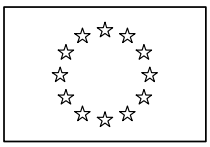

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 22.06.2007
SEC(2007) 892

COMMISSION STAFF WORKING DOCUMENT

Developments since the 2005 Communication on industrial policy:

- Economic Situation and Challenges

- Status of Initiatives Launched

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1. INTRODUCTION

The aim of this paper is to take stock of developments since the publication of the Communication on industrial policy in October 2005 (hereafter "2005 Communication"). It contains two major parts. The first part, elaborates on the current state of play of EU industry and the main challenges and opportunities it faces. The second part, takes stock of the initiatives announced in the 2005 Communication that aimed at making Europe a more attractive place to invest and work. The 2005 Communication was based on an integrated approach, and addressed for the first time sector-specific issues. It set out a clear work programme, put knowledge and innovation at the heart of European growth and shaped policies to allow businesses to create more and better jobs.

Since 2005, the overall performance of EU industry continued to develop favourably against a background of an increasingly integrated world and an accelerating pace of technological change. Therefore, the analysis of the 2005 Communication is still largely valid concerning globalization and technological change. Moreover, the challenges of environmental change, such as climate change and sustainable use of resources, have gained in significance since 2005. Environmental change will affect industry but can at the same time provide new opportunities for it.

2. ECONOMIC SITUATION AND CHALLENGES

This section elaborates on the state of European industry against the background of the challenges and opportunities faced by it. As such, it extends the analysis in the Mid Term Review of Industrial Policy[2]. First, a snapshot of European industry is presented. Second, the challenges and opportunities for European industry are investigated.

2.1. Snapshot of European Industry

The EU-27 industry is healthy and dynamic, contributing substantially to growth and jobs in Europe. Directly, industry represents around a fifth of EU output and grew by 2.6% on average over the last two years. It is central to innovation in Europe, performing 81% of private sector R&D expenditure and employing an increasing number of high skilled jobs[3]. Industry's innovative products significantly strengthen Europe's competitive advantage and provide 73% of the EU exports. Indirectly, manufacturing is responsible for the dynamism of many services sectors contributing significantly to employment growth. With the future

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[1] "Implementing the Community Lisbon Programme: A Policy Framework to Strengthening the Policy Framework for EU Manufacturing: - towards a more integrated approach for Industrial Policy" (COM 474). 5 October 2005

[2] *"Mid Term Review of Industrial Policy" (COM XXX) 4 July 2007*

[3] Eurostat (2007) R&D in enterprises - Issue number 39/2007

demographic challenges in mind, increasing the participation rates and skill sets of the population at working age is indispensable.

Continuous specialisation, changes in the skills composition of employment, investments in technology, and restructuring of value creation chains contributed to the continued labour productivity growth in manufacturing, which grew by 2.9% on average over 2001-2006 compared to 1.1% for the economy as a whole. Nonetheless, productivity growth in the US is significantly higher than in the EU. Overall, EU manufacturing remains specialized in medium-tech sectors and has not taken advantage of the fast growth of certain high tech sectors[4]. European businesses have not fully exploited either the opportunities offered by ICT technologies[5]. Also, within sectors, the EU is comparatively bad at reallocating resources to the most productive companies[6]. This points to a higher degree of rigidity in the EU, indicating that the structure of European industry adapts only slowly over time to changing market realities and new technological developments.

Studies on product market regulation have shown that heavy product regulations in some markets may hamper the necessary upgrading of the industry in Europe[7]. In particular, excessive regulation hinders innovation, the creation of new enterprises and the growth of established ones. Legislation concerning pharmaceuticals, food and motor vehicles which aims at security, health and protection of the environment should be designed in such a way that it gives industries flexibility in achieving the objectives of the policies concerned.

Furthermore, ensuring an open, competitive and efficient Internal Market, in services and industry alike, can improve the competitiveness of industry and can contribute positively to the innovation potential of our economy.

2.2. Challenges and opportunities

2.2.1. Globalisation

In recent years the scale and scope of globalisation has continued to increase. A continued fall of transaction and communication costs, coupled with the nearly unlimited supply of cheap labour, high investment rate and the growing demand and output from emerging economies has spurred international trade. From 2002-2006 worldwide merchandise trade increased by 17% per annum, up from 3% per annum in the previous five year period. The EU as a whole has maintained its share of world trade at around 15% of world exports in goods[8]. This comes in stark contrast with the patterns followed by other industrialised countries, notably the US (9%), whose volume of exports has gradually deteriorated. In the meantime China has doubled its export share in goods and on current trends will soon jump over the US to become the second largest exporter after the EU.

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[4] Although the statement is factually fair for the EU as a whole, some Member States have taken advantage of the technological opportunities. Van Ark, Bart, Mary O'Mahony and Gerard Ypma (2007), The EU KLEMS Productivity Report, Issue 1, March 2007

[5] O'Mahoney and Van Ark (2003)

[6] Bartelsman (2006) Labour reallocation and productivity, presentation given on Labour Mobility in the LisbonAgenda, Helsinki, Sept 4, 2006. According to estimates, the US' best performing companies were 34% more productive and created 5.9 percentage point more employment growth "Best" is defined as the top quartile in productivity terms.

[7] European Commission (2006) European Competitiveness Report 2006. The competitiveness report devoted an entire chapter on the impact of regulation on the competitiveness of European industry.

