



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 5.10.2005
SEC(2005) 1215

COMMISSION STAFF WORKING DOCUMENT

Annex to the :

Communication from the Commission

**”Implementing the Community Lisbon Programme:
A policy framework to strengthen EU manufacturing -
Towards a more integrated approach for industrial policy”**

{COM(2005) 474 final}

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IMPLEMENTING THE COMMUNITY LISBON PROGRAMME: A POLICY FRAMEWORK TO STRENGTHEN EU MANUFACTURING - TOWARDS A MORE INTEGRATED APPROACH FOR INDUSTRIAL POLICY

1. EU INDUSTRIAL POLICY AND THE ACTION PROGRAMME FOR GROWTH AND EMPLOYMENT

The Lisbon Action Programme for Growth and Employment¹ stressed the fundamental importance of boosting growth and creating jobs to unlock the resources needed to meet the EU's economic and social ambitions and to reach its environmental objectives. It recognised the key importance of a strong industrial sector in order to be able to fully exploit the EU's technological potential and to enhance and sustain the EU's economic and technological performance.

The manufacturing sector plays a very important role in the EU's economy. It provides around a fifth of EU output and employs some 34 million people in the EU. Manufacturing accounts for three-quarters of EU exports and over 80% of EU private sector R&D expenditures². It is also closely inter-linked with the service industries, providing demand for business services and supplying the key inputs to the services industries.

Continual technological breakthroughs and the increasing internationalisation of the world economy are creating important new opportunities and challenges for EU manufacturing. New technologies allow for the fast introduction of new products and production processes, enabling dynamic firms to gain market shares and profit opportunities. Increased internationalisation of trade is driven by improving transport linkages, falling communication costs, reduced barriers to trade, and more vigorous competition. Internationalisation of investment and R&D is also gaining momentum as emerging economies develop their research systems and attract foreign direct investment. These forces bring the opportunities of new markets, but also the challenge of new competitors. Adaptability and structural change are the key factors needed to respond to these developments and to ensure the competitiveness of EU manufacturing, especially in the light of increasingly strong competition from China and the emerging Asian economies³.

The Commission is committed to the horizontal nature of industrial policy and to avoid a return to selective interventionist policies. Nevertheless, the scope of policy instruments should not be seen just as only very broad horizontal measures. For industrial policy to be effective, account needs to be taken of the specific context of individual sectors. Policies need to be combined in a tailor-made manner on the basis of the concrete characteristics of sectors and the particular opportunities and challenges that they face. This inevitably has as a consequence that whilst all policies are important, in the EU today some policies have greater importance for some sectors than others. The Commission therefore stands by its previous commitments to encourage and facilitate the process of industrial innovation and change⁴.

¹ "Working Together for Growth and Jobs: a New Start for the Lisbon Strategy" COM(2005) 24.

² Sources: Eurostat Business Statistics.

³ See also the forthcoming EU Annual Economic Review that analyses the factors affecting the competitiveness of the EU economy as a whole.

⁴ See "Industrial Policy in an Enlarged Europe" COM(2002) 714 and "Fostering Industrial Change: an Industrial Policy for an Enlarged Europe" COM(2004) 274.

However, a new approach to industrial policy is required aimed at achieving better designed policies that are more relevant, integrated, and consensual. The Communication on “Implementing the Community Lisbon Programme: A Policy Framework to Strengthen EU Manufacturing - towards a more integrated approach for Industrial Policy” aims at deepening and supplementing the framework for industrial policy by focussing on its practical application to individual sectors, and is based on this document. This purpose of this document sets out the core findings on which the Communication’s policy initiatives are based. The range and diversity of the policy challenges posed by different sectors has thus been examined in some detail, based upon a systematic screening of opportunities and challenges for 27 separate sectors of EU manufacturing industry and construction⁵. On this basis, the outline of work for industrial policy over the coming years has been constructed.

The next section of this working document reviews the evidence on the importance of EU manufacturing, the diversity of sectoral performances, and the extent and nature of international competition for investment and R&D. The third section then gives a detailed account of the individual challenges for industrial policy that have been identified through the screening process. The fourth section, for convenience, sets out the Outline of Work for future horizontal and sectoral policy initiatives as stated in the Communication. Section five concludes.

2. THE EVOLUTION OF INDUSTRY AND ITS SECTORS IN THE EUROPEAN ECONOMY

2.1. EU manufacturing sectoral developments

Over the period 1993-2004 manufacturing value-added in the EU-25 grew at an average annual rate of 2.3%. Manufacturing output therefore grew substantially in real terms, notwithstanding some cyclical variation. Relative to other industrialized countries over the same period, EU-25 manufacturing production grew slower than the 3.7% US manufacturing production growth rate, but faster than the 0.7% growth in Japan.

This positive trend of manufacturing output has been accompanied by a steady decrease in both manufacturing employment and its value added share in the economy at large, consistent with the long-term overall economic growth process. The faster growth in the demand for services due to higher incomes and sustained above-average productivity growth in the manufacturing sector explains these trends.

As a result of the screening, individual sectors have been grouped into four broad categories the food and life sciences industries; the machinery and systems industries; the fashion and design industries; and the basic and intermediate product industries⁶.

⁵ See the accompanying Staff Working Paper SEC (2005) 1216. The challenges facing the Business related services sectors are described in the Communication on the Competitiveness of Business Related Services and their Contribution to the Performance of European Enterprises, COM(2003) 747, which also announced an Action Plan on Business Related Services.

⁶ See the table in Annex I for an overview of the classification. A broadly similar, but not identical, classification was used in the “Industry Memorandum: Heart for Industry” of the Netherlands Ministry of Economic Affairs (October 2004). The classification was based on common industry challenges and on other similarities in characteristics such as products, processes etc.

Food and life science industries makes up just under a fifth of manufacturing value-added and also exhibit a broadly similar growth rate to manufacturing as a whole. The case of pharmaceuticals (5.7%) has to be underlined, as this sector exhibits the highest growth rate in this group and one of the highest among all manufacturing sectors.

	Share of Value-added in manufacturing in 2004 (% points)	Average annual growth rate 1993-2004 (%)
Food and life science	18.1	2.4
Machine and systems	33.1	3.5
Fashion and design	7.5	-2.0
Basic and intermediate	41.3	2.1
Total Manufacturing	100.0	2.3

Source: Eurostat

The group of machine and system industries makes up a third of manufacturing value-added in 2004. The group is characterized by a high average annual growth rate of 3.5%. However, there is substantial variation between sectors within this group. Overall, the ICT manufacturing industries and motor vehicles experienced the fastest growth rates.

The poorest growth performance corresponds to fashion and design industries (making up 7.5% of EU manufacturing). Whilst the average growth rate for the group was markedly negative at -2.0%, certain sectors and sub-sectors within it have performed more strongly, such as the furniture sector and certain sub-sectors of textiles.

Finally, basic and intermediate goods industries make up some 40% of total manufacturing value-added, with an annual growth rate of 2.1%, a little lower than manufacturing as a whole. Important exceptions to this pattern are chemicals and rubber, whose growth rates of 3.4% and 2.9% respectively are above the manufacturing average.

Productivity growth is one of the most important indicators of sectoral competitiveness. It reflects changes in factors such as capital investment, technology, organization, physical and human capital deepening, and it determines, to a large extent, price competitiveness. Further insight into the diversity of the EU's manufacturing productivity growth process can be obtained from a comparison of the EU and an aggregate of seven industrialized countries⁷.

