

The background of the cover is a complex, abstract geometric pattern composed of numerous overlapping triangles in various shades of blue, teal, and green. The triangles are arranged in a way that creates a sense of depth and movement, with some pointing towards the center and others pointing outwards. The overall effect is a vibrant, multi-colored mosaic.

**UNDERSTANDING THE RAW MATERIALS  
STRATEGIES OF THE EU**

GLOBAL AND DOMESTIC PERSPECTIVES



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# 1. INTRODUCTION

The European Union is highly dependent on imports of raw materials, to which European industry requires efficient and secure access. In recent years raw materials security and related strategies have become one of the key priorities in the EU's external actions as well as in interior policy making.

The foundations of these strategies were laid in two key documents from 2008 and 2011, driven by the current global economic situation and the EU's high dependence on imports of certain raw materials. The new strategy introduced trade policy measures aimed at fostering a fair and sustainable supply of raw materials from international markets. Export restrictions, used by third countries, have been identified as a major impediment to free flow of these commodities. Internally, the EU emphasises reliance on its own sources of raw materials and resource efficiency, including better waste legislation, recycling and re-using.

Access to raw materials is in fact an important issue for all import dependent countries, both developed and developing, since none of them has their sufficient supplies. Recent global developments, especially rapid industrialization of emerging markets, have prompted a major surge in demand for various types of minerals and metals. As a result, export restrictions have been used more frequently by some countries, thus becoming a serious concern, along with resource efficiency for many industrial sectors, governments as well as multilateral and global actors such as OECD or G20.

The harmful effects of increasingly restricted availability and access to raw materials on the economic development of all countries whose production capacities depend on them cannot be overemphasized. As will be shown below, those metals and minerals such as rare earth, which are necessary components in the production of mobiles, computers, cars or airplanes are particularly sensitive. It is highly likely that unless availability and access to raw materials is secured, many national and global industries will suffer production disruption in the foreseeable future. This, needless to say, will have severe repercussions not only for affected industries but also the development of the countries or regions in which they operate.

One of the most important responses to global raw materials scarcity is the creation of unambiguous rules, transparency and predictability in export restrictions. Only this can assure that their global application does not degenerate into mutual retaliation, making everybody worse off. Greater resource efficiency is equally if not even more important; however, it does not always lead to the desired decrease in consumption of raw materials. What is needed therefore are structural changes to the prevailing economic model to promote new, immaterial ways of consumption and production patterns.

This paper provides a global background to and elaborates on the main approaches of the EU to raw materials security. The first part outlines the approaches and actions of the key relevant multilateral or global institutions: the OECD, as the global driver of the agenda, the G20 as the club of the global heavy-weights and the WTO, which sets the rules relevant to trade dimension of the global raw materials security. This analysis is important to understand the EU's strategies and policies because these institutions function either as global agenda-setters or an arena where the battle for global resource security is fought. Thus, they influence the EU's own strategic and political direction. At the same time, the EU brings its own vision and initiatives to the agenda of these institutions, shaping them in turn.

The second part outlines the main approaches of the EU to its raw materials security from the perspective of international trade and resource efficiency. We first describe the main elements, sources and challenges of the EU's strategies and policies, highlighting the internal coordination of the raw materials policy as a particular challenge. We then identify the expectations and interests of the EU member states, businesses and the European Parliament. This is important since these interests and concerns are one of the sources of the EU's approaches and thus shape European raw materials agenda. Finally, we consider to what extent the EU's policies make sense from its own resource security, as well as from global perspective.

Methodologically, the paper analyses the key strategic documents of the relevant institutions to provide the reader with an overview of the current discourse driving their agenda. To some extent, it also maps the actual policy achievements, especially in the area of trade liberalization. Several representatives of the DG

trade, DG enterprise and DG environment were also consulted in the initial stage of the drafting of the policy brief so as to identify the primary research focus.

## 2. THE GLOBAL CONTEXT OF EU RAW MATERIALS POLICIES: APPROACHES AND INITIATIVES OF THE OECD, G20 AND WTO

### 2.1 The economics and geopolitics of raw materials global scarcity

According to the 2010 report of the National Intelligence Council (US governmental agency), the decreasing availability of not only energy resources but also non-energy raw materials constitutes one of the most serious geopolitical problems of our times. These include metals such as copper or aluminium or super-strategic rare earths such as Scandium, Promethium or Samarium,<sup>1</sup> which are essential for almost all modern industrial products such as performance permanent magnets in wind turbines or catalytic converters for cars. The European Commission in 2010 highlighted 14 minerals (including tantalum, cobalt, and tungsten) as “critical” for industries in the EU.<sup>2</sup> According to the December 2011 PWC report, CEOs of the world’s leading manufacturing industries from Europe, Asia and America believe that resource scarcity will “strongly increase” in the next five years. This can lead to destabilization of production or disruption of supplies. Currently, instability of supplies is a threat especially for automobile and energy industry; the period until 2016 is problematic especially for aviation and hi-tech industry.<sup>3</sup>

Resource scarcity means that a sufficient amount of minerals and metals is not present in the right place and in the right time. There are two main dimensions: economic and geopolitical scarcity. The most serious

is economic scarcity resulting from a dramatic increase in demand. The origins of this increase date back to the beginning of the 21<sup>st</sup> century with the economic boom and industrialization of the emerging markets such as China, India and Brazil. In the last ten years these countries have started to import vast quantities of raw materials, having till then been self sufficient or even exporting. For instance, while in 2001 China imported copper worth \$1 billion, by 2010 her imports had increased to \$25 billion a year. This increased demand results in price volatility or price increases of selected commodities. The price of copper increased four-fold between 2002 and 2011. The price of platinum tripled between 2003 and 2007, before dropping to the original level in 2008 and then doubling by 2011.