[8] OECD, 2007 Economic Review- European Union (2007). EU 15 excluding intra-EU trade for 1994-2004

The good performance of EU companies is due to the ability of EU companies to position themselves in the "upmarket" segment within each sector. In the "upmarket" segments consumers are willing to pay premium prices for quality, branding and related services[9]. These "upmarket" products now account for a third of world demand and represent half of European exports, not only in luxury consumer goods, but across the whole range of EU exports, including agricultural products (supported by the evolution of the EU Common Agricultural Policy), intermediary goods, machines and transport equipment. And European producers are as well among the world leaders in telecommunication, distribution, finance, insurance, transport and environmental services. This reflects the success of European Companies to adapt their strategies to the global playing field. Despite this encouraging picture, the technological position of exports is a point of attention. The EU appears as the leading exporter in a range of medium-high technology industries. Conversely, when it comes to high-technology sectors the EU performs poorly. High-technology exports represent only 18% of the total EU exports, compared to 27% for the US and 22% for Japan[10].

More recently, the range of activities that companies trade and outsource has also been increasing as ICT, organisational innovations and the growing skills base in India and China allow companies to slice-up value chains and outsource intermediate inputs and tasks. The number of R&D foreign direct investments projects to and from the EU25 has risen sharply over the 2003 to 2006 period[11]. R&D investment outflows to China and India have increased significantly, although the first destination of R&D investment from the EU is within the EU and, in second position, to the US[12]. Also, service off-shoring, particularly business-related services, has increased, with the US and India taking the largest shares of international trade in services. But the EU has also benefited from the rise of trade in services and displays a growing surplus in the financial, computer and insurance services[13]. In this changing playing field competitive advantage lies in optimising the global value chain while controlling the important parts of the value chain such as innovation and customised products. Some EU companies have reacted to these new trends by reorganising their value chain, setting up EU-wide production networks, with the EU-10 largely specialising in producing parts and components[14] and by forming clusters that anchor innovative capacity in Europe. All these developments, which have also been referred to as the "second unbundling", entail an international division of labour at the individual task level, rather than at the final goods level[15].

2.2.2. Technological Change

Rapid advances in science and technology also exert pressure on manufacturers to constantly adapt and exploit new technical possibilities. The pace of technological progress has accelerated across the board and rapidly growing sectors like nanotechnologies and new energy technologies offer the prospect of a wide range of product and process innovations[16].

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[9] CEPII (2004), *European industry's place in the International Division of Labour: situation and prospects*.
[10] Eurostat (2007), [latest available which is 2004.]
[11] PRO INNO Europe, The implications of R&D off-shoring on the innovation capacity of EU firms, 2007
[12] idem
[13] EU Economy 2005.
[14] European Commission (2007) EU Industrial Structure. This publication contains an in depth analysis of the structure European industry by Member State. The competitiveness factors of sectors and countries are analysed in particular with respect to trade and technology intensity.
[15] Baldwin (2006) Globalisation: the great unbundling(s). project Globalisation challenges for Europe and Finland.
[16] "Manufuture : A Vision for 2020" Report on the High-level Group on Manufacturing in Europe November 2004.

Yet, most indicators of innovation and R&D show the EU still has a significant innovation gap with respect to the US and Japan, especially in business R&D[17]. Only 36% of corporate R&D investment in Europe, compared with 67% for the US, is performed by companies belonging to high R&D intensity sectors, reflecting the weaker position of European companies in these sectors.

Apparently, the market conditions that nurture high tech industries are more favourable in the US than in Europe. Today, some high growth potential markets where Europe can develop a competitive advantage for research and innovation intensive goods, services or technological solutions fail to develop because the framework conditions are not right. A single market open to competition is essential for the innovative capacity of business.[18] More specifically, regulation, standards, IPR, procurement rules and access to risk capital in Europe are not optimally designed for innovative industries.

Whilst, improving the demand side framework conditions in general is important for the innovation capacity of manufacturing industry, some high-potential markets are particularly held back by unfavourable market conditions. The incomplete internalization of the cost of pollution that hinders the development of markets for more sustainable technologies, products and services is a case in point. Defence, aerospace and pharmaceuticals markets are fragmented. Sometimes regulation or the broader institutional framework partly contributes to the fragmented market structure. The lack of a large, unified markets in these sectors hinder the creation of knowledge and technology spillovers that benefit the rest of the economy.

In the context of rapid technological change and fragmentation of value chains, coming up with successful new products calls as well for innovative business strategies. Modern products and technologies have become increasingly complex and interdisciplinary. Innovating may require companies to integrate in clusters where they can collaborate with research institutions, suppliers, customers and competitors.

Further tailoring products to consumer demands has led manufacturing companies to provide integrated solutions consisting of bundles of services and manufacturing activities. Innovative manufacturing firms also increasingly rely on the quality and availability of high skilled, high value added services. In some manufacturing sectors the cost of market services can be as important as the cost of labour and hence fostering vibrant competition in service markets is critical for manufacturing.

2.2.3. Environmental challenges and Industry

Climate change is the most serious global risk facing the planet. Increasing the energy efficiency of production processes and meeting the EU ambitious goals of greenhouse gases reduction will entail a sizeable long term challenge for European industry. At the same time, European industry will be instrumental in providing the technological solutions for achieving the ambitious targets.

European manufacturing has already made significant advances in improving its carbon and energy efficiency. Industry directly accounted for only 16% of Europe's emissions in 2003,

[17] See DG Enterprise and Industry (2007) European Innovation Scoreboard 2006, January 2007. Data for year 2004.
[18] Griffith et al. (2006) The link between product market reform, innovation and EU macroeconomic performance, European Economy no 243.

down from 20% in 1990[19]. Furthermore, in comparison with the US, the EU-25's manufacturing industry is 12.6% more efficient, measured by direct CO2 emission per manufacturing value added[20].

