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COMMUNICATION FROM THE COMMISSION

**Fostering structural change: an industrial policy
for an enlarged Europe**

EXECUTIVE SUMMARY

Communication on ‘Fostering structural change: an industrial policy for an enlarged Europe’

Manufacturing industry still plays a key role in Europe’s prosperity. It is, however, facing challenges and there is a real concern about the risk that the Union is facing a process of deindustrialisation.

This Communication follows a previous document of December 2002 on ‘Industrial Policy in an Enlarged Europe’, which laid out some of the foundations that should underpin the Union’s industrial policy, as well as the Communication of November 2003 ‘Some Key Issues in Europe’s Competitiveness – Towards an Integrated Approach’, which also carried out a first analysis of the problem of deindustrialisation. This had followed a request of the European Council, which had echoed these concerns.

The analysis carried out by the Commission indicates that there is no proof of a generalised process of deindustrialisation. That said, European industry is having to face up to a process of structural change which is beneficial overall and which should be encouraged, in particular by policies that facilitate the development and the use of knowledge. From this point of view, Europe’s disappointing performances, notably in terms of productivity, research and innovation, are worrying. This is corroborated by the fact that the delocalisation of industrial activities appears no longer to be limited only to traditional sectors with a high labour density, but are beginning to be observed in intermediate sectors – which constituted the established strengths of European industry – or even in some high-technology sectors, where there are indications of a delocalisation of some research activities, or in the services sector. India and China are the main beneficiaries of these movements. Economic internationalisation offers opportunities, however, to Europe’s industry as long as industrial policy supports the necessary evolutions.

From this point of view, the forthcoming enlargement of the EU offers important opportunities to European business, not only as a result of the extension of the internal market but also because it offers the possibility of reorganising value chains across the continent, making the most of the competitive advantages of the New Member States. Nevertheless, the benefits for these countries of their relatively low labour costs will be temporary. The transition to a knowledge economy will be vital and a certain regulatory prudence will be necessary to avoid putting a strain on the industrial competitiveness of these countries.

Faced with this diagnosis, the Commission intends to mobilise industrial policy to accompany the process of industrial change. This implies three types of actions.

Firstly, the European Union must continue its efforts in regulating better, and to create a regulatory framework that is favourable to industry. Therefore, in the framework of the integrated impact assessment of Commission proposals and initiatives, which covers the three pillars of sustainable development, the evaluation of competitiveness aspects needs to be deepened. Also efforts need to be made to evaluate regulation’s cumulative impact, for example, on certain sectors. These efforts should not be limited to the Commission alone: they should commit also the other Community institutions and the Member States.

Secondly, the synergies between different Community policies having an impact on industry's competitiveness need to be better exploited. The Commission has identified a number of specific initiatives, in 5 different domains, which could improve these synergies, and particularly the capacity of European industry to confront the problems of structural change. In the domain of knowledge, it is, in particular, innovation, research, training and competition policies which have a key role to play. Similarly, the functioning of markets can still be improved, whether it is in addressing the shortfalls of the internal market or in eliminating some tax obstacles to its full use by business. Cohesion policy, and in particular regional policy and employment policy can also contribute actively to the process of structural change, specifically by promoting the development and the spread of knowledge. As for sustainable development, this has a positive contribution to make to industrial competitiveness, notably through the development of a policy of sustainable production. Finally, the international dimension of industrial policy must be further advanced, in particular to improve the access of Community companies to the markets of third countries, and to export the regulatory approaches that have been successfully implemented by the Union inside the single market.

Thirdly, the Union must continue to develop the sectoral dimension of industrial policy. This implies analysing the effectiveness at a sectoral level of policy instruments which are of a horizontal nature, with a view to evaluating their relevance and to propose, if necessary, the appropriate adjustments. The Communication presents the sectoral initiatives that have already begun over the last few months and announces several new initiatives in sectors such as the car industry or mechanical engineering.

The competitiveness of Europe depends, to a large extent, on its industry. But the Community institutions and the Member States must contribute to creating a favourable environment for business. The combination of the activities announced should help Europe's industry, in particular in the new Member States, to meet successfully the challenges of structural change and to contribute, therefore, to meeting the objectives that the European Union set itself four years ago at the Lisbon European Council.