As a result, many countries are pursuing policies aimed at protecting their resource base. They have more frequently used export restrictions, in the form of export taxes, quantitative restrictions, export quotas or various export licensing schemes, thus increasing the geopolitical scarcity of raw materials. The most significant increase has been in emerging markets and Least Developed Countries in Africa and the Americas.

The number of countries applying export duties (65 of 128 WTO members) during 2003-2009 is higher than in the previous period (39 during 1997-2002). The European Commission identified 1,233 export restrictions measures in 19 investigated countries in 2009. The big emerging markets such as Argentina, Ukraine, Russia and South Africa were the main players that have applied most of the measures. From May 2011 to mid-October 2011, 19 new measures aimed at directly or indirectly restricting exports have been implemented, compared with 11 in the preceding six-month period. Most of these were related to raw materials and minerals while slightly more than a quarter affected food products.<sup>4</sup>

The geopolitical scarcity, prices developments and risk of disfunctioning of global markets, as we detail below, has inspired counter reactions from the countries or regions not sufficiently endowed with mineral riches (especially the EU) or from multilateral bodies such as OECD who argue on more global grounds.

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1 National Security Council, “Global Trends 2025: A transformed world,” NSC: Washington DC, 2008.

2 European Commission, “Critical raw materials for the EU,” Report of the Ad-hoc Working Group on defining critical raw materials, EC, 2010.

3 PWC, “Minerals and metals scarcity in manufacturing: the ticking timebomb,” PWC, December 2011.

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4 OECD, WTO, UNCTAD, “Reports On G20 Trade and Investment Measures (Mid-October 2010 to April 2011, May to Mid-October 2011),” OECD, WTO, UNCTAD.

Resource efficiency has been increasingly emphasised by some actors as another key response to decreasing availability of raw materials. Some countries, notably Japan, the US and China, had advanced strategies long before the emergence of the current scramble for resources. More recently, in the context of current shortages, this issue has risen in prominence both in private sector and in international multilateral bodies. The captains of major industries from all continents consider efficiency to be the key response to resource scarcity.<sup>5</sup> The OECD has actively started raising awareness on resource efficiency and productivity and the issue has also featured to some extent on the agenda of the G20.

Below, we examine initiatives in the area of export restrictions and resource efficiency at OECD, G20 and WTO level and in bilateral/regional trade agreements. This analysis provides a global background necessary for understanding European approaches to resource scarcity.

### **Box 1: The Middle East has oil – China has rare earth minerals**

China consumes around two-fifths of the world's output of industrial metals, so it is not surprising that it has developed a plan on national mineral resources that focuses on increasing the supply capacity of important mineral resources. It has also started a stockpiling program for some crucial materials and is very active in raw materials diplomacy, notably in Africa. It has reduced the number of domestic rare earths companies from 400 to 100 and is nationalizing the remainder. China has cut its export quotas for rare earths by 35 per cent in the first round of permits for 2011. This move threatens to exacerbate a global shortage of the minerals needed for smart phones, hybrid cars and guided missiles, since China possesses 97% of all accessible rare earth deposits.

5 PWC, "Minerals and metals scarcity in manufacturing: the ticking timebomb," PWC, December 2011 and McKinsey and Company, "Resource revolution," McKinsey and Company, 2012.

### **Box 2: Motivation behind export restrictions and their consequences**

Export restrictions take various forms, such as duties, minimum prices, quotas, prohibitions and licences. Export duties (taxes) are the most popular form and are usually applied on a limited number of products, although some LDCs have applied export taxes on all products.

#### ***The main reasons for applying the export restrictions are<sup>6</sup>:***

1. Social policy objectives, such as environmental protection or conservation of natural resources; as the main goal is to limit the volume of trade, the governments usually prefer the form of quantitative restrictions.
2. Fiscal revenues purposes: in reality, according to the statistics export restrictions are not so important revenue for the government budget; the only exception in this regard were the restrictions imposed by Argentina between 2002-2005 where income represented 9.9% of total public revenue.
3. Protection and promotion of downstream processing industries: in this case export duties provide domestic industry with an artificial competitive advantage and thus act as an implicit subsidy.
4. Controlling inflationary pressures and securing domestic supply and other objectives aimed at improving the terms of trade.

#### ***Market-distorting effects of export restrictions<sup>7</sup>:***

1. Indirect subsidization: when used for industrial or trade policy purposes, export taxes can serve as indirect subsidization of

6 For discussion on motivation behind export restrictions see e.g. OECD, "The Economic Impact of Export Restrictions on Raw Materials," OECD Publishing.

7 see especially OECD, "The Economic Impact of Export Restrictions on Raw Materials," OECD Publishing, 2010.

processing industries and influence international trading conditions of these goods.

2. Non-tariff barrier: export taxes can serve as a non-tariff barrier by displacing imports on the market of the country imposing the taxes, both for imported raw materials in direct competition with the taxed products and for imported processed products.
3. Impact on FDI into extractive industries: a) lack of transparency or predictability surrounding especially export taxes discourages FDI in the capital intensive mining sector; b) countries applying export restrictions have also introduced barriers regarding inward FDI in raw material sectors.
4. Price discrimination: export taxes affect competition since they create different prices for domestic producers and foreign companies by raising the cost of exports.
5. Long term price increases: export restrictions may lead to lower prices of raw materials in short term; in longer term however, they bring about the opposite effect also in the country applying restrictions.
6. Spiraling effect: reduced exports from the countries applying restrictions divert demand to other countries; these may then apply similar measures in their turn.

