

POLICY AREA: DEFINING CRITICAL RAW MATERIALS

Major issues:

An expert group, chaired by Enterprise and Industry DG, recently released a report⁴ that presented a methodology to measure the criticality of raw materials at EU level. A raw material is labelled “critical” when the risk of supply shortage and their impacts on the economy are higher compared with most of the other raw materials. The report provides an analysis of 41 different minerals and metals, and concluded on a list of 14 critical raw materials. It also contained two sets of recommendations: recommendations for follow-up and further support, and policy-oriented recommendations to secure access to and material efficiency of raw materials.

Do you have any comments on the methodological approach, including the scope, to determine criticality at EU level? If so, please specify.

The industry welcomes the Commission’s initiative and appreciates the Commission’s efforts to assess the criticality of a number of raw materials for the EU economy for the first time. It also appreciated to be involved in the process and only regrets that the time and resources allocated to the exercise of defining criticality were limited in the first round of this exercise.

The industry hopes that this exercise will be repeated with more support and that consequently the preliminary work can be built upon and refined.

Concerning the scope we would like to comment that although 41 raw materials were analysed, some extremely important materials were ruled out at the beginning mostly for the reason of time constraints. Therefore other raw materials should be included in the future exercises, e.g., as demonstrated by the current bidding war for the world’s largest potash producer based in Canada, which the Chinese government reportedly sees as critical for the feeding of its population, it would have been most timely to include potash in the scope of the exercise, or gold which is under severe threat from proposals to change legislation.

The question also arises whether a more differentiated analysis of the criticality factors for the various raw materials grouped into three main groups would not provide further and better insight into the aspects that render these raw materials critical. (Group 1: imported raw materials, group 2: raw materials available in Europe; group 3: secondary raw materials for industrial use).

Concerning the time horizon of 10 years, it would be desirable to introduce more than one time line and to include some simulations. This would better enable the Commission to capture information on likely future supply-bottlenecks.

The three main aggregated indicators with have some short-comings:

The economic importance – today, not tomorrow: the economic importance for tomorrow’s society was not featured into the statistical development and the demand developments. Neither does the methodology properly consider the potential economic importance of a domestic raw-material production to EU manufacturing.

The use of historical data only has meant that economic constraints already being felt today were not revealed quantitatively for corrective action;

Concerning the supply risks, the EU legislative risks for no access to the raw material in the future was not included in the equation.

Concerning the environmental country risks the current analysis is based on an assessment of the general legal framework of countries, not at all on their legal framework of mining legislation. If the EU wanted to secure future supply it needs to accompany the analysis of origin of current and future supply with an analysis of the strength of the mining legislations in those countries. Some measure of this is provided by the Fraser Institute PPI indicator, but only for a certain degree and only for some countries.

Although the methodology combines a quantitative and a qualitative approach, at the end the list of critical materials is exclusively based on the results of the quantitative approach. Even though the materials' profiles allow to highlight one or the other aspect which cannot be taken into consideration in the quantitative assessment of the criticality of a material, these aspects have not been analysed with a view to eventually adjusting the criticality list which should be done.

Do you see any additional raw material that should be considered as critical? If so, please explain.

It is important that the exercise is repeated on a regular basis since development of emerging technologies, industrial development in emerging economies and operating conditions of the raw materials global markets are all having a direct impact on future demand for raw materials as well as on the terms and conditions under which this demand can be satisfied.

It is therefore essential neither to freeze the list of critical materials nor to consider this list as the exclusive target for policy initiatives. Other raw materials that have not been identified as critical at this stage might become very quickly critical if they are not paid attention to and if adequate policy measures are missing. If any third party chooses to analyse other raw-materials following the same methodology, they should be encouraged to add their findings to the Commission's database (as is currently done for the JRC LCA Platform, for example).

The EU Commission should continue its three-pillar strategy for securing access to resources from outside of Europe and from within the EU.

Do you have any comments regarding the recommendations of the report? If so, please specify.

The Group recommends that the list of EU critical raw materials should be updated every 5 years and that the scope of the criticality assessment should be increased.

The Group recommends that steps be taken to:

Improve the availability of reliable, consistent statistical information in relation to raw materials;

Promote the dissemination of this information, notably by preparing a European Raw Materials Yearbook with the involvement of national geological surveys and mining/processing industries. It should focus on improving the knowledge on the availability of resources and on their flow into products through the value-added chains of the EU economies;

Establish indicators of competition to land in the Member States;

Encourage more research into life-cycle assessments for raw materials and their products on a "cradle-to-grave" basis;

Create a working group(s) to further analyse the impact of emerging technologies on demand of raw materials.