The EU medium term targets for greenhouse gas reductions provide industry with certainty for planning future investments, but they also represent an important challenge, particularly for the most energy-intensive sectors of the economy. For some energy intensive industries energy products represent close to 20% of the total production value[21]. These sectors are bound by greenhouse gas reductions under the ETS and are likely to face increasing carbon prices in the future. Therefore, Energy intensive industries that are exposed to international competition could see their competitive position harmed. Moreover, Europe is becoming increasingly dependent on imported hydrocarbons. The EU's energy import dependence will jump from 50% of the total EU energy consumption today to 65% in 2030. Reliance on import of gas is expected to increase from 57% to 84% by 2030, for oil it will increase from 82% to 93%. However European industry and policy-makers should see the challenges created by environmental change, above all, as valuable opportunities. Increased awareness about environmental issues is bringing about the emergence and rapid expansion of world-wide demand for a wide array of low carbon products and technologies.

In order to enhance product policy as a competitiveness and sustainability tool, realistic and progressively more ambitious minimum requirements can be used, coupled with, where appropriate, voluntary "lead" standards and incentives, such as labelling, to drive performance upwards. An extended EuP Directive in order to promote "eco-design" of the most significant products will be the cornerstone of this approach. Environmental management schemes and energy services for firms and households will also be promoted, supported by a simple, user-friendly framework.

Dynamic standards build on the advantages Europe has in terms of its regulatory influence. There are several examples of EU environmental regulation being put in place in other parts of the world. This gives European companies a first mover advantage in global competition

The worldwide market for environmental industries is estimated at € 1000 billion in 2005 and could reach € 2200 billion in 2020[22]. European companies have so far succeeded in taking advantage of these opportunities. Wind energy, for which EU companies have 60% of the world market share, is a case in point. The EU also holds a market share of more than 30% in energy efficiency, sustainable water management, sustainable mobility, and waste management and recycling industries. Altogether environmental industries in Europe generate a turnover of € 227 billion, approximately 2.2% of EU GDP, and employ 3.4 million people[23].

[19] Electricity generation and heat and transport are the largest emitters with respectively 39% and 23% of Europe's total emissions in 2003.

[20] Analysis done based on CAIT 4.0 and EUKLEMS (2007). Estimates do not take into account emissions savings based on changes in land use.

[21] European Commission (2007) EU Industrial Structure. This publication contains detailed data on the cost structure of European industry based on input output tables for nine EU countries.

[22] Roland Berger (2007) Elements of a European European Ecological Industrial Policy, Working paper to the informal meeting of environment ministers in Essen..1st-3rd june 2007.

[23] European Commission (2007) Report of the Environmental Technologies Action Plan (2005-2006)

2.2.4. Conclusion

Globally the EU manufacturing sector is performing well and is taking full advantage of the favourable business cycle. Nonetheless, the challenges of globalization, technological change and Europe's environmental goals are likely to intensify in the coming years.

3. WHAT HAS BEEN ACHIEVED?

The challenges identified in section 2 are very topical today but are not the only ones confronting the industry. In 2005, The Commission undertook a screening exercise which identified the major issues of competitiveness of industry and its sectors.

Seven major cross-sectoral policy initiatives were announced in the 2005 Communication in order to address the common challenges across groupings of different industries and to reinforce the synergies between different policy areas in the light of competitiveness considerations. In addition to these, seven sector-specific initiatives were identified, based on their nature or particular importance.

These initiatives were followed up in different ways, depending on the approach considered most appropriate. This took the form of High-Level groups involving senior politicians, expert groups, and Commission-internal working groups aimed at improving the synergy between different Commission policies.

3.1. Responding to challenges that are common to many sectors of industry:

3.1.1. High Level Group on Energy, Environment and Competitiveness

The growing awareness of the need to protect our environment confronts industry with the challenge of reconciling this goal with the need to maintain or improve its position in a highly competitive global marketplace. The High Level Group (HLG) on Energy, environment and competitiveness was set up to provide recommendations to the Commission and other policy makers on possible initiatives relating to these sectors. It's objective is to promote a balance between sustainability and competitiveness through an integrated policy. The group therefore deals with specific topics where competitiveness, energy and environmental policies interrelate. The HLG discussed and adopted its **first report** on 2 June 2006. The report includes concrete recommendations to address issues, such as: the improvement and implementation of EU regulatory energy framework, cost-effective inputs for energy intensive industries, energy efficiency, the functioning and the review of the EU Emissions Trading Scheme (ETS).

The **second report** of the HLG was adopted on 30 October 2006. In this second report the Group formulates recommendations on issues such as the framework for promoting a secure and competitive energy future, the support of technology development and deployment, as well as the strengthening of international cooperation on energy security and climate change. The Group discussed and adopted its **third report** on 27 February 2007. The report includes recommendations on helping energy intensive industries adapt to the energy and climate change challenges, including incentives, innovation and technology policies. The **fourth report** of the Group, adopted on 11 June 2007, identifies several areas for action such as setting up ambitious minimum performance standards, a new standardisation approach based on a two-tier system involving stakeholders and standardization bodies, incentives and rewards for best performers driving innovation in more sustainable products and services.

Created in March 2007 two new ad hoc groups will analyse ways to enhance the competitive position of environmentally sound enterprises, and options to improve access to resources and secondary raw materials, and waste flows. The work of the ad hoc groups was considered by the HLG meeting of June 2007.

3.1.2. Strengthening the Knowledge Base of Industry

The initiatives described in the 2005 Communication aim to deal with different aspects of maintaining industrial competitiveness in a knowledge-based society.

The skills base in the work-force is the most fundamental element. An important milestone was the submission in September 2006 of the draft recommendations for a **European Qualifications Framework** which will facilitate the transfer and recognition of qualifications held by individual citizens by linking qualifications systems at the national and sectoral levels. It will act as a translation device and allow for a better match between supply and demand for skills, thus supporting labour market mobility across Europe. In consultation with sectoral industry organisations and the social partners **Cedefop** has developed a sectoral training database to provide information on problems that exist in their respective sectors. A **study** on skills problems in European industrial sectors is being undertaken to provide inputs for the Competitiveness Report 2007. An **"**Innovation, Skills and Jobs **Project**" presented first results in May 2007 and is in the process of developing a methodology to identify future skill needs.