## 2.2 THE OECD

In last five years or so, the OECD has been a leading international organization with respect to research and awareness-raising related to export restrictions. OECD reports and studies look at the rationale behind the application of export restrictions and their impact on world trade. According to the OECD study *The economic impact of the export restrictions*, their effect on international markets has been found to be unambiguously negative, as they have restricted global supply and put forward pressure on world prices.<sup>8</sup> In fact,

8 see especially OECD, „The Economic Impact of Export Restrictions on Raw Materials,“ OECD Publishing, 2010.

only less than 1% of G20 trade has been affected by import-restricting measures adopted since the eruption of the crisis.<sup>9</sup>

Since export restrictions are not sufficiently covered by the multilateral disciplines, the lack of transparency and predictability in their application is considered a key challenge. The OECD study suggests that exploring a framework to discipline export restrictions at the WTO could enhance predictability and facilitate free trade of raw materials. An OECD current project on a comprehensive inventory of export restrictions is aimed at improving transparency and raise awareness on the matter. The project covers 100 countries identified as the top five producers for at least one of the 81 minerals and metals, including rare earths.

### Box 3: OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas<sup>10</sup>

A concrete example of common cooperation between governments and stakeholders has been put into practice recently: the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.<sup>11</sup> The Guidance was developed through a multi-stakeholder process with in-depth engagement from OECD and eleven countries of the International Conference on the Great Lakes Region (Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of Congo, Kenya, Rwanda, Sudan, Tanzania, Uganda and Zambia), industry, civil society, and the United Nations. The Guidance is not legally binding and observance is voluntary. The main objective is to help companies to respect human rights

9 G20 Summit, „Roundtable on Commodities and Raw Materials - Remarks by Angel Gurría, OECD Secretary-General,“ Cannes, 2 November, 2011.

10 OECD, „OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas,“ OECD Publishing, 2011.

11 OECD/ UNEP, „Conference on Resource Efficiency,“ 23-25 April 2008, Paris, France and OECD, „Resource Productivity in the G8 and the OECD,“ OECD, 2011.



and avoid contributing to conflict through their mineral sourcing practices.

The due diligence focuses on the whole supply chain – from extraction to selling the final product (including extraction, transport, handling, trading, processing, smelting, refining, manufacturing and selling). It covers only the following metals: tin, tantalum, tungsten, their ores and mineral derivatives, and gold. Every company involved in the supply chain should observe the due diligence. As it covers such a broad range of actors, it is obvious that a certain degree of flexibility is needed in practice. For the moment it is too early to assess its application but what matters is that all parties involved have signed up for it and expressed their willingness to conduct this due diligence guidance.

The OECD has been also active in the area of resource efficiency. Capacity building and awareness-raising, material flow and resource productivity indicators and statistics, compatible databases for key material flows development are highlighted as crucial. Dissemination of best practices in both developed and developing countries and cooperation on resource efficiency at the international level is also emphasised.<sup>12</sup>

In 2008, the OECD Council on resource productivity adopted a recommendation encouraging member states to improve resource productivity by promoting environmentally effective and economically efficient uses of natural resources and materials at all levels, and advanced work on decoupling.<sup>13</sup> Since 2004, the OECD has been also actively involved in the new integrated approach based on sustainable materials management focusing on materials throughout their life-cycle in a cost effective manner. The key

12 OECD, „Recommendation of the Council on Resource Productivity,” OECD, 28 March 2008.

13 In economics, decoupling in general means continued economic growth with continually declining material throughput. Relative decoupling then means a situation where resource impacts decline relative to GDP whilst absolute decoupling refers to a situation in which resource impacts decline in absolute terms.

recommendations for the OECD countries are to develop better knowledge and information about the environmental impact of resource use throughout the whole lifecycle of materials.

As a follow up to the G8 Kobe Action plan (see below), the OECD presented in 2011 a report on Resource Productivity in the G8 and the OECD.<sup>14</sup> This report is the first interim evaluation of progress in the last three years. One of the key findings is that the global extraction and consumption of materials resources has continued to grow, and although there have been some signs of de-coupling, these were more in relative terms. G8 countries' resource productivity has been improving and their material intensity decreased by more than 47% between 1980 and 2008. The OECD economies have reduced their material intensity by 42% over the same period. Other findings of the report are also significant: per capita municipal solid waste has decreased by almost 4% over the past ten years in the OECD and recycling rates have been continuously increasing for a large range of important materials (such as glass, steel, aluminium). The report finds also a positive trend of policies in the field of waste management and so called 3R policies (reduce, reuse and recycle).

## 2.3 The G20 and the G8

The G20 has provided an important political impetus to avoid protectionist measures in the international trade with obvious implications for export restrictions. The G20 leaders agreed on standstill commitments until the end of 2013 and on commitments to roll back any new protectionist measures that may have arisen, including new export restrictions and WTO-inconsistent measures to stimulate exports.<sup>15</sup> The WTO, the OECD and the United Nations Conference on Trade and Development (UNCTAD) monitor the situation and report publicly on a semi-annual basis.

14 OECD, „Resource Productivity in the G8 and the OECD,” OECD, 2011.

15 At the G20 Summit in Toronto in June 2010. At the G20 summit in Seoul in November 2010, G20 Leaders reaffirmed the extension of their standstill commitment to resist protectionism.



Beyond these measures, the G20 has not agreed yet to any concrete proposal on how to strengthen the current framework for export restrictions. This issue is still very sensitive for some developing countries since it is their bargaining chip for further negotiations, as was seen during the negotiations of Doha Development Agenda in the WTO (see below). The key to future discussion is to get the developing countries on board since it is also in their interests to have secure access to raw materials. Since none of them possesses all necessary inputs for their production, they are also vulnerable to the export restrictions imposed by third countries.