The Group recommends that a sub-group of the Raw Material Supply Group of the European Commission should be set up to ensure follow-up of this report on critical raw materials.

The Group recommends policy actions to improve access to primary resources aiming at:

Supporting the findings and recommendations resulting from the work carried out by the ad hoc working group on "Best practices in the area of land use planning and permitting" with a view to securing better access to land, fair treatment of extraction with other competing land uses and to developing a more streamlined permitting processes;

Promoting exploration, and ensuring that exploration by companies is regarded as research activity;

Suggested change:

Promoting research on mineral processing to extract all valuable minerals and metals including critical, extraction from old mine and mineral processing dumps, old smelter slags, mineral extraction from deep deposits, and mineral exploration in general, notably under EU RTD Framework Programmes; looking for efficient and cheap separation and extraction technology of many metals from electronic scrap.

This recommendation is extremely important to improve the EU's raw materials access and efficiency in the longer term.

Promoting good governance, capacity-building and transparency in relation to the extractive industries in developing countries, notably in the area of critical raw materials;

Promoting sustainable exploration and extraction within and outside of the EU.

The Group recommends that the following policy actions, with regard to trade and investment as defined in the trade raw materials strategy, be pursued:

maintain current EU policy choices in the negotiation of bilateral and regional trade agreements;

consider the merits of pursuing dispute settlement initiatives at WTO level so as to include in such initiatives more raw materials important for the EU industry; such actions may give rise to important case law so long as existing GATT rules lack clarity and are limited in scope;

engage without reservation in consultations with third countries whose policies are causing distortions on international raw materials markets in order to discourage certain policy measures and to request adherence with market forces;

foster an effective exchange-of-views on certain policies made within the institutional framework of EU economic cooperation agreements (e.g. with China on the latter country's NFM recycling plan to year 2015);

continue to raise awareness on the economic impact of export restrictions on developing and developed countries in various multilateral fora, such as WTO or the OECD;

consider shaping a new EU-wide policy on foreign investment agreements in such a manner as to better protect EU investments in raw materials abroad and ensure a

level playing-field with other foreign investors who benefit from the backing of State funds;

continue to increase coherence of EU policy with respect to raw materials supply, for example in the assessment of injurious dumping and subsidies.

The Group recommends that policy actions are undertaken to make recycling of raw materials or raw material-containing products more efficient, in particular by: mobilising End of Life products with critical raw materials for proper collection instead of stockpiling them in households (hibernating) or discarding them into landfill or incineration;

improving overall organisation, logistics and efficiency of recycling chains focus on interfaces and system approach;

preventing illegal exports of EoL products containing critical raw materials and increasing transparency in flow;

promoting research on system optimisation and recycling of technically-challenging products and substances.

The Group recommends that the overall material efficiency of critical raw materials should be achieved by the combination of two fundamental measures:

by minimising the raw material used to obtain a specific product function; this covers every step from smart production with metals and minerals savings to substitution of potentially critical raw materials by less critical ones;

by minimising raw material losses into residues from where they cannot be economically-recovered.

The measures should be evaluated with regard to impacts on environmental and economic performance over the entire value chain

In particular with regard to the recommendations for substitution, it should be stressed that substitution is not “per se” the solution to criticality in access to raw materials, all the more so in that, for most of the materials identified as “critical”, substitution possibilities have been identified already as very limited or non-existent. The most realistic and pragmatic solution to criticality is likely to be mix of measures – perhaps including the substitution of critical raw-materials from particular applications where it is found to be feasible and worthwhile. It should therefore be stressed that in case of substitution recommendations the EU should carry out substantial impact assessments not only for the material to be substituted but also for the substitute in the particular application being considered. Most EU impact assessments have hitherto fallen short of this requirement.

Are you aware of any initiatives in your country that aim to assess the criticality of raw materials? If so, please describe briefly.

(to be filled by countries – esp. AT, DE, FR, UK,...)

The functioning of raw materials markets has not been dealt with. Do you think that further analysis of their functioning should be carried out? What actions should be proposed to increase their transparency?

(No suggestions)

Do you think that the EU should propose a system of stockpiling for the critical raw materials? If so, please indicate whether you consider it more appropriate to do this at Community or alternatively at Member States level.

Stockpiling is not an effective option, particularly in today's context of a global economy. Resulting market disruptions, notably price impacts, and loss of market transparency are likely to give rise to additional distortions in the free play of market forces as well as biased business decisions and policy initiatives.