⁷ The data used comes refers to an EU25 aggregate minus Slovenia, the Baltic states, Malta, and Cyprus. The seven comparison countries are US, Japan, Canada, Australia, Norway, South Korea and Taiwan.

Relative to these countries productivity growth rates in the majority of sectors are, in general, higher in the EU. However, sectoral composition (particularly, the lower share of high-growth sectors like office machinery, electronic valves & tubes, and telecommunications equipment in the EU relative to the seven countries) explains to a large extent the lower productivity growth of EU manufacturing industry as a whole. Although the share of these sectors in the economy is not particularly high, their very high productivity growth rates makes the difference, due to the fact that their shares are substantially higher in the average of other industrialised countries than in the EU⁸.

There is a clear association between EU relative productivity growth and performance in external markets, indicating the relevance of productivity growth for competitiveness in international markets. However, non-price competitiveness factors, such as R&D intensity and innovation performance, also play a significant role in the performance of several sectors. For example, the electrical machinery sector performs well in terms of exports, despite relatively slower productivity growth than in the average of other industrialised economies. Hence, while price competitiveness is an important component of competitiveness, factors such as product quality, marketing, innovation and other components of non-price competitiveness are also crucial, and underline the importance of policies aiming at improving sectoral performance in these areas.

Nevertheless, the industrial structure of the EU economy as a whole makes it less than ideally positioned to face the ongoing process of globalisation. While important EU manufacturing sectors such as mechanical engineering, chemicals and motor vehicles have a substantial revealed comparative advantage and record trade surpluses against the rest of the world, EU trade is overall still concentrated in sectors with medium-high technologies and low to intermediate labour skills⁹. This exposes the EU to competition from producers in emerging economies that are upgrading the skill intensity of their exports and catching up in terms of the non-price factors that often underlie the EU competitive edge on world markets. Hence, adaptability and structural change, allowing a shift towards a more robust situation of comparative advantage, are critically needed if the EU is to maximise the gains arising from the integration in the world economy of China, India, and other fast growing economies.

In addition to their own direct contribution to productivity growth, the manufacturing industries are closely linked to the service industries. In particular, a sizable share of the labour productivity growth recorded in the services sector is caused by capital deepening through increasing uptake of ICT. This effect is highest in sectors considered in finance and communications and other services using ICT intensively. Using data on the composition of labour productivity growth available for four EU countries (France, Germany, the Netherlands and the UK), it is clear that ICT capital induced more than 50% of the annual productivity gain registered in financial intermediation activities over the 80s and 90s¹⁰. According to those data, ICT use has also had a major impact on labour productivity in real estate activities

The Sectoral classification is more aggregated and the time period covered shorter (1993-2001) than the ones used above.

⁸ This confirms the generality of the results of O'Mahony and van Ark (2003) that the EU productivity outperformed the US in most industries, excepting the ICT producing-industries. See also C. Denis et al, "The Lisbon Strategy and the EU structural productivity problem" DG ECFIN, February 2005.

⁹ See section VI of the EU Sectoral Competitiveness Indicators 2005.

¹⁰ Source: O'Mahony and van Ark (2003), EU productivity and competitiveness: An industry perspective, European Commission.

and business services, as well as an increasing influence in wholesale and retail trade activities. The sum of these effects plus those induced by other capital goods – such as tools and scientific instruments – highlights the importance of manufacturing as a whole to the successful development of the service economy in Europe.

2.2. Is there a process of relocation?

There is significant public concern about a presumed continuous process of relocation of industrial activities from the EU to the emerging Asian economies, especially China and India. Furthermore, the perception of this phenomenon undermines public confidence in the ability of EU manufacturing to provide jobs and to create wealth.

Undeniably, relocations may pose local and sectoral problems and particularly impact upon lower skilled workers that should be helped to cope with the consequences of industrial restructuring. These costs are very often concentrated in some sectors and some regions. This is for example the case of the group of fashion and design industries. The production in these sectors remaining in the EU has refocused itself on higher-value and higher quality products, having undergone a largely successful process of structural adjustment. The group of sectors concerned by relocations also includes some parts of the food, machinery, and electrical equipment industries, some non-ferrous metals industries, and business services.

However, the process of relocation of jobs to low cost countries should not be confused with the more general internationalisation of manufacturing production stimulated by the development of new markets. Manufacturing has been involved in the process of globalisation for many decades, with the overwhelmingly majority of manufacturing foreign direct investment going to industrialised countries. The United States alone receives nearly one third of EU manufacturing outflows. The EU-15 outflows towards the new Member States has stabilised at about 13% of total EU-15 FDI outflows. Investment flows towards China have certainly increased a great deal since the 1999-2000s, but represented in 2003 only 3.8% of all outflows¹¹. The share of India is even lower.

Foreign direct investment (FDI) statistics give a picture of how manufacturing companies are active in the process of internationalisation. However, the statistics do not indicate what share of these flows correspond to relocation. Whilst there are no available statistics on relocations, many studies have attempted to estimate the share of relocations. They all conclude on the small share of relocation/outsourcing in FDI¹² or restructuring¹³ and on the limited impact on unemployment¹⁴ in the economy as a whole. Moreover, relocations/outsourcing may help reorganise the value chain and lead to productivity gains that are a key source of competitiveness for EU industry. Cost is only one of the many factors responsible for relocation; availability of skilled labour, infrastructures, and market opportunities are often more important. The attractiveness of the regulatory environment is another, especially the

¹¹ Eurostat “EU Foreign Direct Investment in 2003” Statistics in Focus, 20/2005

¹² D. Marin, “A nation of Poets and thinkers – Less so with Eastern Enlargement. Austria and Germany”, CEPR Discussion Paper 4358, 2004. Note from the French Ministry of Economics and Finance, 2004. The French Institute INSEE estimate an average 13 500 job losses per year for France due to relocations, of which 6 400 were due to relocations to low cost countries (Rapport sur les Comptes de la Nation, 2004).

¹³ See European Monitor Restructuring

¹⁴ See D. Marin, Mc Kinsey Global Institute. “Offshoring, is it a win-win game”, 2003.

degree to which it favours or curtails the development and deployment of innovative goods and services, and the setting up and expansion of new businesses.

International competition is also increasing for R&D investment. Relocation of production may have adverse effects since R&D activities may follow manufacturing production. For example, to access new and large markets, companies need to adapt their products to meet local requirements and tastes, resulting in R&D conducted closer to the customer. In some sectors such as microelectronics, R&D and production activities are highly interrelated. As a consequence, the relocation of manufacturing may lead to the relocation of R&D, creating a domino effect within the sector.

Other factors that are key for the location of R&D investment are the availability of highly qualified human resources, the quality of the local research and innovation systems, and the presence of clusters or poles of excellence. In addition, government policy may also directly affect R&D spending e.g. the increasing attractiveness of the U.S. as a prime location for healthcare-related R&D can be attributed at least partly to its more favourable market conditions and higher returns, a consequence of differing government pricing and reimbursement rules.

Available indicators show that, relative to the USA and Japan, the EU is a somewhat less attractive place for location of R&D. In 2000, US companies spent €11.5bn on their R&D activities in the EU-15 whilst the European companies spent €15.2bn in the US, meaning that the US attracted one third more R&D expenditure than the EU. The situation is even worse between the EU and Japan, even though it is on a smaller scale (€1.4bn versus €0.4 billion). Estimates for 2004 indicate that these trends have not improved¹⁵. There is emerging evidence that countries such as China and India are becoming important locations for new R&D investments. For instance, US investment has also been growing at a much faster rate in areas outside the EU – notably China, than in the EU¹⁶. The US has also been more successful than the EU in attracting researchers and highly skilled staff.