A good example of this is China. Although it is the world's leading producer of minerals, it is also highly depended on the imports of other raw materials, especially cotton from India. Even though China is one of the top producers of cotton, it also needs to import it in order to meet domestic demand.<sup>16</sup> By now it has in fact become the world's biggest importer. Many Chinese farmers do not want to plant cotton anymore, since the price volatility endangers their income. Switching to fruit and vegetables promises up to ten times higher income. As a consequence, domestic supply decreased, leading to a race for cotton and increase in cotton prices by 50%. In 2011 it was predicted that China would import 2.1 million out of 7.5 million tons traded globally.

The great challenge for the next G20 meetings is therefore to provide a political impetus for further discussion on export restrictions in international organizations such as the OECD and the WTO. The French presidency of the G20 has paid more attention to the issue of price volatility in commodities markets (especially agricultural ones) which has to a certain extent shifted the discussion from purely raw materials issues. The G20 meeting in Los Cabos in June 2012 further stressed the need to resist protectionism in international trade and to address the issue of commodities price volatility. However, no special reference to export restrictions was made.

As for the resource efficiency agenda of the G20, the issues of energy efficiency and clean resources are most extensively addressed. With respect to the G8, environmental ministers agreed in 2008 to take the

action in the area of reduction, reusing and recycling of raw materials in their Kobe 3R Action plan.<sup>17</sup> The implementation was followed up by the OECD, which summarized its findings in a 2011 report which reported some signs of progress (see above). The G8 summit in Deauville in May 2011 affirmed that green growth is an essential element to ensure sustainable global growth. To this end, it focuses, amongst other things, on promoting resource efficiency. The G8 leaders called for the implementation of the outcomes of the OECD work on green growth, including resource efficiency agenda.

## 2.4 THE WTO

The WTO does not have any specific agreement for regulation of trade in raw materials. Additionally, it was set up mainly to deal with import-related protectionism rather than export barriers. One of the most important, if not the only source of information on export restrictions is to be found in the WTO Trade Policy Review country reports in the section on measures affecting exports. The problem is that this review is carried out only sporadically and does not reflect the most up to date information.

Article XI of the GATT 1994 is the key provision regarding export restrictions. It prohibits the use of quantitative restrictions regarding both imports and exports, stating that:

*no prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party (on the importation of any product destined for the territory of any other contracting party or) on the exportation or sale for export of any product for the territory of any other contracting party.*

Importantly, Article XX allows exceptional quantitative restrictions for policy objectives such as conservation of exhaustible natural resources and ensuring essential materials for domestic processing industry under "certain qualifications." In principle,

16 T. Trinh and S. Voss, *China's commodity hunger*, Deutsche Bank Research, 2006.

17 According to Kobe town in Japan where the leaders met.

however, under the current WTO scheme, quantitative restrictions on exports are prohibited while export duties are allowed. This is rather surprising since according to the OECD studies, export duties and quantitative restrictions are just different forms of export restrictions. In this sense they are substitutes or supplements to each other.<sup>18</sup> It is also clear that prohibitively high export duties will induce the same effect as export prohibitions. Regional trade agreements operational under WTO framework, such as NAFTA or EU-Mexico agreement, in their turn prohibit application of export duties.

With respect to multilateral negotiations, export duties have played an important role in the Doha Development Agenda. Proposed by the EU, they were included in the draft modalities in 2008. The EU emphasised the negative aspects of export taxes and insisted that any approach should ensure increased transparency and predictability. To this end, Members should be fully informed of measures taken by any other Member that may influence trade.

The EU also proposed that scheduling and binding of Members' export taxes could offer an appropriate route of ensuring adequate predictability. This approach would imply that:

- a) WTO members should notify the introduction or modification of export taxes and
- b) WTO members should undertake to schedule export taxes in their Schedules of Concessions and bind the export taxes at a level to be negotiated.

The initiative proposed by the United States, Japan, Korea and Chinese Taipei regarding export licensing is yet another example of efforts aimed at enhancing transparency of export restrictions.

#### **Box 4: The WTO case – a historical step forward**

In 2009 the EU, together with the US and Mexico, brought a case of export restrictions of certain raw materials to the WTO Panel.

<sup>18</sup> OECD, „The Economic Impact of Export Restrictions on Raw Materials,“ OECD Publishing, 2010.

The dispute concerns four types of export restraints imposed by China: temporary export duties, export quotas, export licensing and minimum export price requirements. The raw materials covered by this complaint are various forms of bauxite, coke, fluorspar, magnesium, manganese, silicon carbide, silicon metal, yellow phosphorus and zinc. These materials are used in a variety of important items such as beverage cans, compact discs, electronics, automotives, ceramics, and batteries.

The complainants argued that the Chinese restrictions create scarcity and cause higher prices in the global market. The export restrictions created lower domestic prices and thus significant advantages for the Chinese downstream producers.

The panel released a report in July 2011 and ruled against China's restrictions. It concluded that the export restrictions on trading these materials were not effective in ensuring environmental protection because the production of these materials is not similarly restricted. Another key finding was that Chinese export duties are inconsistent with commitments undertaken by China in its protocol of accession. The panel report clarifies the WTO rules on export restrictions and concludes that the restrictions are not justified on environmental grounds as China advocated. China appealed the decision to the WTO's Appellate Body in August 2011. The Appellate Body delivered its decision in January 2012 and confirmed the findings made by Panel in July 2011.

In March 2012, the USA, the EU and Japan launched a second case against China's export restrictions on raw materials including 17 rare earths (that are essential for instance for making products such as smart phones and camera lenses).

The panel's report on Chinese export restrictions is an important step in dealing with export restrictions. For the first time the panel had to interpret the provisions of article XI: 2(a) that allows the application of restrictions or prohibition on a temporary basis to address critical shortages of essential products.