In addition, stockpiling would mobilize considerable financial resources and would require delicate arbitrage, the costs of which will ultimately fall on the industrial community at large.

Due to the different national economies and their needs, the stockpiling at EU level would in addition increase the disadvantages many times.

On the other hand, an alternative stockpiling concept, i.e., the pro-active identification and definition of geological prospects within the EU territory might achieve similar objectives without triggering the disadvantages described above. Rather than creating price interferences etc., such a "stockpiling" of mineral reserves would help the extractive industries to reduce the duration of supply bottlenecks.

POLICY AREA: TRADE

Major issues:

One pillar of the Raw Materials Initiative consists in developing a European external strategy in order to guarantee the sustainable supply of raw materials from global markets at undistorted conditions. In this, trade policy plays an important role.

DG Trade has recently completed its 2009 activity report on raw materials, which summarizes the progresses accomplished along the three axes of the trade raw materials strategy:

Include, as appropriate, the relevant trade disciplines on sustainable supply of raw materials in bilateral and multilateral trade agreements.

Identify illegitimate trade distortive measures taken by third countries and tackle them using all available instruments, including through bilateral consultations, the Market Access Partnership process or, if necessary, the WTO dispute settlement; while delimitating more clearly permissible exceptions for e.g. development purposes.

Reach out to third countries to show that the question of sustainable raw materials supply is an issue relevant to all countries, developing or developed, resource-rich and resource-poor alike as the uncontrolled, unregulated multiplication of trade restrictions can lead to a generalized beggar-thy-neighbour policy detrimental to most countries; while recognising the importance of respecting internationally agreed rules on the subject.

7. Do you think that the importance of trade is adequately reflected in the work carried out so far in the Raw Materials Initiative?

The aspect of trade distortions and the relatively small occurrence of illegal shipments has been given far too much attention in comparison to the sustainability agenda of the EU.

Whilst trade distortions and subsidies are undesirable the real issue of supply of raw materials to EU markets from unsustainable sources has been given no attention. On the contrary, by accepting cheap imports from partly unsustainable sources to the EU and imposing the highest environmental and health and safety standards within its own territory, the EU is still outsourcing its environmental, health and safety costs to other countries. The current review of the Thematic Strategy on the Sustainable Use of Natural Resources hints at this problem, but confuses impacts occurring within the EU and impacts occurring outside the EU in coming to the conclusion that the EU should “de-materialise”. More attention should be given to the possibility that the “least-impact” scenario globally might be for the EU to maximise its capacity for sustainable extraction of raw-materials and sustainable manufacturing for export. Till today the EU has not seriously tackled this issue, which is itself a source of substantial market distortions.

8. Do you have any comment regarding the main findings of DG Trade activity report? What activities should be prioritised? Are there, in your opinion, additional activities not mentioned in the report which should be pursued in this strategy?

The aspect that should be reinforced is the integration of sustainability requirements into imports into the EU.

9. Please identify trade distortive measures (i.e. export restrictions) concerning raw materials that in your view should be tackled.

Please note that some trade distortions, as unfortunate as they might be, are protecting EU production of raw materials from unfair trading practices by others and are therefore helping to ensure that the EU does not become totally dependent on imports (and the increased social and environmental impacts that might be associated with those imports).

10. Are you aware of any initiatives in your country that have one of the above goals in mind such as, for example, developing a raw materials diplomacy, or supporting companies to invest in third countries in the raw materials sector? If so, please describe briefly.

(To be answered by countries – E.g., Sweden’s Mining for Development?).

POLICY AREA: DEVELOPMENT

Major issues:

The 2008 RMI Communication highlighted that development policies play a relevant role in at three 'levels':

'Strengthening States'

Promote a sound investment climate that helps increase sustainable supplies of raw materials

Promote sustainable management of raw materials

In 2010, within the context of the EU-African Union partnership, the European Commission and the African Union Commission recently agreed to develop a bilateral co-operation in the field of raw materials and to work together, taking fully into account the Africa Mining Vision of February 2009 and the EU Raw Materials Initiative of December 2008, in particular on issues such as governance, infrastructure and investment and geological knowledge and skills.

Questions:

11. What specific actions would you consider most relevant needed in the following areas:

Good governance;

Infrastructure / investments;

Geological knowledge / skills.

There is a huge European experience in use of special procedures and geological data collecting, processing and using which are skills that could be transferred to developing countries. This underlines the importance of maintaining a strong “Geological Services” sector within the EU.

There are many best practices that could be shared.

12. Regarding transparency, what measures do you believe the EU should take to foster revenue transparency in the mining industry in raw material resource rich countries? What are your views regarding existing initiatives currently being taken in this area, namely by the Extractive Industries Transparency Initiative (EITI6)?

