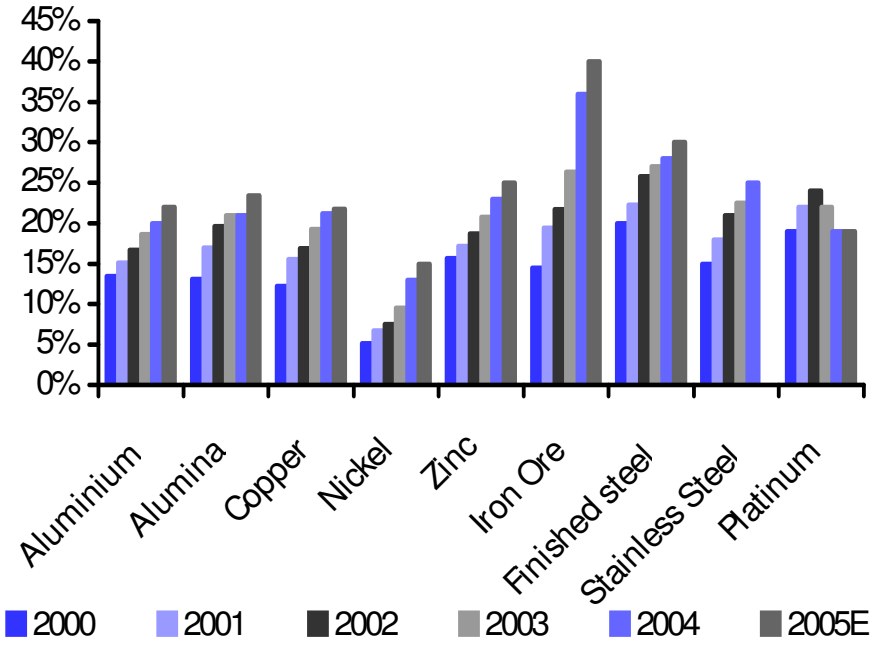
Health and safety

- Incidence rate of fatal accidents of NEEI is about 7 times higher than average rate of other sectors
- Non-fatal accidents (more than 3 days absence)
  - Rate within NEEI about twice industries average
  - Rate is similar to e.g. construction industry
- Mining and quarrying also shows the highest incidence rate for many occupational diseases
- Lack of harmonisation of statistics