To sum up, all four bodies address some of the aspects of resource scarcity. Geopolitical scarcity dominates their agenda and the need for greater transparency and predictability runs through the work of all of them. The most active is the OECD, which pushes for the higher visibility of this issue and has published several studies on the negative impact of export restrictions on global markets. The key challenge for the G20 is to provide the political impetus to gain the support of developing countries with a view to making the use of export restrictions more transparent and predictable. The WTO made a historical step when for the first time it interpreted its own provisions related to the application of export restriction in the claim made against China. The WTO is also the only organization that can adopt a binding multilateral discipline in this regard.

As for economic scarcity, the most emphasized answer is resource efficiency. The OECD again leads the work through research and awareness-raising. It emphasizes the need for better indicators, statistics and databases on resource productivity, material flows and environmental impact of resource use and exchange of best practices. The G8 has pledged to take action especially in the area of recycling, reusing and reduction, and overall supports the work of the OECD in this area.

### 3. EU APPROACHES AND CHALLENGES IN THE AREA OF RESOURCE SECURITY

The EU is highly dependent on imports of raw materials, which are vital for its economy; raw materials imports in the EU per capita are the highest in the world. The dependence rate for minerals ranges from 48% for copper and 78% for nickel to 100% for materials such as cobalt, platinum and titanium. The EU is completely dependent on the imports of rare earth (see above) while China accounts for 97% of their production. No recycling or substitutions are currently commercially viable for these materials.

In June 2010, the Commission published a report of the ad hoc working group<sup>19</sup> that prepared the

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19 EC, "Critical raw materials for the EU," Report of the Ad-hoc Working Group on defining critical raw materials," EC, 2010.

first EU list of 14 critical mineral raw materials: antimony, indium, beryllium, magnesium, cobalt, niobium, fluorspar, platinum group metals, gallium, rare earth, germanium, tantalum, graphite and tungsten. Critical are considered those which display a particularly high risk of supply shortage in the next ten years and which are particularly important for the value chain. The report also highlights the fact that a high share of the worldwide production comes from unreliable or risk-prone countries such as China, Russia, the Democratic Republic of Congo or Brazil. The current list is to be updated every five years.

### 3.1 Raw materials initiatives and beyond –EU approaches to resource security abroad and at home

As a response to the changes on the raw materials global markets, the European Commission has presented since 2008 several key strategies, primarily focusing on raw materials but to some extent also on energy resources. The first, primary document which laid the basis for raw materials strategies of the EU is *Raw materials initiative* (RMI) published in 2008.

In February 2011, the EC adopted another key communication, *Tackling the Challenges in Commodity Markets and on Raw Materials*<sup>20</sup> (hereinafter "Tackling the challenges"), which is part of the Europe 2020 strategy. As a result, questions of financial markets, commodity prices and food security broadened the agenda, linking the EU's strategy more closely to that of the G20. The geographical focus has also been widened to focus more on developing countries, especially Africa.

The key guiding question behind these documents is how to secure reliable and undistorted access to raw materials. The Commission's response was outlined as an integrated strategy based on three pillars (proposed in RMI), which can be analyzed along two major lines – external and domestic dimension.

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20 EC, "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Tackling the Challenges in Commodity Markets and on Raw Materials," European Commission, 2011.

## External dimension

The external dimension is covered by the first pillar, called *Securing access to raw materials in world markets at undisturbed conditions* in the 2008 RMI. In 2011 this pillar was renamed *Fair and sustainable supply of raw materials from global markets*. The cornerstone of this approach is what is known as Raw Materials Diplomacy; its primary objective is to secure stable access to raw materials focusing particularly on protectionist use of export restrictions.<sup>21</sup>

For this reason, as outlined above, the EU supported various initiatives at the OECD and WTO especially in cooperation with the US and Japan. It also aims at reinforcing the bilateral dialogue with China, Russia and some African countries with a view to convincing them of the global nature of the raw materials issue and of their own benefits from clear trade rules in this area.<sup>22</sup> With this in mind, the EU strives for explicit guarantees for market access to raw materials in its existing bilateral agreements such as Free Trade Agreement with South Korea. The same approach is applied in relation to all countries with whom the EU is negotiating new trade agreements.

In the framework of its general approach to raw materials, the Commission has developed a specific trade strategy on raw materials based on three pillars: 1. negotiations on relevant disciplines at multi-lateral and bilateral level; 2. enforcement of existing rights by challenging illegitimate export restrictions, including through dispute settlement procedures at the WTO where possible; and 3. outreach activities to third countries, convincing them of the global nature of the raw materials issue and of their own benefits from clear trade rules in this area.<sup>23</sup>

*Tackling the Challenges* further stresses active raw materials diplomacy. The importance of export restrictions is again one of the key issues to be ad-

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21 EC, "Communication from the Commission to the European Parliament and the Council. The raw material initiative – meeting our critical needs for growth and jobs in Europe," Commission of the European Communities, 2008.

22 European Commission, „Trade and investment barriers report 2011," EC, 2011.

23 Ibid.

dressed both bilaterally and multilaterally. However, an important new aspect of the strategy is the development dimension, which is more pronounced in comparison to the 2008 RMI. Enhancing governance and transparency, the trade and investment climate in the raw materials sector is considered essential for achieving inclusive growth and sustainable development in resource-rich developing countries.<sup>24</sup>

Finally, as part of its *Raw materials diplomacy*, the Commission also looks at the EU tariff regime with a view to lowering import restrictions for raw materials. Due to the resistance of some member states and businesses, the idea of lowering the EU tariff regime has largely disappeared lately. However, according to the OECD there are similarities between export taxes and import tariffs regarding their impact on world prices and on the economies of the exporting and importing countries.<sup>25</sup>

## Domestic dimension

The domestic dimension of the strategies is captured by the second and third pillar of the RMI: *Fostering a sustainable supply of raw materials from European sources* (second pillar) and *Reducing the EU consumption of primary raw materials* (third pillar).