Research and innovation also plays a vital role. In order to exploit synergies between research and innovation policies and take better account of sectoral needs and specificities, the Commission is preparing a consolidated overview and analysis of developments relevant to industrial research and innovation, and is setting up a **European Industrial Research and Innovation Monitoring System "EIRIMS"**. An example of a recent important initiative has been the launch of **PRO INNO Europe**[24], which brings together innovation policy-makers and stakeholders from 33 countries, including the Member States. It combines analysis and benchmarking of national and regional innovation policy performance with support for cooperation between national and regional innovation programmes and incentives for joint actions involving innovation agencies and innovation stakeholders. Cluster policy has become an important element of Member States' innovation policies, as reflected in their National Reform Programmes. Four projects funded under PRO INNO Europe form the **European Cluster Alliance (ECA)**[25], which aims to further promote transnational cooperation in cluster policy development. ECA is supported by the **High-Level Advisory Group on Clusters**[26], which met for the first time in January 2007. The Group has a mandate to steer the preparation of a **European Cluster Memorandum** that will be signed at the **European Cluster Conference** in January 2008, organised by the Swedish government. The Memorandum will define the key objectives for cluster policies in Europe and set out a roadmap for future transnational cooperation. Further initiatives such as the establishment of the **European Institute of Technology (EIT)** proposed by the Commission in October 2006 are expected to strengthen the innovation capacity of the EU and its Member States by integrating education, research and innovation activities.

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[24] See http://www.proinno-europe.eu

[25] For details of the ECA and component projects, see http://www.proinno-europe.eu/eca.html

[26] The Group comprises 20 representatives from politics, business and administration..

The Strategic Research Agendas (SRAs) developed by European Technology Platforms have been taken into account in the development of FP7, in particular the ten Themes of the "Cooperation" Specific Programme and their respective work programmes for 2008. This ensures that the 7th Research Framework Programme is better tailored to the needs of European industries and strengthens the knowledge-base of European industries. A Commission internal analysis[27] has shown that almost all SRAs are strongly covered by at least one theme, where most of the related calls for proposals (EU funded projects) occur. For a number of cases, there are significant opportunities for projects under other Themes, in some cases for up to 6 Themes.

In recent years, many Member States have undertaken to improve university-industry relations and in particular to facilitate knowledge transfer. The recent Communication on "Promoting Improving knowledge transfer between research institutions and industry across Europe: embracing open innovation – implementing the Lisbon agenda", puts forward a number of policy orientations which should be applied in all Member States and constitutes a starting point for discussions on a common European Framework for knowledge transfer. These policy orientations aim to help create more opportunities and a more coherent landscape for the exploitation of publicly-funded research results. The Communication is accompanied by "Voluntary guidelines for universities and other research institutions to improve their links with industry across Europe" which highlight good practices to European universities, research & technology organisations and other publicly-funded R&D bodies, regarding the management and transfer of knowledge and intellectual property ("IPR") in the context of both publicly-funded R&D and delivery of collaborative research.

Furthermore, in 2007, the question of how a number of research-related IPR issues should be addressed, such as the grace period or the research exemption, was highlighted in the European Research Area green paper".

The initiative on Intellectual Property Rights and counterfeiting was launched in 2006. Its objective is to ensure that IPR policy reflects the needs of industry, put in place support measures aimed at raising awareness of the value of IPR, helping industry in enforcing its IPR and fighting against counterfeiting. As an example, the **EU/US Action Strategy on IPR and counterfeiting** was announced in June 2006 and has been followed by a series of operational and information exchanges, planned to be developed still further. The IPR initiative has been followed through on several fronts throughout the Commission. In the 'Global Europe' Communication of October 2006, intellectual property rights are one of the high priority areas targeted for action. The Commission is, as a result, strengthening its enforcement activity and co-operation with key partners. Other partners with whom substantial efforts are underway in this realm include China, Russia, ASEAN, Korea, Mercosur, Chile and Ukraine. IPR enforcement problems are also being taken into account in the development of a new Market Access Strategy. Specific measures to address the particular needs of European small and medium-sized enterprises (SMEs) are also being developed, such as preparations to reinforce the **IPR Helpdesk** and additional plans to develop an **advisory service** for European SMEs faced with IPR problems in or related to business with China. In July 2006 a public hearing on patent strategy was held by DG Markt to consult industry, which was followed by a Commission Communication on Patent Strategy in April 2007[28] setting out the Commission's vision for making the Community patent a reality and improving the existing patent litigation system.

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[27] "At the launch of FP7" Third status report on European Technology Platforms" March 2007; ftp://ftp.cordis.europa.eu/pub/technology-platforms/docs/etp3rdreport_en.pdf

[28] More details in http://ec.europa.eu/internal_market/indprop/patent/index_en.htm.

3.1.3. Seizing the benefits of globalisation

The 2005 Communication pointed out that a number of policy areas related to the external dimension, among them the market access strategy, are of key importance for some sectors. These sectors have been identified as food, drink and tobacco, cosmetics, pharmaceuticals, ICT, mechanical and electrical engineering, automotive, textiles and leather, footwear, furniture, ceramics, glass, and wood/products of wood. However, it is not just the ability to enter foreign markets that is important, so too is access to energy and raw materials. There is increasing international competition for commodities. Access to raw materials is of special importance for the food, drink and tobacco, leather, non-ferrous metal, wood, pulp and paper, chemicals and steel industry.

In the year 2006, the Commission has committed itself to a more pro-active and results-oriented approach to global trade and investments. This has been laid down in the Communications "Global Europe: competing in the world. A contribution to the EU's Growth and Jobs Strategy" of 4 October 2006 and "Global Europe: A stronger Partnership to deliver Market Access for European Exporters" from 18 April 2007.