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COMMUNICATION FROM THE COMMISSION

Fostering structural change: an industrial policy for an enlarged Europe

1. INTRODUCTION

Industry makes an essential contribution to Europe's prosperity. The European economy continues to depend on the dynamism of its industry. Industry is, moreover, increasingly enmeshed with services and contributes to their development. European industry is clearly making encouraging achievements, and its progress in the environmental field and in some technological sectors are widely acknowledged. Nevertheless, it is now facing major challenges, some of which come from within (increasingly rapid technological development, skills gaps), while others are external (society's expectations regarding consumer, environmental and health protection) and yet others international (the emergence of new global competitors).

More and more quarters are voicing concerns that these challenges are leading to the relocation of large portions of industrial production to countries with lower costs and fewer regulatory constraints. The concept of 'deindustrialisation'¹ reflects concern at EU industry's increasing difficulties in the face of competition which is perceived as unbeatable, and sometimes unfair. Moreover, several governments are focusing on the possible contribution of over-regulation to this phenomenon. The European Union must be aware of these concerns, consider whether they are well-founded and, if so, propose appropriate political responses.

The main purpose of this Communication is to examine the competitiveness of European industry and assess the existence and scale of the risk of deindustrialisation. The concept of deindustrialisation itself covers numerous phenomena, some of which are more alarming than others; it therefore requires a nuanced analysis. This Communication goes on to propose specific solutions in order that EU industry can find, in Europe, an attractive environment for its activities and future development. Within this optimal framework, industry will be able to assume both its role as wealth creator and its responsibilities toward society. It will then be able to make a major contribution to meeting the competitiveness and growth targets which the European Union set itself at the European Council of Lisbon.

Deindustrialisation is not inevitable, and mobilising the efforts of all concerned can generate a virtuous circle. This Communication sets out the Commission's response to the challenge.

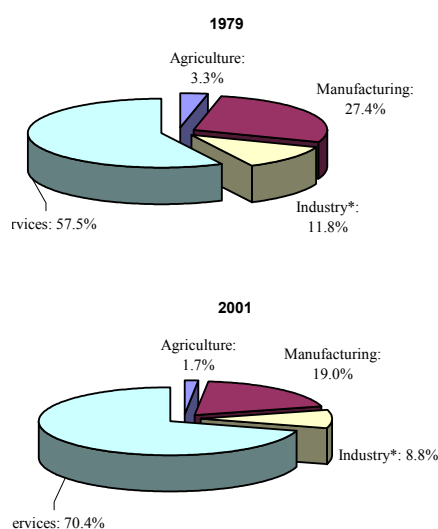
¹ This concern was expressed, in particular, by Germany, France and the United Kingdom in correspondence addressed jointly by Chancellor Schröder, President Chirac and Prime Minister Blair to President Prodi in February and September 2003, and the European Council of Brussels in October 2003 asked the Commission to propose solutions aimed at preventing deindustrialisation.

2. EUROPEAN INDUSTRY AND DEINDUSTRIALISATION: A DIAGNOSIS

2.1. The process of reallocation of resources to services must not be confused with deindustrialisation ...

The decline in the share of the economy accounted for by industry has to be seen in the context of long-term structural change. It reflects a process of reallocation of resources to services in developed countries (Europe, the United States, Japan) which has been taking place since the end of the 1950s (Table 1; see Annex). The relative share of manufacturing industry in total employment and total value added has decreased, while that of services has increased steadily (Figure 1).

Figure 1: Breakdown of value added by sector in the EU-15



* Industry: Mining and extractive industries, electricity, gas, water, construction
Source: M. O'Mahony, B. Van Ark (2003).

One of the main forces behind this development has been industry's higher productivity growth compared with services (Table 2; see Annex). The result has been a continuous transfer of jobs from industry to services. Although most industrial sectors have recorded job losses, they have also experienced an increase in both value added and labour productivity. This is the case, notably, in sectors such as chemicals, aeronautical and aerospace industries, telecommunications materials, but also a large number of other industrial sectors (Table 3; see annex). This development is likely to cause difficulties of adjustment, but does not have to be seen as a threat. Rather, it is a natural consequence of economic progress, and therefore a development which must be facilitated and encouraged.