Within the second pillar, the EU looks at the framework conditions for exploration and extraction activities, geological surveys with a view to identifying new sources of the minerals and other raw materials within the EU, and better networking between the national geological surveys. In fact, the Commission estimates that the value of unexploited European mineral resources at a depth of 500-1000 metres is about €100 billion.<sup>26</sup> New technologies should help to extract deeper, in more remote areas and under harsher conditions.<sup>27</sup>

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24 European Commission, „Trade and investment barriers report 2011," EC, 2011.

25 OECD, „The Economic Impact of Export Restrictions on Raw Materials," OECD Publishing, page 9.

26 EC, „Making Raw Materials Available For Europe's Future Wellbeing - Proposal For a European Innovation Partnership On Raw Materials," Communication from the EC.

27 Ibid.



Since many of the competencies in the area of exploration and extraction fall under the member states, the Commission has focused on the role of facilitator for the exchange of best practices. In *Tackling the challenges*, it outlined some important practices for investment in this sector, including operational National Minerals Policy, land use planning policy for minerals based on a digital geological knowledge base, and mechanisms to authorise mineral exploration and extraction that provide certainty and help streamline the administrative process.

The EU has also launched an internal discussion on the question of possible stockpiling of rare earths. Currently the majority of the member states are against. The question of competencies regarding who should be responsible for the stockpiling – governments or industry – was raised. Since the USA and Japan have already developed their stockpiling plans, the Commission has not given up on the idea and has asked for an independent study for further discussion with the member states. For the moment, the question is still open.

As for the third pillar, in order to reduce EU consumption, priority was already given to resource efficiency through better waste management, including recycling and reusing in the 2008 RMI.<sup>28</sup> In September 2011 the European Commission adopted a *Roadmap to a Resource Efficient Europe*. It sets out a vision for the structural and technological change needed up to 2050, with milestones to be reached by 2020. The roadmap identifies the economic sectors that consume the most metals and minerals, and suggests tools and indicators to help guide action in Europe and internationally. It also proposes measures to take the impact of the life-cycle of the product more into account and reiterates research and innovation and other measures to improve market structures.<sup>29</sup> In February 2012 the European Commission adopted a communication on the European innovation partnership on raw materials.

28 EC, "Communication from the Commission to the European Parliament and the Council. The raw material initiative – meeting our critical needs for growth and jobs in Europe," Commission of the European Communities, 2008.

29 European Commission, „ Roadmap to a Resource Efficient Europe," Communication from the EC, 2011.

More emphasis is put on alternatives/substitutes for raw materials and decoupling of resource use from economic growth.<sup>30</sup>

The focus on the implementation and enforcement of existing EU waste legislation related to hazardous waste or waste from consumer goods and specific activities (industrial emissions or waste from extractive industries) remains. This includes legislation on reusing, recycling and recovery of motor vehicles or on electrical waste and electrical equipment.<sup>31</sup> These provisions for instance oblige manufacturers to incorporate recycling from the vehicle design stage onwards. Since the current EU recycling rate for rare earths is less than one percent, there is a big potential for growth in this area.<sup>32</sup>

#### Concrete targets to be achieved by 2020 in the second and third pillar<sup>33</sup>

- Up to ten innovative pilot actions for exploration, extraction and processing, collecting and recycling
- Substitutes for at least three key applications of critical and scarce raw materials
- Enhanced efficiency in material use, re-use and recycling of valuable raw materials from waste streams
- A network of research, education and training centres on sustainable mining and materials management

30 EC, „Making Raw Materials Available For Europe's Future Wellbeing - Proposal For a European Innovation Partnership On Raw Materials," Communication from the EC.

31 Europa – summaries of EU legislation, „Waste management," EU-summaries of EU legislation.

32 Greenport.com, „Combating illegal waste shipments," [greenport.com](http://greenport.com).

33 Europa-Press releases Rapid, „Innovation partnership to overcome Europe's raw materials shortages," Europa-Press releases Rapid.

- European standardised statistical instruments for the survey of resources
- A dynamic modelling system linking trends in supply and demand with economically exploitable reserves and a full lifecycle analysis

### 3.2 Better coordination as a cross-cutting challenge

The raw materials agenda falls under the competences of both the EU and member states and progress in all three pillars requires first and foremost better coordination both between the EU and member states as well as across the relevant Union institutions.

As it is, due to shared competencies, every member state can, for the moment, develop its own policy aiming at securing the raw materials supply for its industry. This may represent a challenge for the creation of well-coordinated and coherent European approach to resource security. For example Finland, France, the Netherlands and Germany have already developed national raw materials strategies. Germany, the top European importer of rare earths, has been active both with respect to EU raw materials policy as well as its own domestic policies.

The German Chamber of Commerce, with strong support from the German government, is forming an “alliance for securing raw materials”. The goal is to establish a global, for-profit resource company that allows industry to have independent access to critical materials. In October 2011 Germany signed an important intergovernmental agreement on resources with Mongolia. A similar partnership is anticipated with Kazakhstan in the near future.

According to the European Commission, better coordination is needed for addressing the market access barriers more efficiently. It is imperative that

*all players are involved [and engage proactively], notably the Commission as representative of the EU in trade matters, assisted by the EU delegations, now integrated in the European External Action Service on the one hand, and the competent au-*

*thorities of the Member States on the other hand. What is needed are joint efforts at all levels to convey concerted messages to our strategic partners<sup>34</sup>.*

As highlighted above, all relevant parties need to be involved in the knowledge base and information exchange, enforcement of existing EU waste legislation or forming of the common position vis-à-vis the third countries. Member states and other stakeholders also need to be actively involved in the follow-up process. For instance, they have already participated in the preparation of the above-mentioned list of critical raw materials, identifying barriers in external trade with third countries.