A corner-stone of this policy is the Commission's continuing commitment to the WTO and advancing the Doha trade negotiations. This has been complemented by continuing on-going and launching new far-reaching **bilateral free trade agreements** with the main trading partners, notably South Korea, ASEAN, India, as well as Ukraine, in parallel to the pursuit of negotiations with Mercosur, and the Gulf Cooperation Council. With the conclusion of an **EU-US agreement** for regulations and standards in April 2007 the basis for deepening the transatlantic partnership has been established. The same is true for the launch of negotiations for a new **partnership with China** in January 2007. At a European level we use trade policy in support of the EU's broad internal and external goals, in particular through actions such as: a new **Market Access Partnership**, aiming to set clearer priorities for key markets or sectors where barriers need to be tackled and to create local Market Access Teams pooling Commission, but also Member State and industry resources to tackle barriers at a local level; a new impetus to the **IPR enforcement strategy**; and a **review of our trade defence instruments** to ensure they are suited to the challenges of a global economy.

3.1.4. Managing Structural Change

A key pillar of industrial policy is to anticipate and accompany structural change. The 2005 Communication on industrial policy concentrates on analysing the development of competitiveness, environmental threats and opportunities, consequences at regional level, and measures likely to be taken at Community level. The screening process has identified the following industries for which potential structural adjustment is an issue: the textiles, leather, furniture, footwear, and ceramics industries, printing, motor vehicles, shipbuilding, steel, and the food industries.

The new regulations for the 2007-2013 period of European Cohesion Policy were adopted in July 2006. This new programming period aims at achieving better consistency between the renewed Lisbon agenda and the Cohesion Policy. To this end, the Structural Funds and the Cohesion Fund are crucial to improve competitiveness and to anticipate or accompany structural change. In order to reinforce the proportion of cohesion spending devoted directly to competitiveness and job creation, parts of the funds are 'earmarked' for investments in areas directly linked to the 'Lisbon' priorities, including research and innovation, entrepreneurship,

business services, human capital, major European infrastructures or the improvement of energy efficiency.

Following its Communication on 'Restructuring and Employment – Anticipating and accompanying restructuring in order to develop employment; the role of the European Union'[29] the 'Restructuring' Forum met three times in 2005 and 2006 to address different dimensions of the restructuring phenomenon and in particular the sectoral and the territorial ones. In 2007, the Forum will focus on anticipation tools, the automotive sector and SMEs. Based on work already done by existing organisations, the Forum's mission is to keep in touch with ongoing changes and to ensure that the various initiatives are properly dovetailed in order to better anticipate and manage change. Its key messages underline the need to develop anticipative and proactive approaches towards change, the importance of industrial policy and its integrated approach as a strategic element of anticipation and restructuring and the need to develop partnerships between all actors in order to promote a real and effective anticipate approach towards change, in the aim to prepare workers, regions and companies.

In addition, the **Restructuring Task Force**, set up in 2005 in order to assure more convergence and synergies between EU objectives, policies and actions to better anticipate and accompany change met on different occasions to discuss ongoing policy initiatives and restructuring events. Issues discussed in the Task Force include: compliance with EU laws, the situation of the automotive market, the role of EU funds, and specific restructuring cases.

Finally, in March 2006, as announced in the 2005 Communication, the Commission proposed a new instrument to deal with the consequences of globalization – the **European Globalisation Adjustment Fund (EGF)** - which entered into force in January 2007. The aim of the EGF is to mitigate the impact of redundancies caused by globalisation. The EGF will provide up to 500 million euros each year to help reintegrate into the labour market workers made redundant due to changing global trade patterns, and first applications have been received in the first half of 2007.

3.2. Strengthening the competitiveness of specific sectors

Work on the implementation of the sectoral industrial policy initiatives has progressed well, and some initiatives were finalised under the German Presidency (Strategy for the automotive sector based on CARS 21, Mid Term Review of Biotechnology, and LeaderShip 2015 progress report, dealing with the competitiveness of shipbuilding in Europe).

Other sectoral initiatives have also finalised their reports: (the **EnginEurope** group on mechanical engineering, and the **Textiles HLG**). Work is progressing in the **Pharmaceutical Forum**, and the **HLG on Chemicals** will start in September 2007, following the entry into force of REACH in June 2007.

An analysis of the competitiveness of the Metals Industries, and Forest-based Industries, has also been undertaken, and **Communications** will issue shortly.

The 2005 Communication was accompanied by a companion document giving a sectoral overview of European Industry. A technical update of the sectoral overview has been launched and published in 2006, updating the information and statistics relative to the 27 industrial sectors and broadening the statistical data to include as far as possible the new

[29] COM(2005) 120 final of 31.3.2005.

member states. Apart from this, work has continued on economic analysis of industrial competitiveness in the publications "EU sectoral competitiveness indicators" (2005) and EU industrial structure and location (2006), as well as for the forthcoming publications "European Competitiveness Report, "EU industry structure" and "EU sectoral growth drivers". More generally, a harmonised methodology for in-depth sectoral competitiveness studies is being set up. Taking into account available sectoral studies, the systematic programming of sectoral studies would result in a fairly complete and up to date picture of the competitiveness of all the 27 industrial sectors by the end of 2008.

3.2.1. Automotive sector

The High Level Group CARS 21 brought together all the main stakeholders (including consumer and environmental organisations and trade unions), to advise on future policy. In February 2007 the Commission adopted a **Communication** setting out the direction in which it intends to steer future automotive policy. The Communication reflects extensive stakeholder consultation and dialogue on automotive issues. The main priorities are:

- Simplification of the regulatory environment and reduction of administrative burdens: The Commission will propose replacing 38 EC directives with corresponding global UN/ECE regulations. In addition, self testing and virtual testing will be introduced for 25 directives and UN/ECE regulations to reduce compliance costs and make administrative procedures less costly and time consuming.