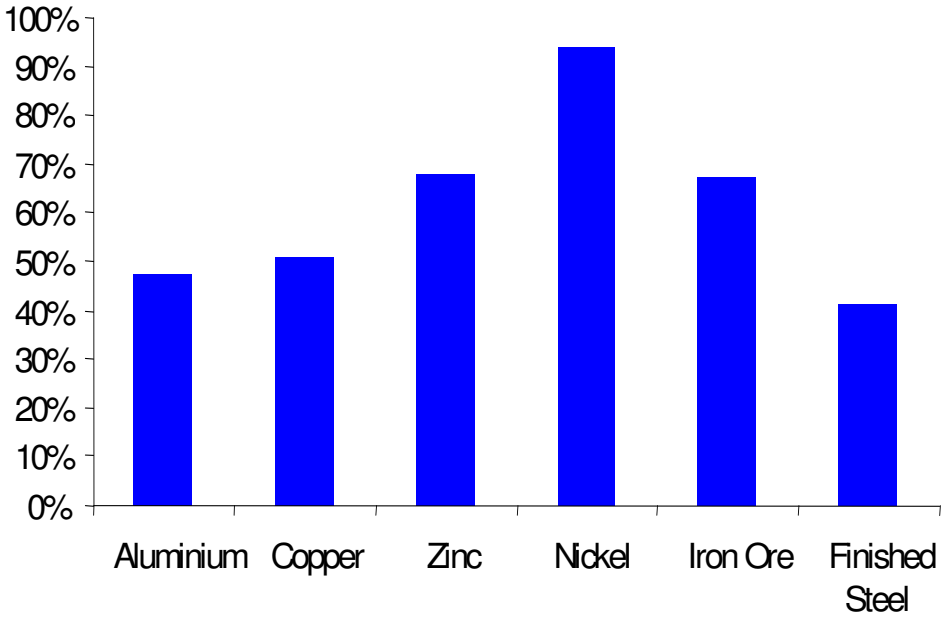
Raw materials initiative

3. Economic and political context

Chinese demand as % of global demand

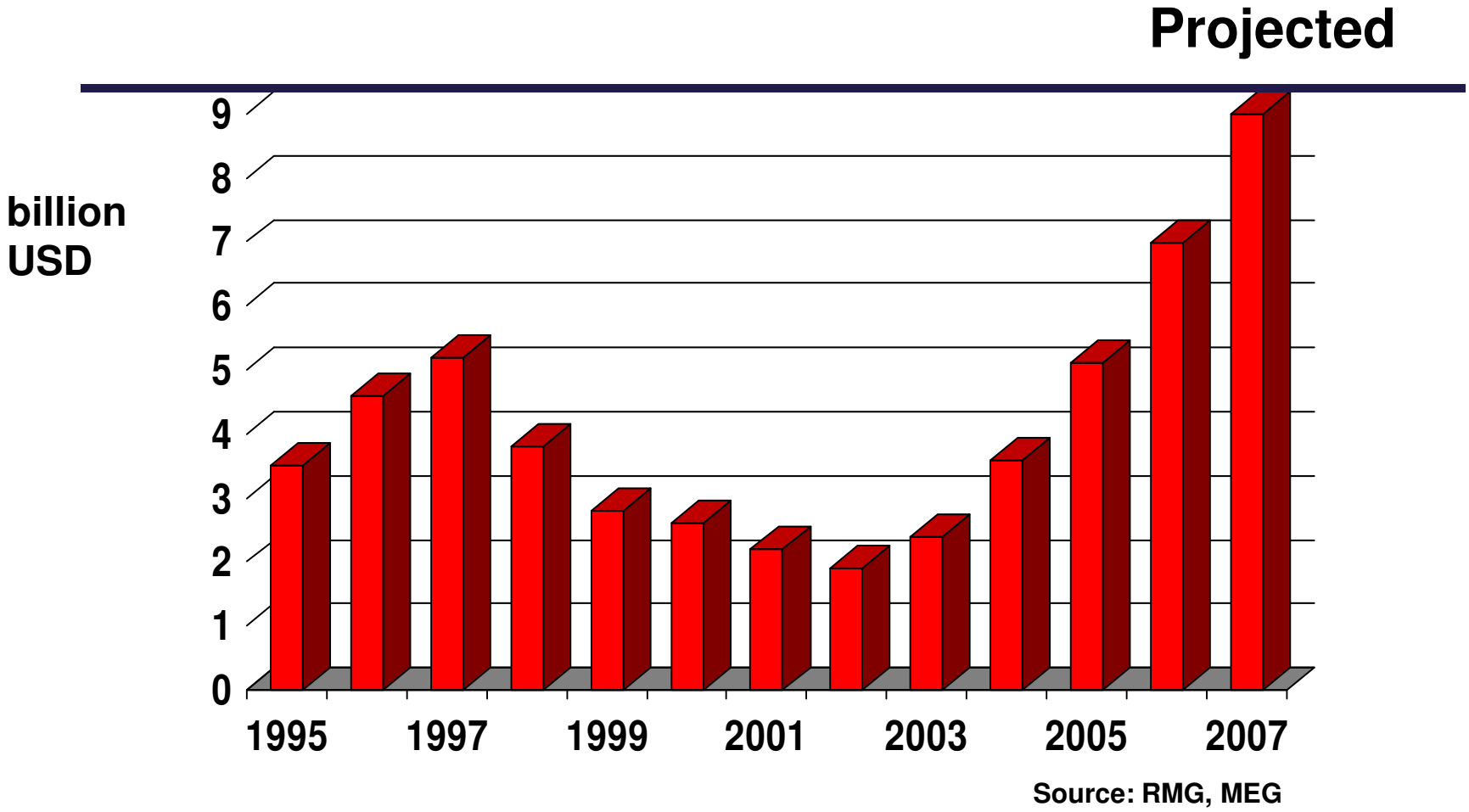


Chinese consumption growth as a % of world growth (2003-2005)

