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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

ON THE COMPETITIVENESS OF THE METALS INDUSTRIES

A contribution to the EU's Growth and Jobs Strategy

{SEC(2008)246}

Introduction

The metals industries play an important role in the value-chain of many European manufacturing industries. This Communication assesses the competitiveness of these industries and makes recommendations on the way forward. It follows on the 2005 Commission's Communication on EU industrial policy which announced several sectoral initiatives, including a Communication assessing the impact of raw materials and energy supply on the competitiveness of the European metals industry[1], and takes into account also the 2007 midterm review of industrial policy.[2]

As an intrinsically high energy intensive sector, the metals industries are directly influenced by the Community policies on energy and climate change. The European Council underlined in March 2007 "*the great importance of the energy intensive sector*" and emphasized that "*cost efficient measures are needed to improve both the competitiveness and the environmental impact of such European industries*". In this context, the Commission's climate action and renewable energy package of 23 January 2008 acknowledges the specific situation of energy-intensive industries which are directly exposed to global competition.

This Communication addresses the key factors influencing the performance of the sector and identifies how the Commission, the Member States and industry itself can contribute to safeguarding and reinforcing the sector's competitiveness in the future while contributing to the ambitious goals on greenhouse gas emission reductions until 2020.

The main issues addressed in this Communication take account of the responses to a Public Consultation in September 2006 which was preceded by the adoption a Commission Staff Working Document[3] providing a detailed picture of the sector in terms of statistics and major economic trends.

1. characteristics and challenges of the metals industries

1.1. Major structural features

Metals industries[4]are considered basic industries as metals production is the first important upstream step in the value added chain of many industries producing investment goods (mechanical engineering, automotive, shipbuilding, aerospace, construction), and consumer goods.

As such, they occupy a central place in the industrial structure of most developed economies and in many rapidly growing developing economies. Among the major characteristics of the metals industries are:

Capital intensity: very large investments are required in technology and equipment that have a very long use (in general not less than 20-30 years); hence investment decisions need a supportive and predictable regulatory framework.

High energy intensity: the production process of these industries requires very high use of

[1] COM(2005) 474 final, Annex II
[2] COM(2007) 374 final, 4.7.2007
[3] SEC(2006) 1069, 2.8.2006
[4] Ferrous and non-ferrous metals as defined in annex, NACE code 27, Eurostat

energy. The cost of energy generally represents more than 10 % and can be up to 37% (e.g. aluminium and ferro-alloys) in the cost structure of the metal produced.

Further data about the EU metals industries' performance and share in global economy is added in the annex.

1.2. Importance of raw materials

Access to non energy raw materials is a critical issue since EU metals production is highly dependent on imports of ores and concentrates from third countries. Many metallic minerals are being extracted in the EU in relatively small volumes compared with global production, e.g. nickel (1, 7%), iron ore (2%), copper (5%).[5]

Dependence on imported raw materials is reduced by the fact that metals are almost fully and indefinitely recyclable. The use of recycled scrap has increased significantly in the last decades and represents today between 40-60% of EU metal production.

Recycling is much less energy intensive, e.g. secondary smelting of aluminium (using scrap) consumes only 5% of the electricity used compared to primary smelting.

1.3. Place in and importance to the European economy

In 2005, the EU 27 metals industries generated a turnover of approximately € 316 billion and employed 1.1 million persons (corresponding, respectively, to 5 % and 3.3 % of total EU manufacturing).[6]

The metals industry is part of a complex economic network including not only upstream sectors, but also large segments of the EU's manufacturing industry such as automotive and construction. Numerous critical links characterise this network, based, inter alia, on quality requirements and innovation, which go to create the metals value chain.

The geographical proximity of the metals' supply chain and related industries, and their mutual interests (technical, logistical, research, innovation and customer service) is a traditional strength of the EU industrial fabric. This has led to close cooperation and inter-dependence with end users, in particular in the development and the production of high quality grades of steel or non ferrous metals.

1.4. Industry structure and SMEs

Due to large capital requirements large companies tend to dominate the market, especially in the case of primary aluminium and flat steel products.