- Reduction of CO_2 emissions**:** The Commission strategy is based on an integrated approach with a view to reaching the EU objective of 120 g/km CO2 by 2012. For this purpose, the Commission will seek to simplify the regulatory framework for the automotive industry, focusing on mandatory reductions of the emissions of CO2 to reach the objective of 130 g/km for the average new car fleet by means of improvements in vehicle motor technology, and a further reduction of 10 g/km of CO2 by other technological improvements and by an increased use of bio-fuels.

- Road safety: based on a combination of specific improvements in vehicle technology, road infrastructure, driver behaviour and enforcement.

- Trade: The Communication proposes to assess the potential of using bi-lateral trade agreements (particularly in the Asian region) to improve market access and reinforces the need to enforce intellectual property rights globally.

- Research and development: Clean renewable fuels and vehicles and intelligent vehicles and roads have been identified as core research priorities. A mid-term review of progress made is foreseen for 2009.

3.2.2. Biotechnology

Biotechnology is a fast-evolving area with direct or potential impacts on various production sectors and horizontal policies, covering three main areas health, industrial biotechnology, and primary production/agro-food. It plays an increasing and accepted role in the health sector, with the development of new techniques for treatments and diseases prevention. The penetration of biotechnology is rather high in health biotech, while the adoption of biotechnology in the field of industry and primary production/agro-food in Europe is for the

moment less significant. Contribution of biotechnology to the production of alternative energy is also of primary importance.

The life sciences and biotechnology strategy has undergone a mid-term review in 2006-2007. The aim is to determine new priorities and identify actions that need to be refocused for the remaining period of the strategy until 2010. Input has been provided from several sources, including an assessment study on the impact of biotechnology on different industry sectors (called "Bio4EU"), and policy recommendations from the Commission's two advisory groups with Member States and industry/academia respectively. The key challenge is to assist the biotechnology SMEs in growing and becoming profitable. Issues of high relevance to biotech company growth and development include e.g. the promotion of research and market development, technology transfer, access to venture capital, SME-specific rules and fiscal incentives, regional cooperation, streamlining regulation and easing the administrative burden, an effective and affordable patent system, and a better communication with the public. The review also includes an assessment of the progress made since 2002 on the **action plan** in the Life Sciences and Biotechnology Strategy.

In April 2007 a Commission **Communication** refocused actions to promote a competitive and sustainable European Knowledge Based Bio-Economy (KBBE). The proposed revisions fall under five main headings and require the involvement of a wide range of players. In particular, actions included in the Communication aim at promoting research and market development for life sciences and biotechnology applications and the Knowledge Based Bio-Economy (KBBE), fostering competitiveness, knowledge transfer and innovation from the science base to industry, encouraging debate on the benefits and risks of life sciences and biotechnology, ensuring a sustainable contribution of modern biotechnology to agriculture, and improving the implementation of the legislation and its impact on competitiveness.

3.2.3. Shipbuilding

The LeaderSHIP 2015 initiative identifies a series of agreed, targeted, actions to achieve the desired objective of enhancing the competitiveness and sustainable growth of the European Shipbuilding industry and thereby provides a clear and coherent framework for the Commission's policies and actions vis-à-vis the shipbuilding industry. It is perhaps best seen as a vision based on a belief in the capacity and innovative potential of Europe's maritime industries, and a determination to fight for their future. Ongoing work is focusing on implementing the 30 relevant recommendations in 8 thematic areas (trade; innovation/R&D; financing; transport & the environment; naval shipbuilding; IPR; skills; industry structure).

The Commission issued a **Progress Report**[30] for the Competitiveness Council in April 2007. The Report provides an update on the state of play concerning the eight thematic chapters of LeaderSHIP 2015 and the implementation of the related recommendations.

A first conclusion is that LeaderSHIP 2015 has contributed to a shift in European policy towards the sector and positively influenced public perception. Whereas shipbuilding used to be seen as a subsidised sunset industry, it is now widely recognised as part of a modern and efficient European manufacturing sector that is actually offering new jobs and driving growth in transport, trade, tourism and other areas. LeaderSHIP is a tangible example of the application of the Growth and Jobs strategy to a specific sector.

[30] Commission Working Document, LeaderSHIP 2015 Progress Report, COM (2007) 220 final, 25.4.2007.

The Commission believes that LeaderSHIP 2015 continues to provide an appropriate framework for its policies towards the shipbuilding sector. It should continue and be accelerated where possible, particularly with regard to the issue of ship financing. But it should also be noted that in many areas the impetus will come largely from industry (e.g. changes in industry structure) or from Member States. Notwithstanding the excellent market conditions at present, the market environment for Europe's world class shipyards is likely to become more demanding in the years ahead, due to the massive increases in capacity coming on stream mainly in Asia which could lead to oversupply and price reduction and to the fact that new competitors are likely to move into market segments where European yards are strongest, such as cruise ships. Therefore, the Commission remains committed to LeaderSHIP 2015 and will continue to strive to ensure that the best policy mix is being crafted and applied at EU level to meet the challenges ahead.

3.2.4. ICT

The Task Force on ICT Sector Competitiveness and ICT Uptake was established in June 2006. Designed to complement the Commission's main ICT-related initiative, i2010[31], its mandate was to identify major obstacles to the sector's competitiveness and the uptake of ICTs, help mobilise the sector, and recommend possible policy responses. The membership comprised high-level representatives of the ICT industry and civil society. Industry members came from across the ICT sector and included incumbents, new entrants, and both large and medium-sized firms. Furthermore, trade unions, SMEs, chambers of commerce, consumers, investors and academia were also represented.