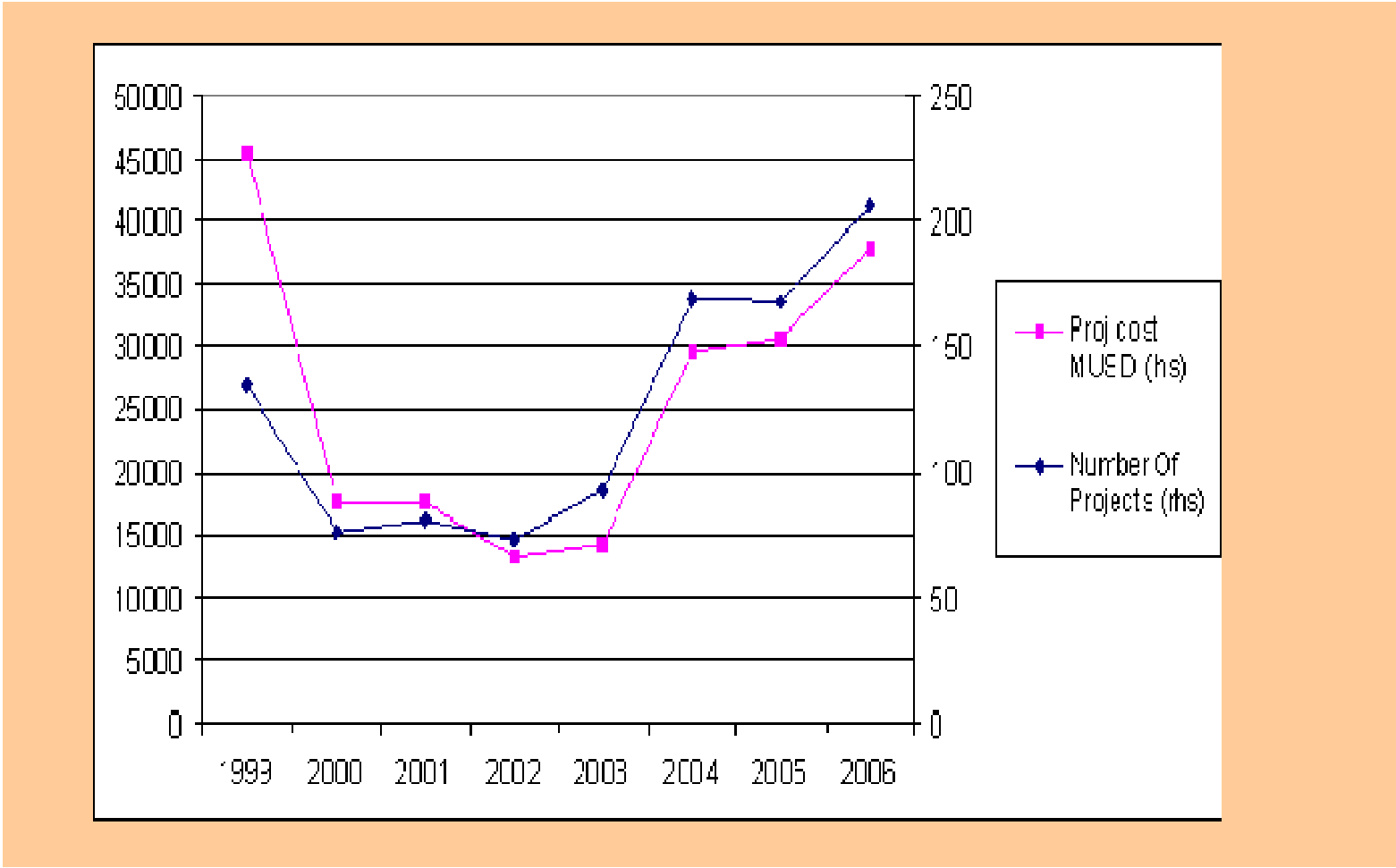


Source for charts: IISI, WBMS, AME, Brook Hunt, Johnson Matthey, CRU

Global exploration expenditures

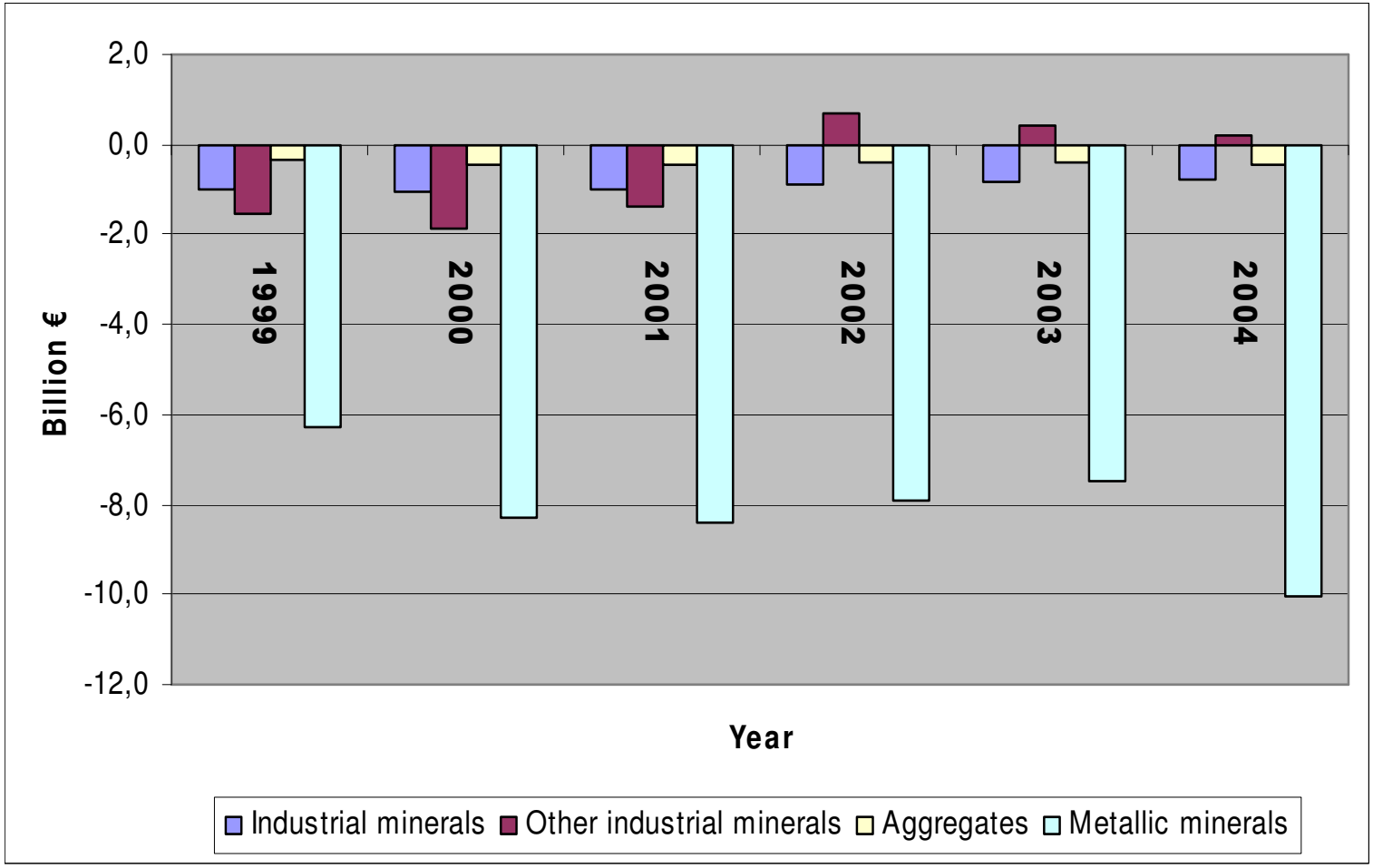


New mining investments announced globally



Source: Raw Materials Data, Stockholm, Sweden January 2007.

Net trade in non-energy minerals 1999-2004 (EU)



Source: Commission Staff Working Document SEC(2007) 771

EU dependency on the import of metal ores (2003)

Antimony ore	100%	Rutile	100%
Beryllium ore	100%	Vanadium ore	100%
Boron	100%	Phosphate rock	92%
Cobalt	100%	Nickel	86%
Molybdenum	100%	Iron ore	83%
Niobium ore	100%	Bauxite	80%
PGM ores	100%	Zinc ore	80%
Rare Earth ores	100%	Tungsten ore	76%
Rhenium ore	100%	Lead Ore	76%
Tantalum ore	100%	Copper Ore	74%
Ilmenite	100%	Chromium ore	53%

Source: based on BGS Data (2005)

Competitiveness Council, 21 May 2007

- *"to develop a coherent political approach with regard to raw materials supplies for industry, including all relevant areas of policy (foreign affairs, trade, environmental, development and research and innovation policy) and*

- *to identify appropriate measures for cost-effective, reliable and environmentally friendly access to and exploitation of natural resources, secondary raw materials and recyclable waste, especially concerning third-country markets"*

G8 Summit, Heiligendamm, 8 June 2007

- *"Raw materials are a key factor for sustainable growth in industrialised, emerging and developing countries."*
- *"Free, transparent and open markets are fundamental to global growth, stability and sustainable development."*
- *"Increased transparency in the extractive sector is of crucial importance for achieving accountability, good governance and sustainable economic growth worldwide."*

