

Industrial and metallic resources in Europe: preparing for strategic decisions

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The industrial revolution was largely based on the rapid expansion of the primary economy, and consequently controlled by the access to mineral resources as feed stock and coal for energy. At first, availability of local (national) reserves was crucial, but this necessity gradually decreased. Currently Europe has a large import dependency for such commodities, especially for the metallic resources. This scheme is in line with the socio-economic evolution of Europe, and has, until present, been working without major incidents, unlike e.g. for oil and natural gas where the threat of a supply cut off has been proven to be real.

In recent years, the worldwide demand for natural resources has grown rapidly. The surplus demand does no longer originate from Western countries alone, but is now largely located in developing countries such as China. This has led to new conflicts: access to reserves outside of the developed countries are increasingly being claimed by developing regions. For Europe, this pressing situation has been recognised in the Raw Materials Initiative.

Being cut off from these primary resources could have very significant consequences. They are not only vital for the traditional sectors (e.g. steel, cement), but also for new and rapidly expanding technologies (communication, renewables...). Several strategies can help to reduce these risks. Those on the demand side include more efficient recycling and the research for and development of alternatives. This approach, however, will never fully cover the increased demand, therefore securing and expanding the reserves within the European continent is crucial. An obvious, and at the same time controversial approach is to consider the renewed exploitation of the known reserves of different commodities within Europe itself.

Before considering this re-exploitation, it is important to have a reliable, complete and sufficiently detailed overview of the current reserves of the different commodities in Europe. Efforts to gather and organise this data have taken profit of the initiatives relating to the implementation of the Inspire directive. The biggest challenge is to harmonize the databases of the different European Geological Surveys in such a way that they can be compared in not only a qualitative, but also in a quantitative way. The level of detail also requires to look into the confidentiality of the different datasets. Subsequently, the network needs to be expanded with the aim to build a truly pan-European database, and to keep this system up-to-date.

Understanding how crucial the problems related to shortages of natural resources may become, is a first step, now understanding to what degree Europe can be self sustaining is next. There is still a long road ahead before we can fully comprehend if and how the domestic reserves of Europe can compensate for the current import of resources - that were until shortly taken for granted -, but this nevertheless needs to be done urgently.