Given the significant positive spill-over effects from R&D activities and R&D expenditure to other parts of the economy, this could also have wider negative effects. Such a situation would be a matter of concern and should be addressed. While relocations as such might require targeted measures to mitigate adjustments costs, R&D location choices and the loss of skilled personnel might require a range of policies that improve the framework conditions.

2.3. EU manufacturing performance and industrial policy

The discussion indicates:

- Productivity growth is one of the most important indicators of competitiveness. The manufacturing productivity growth differential between the EU and other industrialised economies, particularly the US, has to some extent been the result of an industrial composition effect due to the lower share of ICT-producing sectors in EU manufacturing. In particular, the differential has been the result of a smaller size and the slower productivity growth of the ICT sector in the EU.

¹⁵ DG RTD Statistics on Research and Development (2005).

¹⁶ EU “Key Figures 2005 on Science, Technology, and Innovation: Towards a European Knowledge Area”.

- In fact, the majority of individual EU manufacturing sectors have on the whole performed well in comparison with their counterparts in other industrialised economies.
- However, the industrial structure of the EU economy as a whole makes it less than ideally positioned to face the ongoing globalisation process, since much of EU trade is still concentrated in sectors with medium-high technologies and low to intermediate labour skills. This exposes the EU to competition from producers in emerging economies that are upgrading the skill intensity of their exports and catching up in terms of the non-price factors that often underlie the EU competitive edge on world markets.
- Hence, adaptability and structural change, allowing a shift towards a more robust situation of comparative advantage, are critically needed if the EU is to maximise the gains arising from the integration in the world economy of China, India, and other fast growing economies.
- EU foreign direct investment flows towards the emerging Asian economies have increased in recent years, however their share in total flows remains limited. International relocations of EU jobs to low cost countries are limited in most manufacturing sectors, although still can have painful consequences on a local or individual sectoral basis, especially on lower skilled workers, justifying actions to try to reduce the social and economic costs of these changes.
- There is increasing intense international competition for R&D investment and skilled researchers, and evidence that the EU is not competitive enough as a location for research. These trends are a matter of considerable concern in so far as they lead to a loss of R&D investment and researchers from the EU.

On the whole therefore, while the performance of individual EU manufacturing sectors over the recent past has been positive, there are still important challenges ahead. In particular, promoting the conditions to ensure increased adaptability and structural change is essential in order to ensure the competitiveness of EU manufacturing, especially in the light of increasingly strong competition from China and the emerging Asian economies. In the light of this assessment, the Commission services have therefore undertaken a detailed screening of the competitiveness of individual sectors of manufacturing industry in order to determine to what extent their performance is or could be influenced by the instruments of industrial policy.

3. COMBINING THE HORIZONTAL AND SECTORAL DIMENSIONS OF EU INDUSTRIAL POLICY: MEETING THE CHALLENGES AHEAD

To carry out an assessment of the potential role of industrial policy in individual sectors, over the last months the Commission services have undertaken a systematic screening of 27 separate sectors of manufacturing industry and the construction industry¹⁷. For each sector, a competitiveness assessment has been made with inputs from stakeholders and Member states.

¹⁷ Since only limited sectoral data was available on the New Member states, the screening must be regarded as preliminary. The missing data is currently being compiled and analysed by the Commission and will be fed into the on-going policy initiatives.

An evaluation of opportunities and threats has been undertaken, leading to an assessment of the relevance and priority of various key policy areas for each sector.

The policy areas chosen for screening were those identified by the 2004 Communication¹⁸ as being particularly relevant to industry. These areas were: (1) ensuring an open and competitive Single Market, including competition; (2) providing a supportive framework for research, innovation and skills; (3) better regulation; (4) ensuring synergies between competitiveness, energy, and environmental policies; (5) ensuring full and fair participation in global markets; and (6) facilitating social and economic cohesion. Whilst these policy dimensions are not exhaustive, they were selected because of their particular relevance to sector productivity growth and international competitiveness.

The screening process has resulted in a thorough and systematic identification of the competitiveness and policy challenges of each individual sector in both a quantitative and qualitative fashion. The following sections set out the main policy challenges that have been identified, explaining and illustrating their relevance for individual sectors. The tables indicate with crosses, the cases in which a policy challenge is considered of the highest priority for each sector amongst the many relevant policy challenges. Hence the absence of a cross does not therefore necessarily denote that the challenge is unimportant to a sector, only that it is not considered as an issue of greatest priority. More detail on these and other issues are set out in the accompanying fiches.

3.1. Ensuring an open and competitive Single Market

An essential precondition of competitiveness is the maintenance of open and competitive markets. However, relatively little firm information is currently available on market structure and the intensity of competition between different sectors in the EU and further work is planned to be undertaken in this area. Nevertheless some clear policy issues emerged from the screening exercise.

- Whilst the Single Market programme has successfully delivered an EU-wide market for most sectors, increasing competition, enabling exploitation of economies of scale, and providing better consumer protection¹⁹, progress seems still possible to be made on certain sectors, such as in public procurement for defence industries, and in relation to creating a fully competitive single market for pharmaceuticals. In general, the completion of the single market for services remains a core requirement to increase the competitiveness of EU businesses, including the manufacturing and other industries.
- Liberalisation of communication services has substantially reduced input costs for industrial users, however there appears room to improve the efficiency of energy and other service industries further. This is particularly relevant for many energy-intensive basic industries.
- The change-over to the euro has reinforced competition between lenders, increasing access and reducing costs of finance to industry. Still further progress would need to be made in ensuring the availability of finance and venture capital, particularly for SMEs. This is an

¹⁸ See footnote 3.

¹⁹ EUC Ten Years Internal Market Without Frontiers, Internal Market Scoreboard, November 2002.

important factor for several sectors based on innovative SMEs, especially in the life sciences and fashion and design industries.

- Competition policy has an important role in making industries more competitive and ensuring that companies operate so as to achieve the highest value added production consistent with their comparative advantage. Vigorous competition is thus an important driver for competitiveness and economic growth whereas anti-competitive agreements and mergers cause damage to innovation and competitiveness of the European Industry.

3.2. Supporting research, innovation, and skills

Amongst the key strengths of the EU economy are its strong science base and its skilled and creative workforce, which are increasingly seen as drivers of productivity growth and competitiveness. The role of the private sector is to use these factors to continually develop new products and processes and improve skills to obtain new competitive advantage and profitability in global markets. The corresponding role of public authorities would be to assist this process, through ensuring optimal framework conditions for private firms to conduct R&D and improve their innovative performance, providing a range of incentives to increase private investment in research and innovation; ensuring the intellectual protection of new ideas, and facilitating the development of a skilled and healthy workforce. In particular, there would be synergies from jointly addressing the development of strong industrial clusters and innovation poles, bringing together research and innovation actors from different regions and Member states, particularly in fields where for reasons of scale or scope individual Member states cannot succeed in isolation to tackle market failures.