The Task Force produced a **report**[32] in November 2006 that delivers a clear picture of where effort should be concentrated in order to boost the competitiveness of the ICT sector. Overall, the report's recommendations confirm that the Commission's ICT policy is on the right track. They endorse the good work already taking place to promote ICT uptake and entrepreneurship, strengthen the internal market and create a single regulatory environment, boost innovation, improve access to finance, match standardisation policy to current industry dynamics, and develop a long-term e-skills strategy.[33] The report also highlighted the importance of IPR, access to finance for SMEs and the internal market for the ICT sector. The report and the extensive list of recommendations have been assessed and the outcome endorsed by the Council.

Following-up on the Task Force Report, the Commission presented in April 2007 a **Staff Working Document**[34] describing in detail a series of actions in the areas, among others, of e-Skills (long-term strategy and action plan 2007), Joint Technology Initiatives (starting in 2007: ARTEMIS - embedded systems, ENIAC - nanoelectronics), lead markets (Policy paper 2007), universal service in electronic communications (Green Paper reviewing scope and principle in early 2008), and announced the adoption of a Directive on Audiovisual & Media Services.

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[31] "i2010 – A European Information Society for growth and employment" - COM(2005) 229.

[32] For the full report of the ICT Task Force, a list of members and details of workign arrangements, see http://ec.europa.eu/enterprise/ict/taskforce.htm

[33] The Commission is preparing a **Communication** on a long-term e-skills strategy for adoption in 2007.

[34] Task Force on ICT Sector Competitiveness and ICT Uptake: Follow-up of Recommendations, Commission staff working document, SEC(2007) 526, 4.4.2007

3.2.5. Mechanical Engineering

"**EnginEurope**" is the sectoral initiative under the Commission's new industrial policy approach dealing with the mechanical engineering industry. Its aim is to bring together stakeholders in the mechanical engineering field, and identify and analyse the major challenges that will affect the sector in the coming decade. EnginEurope looks at the industrial framework conditions and assesses how the mechanical engineering industry can continue to fully exploit and develop its assets as an essential part of Europe's industrial fabric.

A High-Level Discussion Group was formed in early 2006. The Group met through 2006 and presented its **draft report** to the Commission as planned on **15 January 2007**. The Group had members from industry, academia, Member States, trade unions, the respective trade association, and the European Commission.

Four key areas for which recommendations are developed were identified:

- strategic industrial and technological base;
- completion of the internal market and access to export markets, incl. IPR issues;
- employment and skills needs;
- research and innovation.

In these four key areas, EnginEurope developed 65 detailed recommendations. Most of the recommendations are not specific to the sector and some clearly go beyond the Community or Commission mandate. It is, therefore, important that the recommendations of EnginEurope are streamlined with the findings in other sectors in the context of horizontal initiatives (IPR, market access, skills etc) and that a synergetic approach is pursued.

Industry and the Commission has followed up on the group's **report**, firstly through its publication, and secondly through a **conference** with high-level Commission participation in May 2007 co-organised with the German Presidency. The conference drew the public attention to the sector and the report. Industry has also brought the report to the attention of interested MEPs during an event in June 2007.

3.2.6. Pharmaceuticals

The **Forum** consists of Member States (at Ministerial level), European Parliament, senior representatives of industry and other key stakeholders, such as patients and health professionals. The first High-Level (ministers) meeting of the Pharmaceuticals Forum in September 2006 adopted the **Progress report** that outlined the main issues addressed in the course of several technical meetings in **3 Working Groups**:

- Information to patients: dealing with: a) a model package of information on disease (using diabetes as an example); b) options for further harmonised action at an EU level (including possible legislative change) on medicinal information; and c) ways to improve patient access to health information.
- Relative Effectiveness: a) search for consensus on the data required to make RE assessments; b) identify best practice; and c) increase quality and availability of data.

- Pricing: the working group has held two meetings and a workshop to try and establish ways of ensuring: a) a reward for innovation; b) that Member States retain control of national pharmaceutical expenditure; and c) an equitable access to pharmaceuticals to patients throughout the EU.

It has been some time since the Commission last issued a Communication on pharmaceuticals and the Single Market[35]. Despite the progress made with the last global revision of the pharmaceutical legislation and the 'G10 Medicines' process, there is still work to be done to achieve a single market in pharmaceuticals that benefits both patients and industry, enhance public health, stimulate innovation and strengthen the competitiveness of the European-based pharmaceutical Industry.

To tackle this, the Commission has established a twin-track approach of modernising the European legislative framework governing pharmaceuticals through the Pharmaceutical Review, and the ongoing Pharmaceutical Forum where critical issues affecting competitiveness, such as pricing & reimbursement, are addressed directly with Member States and key stakeholders. To bring these strands together, the Commission will publish a **Communication**, by the end of 2007, setting out our strategy and vision for the future of the sector. The basis for the Communication will be a public consultation to be launched during the summer of 2007.

The Innovative Medicines Initiative is a Public-Private Partnership (PPP) in the domain of research and development, involving the pharmaceutical industry represented by the European Federation of Pharmaceutical Industries and Associations (EFPIA) and the European Commission. It will manage a 2 billion € research programme over 7 years jointly with the pharmaceutical industry, to support the development of new knowledge, tools and methods in order to bring better and safer medicines quicker to the market.

3.2.7. Textile and clothing

The **HLG on Textiles and Clothing** was set up to provide recommendations to the Commission and other policy makers on possible initiatives in order to facilitate the sector's adjustment to the major challenges it faces. It adopted a first set of recommendations in June 2004 and proposed concrete actions in the fields of trade policy, including market access, intellectual property rights, research and innovation, education, training and employment, regional affairs and competitiveness. These were taken up in the Commission **Communication** "Textiles and clothing after 2005 – recommendations of the High Level Group on textiles and clothing" of 13 October 2004, accompanied by a list of measures already in place or to be launched in the near future at European level.