No comment.

13. Concerning the recent agreement between the European Commission and the African Union Commission, in your view, what concrete objectives, targets and deliverables should be included in such a partnership?

The industry welcomes the increased cooperation and would recommend making use of many EU guidelines, good practices and suitable directives linked with environment protection related the extractive activity. There are a number of RTD and demonstration projects that could be realised in developing countries, for example with regard to exploration, water management, mineral characterisation and rehabilitation.

Support for projects that strengthen “Good Governance”, fight corruption, improve institutional capacity, as well as support for infrastructure projects that will facilitate investments should be given by the EU.

Projects that make use of international experience such as the ICMM’s resource endowments project would be possible to assist resource rich countries to avoid the “Dutch disease”.

In principle there are a sufficient number of international rules and regulations available (BIFC Guidelines, OECD Guidelines for multi-national enterprises and for corporations).

14. Do you consider that wood should be addressed in the framework of development policy? If yes, please specify what the main issues to be analysed are.

No comment.

15. Are you aware of any initiatives in your country that contribute to promoting exploration and exploitation of mines in developing countries? Should such initiatives be better coordinated or promoted at the EU level?

(to be completed by the countries– E.g., Sweden’s Mining for Development?).

POLICY AREA: IMPROVEMENT OF THE REGULATORY FRAMEWORK CONDITIONS INSIDE THE EU

Major issues:

The Commission has proposed in the Raw Materials Initiative adopted in 2008 to provide clarity on how to reconcile non-energy extraction activities in or near Natura 2000 areas with environmental protection. In consultation with stakeholders a guidance document has been finalised and will be available on the web site of DG Environment⁷ before summer break.

As regards ways to improve the regulatory framework within the EU by promoting the exchange of best practices in the area of land use planning and administrative conditions for exploration and extraction, a report has been delivered by the relevant ad hoc Working Group⁸.

This report covers the following topics:

Minerals Policy

Land use planning policy for minerals

Authorisation and permitting procedures

Achieving Technical, Environmental and Social Excellence

Improving the EU’s geological knowledge base

Better networking between the national Geological Surveys

Need to integrate terrestrial sub-surface information into the GMES Land Service

Questions:

16. Do you agree that these topics correspond to the major challenges in this policy area? If not, please specify.

Three major aspects are missing:

The integration of social aspects into the Environmental Impact Assessment directive
Industry is now conducting ESIA (Environment and Social Impact Assessment)
Social impact of industrial activities should be included in the EIA directive.

Promoting the long-term compatibility of nature conservation and mineral extraction
With regard to the Nature Directives, the industry appreciates the latest Commission guidance. However, it is not understandable that at the same time the Commission establishes another Technical Platform on Business and Biodiversity for discussion where again a consultant is suggesting that Natura 2000 areas are “no-go” zones in clear contradiction of the recently adopted guidance. Similarly, it is not understandable how the same Competent Authorities that have overseen and adopted

the recent Guidance can also state that Natura 2000 areas are “no-go” zones at the United Nations Commission for Sustainable Development in New York (http://www.un.org/esa/dsd/resources/res_docucsd_18.shtml). Along the philosophy of better legislation, such misrepresentations and repetitions of debates should be stopped.

Integration of raw materials' accessibility into legislative impact assessments in the context of EU and national legislation.

The integration of the aspect of impact on the accessibility to raw materials in any EU legislative proposal is a must if further sterilisation of available deposits is to be prevented.

17. Do you think of any other avenues which should be followed by the Commission? If yes, please specify.

It would be desirable if the European Commission could issue a recommendation that exploration was considered as RTD in the Member States and therefore would be granted tax exemptions.

Furthermore instruments have to be developed at EU and national level in order to facilitate investment in exploration and extraction within the EU as well as for non-EU countries. Such instruments would be for example supporting loans or failure liabilities.

18. Do you agree with the recommendations made in the report on "Exchanging Best Practice on Land Use Planning, Permitting and Geological Knowledge Sharing" or do you have any specific ones to be added. Please explain.

The industry agrees with the recommendations and welcomes in particular to organise an annual conference under one of the Presidencies. It would be desirable if the Commission could support Member States and industry to promote and further improve these best practices.

19. Do you consider it useful to establish an EU geological service based on a network of Member State geological services?

Yes, we would consider that an EU geological survey would be advisable, but not just as a network, but as an institution.

20. Do you consider that EU regulatory framework conditions for wood and/or recovered paper need to be further analysed? If yes, please specify.