The reallocation of productive resources in response to change is essential to maintaining competitiveness and sustainable growth. Such change has numerous causes, including international trade², changes in the availability of natural resources, and technological development.

Such a process of industrial change³ is, generally, beneficial if it is properly anticipated, identified and fostered. It should not be confused with absolute deindustrialisation. The latter, a much more alarming prospect, would imply industrial decline in absolute terms, characterised by consecutive reductions in employment, output and productivity growth, and exacerbated by a trade deficit. By definition, such a development can only be identified with certainty over the long term. The available data do not allow us to conclude that such a phenomenon exists in the EU. Admittedly, some sectors (five, out of a total of 23⁴) have recorded a simultaneous and sustained reduction in employment and output over a fairly

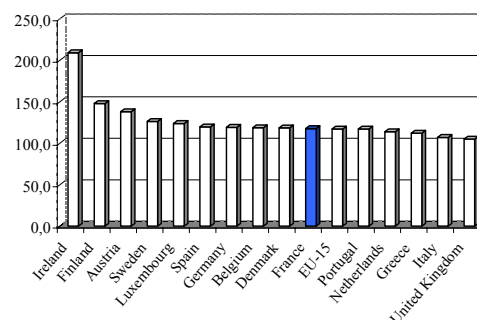
² The process of structural change is also linked to the phenomenon of globalisation, as should be demonstrated in a study of Europe's insertion into the international division of labour, the results of which should be available in the Summer of 2004.

³ Sometimes known as relative deindustrialisation.

⁴ Based on ISIC classification rev3 (two-digit) excluding mining, transport, electricity and water and covering the following sectors: textile; clothing; leather and shoes; shipbuilding and repair; oil refining, coal and nuclear fuel.

extended period (Table 4; see Annex). Their development mainly reflects changes in the EU's comparative advantages at international level, and changes within the manufacturing sector itself. Moreover, these sectors saw their share in the value added of industry decline from 12.3% in 1979 to 7.3% in 2001. The loss of low-productivity jobs to less developed countries with lower labour costs and changes resulting from trends in the energy market or shifts in comparative advantage are regrettable, as they are concentrated on particular regions or sectors. The task of reconversion is often difficult, which implies a similar challenge to adapt the human capital. At the same time, the benefits resulting from these structural changes are diffused in nature. These developments have taken place in a situation in which industrial production has increased, reflected in increased wealth of the European Union and of its Member States. The trend of recent years demonstrates this (Figure 2 and Diagram 5 in annex).

Figure 2: Changes in industrial production in the European Union, 1995 to 2000
(Index of industrial production; 1995=100)



Source: Eurostat/NewCronos

In addition, the increasing overlap between services and industry is changing the contours of industrial activity as such, and accentuating the apparent reduction in the importance of manufacturing industry. The latter has experienced marked outsourcing, in which operations which were previously done in-house are awarded to outside contractors (transport, logistics, information technology, etc.). This transfer has enabled industry to focus on its core activities. This is confirmed by business surveys; more than two-thirds of companies surveyed in France now make use of outsourcing⁵. At the same time, industrial products contain a larger service component, such as after-sales and maintenance services, which accentuates interpenetration between industry and services. The sale of a computer or portable telephone is accompanied by a significant intangible component (intense marketing, sales operations, etc.). The same is also true of more traditional products, such as those of the iron and steel industry. Services which European manufacturers can incorporate in their products give those products a qualitative edge which can be a crucial advantage in the face of growing competition, and thereby improve competitiveness. The conclusions which one might draw from a purely statistical examination therefore need to be qualified.

The competitiveness of manufacturing industry therefore remains crucial for the rest of the economy, given the knock-on effects which industry has on other activities, particularly on business services.

2.2. ... but some worrying signs have nevertheless appeared recently

If the long-term trends do not confirm, for the moment, that deindustrialisation is taking place, what is the source of the frequent expressions of concern? There are undeniably some worrying trends.