	Industry	KNOWLEDGE			
		R&D/Innovation	IPR, Counterfeiting	Skills	Access to finance for SMEs
Food and Life Science Industries	Food, drink & tobacco	X			
	Cosmetics	X			
	Pharmaceuticals	X	X	X	X
	Biotech	X	X		X
	Medical devices	X			X
Machine and System Industries	ICT *	X	X	X	
	Mechanical engineering	X	X	X	X
	Electrical engineering	X	X	X	X
	Motor vehicles	X	X	X	
	Aerospace	X			
	Defence industries	X			
	Shipbuilding	X	X	X	
Fashion and Design Industries	Textiles	X	X	X	
	Leather and leather goods	X	X	X	
	Footwear	X	X	X	
	Furniture	X	X	X	
Basic and Intermediate Goods Industries	Non-energy extractive industries	X		X	
	Non-ferrous metals				
	Cement and lime				
	Ceramics		X		
	Glass		X		
	Wood & products of wood	X		X	
	Pulp, paper & paper products	X			
	Printing & publishing	X		X	
	Steel	X		X	
	Chemicals, rubber, and plastics	X			
	Construction	X		X	

• ICT: challenges are sector specific; ICT uptake is a general challenge for the industry.

- The Community Action Programme for Growth and Employment identified several areas for action to encourage higher and better investment in research and innovation such as improving the links between basic research in universities and industrial R&D, guidelines for optimising the EU-wide use of fiscal incentives for R&D, facilitating state aids for innovation to tackle market failures hampering innovation, and intensifying EU-wide industrial R&D networking and public-private partnerships via the 7th RTD Framework Programme. These issues are particularly important to the R&D-intensive life science and machine and systems industries.
- Most sectors including traditional ones play a key role in fostering entrepreneurial innovation. Therefore enhanced efforts should be undertaken to better understand sector-specific barriers to innovation and facilitate networking among innovative companies.
- The absence of a Community patent makes it difficult for many enterprises particularly SMEs to protect their inventions at a reasonable cost. Combating counterfeiting is also essential to protect intellectual property. These are key issues for a range of industries, including the ICT and engineering industries, the fashion and design industries, and ceramics and glass.
- The development of human capital and the availability of a highly skilled workforce are essential issues for research-intensive sectors such as the ICT industries. However, traditional labour-intensive sectors also need to improve the skills of their workforce, notably e-skills, in order to enhance competitiveness and to increase the employability of workers and the transferability of their skills.

3.3. Better regulation

Regulation is essential to many industries. It provides guarantees for public and occupational health and safety, consumer and environmental protection etc. and allows the setting of common technical standards to allow increased competition between goods and services. It sets a level playing field for fair competition in the internal market and a predictable environment for business. However, regulation is not always efficient and may not be sufficiently flexible to accommodate new technological developments. Better regulation measures at all levels improves the quality of both new and existing legislation to ensure that the regulatory framework is more efficient and conducive to competitiveness, whilst satisfying the objectives of other policies. It also improves governance, through increasing the transparency of decision making and actively involving stakeholders.

	Industry	BETTER REGULATION			
		Administration burden/ Complexity of sectoral regulation	Internal Market	Health and Safety	Techn. Standards
Food and Life Science Industries	Food, drink & tobacco	X			
	Cosmetics		X	X	
	Pharmaceuticals		X	X	
	Biotech	X		X	
	Medical devices		X	X	
Machine and System Industries	ICT	X			X
	Mechanical engineering		X ^{*)}		
	Electrical engineering		X ^{*)}		
	Motor vehicles	X	X		
	Aerospace				
	Defence industries		X		
	Shipbuilding				
Fashion and Design Industries	Textiles				
	Leather and leather goods				
	Footwear				
	Furniture				
Basic and Intermediate Goods Industries	Non-energy extractive industries				
	Non-ferrous metals				
	Cement and lime				
	Ceramics				
	Glass				
	Wood & products of wood				X
	Pulp, paper & paper products				
	Printing & publishing				
	Steel				
	Chemicals, rubber, and plastics			X	
	Construction	X	X	X	X

*) Market Surveillance

Key better regulation issues applying to industry are:

- Ensuring the development of the framework of legislation to be able to keep up with new technological developments, while ensuring health and safety for the public and workers. This is an essential priority in ensuring the future development and competitiveness of the food and life sciences industries, as well as other industries such as construction.
- Health and safety with environmental issues, which are critical for the chemicals industry and to the wide range of manufacturing sectors dependent on chemicals to maintain competitiveness and to stimulate innovation, are being addressed in the context of the proposals for the REACH regulation²⁰. The Commission has stressed the need to arrive at a decision on REACH that is consistent with the Lisbon goals as regards the competitiveness of the European industries and encouraging innovation, and which will achieve a marked improvement in health and the environment. It has said it will search for pragmatic solutions to the key issues that have emerged in order to improve the cost-effectiveness and workability of REACH.

²⁰ Registration, Evaluation, and Authorisation of Chemicals.

- Timely development or revision of standards or technical specifications in industries such as ICT, wood and wood products, and the construction industry. The access of SMEs to standards and the involvement of SMEs in the process of standardisation could be improved.
- Improving the efficiency and functioning of the Single Market through better market surveillance and further harmonisation could be of major importance for the mechanical and electrical engineering industries, as well as the automotive industry.
- An anticipative approach to product market regulation, dealing early with obstacles to developing and exploiting new technologies and taking future regulatory needs into account, is particularly relevant to sectors such as biotechnology, pharmaceuticals and ICT.

3.4. Ensuring synergies between competitiveness, energy, and environmental policies

EU manufacturing has already achieved significant progress in decoupling environmental impacts from economic growth²¹. Over the last twenty years, the EU manufacturing industry has in many areas achieved an absolute decoupling of its environmental impact from production growth. For instance, industry emissions of acidifying gases (such as sulphur dioxide and nitrogen oxides) have been reduced by two thirds since 1980. Moreover, with a more than 18 per cent cut in industrial greenhouse gas emissions since 1990, the manufacturing sector alone contributed to 80 per cent of the total EU reduction achieved since then. Important advances have also been made in diminishing energy, water, and material inputs. These improvements contrast favourably with other economic sectors (energy, transport, agriculture, households) and other economic blocks (US, Japan). Indeed it is recognised that for global environmental challenges, such as climate change and the protection of the ozone layer, taking further effective and cost-efficient action requires wider international commitment and participation²².

The environmental progress of EU industry has in part been stimulated by a significant expansion of environmental and energy legislation. Industry is now faced with a great number of different regulatory requirements which may cause potential difficulties in implementation. Moreover, making further progress towards sustainable production patterns including eco-efficiency gains and absolute decoupling results in increasingly complex and – in some cases – more costly challenges²³. Action to address remaining environmental problems – such as the impacts of resource use, waste, or climate change – often require more costly, complex and integrated measures. A well-designed regulatory framework however may result in innovation in processes and products. The development of environmental technologies by industry, and investment in new and existing technologies therefore needs to be secured within a stable and predictable regulatory framework. In this context, the complementarity of environmental, energy, and industrial policies, as well as the coherence of the accumulated legislation become essential priorities to ensure the sustainability and competitiveness of EU industry. The combination of well-designed environmental and energy policies, and competitiveness

²¹ Commission Staff Working Paper, SEC (2002) 528. This overall trend has also been highlighted by the European Environment Agency (see for instance the overview table on page 11 of the *EEA's Environmental Signals 2001* report).

²² e.g. "Winning the Battle Against Global Climate Change" COM(2005) 35.

²³ Environmental protection expenditures in the EU25 have averaged around 1.7% of industry value-added over the last three available years (2000-2002).

policies can result in innovation, more efficient use of natural resources, more energy-efficiency, and first-mover advantages in certain technologies.