The process of consolidation and restructuring of the European metals industries is very advanced and has been accompanied by increased integration in the global market. Steel companies have moved initially from a national base to a Europe-wide base and more recently have reinforced their global nature through acquisitions outside Europe, or have themselves been acquired by companies of non- European background.

Nevertheless, the first processing activity to prepare metals for use in downstream sectors,

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5 SEC(2007) 771.

6 Annex, table 1

which is closely linked with metals production, is mainly carried out by SMEs.

1.5. The impact of globalisation and of the new emerging economies

Most metals and in particular non-ferrous metals and their raw materials are commodities traded in the global marketplace. The price of commodities is determined on the basis of global demand and supply and has been characterized by large cyclical movements.

The economic development of many emerging economies has contributed to an increase in the global demand and prices for metals and metals products and has led to unprecedented pressure on raw materials supplies and prices. In recent years production of steel in China has grown rapidly with annual increases on average above 20%; over a period of 3 years China has moved from a situation of net importer to the world's biggest steel exporter and is today the world's biggest producer in steel, aluminium, copper, lead and zinc.[7]

As a sector providing key inputs to manufacturing industry, while highly dependent on raw materials and energy, and on a skilled workforce, the sector's performance should be considered within the framework of sustainable development.

1.6. The competitiveness pillar

Through continual restructuring/consolidation aimed at reducing costs and moving to higher value segments of the market, the basic metals industries have succeeded in maintaining a high degree of competitiveness.

The EU metals sector has been moving away from its traditional position as a heavy industry with low added value (the indicator of value added per person employed has been higher than the average of manufacturing industry).

Innovation has been a key competitiveness driver; this is reflected in an important change in the product mix as well as in the development of new technical applications as it is the case of precious metals. According to the Innovation Sector Index[8], the industry shows an average score in terms of overall innovation performance compared to other NACE industrial and services sectors.

The EU metals industries are highly dependent on economic cycles and have recently benefited from a significant increase in demand at world level. This has pushed prices up[9] and improved the general financial situation of many of the companies in the sector but at the same time has posed challenges to other manufacturing industries using metal.

Despite these positive developments there is some cause for concern:

- the EU 25 is losing its share of world metals production (in particular in aluminium from 21% in 1982 to 9% in 2005 and in steel from 25% to 16%); to some extent this trend is the result of rapidly increasing production in new emerging economies.

- the part of the European consumption supplied by European production[10], in the last two

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7 See also annex, table 4

8 PRO INNO Europe initiative – INNO Metrics measure: http://www.proinno-europe.eu/extranet/admin/uploaded_documents/EIS_2005_European_Sector_Innovation_Scoreboards.pdf

9 See annex, figure 3

decades, is declining, in particular for crude steel and aluminium.

- huge dependence of the EU metals industries on energy prices and imported materials.

The restructuring of the EU steel industry during the '80s and the beginning of the '90s provides a telling example. It involved employment reductions of some two thirds (from 750 000 to less than 250 000) and permanent closures of production capacities of more than 60 million tonnes, in the EU 15[11]. This restructuring was critical to improving labour productivity, restoring the viability of the European steel sector, and overall competitiveness.

The transition economies in the new Member States have been hit particularly hard by the steel restructuring. However, there are now encouraging signals of economic consolidation and recovery. As a result of the approved programmes and plans aiming at demonstrating viability[12], productivity levels were significantly increased and obsolete installations were closed or modernised, with an overall positive result on environmental protection. The productivity levels (tonnes of steel per worker) of Czech and Polish companies are estimated to have grown by 30% between 2003 and 2006[13].

1.7. The Social pillar

A skilled and available workforce is a major strength of the EU metals industry.[14]

However, the industry finds it increasingly difficult to attract skilled workers, with demand for engineers in the steel sector far exceeding supply.

The Steel Technology Platform has identified the following challenges:

- the aging workforce in the steel sector, as well as in related research and technical centres;
- need for new competencies including managerial skills and entrepreneurship;
- better use of existing training structures and clusters between initial training, R&D and life long learning;
- mobility both at the level of executives and of technicians.