⁵ Outsourcing Barometer 2002, carried out by Ernst & Young among 220 Directors-General and administrative directors and financiers of companies.

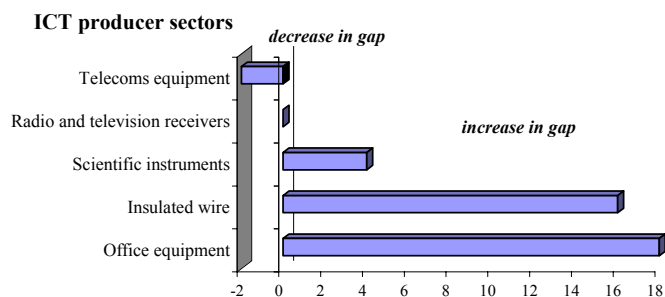
2.2.1. The decline of productivity growth and its causes

Since 1995, there has been a clear dip in labour productivity growth in the EU's manufacturing sector (Table 2; see Annex). Productivity growth was once the motor of economic growth and structural change, and it remains an essential factor in ensuring industrial competitiveness and guaranteeing the best possible allocation of resources and job creation throughout the economy.

The slowdown in labour productivity growth is not witnessed in all industrialised countries, either in the European Union or elsewhere. For example, productivity growth in the manufacturing sector is higher in the United States and some EU Member States (Finland, Ireland and Sweden) than the EU average (Diagram 6; see Annex). This phenomenon is not, therefore, inescapable and cannot be interpreted as a normal part of the long-term structural change taking place throughout the industrialised world.

Growth in Europe's labour productivity in sectors with a strong technological content has been robust in comparison with the overall economy. But it has, on the whole, been significantly lower than in the United States in these sectors. As a consequence, the productivity gap between Europe and the USA has widened. The biggest differences between the two can be seen in their respective performances in the ICT manufacturing sector (Figure 3), but also in the ICT⁶ user sector, especially services (Table 7; see Annex)⁷. Such differences in performance are also apparent in sectors which employ a highly qualified workforce (Table 7; see Annex). This classification partly overlaps with that for ICT use.

Figure 3: Sectors which have contributed to the productivity gap with the United States between 1994-96 and 1999-01
(labour productivity: EU as % of USA, gap in % points)

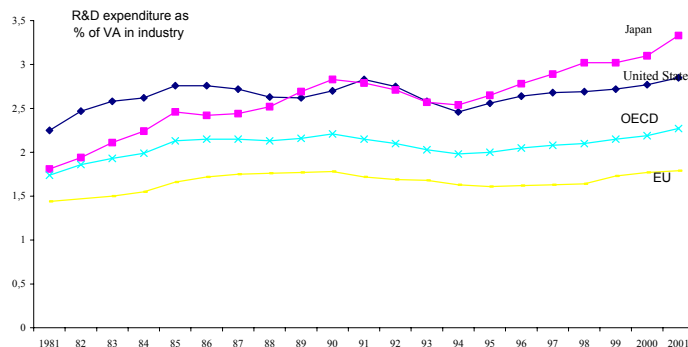


Source: M. O'Mahony, B. Van Ark (2003).

To summarise, the European Union is experiencing both a slowdown in the growth of industrial productivity and disappointing performance, especially in high-tech sectors⁸.

It is not surprising that in response, the Commission, acting with the broad support of the Council and the Member States, has called for increased research expenditure and for a better climate for the

Figure 4a: Evolution of enterprise R&D intensity



Source: OECD, MSTI (May 2003)

⁶ Information and Communication Technology.

⁷ The EU's performance is better in only one sector, that of communication services. 'EU Productivity and competitiveness: an industrial perspective'. M. O'Mahony, B. Van Ark (2003), The EU Economy: 2003 Review, COM(2003) 729.

⁸ These phenomena were studied in detail in the various annual editions of the 'European Competitiveness Report' and in M. O'Mahony, B. Van Ark (2003).

