



The Material Resources Scan – an analysis of material scarcity risks



Many material resources are at risk of becoming scarcer over the coming years:

- Will this impact your business?
- What are the risks for your products and services?
- How realistic are your long-term goals and targets?

A Material Resources Scan identifies risks and opportunities.

Resource scarcity will shape the 21st century

Both governments and leading companies have started to realize that access to resources will be one of the dominant forces shaping future economic welfare and security. Rising commodity prices, trade barriers and an increase in copper theft are all early indications of what we believe to be a robust, long-term trend. Still, only twenty percent of Dutch companies is preparing for resource scarcity.¹

Managing the risks

Developing successful strategies to cope with material scarcity risks is complex. The issue of material availability is tightly interwoven with future developments in energy, climate, water availability, land use, technology developments, transport, population and economic growth. IMSA has the know-how to systematically analyse their interactions and to foresee barriers and opportunities in sustainable development. It is this systems analysis that provides a solid basis to our prediction that resource scarcity is an emerging, global risk. We have successfully applied this method to help the Port of Rotterdam in setting the agenda for their long-term vision, and we have used it to strategically advise the chlorine industry.

Making such an analysis for every chemical in a company's product portfolio would be extremely time-consuming. That is why we developed the Material Resources Scan: a tool to provide a first indication of which resources are at risk of leading to scarcity-related issues. Furthermore, the scan gives insight into the nature of this risk and indicates how it can be dealt with.

¹ PWC, 27 September 2011. <http://bit.ly/oZTw5t>



In our experience, companies do not always have a complete overview of the risks that occur outside the realm of their own supply chain. With sustainability issues being sometimes too narrowly focused on what can be measured in standardized ways – energy use, emissions – important developments pertaining to a highly complex issue like material scarcity are easily overlooked. It is obvious that companies know best how to manage a continuous supply of the most important raw materials for their business. IMSA's added value is in identifying the external, interrelated factors influencing the future availability of these resources in a systematic way.

How does it work?

Starting with a specific question from a client, we analyse the primary production of relevant resources in four dimensions of scarcity: physical, economic, geo-political and sustainable (PEGS). We establish for each resource if there is no risk, a significant risk, a high risk or insufficient data to draw a conclusion. To this end, we maintain a database with global data on multiple indicators in every dimension and insights into the current state of recycling of the resource. Combined with the specifics of the client's product or service this results in a risk assessment for the short and medium term.

The Material Resources Scan strikes a balance between a general analysis and a custom-made strategic advice. Our database of scarcity indicators allows us to give a quick estimate of risks for a number of raw materials – an early-warning system. In cooperation with our client we establish how this should be interpreted for the specifics of the business, product or service. This scan of material scarcity allows us to provide tentative solutions for the identified risks.

Next steps

Identifying the resources at risk and the nature of these risks is the first step in developing a more sustainable strategy. As a next step, IMSA can provide an in-depth analysis of the resource issues identified and help developing a solid strategy to address the challenges of future material scarcity.

About IMSA Amsterdam

IMSA Amsterdam is an independent think tank and consultancy & research firm committed to the environment, sustainability and innovation. We operate on the interface between industries, governments, NGOs and public scrutiny to develop, together with our clients, innovative solutions to sustainable development. The experienced IMSA team consists of approximately 25 highly qualified people from diverse backgrounds and disciplines. Our clients include trend-setting multinationals, governments, and NGOs. IMSA's president, Wouter van Dieren, has been managing the firm for over 25 years.