Social Dialogue has been a traditional policy tool in the EU steel framework since the creation of the European Coal and Steel Community (ECSC) in 1952. With the expiry of the ECSC Treaty, a European Social Dialogue Committee in the steel sector was officially set up in 2006. A similar initiative is being considered for the non-ferrous metal sector on the basis of a joint request issued by stakeholders.

1.8. The Environmental pillar

Production processes in the metals industries are generally high energy intensive and, together

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10 Ratio: production in relation to consumption

11 Primary steel production and rolling, as defined under the ECSC Treaty.

12 The basic rules for operating this restructuring process were laid down in the Europe Agreements, 1993 -1996.

13 Monitoring reports on steel sector restructuring in the Czech Republic and Poland, EC

14 See also annex, figure 2

with mining, can also give rise to other environmental effects (emissions to air, water and soil and, in the case of mining, land use requirements).

Nevertheless, metals can provide significant advantages for the environment. Metals can be indefinitely recycled without loss of basic properties, and with much less energy consumption compared to primary production from mineral ores. Recycling contributes to less use of primary raw materials and less environmental impacts from metal mining and transport of ores.

As regards energy efficiency, despite regular growth in metals production over the last 15 years, final energy consumption of Europe's basic metal industry has remained constant or has even fallen.

As regards emissions, substantial reductions in some major air pollutants have been achieved. Although metals production leads to significant CO2 emissions, their share of total greenhouse gases (GHG) emissions in 2005 for the EU 15 was 5, 7%[15]. The trend for the period 1990 to 2005 was for a reduction of 11% in the case of iron and steel and of 2 % for non ferrous metals despite an increase of 5% and 11% respectively in the volume of production in the same period.

In relation to raw materials eco-efficiency, functionality has improved whilst the quantity of material used in the production of metals has been reduced e.g. for steel and aluminium beverage cans[16]. These trends must be continually reinforced in order to improve total eco-efficiency which is also affected by increasing volumes of production.

2. An integrated approach to enhance the EU metals industry's competitiveness

An integrated approach should contain the following elements:

- ensuring energy supply at competitive prices, through well functioning energy markets;
- creating conditions to allow the sector to meet the Community's environmental objectives and to adapt to the requirements of its ambitious climate change objectives;
- encouraging R&D and innovation, and high skills;
- creating open and competitive global markets and removing distortions in trade in metals and raw materials.

2.1. Energy policy

The competitiveness of EU metals industries has been affected by the rapid increase in gas and electricity prices. Also, changes in securing long-term supply contracts are seen as a major issue.

As highlighted in the Final Report[17]on energy sector inquiry, the EU's energy markets are not well functioning, thus preventing the full benefits of energy market liberalisation, including in

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15 EEA Technical report n° 7/2007- however not all CO2 emissions of the metals industry are reported under CRF category 2.C as reporting may differ from Member State to Member State

16 For steel cans the weight has been reduced 16% and for aluminium 30% between 1980 and 1998

17 Sector Inquiry SEC(2006) 1724, pg 4

terms of prices.

The European Council has recognised in the Action Plan (2007-2009) Energy Policy for Europe[18] that a new set of measures is needed to create a truly competitive internal market for gas and electricity, including an effective separation of supply and production activities from network operations (unbundling).

In order to give effect to these policy aims the Commission adopted on 19 September 2007 a package of legislative proposals to ensure a real and effective choice of supplier and improve market transparency, including on pricing.

As many of the actions identified will take time to translate into visible effects for the industries affected, a number of Member States are considering transitional measures to provide increased predictability for the metal industries.

In addition to the above proposals the following actions are relevant:

Actions

1. Public authorities should assess initiatives related to pooled electricity generation, long term contracts and partnerships. Information should be shared among Member States on possible solutions and good practices which are in conformity with competition and internal market rules.

2. The Commission will provide guidance, in an appropriate form (including development of case law), on the compatibility of long term energy supply contracts with Community law.

3. To increase energy efficiency the Commission will, within the framework of the Competitiveness and Innovation Programme, together with industry promote best energy saving practices within the metals industries.

2.2. Environmental policy

Climate Change

As large emitters of CO_2 the metals industries will be required to make a major contribution to climate change mitigation.