Priority issues to be addressed are:

- Concerning climate change, end-of-pipe technologies largely do not exist and progress can only be made by making technical changes or efficiency gains across the whole production process. For energy suppliers, progress in technologies is also needed in order to shift to less carbon-intensive energy sources or to capture and sequester carbon. The EU Emissions Trading Scheme intends to make reductions in the most cost-efficient manner. The scope of the scheme includes the steel, cement, paper and pulp, and the ceramics and glass industries. It would be essential to carefully study whether and how high oil prices, the unfinished liberalisation of the European electricity market, and recent increases in CO₂ emissions permit prices could, increase the costs of production in these highly energy-intensive sectors.
- Recycling and waste issues also involve complex potential trade-offs, involving the whole life-cycle of material and resource use. For many industries, waste has become a valuable resource. Many sectors are covered by specific legislation, that needs to be fully coherent with each other. Access to secondary raw materials and their availability within the single market are an issue for many basic industries and could be promoted by the regulation of transboundary shipments of waste.
- Substantially reducing harmful emissions to water and air is a key issue for a number of industries, in particular stemming from the Water Framework directive and its daughter directives that are still in the course of either negotiation or introduction. This is a priority challenge for many basic and intermediate goods industries (particularly chemicals and pulp and paper), as well as the textiles and leather industries.

	Industry	ENVIRONMENT & ENERGY				
		Climate change	Waste	Water	Air	Intensive Energy Use
Food and Life Science Industries	Food, drink & tobacco		X	X		
	Cosmetics					
	Pharmaceuticals					
	Biotech					
	Medical devices					
Machine and System Industries	ICT		X			
	Mechanical engineering					
	Electrical engineering					
	Motor vehicles	X	X		X	
	Aerospace					
	Defence industries					
	Shipbuilding					
Fashion and Design Industries	Textiles			X		
	Leather and leather goods		X	X		
	Footwear					
	Furniture;					
Basic and Intermediate Goods Industries	Non-energy extractive industries		X	X		
	Non-ferrous metals	X	X		X	X
	Cement and lime	X	X		X	X
	Ceramics	X	X		X	X
	Glass	X	X		X	X
	Wood & products of wood	X	X			
	Pulp, paper & paper products	X	X	X		X
	Printing & publishing		X	X	X	
	Steel	X	X	X	X	X
	Chemicals, rubber, and plastics	X	X	X	X	X
	Construction		X			

- The objectives of energy policy include making energy markets more efficient through liberalisation measures, increasing investment in renewable and non-fossil fuels, and integrating climate change into energy policy, for instance through the EU emissions trading scheme. The exact balance between these different policies is crucial especially for most energy-intensive industries because of their effects on energy prices. In addition, increasing the demand for wood as a non-fossil fuel, affects raw materials costs for the pulp and paper industry. Ensuring the coherence between the multiple energy initiatives is therefore a considerable challenge for industry.

3.5. Ensuring full and fair participation in global markets

Falling international transport and communication costs and reductions in world trade barriers have led to an increasingly internationalised economy. This has reduced prices for consumers and has both created new opportunities and new challenges for EU industry. It has increased the importance of the international dimension of industrial policy, covering international market access, the use of trade instruments, and regulatory dialogue with some partners. Here again, the diversity of sectors implies that some tools are more appropriate than other. The degree of openness varies greatly between sectors, depending on particular products and market opportunities. As a result, the international dimension of industrial policy also must adapt to the specific needs and problems of the sector.

- An important factor for competitiveness is the ability to compete fairly in foreign markets. Whilst enormous progress has been made towards this objective through multilateral trade negotiations and a network of bilateral free trade agreements, market access continues to be a priority issue for several sectors, particularly for the internationalisation of SMEs. These include cosmetics and pharmaceuticals, the engineering and automotive industries,

most of the fashion and design industries, and a number of basic industries (ceramics, glass, and wood industries).

	Industry	TRADE			
		Access to markets	Access to raw materials	Trade subsidies / dumping	Regulatory issues
Food and Life Science Industries	Food, drink & tobacco	X	X		
	Cosmetics	X			X
	Pharmaceuticals	X			X
	Biotech				
	Medical devices				X
Machine and System Industries	ICT	X			X
	Mechanical engineering	X			
	Electrical engineering	X			
	Motor vehicles	X			X
	Aerospace			X	
	Defence industries				
	Shipbuilding			X	
Fashion and Design Industries	Textiles	X			
	Leather and leather goods	X	X		
	Footwear	X			
	Furniture	X			
Basic and Intermediate Goods Industries	Non-energy extractive industries				
	Non-ferrous metals		X		
	Cement and lime				
	Ceramics	X		X	
	Glass	X			
	Wood & products of wood	X	X		
	Pulp, paper & paper products		X	X	
	Printing & publishing				
	Steel		X	X	
	Chemicals, rubber, and plastics			X	
Construction					

- The need for an international dialogue on regulatory issues is an increasingly important issue for many innovative sectors trading internationally. The GHS agreement on the classification and labelling of chemicals is a good example of what is possible. International regulatory harmonisation is an important issue for several sectors, including medical devices and cosmetics. Moreover in some industries such as the automotive sector, there is potential to “export” European standards as has been happening already in the Asian region where EU standards have been adopted in most markets.
- Access to raw materials and foodstuffs from international markets is an issue for a number of basic industries and the leather and food industries.
- In some cases there would be a need to correct distorting trade practices from third countries’ competitors that affect the competitiveness of European operators. The antidumping and anti-subsidy instruments based on WTO rules enable the European industry to compete on fair terms on the European market and also to launch itself from a solid home base into third country markets. A number of sectors have faced dumping or subsidies problems in the past. It would be important to continue to ensure the effective application and enforcement of these instruments by the EC and to guarantee that the relevant WTO rules are also properly applied by third countries should they target EU imports.

3.6. Facilitating social and economic cohesion

Mobilising the potential for growth that exists in all regions, including those affected by changes in the manufacturing industry, would help to improve the geographical balance of economic development and raises the potential rate of growth in the Union as a whole.

Economic and social cohesion can also be strengthened by addressing the appropriate sectoral challenges and by enhancing the co-operation across regions faced with similar problems.

- In particular, there would seem to be a need for continued flexibility and structural adjustment to make the most of the new opportunities presented by enlargement, the developments of new technologies, and the internationalization of the economy. The primary responsibility for these adjustments rests with the private sector. For instance, many of the fashion and design industries would to make adjustments in the face of strong international competition from low-wage countries to ensure an increase the value-added of their products. However, some policy challenges may arise from the scope to appropriately facilitate this adjustment. For instance, a highly educated, healthy, well-trained and adaptable workforce is a key element in competitiveness, productivity and the growth of employment. A series of actions to improve human capital and worker skills and health, and to bolster training would therefore be particularly relevant to a wide range of sectors. Relevant actions would include specific employment, training and support services for workers in the context of company and sector restructuring, such as rapid response schemes in the case of collective lay-offs
- In terms of wider social development, voluntary business initiatives in the form of corporate social responsibility (CSR) practices can contribute positively, whilst enhancing the EU’s potential for growth, innovation and competitiveness. The promotion of CSR practices in third countries would facilitate the convergent implementation of the OECD Guidelines for Multinational Enterprises and ILO social conventions.