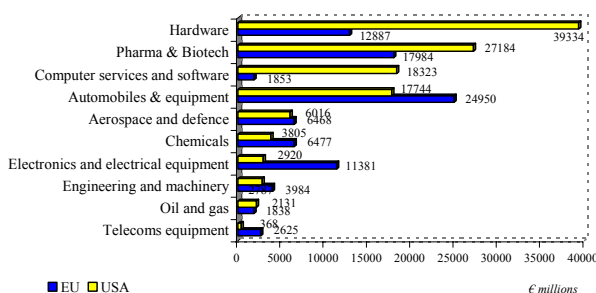
development and application of those technologies which can help to remedy the EU's weaknesses in this field.

Again, the data do not make comforting reading. The goal set by the European Council at Barcelona is to increase the EU's R&D investment to 3% of GDP in 2010, with two-thirds of the total coming from the private sector. The first results of the action plan launched by the Commission in 2003⁹ are positive, but still below the levels required to meet the 3% objective¹⁰. In particular, private-sector research spending remains well below the necessary level, with the EU far behind Japan and the United States (Figure 4a)¹¹. By way of example, overall European investment in R&D in 2002 was 38% lower than in the USA (slightly better than in 2000, when it was 40% lower). Most of this gap is in the private sector; United States enterprises spent €87 billion more than their European counterparts in 2002¹² (but this gap, already very large, was €104 Billion in 2000). At sectoral level, too, R&D expenditure in the high-tech sectors is lower in Europe than in the United States (Figure 4b)¹³. Amongst the factors that explain Europe's disappointing performance can be noted:

- the greater difficulty in accessing private research financing funds for research in Europe compared to the US,
- a culture which is – sometimes – too prudent towards risk (as evidenced by the difficulties of the biotechnology industry),
- an insufficient collaboration between public research bodies, including universities, the industrial sector,
- a much lower proportion of researchers in the active population – 5.7‰ compared with 8 ‰, whereas the number of doctors in science and in engineering trained every year, compared with the 25-34 age group – is actually higher: 0.55% (0.49% at 25 years of age) compared with 0.41%.

The EU has made efforts in the field of innovation. Indicators which allow international comparisons show an improvement in terms of the means of increasing innovative capacity

Figure 4b: R&D expenditure by leading European and American enterprises in selected sectors, 2002*.



Source: R&D expenditure by international enterprises which are leaders in their respective fields Towards a European Research Area. Science, Technology and Innovation. European Commission. Key figures, 2003-2004

⁹ COM(2003) 226 final, Investing in Research: an action plan for Europe, 30 April 2003.

¹⁰ A recent econometric study suggests that meeting this goal will create 2 million additional jobs by 2010 and add a further 400 000 jobs and 0.5% economic growth every year thereafter ("3% d'effort de R&D en Europe en 2010: analyse des conséquences à l'aide du modèle macro économétrique européen Némésis", January 2004).

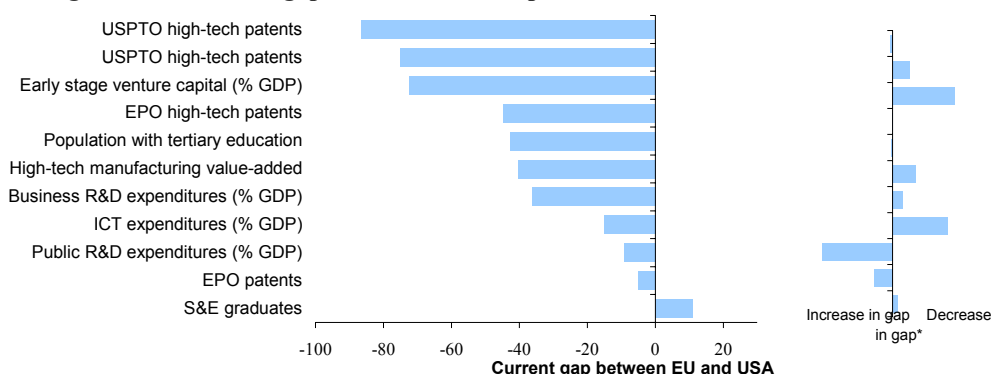
¹¹ Levels differ from country to country. Finland and Sweden, for example, spend a higher share of their GDP on R&D: 2.68% and 2.84% respectively in 2001 (European Business Economy, 2003, Eurostat).