4th HLG Report , 11 June 2007

- *"EU and Member States to support the development of a raw materials policy, built on a well operating free and fair global market for raw materials…*
- *using trade policy in particular international multilateral and bilateral agreements to ensure that EU and third countries support open and undistorted markets…"*
- *"simplifying and streamlining access to domestic raw materials…"*

Commission initiative

- Commission Staff Working Document "Analysis of competitiveness of the non-energy extractive industry in the EU" (June 2007)
- Press conference Vice-President Verheugen, 5 June: announcement of a Commission raw materials initiative

Raw materials initiative

4. Key challenges

5 main challenges

Increase the sustainable supply of raw materials from European sources

Encourage more open and competitive global markets and removing distortions in trade in raw materials

Ensure more transparency throughout the production chain of raw materials and encourage capacity building in developing countries

Encourage greater efficiency in the use of resources

Establish an adequate EU knowledge base on raw materials

1. Increase the sustainable supply of materials from European sources

- Exploration
- Access to land
- Regulatory framework
- Costs
- Availability of skilled workforce
- Research and innovation
- Health and safety

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2. Encourage more open and competitive global markets and removing distortions in trade in raw materials

- Proliferation of measures by 3rd countries which cause trade distortions
- Inclusion of reduction and abolition of relevant trade restrictions in EU bilateral agenda
- Addressing the challenge at the level of the WTO

3. Ensure more transparency throughout the production chain of raw materials and encourage capacity building in developing countries

- ✓ Addressing the lack of transparency in relation to the production chain of raw materials

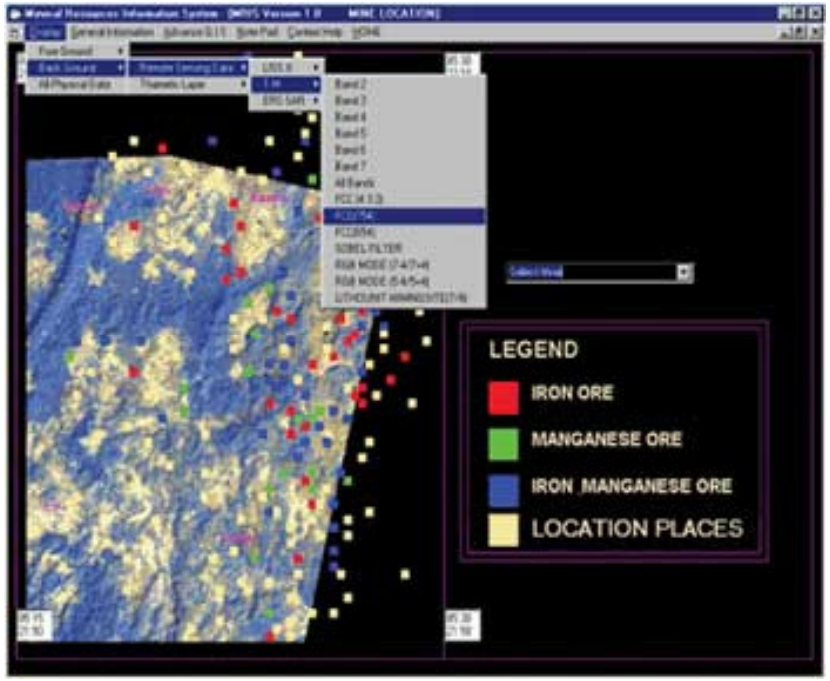
- ✓ Building capacity for good governance of mineral resources

4. Encourage greater efficiency in the use of resources

- Need to further reduce the raw materials content in final products, stimulate the application of recycled products, make better use of resources embedded in waste
- Need for a mix of different policies that support technological improvements

5. Establish an adequate knowledge base on raw materials

- Lack of integrated geological knowledge on mineral deposits in the EU
- Need to improve the availability of relevant data at the level of policy - and decision makers (planning)



Raw materials initiative

5. Way forward

Way forward

- Final objective: a Communication on raw materials in 2nd half of 2008
- Intermediate steps:
  - Consultations with different DGs
  - Intensive stakeholder consultations (e.g. Raw Materials Supply Group etc)
  - Public consultation

Further info

- Results of the public consultation:

  http://ec.europa.eu/enterprise/newsroom/cf/itemlongdetail.cfm?item_id=1249

- http://ec.europa.eu/enterprise/steel/index_en.htm
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