	Industry	STRUCTURAL CHANGE
Food and Life Science Industries	Food, drink & tobacco	X
	Cosmetics	
	Pharmaceuticals	
	Biotech	
	Medical devices	
Machine and System Industries	ICT	
	Mechanical engineering	
	Electrical engineering	
	Motor vehicles	X
	Aerospace	
	Defence industries	
	Shipbuilding	X
Fashion and Design Industries	Textiles	X
	Leather and leather goods	X
	Footwear	X
	Furniture;	X
Basic and Intermediate Goods Industries	Non-energy extractive industries	
	Non-ferrous metals	
	Cement and lime	
	Ceramics	X
	Glass	
	Wood & products of wood	
	Pulp, paper & paper products	
	Printing & publishing	X
	Steel	X
	Chemicals, rubber, and plastics	
	Construction	

4. TOWARDS AN OUTLINE OF WORK FOR INDUSTRIAL POLICY

The outline of work set out in this section involves a new approach to industrial policy, aimed at achieving better designed policies that are more relevant, integrated, and consensual.

Starting from the screening of horizontal policies in terms of their concrete implications for specific industrial sectors, this approach enables the identification of the policies most relevant for each sector. Through linking together under a single initiative, a number of different policy dimensions of key relevance to industry, it will provide increased coherence and integration between policies with a more powerful effect on competitiveness. Finally, it attempts to achieve a greater consensus over policy, through the involvement at an early stage of key stakeholders and Member states in policy making. The European social partners are invited to contribute to this work, both at horizontal and sectoral level.

The outline of work in this section focuses on a series of specifically new initiatives to foster the competitiveness of different sectors. It is thus not exhaustive. Under the new Community Lisbon Programme, a number of other actions and policy initiatives with an impact on industry in general and on sectors have already been launched across the range of policy domains..

4.1. Cross-sectoral policy initiatives

Seven major **cross-sectoral policy initiatives** are announced in this 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.

An Intellectual Property Rights and Counterfeiting Initiative (2006)

Intellectual and industrial property rights (IPR) are of key importance for the competitiveness of many industrial sectors. While key areas have already been harmonized, more can be done to ensure that the regulatory framework meets the needs of industry at a time of rapid technological development and societal change. Companies and their clients need IPR which stimulates innovation, provides a stable context in which to make investment decisions, and encourages the development of efficient new business models. The debate engendered by the proposed directive on the patentability of computer-implemented inventions has demonstrated that framing IPR rules which balance the needs of all stakeholders is by no means easy. The Commission will therefore launch a dialogue with industry and other interested parties in 2006 to determine what more might usefully be done to provide European industry with a sound IPR framework. In addition, the proper enforcement of IPR within the internal market and in third countries is of the highest importance to fight counterfeiting and piracy occurring in many sectors. Infringements of IPR can jeopardize legitimate businesses, threaten innovation and sometimes pose problems to public health and safety. Many companies, in particular SMEs, are still not aware of their rights to obtain adequate IP protection, whilst counterfeiting continues to be a major problem in many areas of trade. Taking account existing and planned anti-counterfeiting and anti-piracy instruments and measures, including those in the enforcement²⁴ and customs fields, the Commission will review the state of progress in the whole area of IPR with a focus on competitiveness issues and come up with suggestions on how to improve the situation in 2006.

High Level Group on Competitiveness, Energy, and the Environment (end 2005)

Competitiveness, energy and environmental policies are closely interrelated in their objectives and their impact is of significant importance in particular for many basic and intermediate

²⁴ Including the Commission proposals for a directive on “EU criminal law provisions to combat infringements of intellectual property rights”, July 2005.

product industries. Given the need for consistency of policy and legislative initiatives in these areas and in order to exploit fully the synergies between them, closer coordination and the development of an integrated approach is of the essence. For this purpose a High Level Group on Competitiveness, Energy and the Environment will be set up. It will function as an advisory platform bringing together the Members of the Commission for Enterprise and Industry, Competition, Energy, and the Environment as well as all relevant stakeholders. It is designed to examine the links between industrial, energy and environmental legislation and to ensure the coherence of individual initiatives, whilst improving both sustainability and competitiveness. This will be achieved through the balanced participation of all stakeholders with the objective of creating a stable and predictable regulatory framework where competitiveness, energy and environment go hand in hand. Likely issues to be addressed include: (i) concrete implementation of better regulation principles; (ii) climate change, particularly the emissions trading scheme, energy-efficiency and renewables; (iii) the functioning of energy markets, particularly the electricity market; (iv) implementation of the Thematic Strategy on the Prevention and Recycling of Waste and related legislation (v) the improvement of resource efficiency and the uptake of environmental and other innovative technologies.

External Aspects of Competitiveness and Market Access (Spring 2006)

Access to international markets is a priority issue for most of the sectors. The Commission is currently working on a possible Communication on the revision of Market Access Strategy, reviewing the existing Strategy and instruments to focus on those sectors and markets with greatest potential gains for competitiveness. Market access objectives will be regularly prioritised in combination with a more effective use of the Trade Barriers Regulation. In cooperation with stakeholders, a detailed strategy will be developed and implemented to tackle barriers in the selected sectors and countries. A specific market access action plan has already been introduced for textiles, and has been expanded to cover leather and footwear products. The Commission also intends to launch a wide process of reflection and debate on the external aspects of EU competitiveness through a further Communication dealing inter alia with trade issues related to Intellectual Property Rights, regulatory issues, investment and government procurement, particularly the possibility of an “External Procurement Instrument” to create incentives for third countries to negotiate the opening of their public procurement markets on a reciprocal basis.

New Legislative Simplification Programme (October 2005)

Better regulation at various levels has been identified as a key challenge for several sectors, including construction, motor vehicles, ICT industries, and the food and life sciences industries. In addition, the waste regulations have been identified as important to a wide series of different sectors, and particularly to SMEs. The Commission has already announced²⁵ that it intends to re-launch its work on the simplification of existing legislation. Following consultation with stakeholders, a Communication will be published in October setting out a **Simplification work programme** including the three priorities that have already been identified for this approach: the automotive sector, the construction sector, and waste legislation. In fact, the CARS21 High Level Group started the screening of existing legislation with the aim of completing this process by the end of 2005.

²⁵ In the Communication on Better Regulation for Growth and Jobs

Improving Sectoral Skills (2006)

Skill shortages were identified as a key challenge in a wide range of different industries, including the ICT and engineering industries, the textile and leather industries, and a number of basic and intermediate goods industries. Moreover there is some evidence that relocation of industrial activity is in some cases motivated more by skill shortages than by cost factors. The Commission has already begun to address skill shortage issues through a number of policies, such as the Education and Training 2010 work programme, including the European Qualification Framework (EQF) that will serve as a common reference for European education and training systems, facilitating the transparency, transfer, and recognition of qualifications with a special reference to the sectoral level²⁶. To supplement these existing initiatives, it is proposed to make assessments of the nature of the skill problems in particular industries. These assessments would include the **identification of current sectoral skill requirements and skill gaps**, and would examine likely developments in sector-specific competences, including where possible effects on SMEs. Building upon the on-going work by the Cedefop, this information base would allow the articulation of future specific policy initiatives in the light of sectoral competitiveness requirements.

Managing Structural Change in Manufacturing (End 2005)

The private sector has the primary responsibility for undertaking structural adjustment. Nevertheless, the EU has useful levers at its disposal to anticipate and accompany change, as acknowledged in the recent Communication on the employment effects of restructuring²⁷. It is essential that EU-level industrial initiatives are fully integrated with the use of the Structural funds and the policy instruments of individual Member states. 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 parts of the food industries. The Commission intends to ensure that better anticipation and positive management of economic restructuring are included in the new Structural Funds programmes. In line with the Community Strategic Guidelines for Cohesion, 2007-2013, support for programmes aimed at modernisation of labour markets and anticipation of gradual changes throughout the Union in sectors for which structural adjustment has been identified as an issue needs to be included in the new Structural Funds programmes, alongside active measures to reinforce the economic well-being of regions²⁸. The Commission will also further explore the issue of enhancing the co-operation across regions faced with similar problems and challenges.