Apart from coordination among member states, challenges also remain in the system of coordination between various EU institutions. There are several directorates general that are actively involved in raw materials policies, the key ones being DG Trade, DG internal market, DG development and DG environment. For the moment, there is no coordination unit that would put all these actors together. They communicate together as they do in other policy areas but taking into account the complexity of the issue, there is a strong need for having one coordination unit/task force taking the lead.

### 3.3 Positions of the main EU stakeholders

Both RMI and *Tackling the challenges* were generally welcomed by all EU member states. Both were considered a response to the current global situation and a step in the right direction. The broad support for securing the access to raw materials in third countries was clear from the Council conclusions from March 2011. The member states also support better framework conditions for extracting raw materials within the EU and lower consumption of primary raw materials by increasing resource efficiency.

Some member states nevertheless expressed concerns that the new, wider framework which includes energy and agriculture might influence the

<sup>34</sup> EC, „Trade and investment barriers report 2011,“ EC, 2011.



implementation of the three pillars. The partnership with the developing countries was sensitive for some member states, especially those traditionally concerned with development agenda. The question of geographical focus was also raised. Some member states, including the Czech Republic, pointed out that the implementation should not focus only on the African continent. Another sensitive issue for some member states was the possible stockpiling program for raw materials, seen as a market distorting measure.

The RMI as well as *Tackling the challenges* was broadly welcomed also by the business community. Both BusinessEurope and European Association of Metals (EUROMETAUX) called for their swift implementation. BusinessEurope stressed the importance of improved conditions for extraction and development of secondary materials markets in the EU and stimulation of innovation in substitution and resource efficiency in more general.

On 13 September 2011, the European Parliament (EP) adopted a resolution on an *Effective raw materials strategy for Europe*.<sup>35</sup> It calls for swift implementation of the RMI and sees fair access to raw materials as vital for the development potential, competitiveness, innovation and preservation of European industry. For the EP the effective governance of raw materials policies is a key to an effective raw materials strategy. For this reason, the EP recommends establishing a high-level interdepartmental raw materials task force that should involve the relevant DGs, the Joint Research Centre, the European Environment Agency and the EEAS. The Commission should support the member states in developing their own raw materials strategies and foster coordination and the exchange of best practise among them.

The EP further supports the setting-up of a Raw Materials and Rare Earths Stability Board at the G20 and emphasizes the need for a G20 dialogue on raw materials in order to develop a common perspective. The EP calls for the creation of strategic cooperation between the EU, the US and Japan on crucial raw materials towards a "global raw materials watch". This would involve sharing demand and supply data, common forecasting, encouraging the

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35 European Parliament resolution, „*Effective raw materials strategy for Europe*“, EP, 13 September 2011.

exchange of best practice and investigating the possibility for joint strategic stocks. As for the latter, the EP calls on the Commission to assess the need for setting up a stockpiling mechanism for crucial raw materials but at the same time underlines that the role of the EU should be limited to providing the legal framework and regulatory oversight.

From the point of view of developing countries, the most controversial pillar is the first, dealing with export restrictions. The EU approach has been perceived as anti development by most of non-governmental organizations. Oxfam, for instance, criticized it for being driven by narrow commercial interests. Oxfam, Traidcraft and Aitec accused the Commission of actively forcing trade and investment policies on developing countries which deny them the right to choose their own economic policies. The key argument is that export restrictions can play an important role in developing competitive industries as well as in protecting the environment and natural resources.<sup>36</sup>

The report *The new resource grab - How EU trade policy on raw materials is undermining development* at the same time admits that the export taxes are not a magic bullet for promoting development. According to the author, "the overall effect of the export tax on poor people depends on how well processing industries do compared to losses for primary producers, and how well the government spends the fiscal revenue generated by the tax."<sup>37</sup> Although the report does not support the EU approach, it does not deny the need for greater transparency and predictability when it comes to export restrictions.

### 3.4 The position of the Czech Republic

The Czech Republic, like other members of the EU, is dependent on the imports of all metals and minerals, including super-critical ones such as cobalt, tungsten or rare earths. Some are imported from

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36 John Curtis, "The New Resource Grab: How EU Trade Policy on Raw Materials is Undermining Development," Oxfam, 2011.

37 Ibid.

the EU (especially non-ferrous metals excluding nickel and tin). Most of it, however, comes from third countries, often from the high-risk regions mentioned above. For these reasons, the Czech Republic (CR) has, like other member states, officially welcomed the EU's raw materials strategy and the implementation of its three pillars. The RMI was discussed in depth during the Czech presidency of the Council and the first Council conclusions on raw materials were adopted during this period.

It is especially in the area of the first pillar that the CR, known as an advocate of market liberalization, has been most active even before the adoption of RMI. For instance, it was at its request, and that some other like-minded EU member states striving to lower the cost of the raw materials for the EU producers, that the Commission further assessed the import restrictions for raw materials applied by the EU. As a result, the import duty on aluminium decreased from 6% to 3% in 2007.

In August 2011 the CR adopted *Východiska pro koncepci surovinové a energetické bezpečnosti ČR (The Basis for the Conception of Raw Materials and Energy Security of the CR)* where major tenets of its approach to resource security in general and to three pillars more specifically are explained. According to this document, the reasons for a new conception are driven both by the global and domestic situation and the current EU approach. At the same time, however, it is the Czech government that is acknowledged as bearing primary responsibility for the country's raw materials security. The document identifies risks such as interruption of the supply of the strategic raw materials, dependence on dominant supplier or ownership of the important share of the Czech market by non-transparent companies.