¹² Calculated at €/ \$ exchange rate current in 2000. The gap has declined since 2000 (€104 billion in 2000 and €99 billion in 2001).

¹³ Towards a European Research Area. Science, Technology and Innovation. European Commission. In addition, the Commission has launched a European Scoreboard of industrial investment in research. The first edition will be published in October 2004, setting out the rankings of 500 European enterprises and 500 foreign enterprises which invest the most in R&D, and trends in their investments.

(venture capital, expenditure on ICT, etc.). Despite these encouraging trends, however, the gap between Europe and the United States is still wide (Figure 5 and Table 8; see Annex). Japan is also well ahead of the EU in terms of USPTO¹⁴-registered patents, workforce skills and ICT spending (Diagram 8b; see Annex). The capacity for innovation has a knock-on effect on all sectors. Generally speaking, countries such as Finland or Sweden, which are highly innovative in high-tech sectors, are also relatively more innovative in the less technology-driven sectors¹⁵. This clearly demonstrates the need to encourage innovation in all industrial sectors, whatever their technological intensity. Thus, innovation in a traditional sector such as the shoe industry has enabled European enterprises to focus on technical products, despite strong foreign competition and declining consumption¹⁶. The same is true for the textiles and clothing sector, where European companies have developed technically sophisticated materials and demonstrated commercial creativity.

Figure 5: Innovation gap between the European Union and the United States, 2002



* Reference years for the indicators vary between 1996 and 2002.

Source: Innovation Scoreboard 2003. Gaps expressed as % difference between EU and USA.

A survey of major European firms¹⁷ carried out by the European Round Table (ERT) of industrialists in 2002, served only to strengthen the message. The survey showed that a number of these firms intended to locate new R&D activities outside Europe in the immediate future if the regulatory environment did not improve. Empirical studies¹⁸ highlight the vital role of the institutional and regulatory environment in research, innovation, entrepreneurial dynamism and productivity growth. The same studies reveal a more burdensome overall regulatory framework in Europe than in the United States, especially in the market for products¹⁹.

¹⁴ Patents delivered by the United States Patent and Trademark Office.

¹⁵ Scoreboard (technical paper innovation No 4).

¹⁶ 'A nouveaux consommateurs, nouvelles stratégies industrielles', 2000, carried out by Crédoc for DIGITIP.

¹⁷ 'The European Challenge', message from the European Roundtable of Industrialists to the Spring European Council, March 2003.

¹⁸ The EU Economy: 2003 Review, European Commission, OECD WPs Nos 18 (1999), 28 (2002), 329 (2002); IMF WP (2003).

¹⁹ The 'legal framework' is a broad concept which covers several types of rules. The economic rules concern the operation of the markets and affect all types of intervention – by the state, competition, trade sectors, investments. The administrative rules deal with the facility to perform on the market and affect the entrepreneurial dynamism (regulatory constraints on business creation, etc.). Lastly, the sectoral rules now extend to public services, the liberalisation of which is now partly in hand. These rules do not fall entirely within the authority of the Community, but also within the competence of the Member States.

Moreover, the United States continues to attract researchers and more generally highly skilled workers²⁰. This is regularly cited as a source of concern. For example, 10-year projections for the pharmaceutical industry foresee an intensification of this 'brain drain', as R&D investment levels in the United States of nearly double those in the EU help to attract researchers²¹. This phenomenon also affects Europeans studying in the United States. According to surveys, of the 15 000 Europeans who have obtained a doctorate in the United States, 11 000 intended to stay and work there, a finding which confirms that country's obvious attractiveness.