An Integrated European approach to Industrial Research and Innovation (2005)

The forthcoming Communication on Research and Innovation²⁹ will set out a new, integrated approach to policies and actions in support of research and innovation, including a number of initiatives highly relevant for industrial sectors. The recent Communication on State Aid for Innovation additionally proposes to facilitate the granting of state aid that tackles market

²⁶ “Work Programme on the Objectives of Education and Training Systems” adopted by the Council and the Commission on 14 February 2002; see also the “Commission’s Action Plan on Skills and Mobility” COM(2002) 72.

²⁷ “Communication on Restructuring and Employment” COM(2005) 120.

²⁸ COM(2005) 299 final, 5.7.2005.

²⁹ “More Research and Innovation: Investing for Growth and Employment: A Common Approach” COM(2005) forthcoming.

failures hampering innovation. As part of the follow up to Communication on Research and Innovation, a European Industrial Research and Innovation Monitoring System will be established in 2006 to provide a consolidated overview and analysis of developments relevant to industrial research and innovation, and a conduit for stakeholder views. This will ensure the availability of industry- and policy-relevant data and intelligence, helping to anticipate both barriers and opportunities to improving research and innovation investment, and the commercialisation of new technologies in Europe. A High-level Stakeholders Group, including policy-maker representatives, will be set up to provide guidance and feedback on the focus and relevance of this activity for competitiveness.

The European Technology Platforms³⁰, which have already demonstrated themselves as an important voluntary, bottom-up process for shaping industrial and policy strategies in well-defined key technology domains via their 'strategic research agendas', will contribute to increasing industrial investment in research and innovation and Europe's capacity to commercialise new technologies.

4.2. Sector-specific initiatives

In addition to the cross-sectoral initiatives, a number of new political **sector-specific initiatives** have been identified, based on their nature or particular importance. These initiatives take a variety of different forms. Some of these involve new high-level groups or policy fora, following up the successful examples of G10 Medicines, the LeaderSHIP 2015, and the CARS21 which will continue to make an important contribution in the future. Whenever a new sectoral initiative is proposed, full attention will be given to ensuring its coherence with other initiatives, particularly the recently proposed technology platforms, sectoral innovation panels, and networking initiatives under the European INNOVA initiative and the i2010 initiative on a European Information Society for Growth and Employment. A full list of new and existing cross-sectoral and sector-specific initiatives for all of the individual sectors is summarised in Annex 2. These include political, regulatory, or technical actions, depending on the nature of the issue.

The new initiatives the Commission will bring forward are:

- Pharmaceuticals Forum (first meeting in 2006)

The pharmaceuticals strategy will be overseen by an annual Pharmaceutical Forum consisting of Member States (at Ministerial level), senior representatives of industry and other key stakeholders, such as patients and health professionals. Addressing the fragmentation of the European pharmaceutical market, work will focus on R&D issues and regulatory matters at Member state level, such as the crucial issues related to pricing and relative effectiveness.

- Mid-Term Review of Life Sciences and Biotechnology Strategy (2006-2007)

The Life sciences and biotechnology strategy will undergo a mid-term review in 2006-2007. This will involve closer cooperation with industry through the Competitiveness in Biotechnology Advisory Group and a regular annual triangular dialogue with industry and

³⁰ Report to the European Council on European Technology Platforms and Joint Technology Initiatives: Fostering Public-Private R&D partnerships to boost Europe's industrial competitiveness. SEC(2005)800 of 10 June 2005

Member states in order to help identify problems, propose priorities, and make recommendations for actions.

- New High-Level Groups on the Chemicals Industry (2007) and the Defence Industry

Following the expected adoption of REACH in 2007, the new chemicals regulatory framework, it is proposed to set up a High-level Group to examine how to enhance the competitiveness of the chemicals industry. A further High-Level group will be set for the defence industries, examining issues such as the transfer of defence goods, procurement and standardization in the defense area.

- European Space Programme

The European Space Programme will be the common, inclusive and flexible programmatic basis for the activities of European Space Agency, EU and their respective Member states. Work is also underway on a Communication on the Global Monitoring for Environment and Security (GMES) outlining how to move towards operational services in 2008.

- Taskforce on ICT Competitiveness (2005/2006)

To ensure that public policy provides a supportive environment for the competitiveness of an evolving ICT sector, a taskforce with stakeholders' representatives will be set up. Adding to the initiatives the Commission is undertaking under i2010³¹, it will identify key obstacles to competitiveness and possible policy responses, for example in terms of better regulation, skills, IPR, and standardization. The taskforce will also permit a structured dialogue to help mobilize the sector and to draw the attention of Member states to the barriers to the competitiveness of ICT manufacturing in Europe and to the obstacles to wide and effective take-up.

- Mechanical Engineering Policy Dialogue (2005/2006)

The mechanical engineering policy dialogue will analyse the future strengths and weaknesses of the sectors and anticipate how any weaknesses could be addressed in the longer term.

- A series of competitiveness studies, including for the ICT, food, and fashion and design industries

These studies will analyse the trends affecting the competitiveness of industrial sectors with a view to deriving further proposals for concrete policies and actions where necessary.

5. CONCLUSION

This document summarizes the analysis upon which the Communication "Implementing the Community Lisbon Programme: A Policy Framework to Strengthen EU Manufacturing - towards a more integrated approach for Industrial Policy" is based. That Communication sets out an outline of work on industrial policy in manufacturing industries for the coming years. The Commission thereby stands by its commitments in the Action Programme for Growth and Employment to contribute to a strong industrial base. To achieve this, it will take the

³¹ "i2010 – A European Information Society for growth and employment" COM(2005) 229, June 2005.

necessary actions to improve the framework conditions for manufacturing industry and to ensure the consistency of various policy areas. The horizontal and sectoral initiatives outlined in the Communication are intended to complement work at Member State level to help address the key challenges faced by the various sectors of manufacturing industry. The Communication announces that the approach will have to be extended through further analysis and proposals for concrete policies and actions as necessary and that a mid-term review of the outline of work will be undertaken in a Communication scheduled for 2007. This will report on progress on the work programme presented above and consider possible further possible extensions to other focuses of the economy, such as for example environmental technologies.

