

30 million jobs in Europe depend on access to raw materials

✘ The European Union (EU) has published a document, the Raw Materials Initiative, outlining the importance of raw materials to its economy in view of rising concern over access to specific raw materials needed to match current and future technological development. The EU considers the availability and supply of raw materials to be an important risk to Europe's economy. About 30 million jobs in Europe depend on access to raw materials. The High Level Steering Group of the European Innovation Partnership (EIP) on raw materials has presented a strategic plan to ensure a stable supply of raw materials. The EIP aims to reduce dependence on imports of raw materials, improving the conditions of supply from within Europe itself and from countries beyond the Union. The EIP have considered both resource efficiency and access to reliable alternative sources, given the extent of the risk.

The development of countries like China, Brazil, India, Turkey, Mexico, or Indonesia has generated a shift in the global economic map thanks to the rise of so called "South-South" cooperation, highlighted by the need to extend the concept of the G8 to the G20 – that is to say between developing countries rather than simply between the rich North and the poorer South. The institutionalization of the BRICS (Brazil, Russia, India, China and South Africa) is perhaps the most startling example of this phenomenon. Of course, Europe and the United States remain pillars of global technology, trade and finance but they are no longer the sole or even main pillars as was the might have been the case in the 1950's or 60s. In the past two decades, in fact, the economic tides have substantially and permanently changed the international map of supply and demand for raw materials. Raw materials are

essential.

In Europe, the construction, chemical, automotive, aerospace, machinery and equipment sectors – all evidently reliant on raw materials produce in excess of 1.4 trillion in value and create employment for some 30 million people: access to raw material is critical on multiple levels. Emerging G-20 or BRICS or aspiring BRICS are also trying to secure access to more raw materials. The race, as stated by the EU Commission caused a “tripling of metal prices between 2002 and 2008”. China, in particular, accounted for over 50% of the increase in global consumption of industrial metals between 2002 and 2005.

Beyond this overall increase in demand, changes in technology have given some natural resources a new strategic importance. For example, rare earths are now essential to many “green” technologies. Tantalum is widely used in the electronics industry. Cobalt is used in lithium ion batteries as is graphite; germanium is found in fiber optics while indium is used in photovoltaic cells. Indium is also needed in the growing field of haptic technology – technology related to the ‘sense of touch’ and frequent in aerospace, displays, video games, controls and a growing list of applications. Such minerals, their rarity, their uneven geographical distribution or concentration of their production chain represent a challenge to the increasing importance for global economies. The emphasis on resource security, will force Europe to shift to the forefront in the fields of raw materials even while mitigating the negative impact on the environment and society. The growing demand for unprocessed metals and the consequent difficulties in access to raw materials are the foundation of the Strategic Implementation Plan (SIP – Strategic Implementation Plan). The challenge, should it succeed, will turn Europe into a world leader in the field of exploration, extraction, processing, recycling and substitution of raw materials by 2020.

How does the EU plan to achieve this? Research, development of new technologies , recovery and recycling of waste and identification of alternative materials , in line with the objectives of 'Horizon 2020', the EU's main instrument for funding research over the next seven years 2014-2020. Raw materials are the lifeblood sustaining the EU's industrial sector. At least 30 million jobs in Europe depend on access to raw materials and there has been an increase in demand for minerals and metals, accompanied by significant difficulties in the supply of certain raw materials, such as price volatility and market distortions – i.e. China's rare earth export restrictions. The EU has asked its companies, researchers and NGOs to promote technological innovation and non-technological innovation in the value chain of raw materials in Europe and beyond. The group of possible actions includes a wide range of initiatives such as new concepts and technologies for exploration efficient in terms of costs and identifying alternatives for critical raw materials.

The EU plans to launch up to ten specific pilot projects aimed at promoting the technologies for the production of primary and secondary raw materials as well as identifying alternatives for at least three applications of essential raw materials. In a separate aspect the SIP will also sponsor efforts to improve processing and waste management technology to make mining and recovering critical materials more socially and environmentally acceptable.

Image Source: <http://europa.eu>