No comment.

**POLICY AREA: PROMOTING SKILLS AND RESEARCH,
DEVELOPMENT AND INNOVATION**

Major issues:

Promote skills not only in the mining sector but also in other raw materials sectors is a matter of concern. The Commission is currently supporting this challenge via programmes such as ERASMUS MUNDUS with the specific Minerals and Environment Programme (EMMEP).

Focussed research on innovative exploration and extraction technologies, recycling, materials substitution and resource efficiency. The commission has recognised the European Technology Platform on Sustainable Mining (ETP-SMR) to catalyse excellent research and development collaborative projects between the industry and research organisations. In addition, via the 7th framework programme for research, development and innovation the next call for proposals in the area are expected to be public in July 9.

Questions:

Skills:

21. What type of actions would you propose to provide better cooperation between companies, universities and public authorities in order to promote skills and in the extractive or other raw materials sectors? Please specify.

Continued Support for the networking of universities dealing with geology, mining engineering and mineral processing under the Erasmus programme would be needed.

Support for an Era-Net programme or something similar would be desirable.

Support for further education of engineers would be helpful.

Support for much stronger cooperation between industry and academia would be helpful

Example: reducing the deterrent effect of the high level of delays and red-tape currently associated with EU-funded research.

Research, Development and Innovation:

22. Are you aware of any research, development and innovation programme(s) at national, regional or local level? Please specify.

(To be filled by each country.)

23. Where do you see the major gap / the urgent need for the raw materials sector related research, development and innovation at EU level. Please provide details.

The needs of the sector have been identified in the Strategic Research agenda of the ETP SMR.

In particular there are research needs in the area of

- deep mining
- deep sea mining
- flexible small scale mining
- Mineral and metal processing
- Metal and mineral recycling.
- implementing the hard rock breaking

- implementing automation and robotics of many mining operations based on new sensor, IT and embedded systems technologies

24. What is your idea of a major research and innovation action that would have the highest positive impact on the security of raw materials supply for the EU industries? Please specify.

Three actions are necessary:

- Sustained R&D in exploration to find new reserves
- Transparent and logical R&D programmes to maintain the existing global technological leadership of the mining companies and the global European equipment suppliers. Many of these companies do not participate in EU-programmes for reasons of bureaucracy and protection of IPR.
- R&D in systems to increase recycling and recovery. Such systems are not only in technology but also in innovation of systems for logistics, taxation and incentives.

In particular research in the following areas is needed:

- Intelligent deep mining,
- new “look ahead” technologies based on nanotechnology? and sensors ,
- wider use of robotics and automation,
- bio-metallurgy,
- constant monitoring of mining environment inside and outside of the mine.

25. Are you aware of innovative exploration and extraction technologies, where project partners on a European level are needed to develop and implement the new technologies and which are the innovative technologies which need to be developed further. Please provide details.

- Promine project, FP7
- EO-miners project FP7
- Intelligent Deep Mine project to be submitted in FP7 in 2011,
- Water Management in Industry including mining – to be submitted in FP7 2011

26. Are there any other aspects related to skills, R&D and innovation for other raw materials, such as **wood**, that need to be further promoted? Please, specify.

No comment.

POLICY AREA: RESOURCE EFFICIENCY & RECYCLING

Major issues:

The 2008 RMI Communication identified that the increased use of secondary raw materials contributes to security of supply and energy efficiency. However, today many end-of-life products do not enter into sound recycling channels, resulting in an irremediable loss of valuable secondary raw materials. This mainly concerns exports

of end-of-life vehicles and electronic equipment, which leave Europe as reusable products but end up being dismantled abroad. To counter these trends, the need to reinforce the Waste Shipment Regulation and related legislation was identified. Furthermore, prices of some recovered materials have reached record levels due to the high demand from third countries.

The Waste Shipment Regulation also contains requirements on exporters of waste to third countries to ensure that this waste will be treated in an environmentally-sound manner. However, compliance with this principle is not always respected.

Finally, stakeholders have identified the need for an improvement in statistics on secondary raw materials. This includes actions to be taken to measure the extent of illegal trade in products containing these secondary materials.

Questions:

27. In your view, and beyond measures already being taken (e.g. the recast of the WEEE Directive), what practical measures can be taken by the EU and by Member States to prevent the illegal shipment of obsolete end-of-life vehicles and electronic equipment?

No comment.

28. In what ways should statistics on trade in, and recycling of, products containing secondary raw materials be improved?

No comment.

29. Have you identified major problems with recovered paper? What are the main issues that need to be further analysed?

No comment.