Annex 1

Industry	KNOWLEDGE				BETTER REGULATION				ENVIRONMENT & ENERGY ²⁾					TRADE				STRUCTURAL CHANGE	SECTOR SPECIFICITIES	SECTORAL ACTIONS ⁴⁾
	R&D/Innovation	IPR, Counterfeiting	Skills	Access to finance for SMEs	Admin. burden/Complexity of sectoral regulation	Internal Market	Health and Safety	Techn. Standards	Climate change ¹⁾	Waste	Water	Air	Intensive Energy Use	Access to markets	Access to raw materials	Trade distortions subsidies / dumping	Regulatory issues			
Food and Life Science Industries	Food, drink & tobacco	X				X				X	X			X	X			X		
	Cosmetics	X					X	X						X			X			
	Pharmaceuticals	X	X	X	X		X	X						X			X			Pharmaceutical Forum
	Biotech	X	X		X	X		X											X ⁵⁾	Mid-Term Review of Strategy "Life sciences and biotechnology"
	Medical devices	X			X		X	X									X			
Machine and System Industries	ICT ³⁾	X	X	X		X		X					X			X				Taskforce on ICT Competitiveness
	Mechanical engineering	X	X	X	X		X ¹⁰⁾						X							Dialogue for mechanical engineering
	Electrical engineering	X	X	X	X		X ¹⁰⁾						X						X ⁶⁾	
	Motor vehicles	X	X	X		X	X		X	X		X	X				X	X		CARS 21 HLG
	Aerospace	X														X				European Space programme/GMES
	Defence industries	X					X													HLG Defence
	Shipbuilding	X	X	X												X			X ⁷⁾	HLG LeaderSHIP 2015
Fashion and Design Industries	Textiles	X	X	X						X			X					X		
	Leather and leather goods	X	X	X					X	X			X	X				X		
	Footwear	X	X	X									X					X		
	Furniture	X	X	X									X					X		
Basic and Intermediate Goods Industries	Non-energy extractive industries	X		X					X	X									X ⁸⁾	
	Non-ferrous metals							X	X		X	X		X						
	Cement and lime							X	X		X	X						X		
	Ceramics		X					X	X		X	X			X			X		
	Glass		X					X	X		X	X								
	Wood & products of wood	X		X			X	X					X	X						
	Pulp, paper & paper products	X						X	X	X		X		X	X					
	Printing & publishing	X		X					X	X	X							X		
	Steel	X		X				X	X	X	X	X		X	X			X		
	Chemicals, rubber, and plastics	X						X	X	X	X	X			X		X		X ⁹⁾	HLG (2007)
	Construction	X		X		X	X	X		X										



1) With regard to installations belonging to energy activities all sectors fall under the ETS provided the installation in question is above the capacity threshold indicated in Annex I of the Emissions Trading Directive 2003(87) EC. The sectors marked in this table are included in the ETS for their process related CO2 emissions.

2) Many sectors will also be affected by the new legislation framework for chemicals (REACH)

3) ICT: challenges are sector specific; ICT uptake is a general challenge for the industry.

4) Includes legislative actions and/or actions involving members of the Commission

5) GMO

6) Energy Using Products (EUP)

7) Financial instrument

8) Access to land

9) Energy and feedstock costs, logistics

10) Market surveillance

The table indicates with crosses, the cases in which a policy challenge is considered of the highest priority for each sector amongst the many relevant policy challenges. Hence the absence of a cross does not therefore necessarily denote that the challenge is unimportant to a sector, only that it is not considered as an issue of greatest priority.

ANNEX II

SECTOR	Sectoral Actions	Horizontal Actions
Textiles & clothing	Follow-up Textiles High Level Group European Technology Platform on Textiles Innovation Panel for Textiles Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Leather and leather goods	Discussions with social partners on structural adjustment Reduce/eliminate trade barriers for access to raw materials Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Footwear	Discussions with social partners on structural adjustment Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Furniture	Discussions with social partners on structural adjustment European Technology Platform on Forest products Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Shipbuilding	HG LeaderSHIP 2015 European Technology Platform on Shipbuilding (Waterborne) Discussions on access to finance (within Commission and with EIB) OECD negotiations/possible bilaterals with China	<i>IPR and counterfeiting</i> <i>Restructuring</i> <i>Skills</i>
Defence industries	High Level Group Internal Market: measures on transfers, procurement and standardisation Mapping of defence related industries	
Aerospace	European Space Programme Global Monitoring for Environment and Safety (GMES) initiative as the Community's contribution to the European Space Programme European Technology Platform and potential Joint Technology Initiative on aeronautics, air transport and air traffic management Potential Joint Technology Initiative "GMES" Follow-up of Boeing-Airbus WTO dispute	
Mechanical Engineering	Dialogue on mechanical engineering Study/competitiveness analysis (EU-10, including electrical engineering) European Technology Platform on advanced engineering materials European Technology Platform Manufacture	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i>
Electrical Engineering	Study/competitiveness analysis (EU-10)	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i>
Non energy extractive industries	In depth assessment of the competitiveness of the sector/ External evaluation of the Communication on promoting sustainable development in the non-energy extractive industry European Technology Platform on Sustainable Mineral Resources	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Steel	Communication on the impact of raw materials and energy supply on the competitiveness of the European metals industry European technology platform on steel (ESTEP) Remove obstacles to access to raw materials	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Non-ferrous metals	Communication on the impact of raw materials and energy supply on the competitiveness of the European metals industry Remove obstacles to access to raw materials	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Cement and lime	Competitiveness analysis	<i>High level group on competitiveness, energy, and the environment</i>
Ceramics	Continuation of working group set up in 2004 on the future of glass and ceramics industries. Staff working paper on competitiveness	<i>High level group on competitiveness, energy, and the environment</i> <i>Market Access</i> <i>IPR and counterfeiting</i>

SECTOR	Sectoral Actions	Horizontal Actions
Textiles & clothing	Follow-up Textiles High Level Group European Technology Platform on Textiles Innovation Panel for Textiles Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Leather and leather goods	Discussions with social partners on structural adjustment Reduce/eliminate trade barriers for access to raw materials Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Footwear	Discussions with social partners on structural adjustment Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Furniture	Discussions with social partners on structural adjustment European Technology Platform on Forest products Study on competitiveness, economic situation, and location of production in textiles and clothing, footwear, leather, and furniture industries	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i> <i>Restructuring</i>
Shipbuilding	HLG LeaderSHIP 2015 European Technology Platform on Shipbuilding (Waterborne) Discussions on access to finance (within Commission and with EIB) OECD negotiations/possible bilaterals with China	<i>IPR and counterfeiting</i> <i>Restructuring</i> <i>Skills</i>
Defence industries	High Level Group Internal Market: measures on transfers, procurement and standardisation Mapping of defence related industries	
Aerospace	European Space Programme Global Monitoring for Environment and Safety (GMES) initiative as the Community's contribution to the European Space Programme European Technology Platform and potential Joint Technology Initiative on aeronautics, air transport and air traffic management Potential Joint Technology Initiative "GMES" Follow-up of Boeing-Airbus WTO dispute	
Mechanical Engineering	Dialogue on mechanical engineering Study/competitiveness analysis (EU-10, including electrical engineering) European Technology Platform on advanced engineering materials European Technology Platform Manufacture	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i>
Electrical Engineering	Study/competitiveness analysis (EU-10)	<i>IPR and counterfeiting</i> <i>Skills</i> <i>Market Access</i>
Non energy extractive industries	In depth assessment of the competitiveness of the sector/ External evaluation of the Communication on promoting sustainable development in the non-energy extractive industry European Technology Platform on Sustainable Mineral Resources	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Steel	Communication on the impact of raw materials and energy supply on the competitiveness of the European metals industry European technology platform on steel (ESTEP) Remove obstacles to access to raw materials	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Non-ferrous metals	Communication on the impact of raw materials and energy supply on the competitiveness of the European metals industry Remove obstacles to access to raw materials	<i>High level group on competitiveness, energy, and the environment</i> <i>Skills</i>
Cement and lime	Competitiveness analysis	<i>High level group on competitiveness, energy, and the environment</i>
Ceramics	Continuation of working group set up in 2004 on the future of glass and ceramics industries. Staff working paper on competitiveness	<i>High level group on competitiveness, energy, and the environment</i> <i>Market Access</i> <i>IPR and counterfeiting</i>

The sectoral actions include only studies and actions directly related to identified challenges, unless otherwise addressed through horizontal actions. The Integrated European Approach to Industrial Research and Innovation by its nature will apply across the board to all sectors.