

## Summary of COE Resources Breakfast Session:

### **“Deep Sea Mining: Hitting the Bottom or Taking Off?”**

#### **Introduction**

The Centre of Expertise on Resources (COE Resources) supports industry and government to effectively anticipate strategic opportunities and risks related to the sustainable supply of resources. On July 8<sup>th</sup>, COE Resources, in collaboration with Trinomics and IHC Mining, organized a breakfast session, entitled “Deep Sea Mining: Hitting the Bottom or Taking Off?” The session was well attended by representatives from industry, government, civil society and knowledge institutes.

Deep sea mining is on the move. After years of talking, exploitation legislation is now being put in place and the first projects are on the verge of becoming operational. In the session, participants discussed the strategic relevance and economic potential of deep sea mining, the geopolitical context, legal constraints as well as the environmental concerns.

#### **“Key knowledge gaps and challenges: policy options to overcome them” - presentation by Hans Bolscher (on behalf of Katarina Svatikova), Senior Consultant at Trinomics**

Trinomics has been commissioned by the European Parliament to carry out research into DSM on account of increased exploration of deep sea mineral deposits and heightened speculation as to the broader economic, environmental and social consequences. The international community is in the process of establishing a clear, legal framework for DSM. Environmental and social factors, including the potential impact on coastal communities and revenue sharing with developing countries, form the biggest gaps in knowledge and legal challenges. Policy makers should seek to improve communication between experts and practitioners; support the adoption of a comprehensive legal framework; improve knowledge around the environmental impacts; further investigate recycling as an alternative; address adverse effects on communities and look into supporting a pilot program.

The discussion touched upon the question, whether DSM has benefits over terrestrial mining, which has major negative social and environmental consequences. Participants also pointed out that it is important to distinguish between the various DSM resources, as different materials require different processes, which will have various environmental impacts.

#### **“A Geopolitical Perspective on DSM” - presentation by Marjolein de Ridder, Strategic Analyst at the Hague Centre for Strategic Studies (HCSS)**

Increased interest in DSM is driven by global trends, such as population growth and the rise of the global middle class, which increase the demand for natural resources. In addition, terrestrial mining is associated with environmental and social issues and conflict. The emergence of a multipolar world and a rise in resource nationalism has contributed to the securitization of raw materials, as can be witnessed in the South China Sea. DSM could lead to similar competition in international waters. The requirement of state sponsorship could also lead to an unlevel playing field, in which countries try to favor their national companies.

For the Netherlands, which is currently not a sponsor state, DSM is unlikely to be the most cost-effective way to secure future mineral supplies. On the other hand, DSM presents economic opportunities, mainly through the export of knowledge and technology. In addition, involvement equals influence and would allow the Netherlands to promote responsible DSM practices.

The discussion touched upon the question, whether the security implications differ for DSM and shallow offshore mining. It was also pointed out that whereas high metal prices in previous years and high price volatility have contributed to increased interest in DSM, low metal prices and price volatility are a risk for developing countries and investments in DSM. The question was raised, whether problems surrounding the minerals associated with DSM could be solved through additional terrestrial mining, such as happened with rare earths elements.

**“The position of Dutch companies in the global market” - presentation by Henk van Muijen, Managing Director at IHC mining**

Technology and sustainability both pose difficult challenges for DSM: “We know more about space than we do about the deep sea.” However, we should not fill gaps in knowledge by applying the principles of terrestrial mining to DSM. Research requires investment and it’s important for market developers, NGOs/public sector, operators, manufacturers and innovators to have a seat at the table. In the Netherlands, the table is lacking the presence of the authorities, concession holders and investors. Belgium, Germany, the UK and France all have regulation (and licenses) in place, where the Netherlands does not. This hinders the ability for Dutch businesses to exploit their expertise and experience to become a provider of services to developing nations, whose DSM ventures might otherwise be ‘swallowed up’ by larger global powers. Due to its strong global position in pre-existing offshore practices (including in oil and gas), the Netherlands can offer valuable insight to influence international DSM legislation.

The discussion focused on the question of how the Netherlands should deal with the unlevel playing field that is emerging. The Dutch industry has a leading position in knowledge relevant to DSM, but needs support from the Dutch government. This is particularly true since countries are keen to develop their own knowledge bases, i.e. indigenous innovation in China.

**Roundtable discussion**

Three main questions were asked to the audience:

- Do we need more minerals through DSM?
- What is the role of Dutch government and business?
- Is it possible to mitigate the risks and overcome environmental, technological and legal hurdles?

Participants agreed that from a company perspective, mineral demand might not be the driving force for DSM but opportunism. Once one company ‘takes the plunge’ it is likely to fuel a race that is based on strategic advantage and competition. The big mining companies invited for the session declined, which may suggest DSM is not their priority.

The table was divided on how soon DSM would take place and whether it was strategically important for the Netherlands to be involved. Currently DSM is not on the forefront of the Dutch government's agenda. IHC wants government legislation in place to exploit its expertise and position itself at the forefront of technological innovation. This is required even to act as a service provider to third parties. The Dutch government is still very worried by the environmental costs, and will study the Belgian and German DSM legislation.

It was concluded that influencing the development of the legal framework offers an exceptional opportunity to develop DSM into a more environmentally friendly and socially responsible alternative to terrestrial mining. This requires that the environmental costs of the various types and practices be qualified further. We need to ensure that future generations do not look back and view this practice in the same way current generations view deforestation.

### **Next steps**

Policy makers and industry identified the following action points:

- Enquire as to the possibility of a pan-European initiative. If there is interest, persuade the European Commission to create a common approach.
- Fund further research into the environmental costs of DSM.
- Keep abreast of legal discussions currently taking place at the international level to ensure that developing states benefit from the mining of minerals and monopolization is avoided.
- Continue discussions on how to establish ways of leveraging Dutch expertise in water management and off-shore activity in relation to DSM.

COE Resources will:

- publish an Issue Brief on DSM;
- continue to offer its knowledge and services on geopolitics, foresight, and environmental policies to help industry and policy makers to formulate robust strategies that anticipate the challenges of the future.