The HLG met in September 2006 to conclude its work. Members endorsed a **progress report** on the implementation of their 2004 recommendations and agreed on a set of new recommendations for actions that would contribute to the accomplishment of a vision for the future of the textile and clothing sector. The majority of the recommendations put forward in the second report of the HLG were addressed mainly to the industry and social partners. The Commission will continue to play its role in the implementation of the recommendations, namely in the areas of competitiveness and internal market issues (REACH, access to credit, competition and retail structures, IPR), research and innovation, education and training and

[35] COM 98(588)final, November 1998.

trade policy. The Commission will also continue supporting initiatives taken in response to the recommendations. The HLG emphasized the importance of continuing monitoring the development in the sector and reviewing the progress in the implementation of recommended actions.

Current work relates to the implementation of the conclusions arrived at by the High Level Group for textiles and clothing, the setting of priorities for a sustainable strategy for the future of the textile and clothing sector, and a response to developments in the EU textile and clothing sector since the elimination of the textile quotas in January 2005.

Discussions up to now have also focused on the need to maintain the lead in research and innovation, in fashion and creativity, build up new skills of workers, customise and specialise its products, ensure the protection of IPR and create a level playing field in external trade. Depending on progress there could be a policy initiative in this area.

3.2.8. Forest-based industries

As announced in the Commission Communication on Implementing the Community Lisbon Programme[36], a Communication on the competitiveness, innovation and sustainability of the forest-based industries will issue shortly.

Important competitiveness challenges for the forest-based industries relate to innovation, increased global competition, access to third-country markets, price of energy supply and high transport costs. Moreover, the access and availability of both virgin and recovered raw material at competitive prices and the strategic role of these industries in limiting climate change are issues that need to be addressed specifically in order to provide the right framework conditions within which this industrial chain can prosper and grow. Furthermore, and in particular in the woodworking and printing sectors, the SME dimension is especially relevant.

Against this background, and in addition to the horizontal provisions aiming at multi-sectoral objectives, the Commission will be proposing measures to strengthen the framework conditions for the forest-based industries. The proposals have been subject to a public consultation which took place during October and November 2006 and have been reviewed by the Advisory Committee on Community Policy regarding Forestry and Forest-based industries.

3.2.9. Defence Industry

The Commission can not influence the demand or supply of defence equipment, but can influence three factors: (1) Encourage industrial restructuring and consolidation in the defence sector, (2) Develop a European Defence Equipment Market; (3) indirectly, via security R&D programmes.

As to the defence technological and industrial base and the European defence equipment market, the Commission issued an Interpretative Communication on the application of Article 296 of the Treaty in the field of defence procurement in December 2006.

[36] COM(2005)474

Concerning research and development, after the expiry of the three years preparatory action for security research, it was decided within the 7th research and technological development framework programme to create a thematic priority for security research that will dedicate € 1.4 billion to these activities within the 2007-2013 period.

3.2.10. European Space Policy and Program

In April 2007, the Commission adopted a **Communication** on European Space Policy, accompanied by a Commission **Staff Working Paper** on the preliminary elements for a European Space Programme. The Communication contains a number of key orientations to enhance the competitiveness of the sector, notably that:

- Europe needs better and more effective co-ordination of civil space programmes between ESA, EU and the individual EU member states to ensure value for money and eliminate unnecessary duplication;

- current European space flagship projects Galileo and GMES need to be fully developed and exploited;

- GMES needs effective management solutions and appropriate financial mechanisms to become fully operational and to ensure sustainable operational services responding to identified user needs

- the EU needs to have independent and cost-effective access to space;

- Europe needs to ensure sustained and coordinated investment in space technology to reduce dependence on critical technologies from non-European suppliers;

- synergy between defence and civil space programmes and technologies as well as the interoperability of civil/military systems need to be increased, and;

- space policy needs a joint strategy for international relations in space.

Jointly drafted by the European Commission and the European Space Agency (ESA), these documents are expected to serve as a tool for the EU and ESA and Member States to co-ordinate a joint European space effort and pool resources, as no single member state will be able to successfully develop independent European space systems and infrastructures as strategic tools for Europe in pursuing its global responsibilities. The aim is also to combine efforts to maintain the competitiveness of European space industries.

The document on the preliminary elements of the **European Space Programme** in the fields of applications and foundations represents a non-binding collection of activities that are currently ongoing and envisaged in the short term (ie satellite navigation, earth observation, satellite communications, security and defence, science and technology, international space station and exploration of the solar system and access to space).

The Space Programme also outlines an indicative budget for major European-level activities for 2007-2013. The Commission is set to fund space-related activities with around €3 billion and ESA with some €23bn. National activities, including civil and defence-dedicated activities account for approximately 40 % of the overall European space effort.

Following the recommendation of the May Space Council, GMES has already made progress but now needs concrete proposals covering governance and funding issues that need to be addressed for GMES to become fully operational.

3.2.11. Metals

A **Communication** to enhance the competitiveness of the metals sector will issue shortly.

Currently work focuses on key factors influencing the performance of the sector and on specific actions to safeguard and reinforce competitiveness in the future. The main competitiveness challenges of the sector are related to access to energy and raw materials at a competitive price, high innovation costs, and global competition conditions. Specific actions are needed to enable the metals industries to face the unprecedented challenges, externally, from new competitors and from developing economies, by establishing a leading position in the global markets, and internally, to cope as intensive energy users with the challenges of climate change and security and price of energy supplies. It underlines the importance of energy supply that should be available at competitive prices through well functioning energy markets, includes ways and measures that will allow the sector to meet the Community's environmental objectives and to adapt to the requirements of its ambitious climate change objectives, and finally means to enhance the sector's competitiveness through R&D and innovation.

The current proposal takes account of the responses to a public consultation in September 2006, and of the Commission Staff Working Document providing a detailed picture of the sector in terms of statistics and major economic trends.