These industries must achieve high environmental performance and energy efficiency without losing competitiveness. It is not in the interest of the European Union that in the future production moves to countries with less strict emissions limits ("carbon leakage") as this would have negative environmental and economic consequences. For this reason, the Commission's climate action and renewable energy package of 23 January 2008[19] recognises and addresses the specific situation of energy-intensive industries. The package sets out clear criteria for identifying the energy-intensive industries that are exposed to the risk of carbon leakage. The Commission will determine the sectors or sub-sectors that fall within this category; they shall be allocated allowances free of charge up to 100% under consideration of most efficient techniques; the production process may be taken into account under strict conditions. In this context, the Commission will assess whether metals industries qualify for such treatment. In

[18] Council of the European Union, 7224/07 Presidency conclusions of 9 March 2007

[19] In particular COM(2008) 16 final

light of international negotiations of a global climate change agreement for the period post 2012, the Commission will further assess the situation of energy-intensive industries and might propose adjustments in particular in terms of free allocation or inclusion of imported products in the Community's Emission Trading Scheme.

Sectoral agreements based on industry-specific conditions can stimulate action in reducing emissions at the international level. Such sectoral agreements should lead to global emissions reductions of the magnitude required to effectively address climate change, and should be monitorable, verifiable and subject to mandatory enforcement arrangements.

Integrated Pollution Prevention and Control (IPPC)

The current EU legal framework on industrial emissions includes the IPPC and so-called "sectoral Directives." In December 2007, the Commission proposed a recast Directive on Industrial Emissions, merging the IPPC and related "sectoral Directives". The proposed text strengthens the role of "Best Available Techniques" (BAT) and of "Emerging Techniques"[20].

The permitting requirements of the IPPC Directive are not always matched by equivalent standards in third countries.

Waste legislation

In order to improve waste management and to provide better legal clarity while avoiding unnecessary administrative costs and delays, the Commission has made a proposal to amend the Waste Framework Directive, which is currently being discussed by the EP and the Council.

The proposal includes a mechanism to clarify when waste ceases to be waste. For this purpose it is envisaged that specific criteria, based on technical specifications, should be adopted by the Commission through comitology.

REACH

While metals fall within the scope of REACH there are specific characteristics of such substances which require attention, including the assessment of metals incorporated into alloys.

2.3. Standardisation

Standards in the metals sectors play an important role in particular in the framework of public procurement directives and are becoming an important instrument of access to third markets.

The Eurocodes, as European standards, are a Europe-wide means for the structural design of buildings and engineering works and, as such, are of vital importance to the European construction sector and for the free circulation of structural metal products.

Actions

4. The Commission will prepare the measures set out in its climate action and renewable energy package of 23 January 2008 on energy-intensive industries, in particular the determination of sectors or sub-sectors concerned by carbon leakage and of the appropriate allocation. In this context, the Commission will assess whether metals industries qualify for such treatment. In light of international negotiations of a global climate change agreement for the period post 2012, the Commission will further assess the situation of energy-intensive industries and might propose adjustments in particular in terms of free allocation or inclusion of imported products in the Community's Emission Trading Scheme.

[20] COM(2007) 844 final

5. The Commission will explore, together with stakeholders and third countries, the role of sectoral agreements that should lead to global emissions reductions of the magnitude required to effectively address climate change, and should be monitorable, verifiable and subject to mandatory enforcement arrangements. This will include best practice methodologies related to data collection and key performance indicators.

6. In relation to IPPC, the Commission will ensure closer links between the BAT Reference documents (BREFs) elaboration process, the European Research Framework Programme and the Competitiveness and Innovation Programme, in order to provide support for emerging techniques.

7. In the area of waste legislation, and subject to the finalization of the legislative process regarding the Waste Framework Directive, the Commission will aim at ensuring cost effective use of metals scrap as a secondary raw material for the industry is facilitated.

8. In the context of REACH, the Commission, in close cooperation with stakeholders, the European Chemicals Agency and Member States will develop technical guidance related to substances in special preparations.