Box 1: The pharmaceutical industry: where regulation meets innovation

The pharmaceutical industry has a strong innovative component and depends on a regulatory framework which is influenced by public health considerations. In this sense, it highlights the interaction between these two dimensions and the need to define a regulatory framework which encourages innovation. Its dynamism depends on its ability to exploit its resources. However, European industry's backwardness in terms of innovation and R&D is threatening its long-term competitiveness. It is less innovative than its American competitor. From 1992 to 2002, investments in R&D increased by about 8% annually in the EU, compared with 11% in the United States, leading to respective totals of \$21 billion and \$26 billion. From 1998 to 2002, 44 new medicines were launched in the EU, compared with 85 in the United States. These factors determine the added value of products, but also create a virtuous circle in which skilled workers are attracted. The EU's loss of attractiveness has prompted a large and growing number of industrialists to locate their research facilities in the United States bringing with them young graduates. This is generating a vicious circle for the EU. Among the problems which have been identified, therefore, are low R&D expenditure, but also an institutional and regulatory environment which is not supportive for industry: market fragmentation, the lack of competition between national markets, long delays in bringing new medicines on to the market, and price controls.

These problems were examined by the G10 High-Level Working Party, established by the Commission, which enabled the identification of appropriate policy measures. Some of these measures have already been implemented in the form of a revision of legislation on pharmaceutical products which was formally adopted by the European Parliament and the Council in March 2004, and which will enter into force at the end of 2005. This will lead, for example, to the speeding-up of marketing authorisation procedures for medicinal products; to the harmonisation (at 10 years) of the protection period for scientific data related to new medicines, with the possibility of an extension for one further year in the case of new therapeutic indications with a significant clinical benefit; to widening the scope of application of the Centralised Procedure for rapid access to the entire single market; and finally to the strengthening and systematisation of the procedure for "scientific advice" to companies during the crucial stages of research and development.

** Bain & Company ** Global Competitiveness in Pharmaceuticals. A European perspective; Enterprise Papers, No 1-2001.*

²⁰ "A Mobility Strategy for the European Research Area", COM(2001) 331 final, 20.6.2001.

²¹ Bain & Company, 2003.

2.2.2. *Weakened international competitiveness*

If indicators of the Community's competitiveness in the high-tech industrial sectors are not very promising, what is happening in sectors where the EU is traditionally strong such as chemicals and engineering? The data on the EU's cost competitiveness relative to the United States show that the EU

remains more competitive in these sectors (Table 9; see Annex). However, these sectors are facing increasingly tough competition from the emerging economies. The globalisation of the economy is not a new phenomenon. The difference is that the ranks of the South-East Asian 'tigers', which have been exerting considerable competitive pressure for several years, have now been swelled by two demographic giants: China and India.

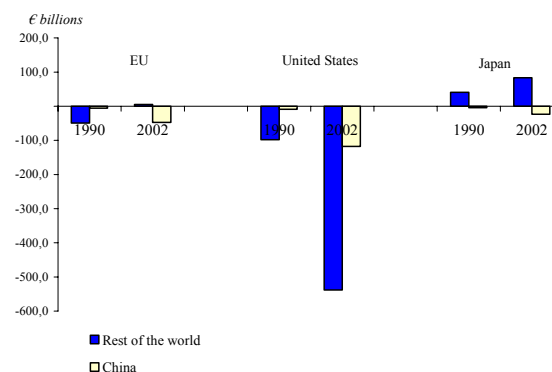
- The emergence of new competitors ...

China emerged in the 1980s as a competitor which benefited from low production costs, thanks to its abundant and cheap labour. China focused in particular on the toy and textiles & clothing sectors, and became a major competitor to Europe and America (Figure 6). The EU has a trade deficit in the traditional sectors (Diagram 10; see Annex).

In the 1990s, another type of specialisation appeared, centred on products with a strong technological content (electronics), based on the marketing of assembled products and on the presence in China of foreign firms, particularly from Japan and South-East Asia. More recently, China has moved into other sectors with a major technological content, such as chemicals, and even into leading-edge sectors (ICT, biotechnologies) and research and design activities (electronic components). The creation of "technology parks" in special economic zones (Shanghai, Guangdong Province) is designed to attract foreign companies and testifies to the authorities' desire to develop the country's industrial potential.