As regards the first pillar of the European raw material policies, the document emphasises diversification of suppliers by maintaining "raw materials relations" with resource-rich countries all over the world. It also supports Czech public or private shares in extractive sectors in resource rich countries, Czech companies operating in extractive sectors in those countries, and investors in the CR importing raw materials.

As for the second and third pillar, investment into technologies, technological infrastructure and re-

lated HR and need to diversify economy with a view of resource efficient production are highlighted as key. The role of secondary raw materials and waste is also emphasised in the *Strategic analytical document commissioned* by the Ministry of Trade and Industry of the CR. Overall, however, comparatively little space is dedicated in the *Conception* to resource efficiency related to minerals and metals, which contrasts sharply with the importance attached to the first pillar but especially to the issue of energy security.

## 4. CONCLUSION

As we have shown, we live in a world shaped by a global scarcity of metal and mineral resources, with increasingly important implications for all countries, but especially for the resource poor and import dependent regions such as the EU. Consequently, the EU has formulated several strategic documents whose primary objective is to secure stable and reliable access to raw materials for the EU.

Externally, unlike many countries rich in metals and minerals, the EU pushes within its raw materials bilateral and multilateral diplomacy for the reduction of export restrictions. It has also initiated and supported work at the OECD and WTO on negative aspects of export taxes and proposed measures to increase their predictability and transparency. Domestically, the EU strategies highlight the importance of domestic sources of raw materials and resource efficiency, requiring significantly changed market structures and technological change. This has been generally welcomed by most of relevant stakeholders

A crosscutting, external as well as domestic challenge for the EU is the lack of proper coordination among the Union institutions and member states, which mostly pursue their own national raw materials strategies. There is also a strong need for a task force or single coordination unit for the EU institutions.

Let us now consider to what extent the EU's proposed steps make sense from the point of view of its own resource security, as well as from a global

perspective. Awareness-raising on the importance of both better raw materials trade rules as well as resource efficiency are indeed crucial. National governments, businesses, research institutes, employees and consumers need to be all involved and therefore better informed about the urgency of resource scarcity.

The push for better rules, increased transparency and predictability of export restrictions makes sense both from the EU's own as well as other regions or countries perspective. No country in the world is self-sufficient in all raw materials needed for its industrial production. China may possess a near monopoly on rare earth production, however, it is dependent on copper imports. If, for instance copper producers impose export restrictions in retaliation for China's manipulation with rare earth exports, both sides lose. Such action can eventually degenerate into a domino effect of export restrictions impositions where all market players stand to lose. Only clear rules, transparency and predictability can assure that this does not happen. The WTO is the key organisation where the framework of the export restrictions can be strengthened. The EU's initiatives towards this body are therefore to be welcomed.

These rules are even more important from the developing countries' point of view. Especially in their case, export restrictions can play an important role in fostering added value of their production, economic diversification or environmental protection. However, unless clear global rules exist, these countries always run a risk of being accused of unjustified protectionism if they decide to impose export taxes or other kind of export restrictions. While pushing for the clear rules for the use of export restrictions, the EU should allow policy space for the countries to use these measures if justified by legitimate policy reasons under relevant GATT provisions.

Resource efficiency in turn, the cornerstone of domestic raw materials policies of the EU, tackles more directly the root-causes of resource scarcity since it deals with its economic as opposed to only geopolitical dimension. Better waste legislation, including recycling and reusing of raw materials and research into new technologies and raw materials substitutes, are undoubtedly the steps in the right direction. However, this is only a partial response to Eu-

ropean and global resource scarcity. We need to ask more challenging questions and formulate a more integrated approach if a sustainable solution to resource scarcity is to be achieved. Unfortunately, elaborating such an approach is beyond the scope of this paper. What follows therefore are only a couple of thoughts which may inspire further structural debate on the direction of the EU's approaches to resource scarcity in its domestic policies.

First and foremost, the emphasis on resource efficiency needs to be put into perspective. Though important, it is not necessarily a structural solution to resource scarcity or diminishing global ecosystems for that matter. The problem is that greater efficiency does not always lead to reduced consumption. Indeed, it may even invite increased production and consumption and hence increased need for raw materials supplies.

This leads us to the behavior of consumers, an element only weakly reflected by the EU strategies. As some research shows,<sup>38</sup> most resource extraction is driven by consumption. Consequently, much of the focus should be put on behavioral changes of consumers. Policy objectives should involve not only improved impact of companies and products on the raw materials and environmental sustainability but also encourage consumers to consume more efficiently and wisely. At the most structural level, in line with "Beyond GDP" debates, promotion of immaterial consumption should be considered.

Finally, a more integrated approach is needed across various streams of EU policy making and policy tools. Resource efficiency needs to be mainstreamed into all relevant instruments of the EU budget, including those focusing on growth and employment policies. Taxation base may need to be reconsidered, moving away from labor to environmental taxation and punishing excessive consumption of natural resources. The voices of the relevant Union institutions, including DG Environment, DG Development and DG Internal market, need to be firmly incorporated into raw materials policy making, and better coordination among them assured.

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38 Friends of the Earth, „Responsible or irresponsible: Europe's resource use and its impacts“, Conference Conclusions, EU parliament, Brussels, November 2011.

The EU rightly attaches importance to introducing trade disciplines on the export restrictions in order to address the challenges of global resource scarcity. At the same time, as we have shown, this does not necessarily address the root causes of resource scarcity, which are economic rather than geopolitical. Indeed, it is only because of economic scarcity that geopolitical scarcity dominates the international landscape. In order to arrive at sustainable and structural solutions to resource scarcity, the EU should therefore continue and speed up its efforts in the area of resource efficiency and also seriously consider policies promoting reduced consumption of raw materials.

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## Understanding the raw materials strategies of the EU – Global and domestic perspectives

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