9. As to standardisation the Commission will with Member States, seek to promote the use of Eurocodes[21] related to metals and to reduce disparities in the way they are applied across the EU.

2.4. Innovation Research and Development and skills

The capacity to innovate will be crucial to maintaining competitiveness. R&D will be called on to play an important role at product level and in production processes.

At product level, innovation is essential to the differentiation of the final product. Different metals compete strongly between themselves and with other materials such as composites, in order to demonstrate their superior technical and economic performance.

As regards production processes, current technologies are relatively mature. Nevertheless, the industry is active in seeking breakthrough technological solutions. For example, the project ”Energy saving and ultra low CO_2 emissions on steel” (ULCOS) gathers together 48 partners in order to produce the critical financing mass to tackle the challenge of cutting emissions in the steel sector by a target level of 50%. The first step of this project is to run until 2009 and the second one until 2014/15.

Under the Steel Technology Platform (ESTEP) created in 2003, metals producers are co-operating with end users and with equipment suppliers to tackle the new challenges. A similar approach is applied for the European Technology Platform on Sustainable Mineral Resources (ETP SMR) established in March 2005 to improve innovative capacity, develop new products and increase the efficiency and yield of production processes reducing costs and impact on the environment.

The aluminium industry has formed a European Aluminium Technology Platform to develop a coherent approach to research and technology.

Through the 7th Framework Programme, the Research Fund for Coal and Steel (RFCS) programme, and the new Competitiveness and Innovation Programme (CIP) and the Structural

[21] In line with Commission Recommendation 2003/887/EC of 19 December 2003

Funds, the EU provides four major instruments for the co-financing of activities in the areas of innovation, R&D and skills.

Actions

10. Industry should give priority to innovation and research activities, *inter alia,* by implementing major long term projects (e.g. ULCOS), as well as the strategic research agenda developed by relevant European Technology Platforms; it should take advantage of the opportunities made available through Community instruments and by encouraging international cooperation, while taking due care of intellectual property rights (IPR) protection issues.

11. Member States, universities, research centres and industry should develop appropriate strategies, including partnerships amongst European and with third countries, to improve skills availability.

12. Member States and regions are invited to promote innovation in the metals industries and support cluster resident technology transfer policies. This includes support for incubation, technology transfer, skills, and early stage finance of research spin-offs with particular emphasis on helping SMEs and innovative start-ups with a high growth potential.

2.5. External Relations and Trade Policies

Access to raw materials is essential to European industry. The Competitiveness Council of 21 May 2007 requested the Commission to develop a coherent political approach to raw materials supply for industry, encompassing all relevant Community policies. The Commission will give priority to the establishment of a level playing field both for metals and their raw materials in its trade policy, and in the framework of its external relations with both industrialized countries and emerging economies.[22]

Distorting practices have tended to proliferate in recent years under a number of different mechanisms, including export restrictions, export duties, selective VAT rebates, subsidies and others. For example, Russia applies taxes up to 50% on the export of scrap; India has just introduced an export tax on iron mineral ore; China does not allow foreign companies to have a majority stake in sectors like steel and has introduced a variety of mechanisms that restrict the export of metals raw materials or provide governmental support for buying them from external sources.

Such practices create serious difficulties for European industry and must be tackled using all available instruments, including through reinforced dialogue.

Internationally, the G8 Summit in addressing the issue of raw materials discussed the situation on world commodity markets and recent price increases, reaffirming their commitment to free, transparent and open markets. [23]

Actions

13. The Commission will continue to use all existing instruments to address trade practices in violation of international trade agreements.

14. The Commission will, within the framework of multilateral and bi-lateral trade

[22] See also annex, table 3 and 5

[23] G8 Summit 2007, Declaration, Chair's summary, 8.6.2007

negotiations, continue its efforts to oppose the use of export taxes on metals and raw materials.

15. The Commission will present a Communication in 2008 aimed at improving conditions of sustainable access to minerals and secondary raw materials at EU and international level[24].

16. The Commission will maintain close industrial dialogue with key third countries.

[24] Public consultation http://ec.europa.eu/enterprise/newsroom/cf/itemlongdetail.cfm?item_id=1249