Chinese industrialists are showing a new interest in aspects of quality, which is prompting them to develop and internationalise their own brands and promote 'national champions'. Chinese companies, with the support of their government, are seeking to become global players with a presence in all markets, particularly in certain segments (electronics, domestic appliances) in which the country has specialised. Some Chinese companies (e.g. TCL) have developed their brands on the domestic market and are now penetrating Western markets, benefiting from access to consumers via the brands and distribution networks of European producers (e.g. Thomson). Other names are also starting to emerge, such as Haier or Galanz in the domestic appliance sector.

Figure 6: Trade balance of the EU, USA and Japan (with the rest of the world and China)



Source : Eurostat, UN

Box 2: Causes for concern upstream of the manufacturing industry

Several sectors of European industry, such as the automobile, aerospace, mechanical engineering and metallurgical industries, have recently been confronted by the emergence of international competition which is no longer limited to the market for finished goods but which also extends upstream of the production processes, to the acquisition of inputs.

The markets for certain raw materials (steel, precious and non-ferrous metals, coking coal and rubber, etc.) and secondary raw materials (recyclable metal waste) have for some months been under considerable pressure, due essentially to the strong growth in China's industrial output. China has become one of the main consumers of recyclable metal waste. Over the last four years, exports of copper and aluminium waste from the EU to Asia have doubled, to 400 000 tonnes. Over the same period, the EU has seen its sources of imports of these two materials diminish significantly (from 700 000 to 400 000 tonnes and from 700 000 to 450 000 tonnes respectively). This situation is causing difficulties for European enterprises which use these materials. Some 30 to 40% of metal production in the EU depends on recyclable metal waste.

At this stage, it is too early to accurately assess the scale of this new phenomenon. Some analysts believe that a similar situation will soon develop with regard to energy products. If the current situation were to persist, it would seriously threaten the competitiveness of certain European industrial sectors.

In the meantime, India has not been standing still and, in addition to its traditional sectors such as textiles, has adopted a niche strategy in fields with high value added, such as biotechnologies and ICT, based on the creation of clusters of local companies and American and European multinationals.

- ... increases pressure to relocate

These trends, and their acceleration in recent years, have prompted fears, some of which are justified, that certain industries will gravitate towards China, bringing in their wake other user or supplier sectors, and weakening Europe's industrial base. Some companies have already delocalised, or intend to do so, in order to benefit from lower labour costs. A survey carried out by DIHK in Germany in 2003²² showed that nearly 45% of companies which invest abroad do so with a view to cost savings. Certain regions of Spain are facing problems of delocalisation, especially Catalonia, which is having to cope with the decisions of European and non-European companies (e.g. Philips and Samsung) to relocate their production activities to other parts of the globe. The increasing strength of Chinese industry in technology-intensive sectors has also sparked a fear that relocation is no longer confined to traditional sectors.

In fact, the phenomenon of relocation is beginning also to extend to research activities and high-tech sectors, although it is not possible to quantify it accurately or to distinguish it from the worldwide expansion in industrial activity. With improvements in infrastructure, knowledge acquired in various high-tech sectors, high levels of education, increasingly qualified workforces, high-quality universities and research costs lower than those in Europe, some emerging countries, particularly China and India, have advantages which cannot be ignored by European or American industrial groups. The latter are starting to set up R&D activities there, with a pronounced knock-on effect between enterprises in certain high-tech industrial sectors.

Finally, the relocation phenomenon is now starting to affect certain services which can benefit from India's low-cost, highly qualified, English-speaking workforce. These services, provided to foreign customers (often American or British, but increasingly from other European countries) have grown in the field of call centres, but also in computer services, accountancy

²² Produktionsverlagerung als Element der Globalisierungsstrategie von Unternehmen. Deutscher Industrie-und Handelskammertag (DIHK), May 2003.

and data processing. A debate is under way in the United States on the economic impact of relocation in terms of jobs and productivity.

However, although the aggregation of observations from various sectors is a cause for legitimate concern, they should not lead us into making macroeconomic generalisations.

In fact, although some attempts have been made to evaluate the impact of relocation, its extent is difficult to quantify²³. Relocation should be seen in the context of a large outflow of foreign investment, of which the EU is one of the main actors and recipients. In 2002, it received €85.9 billion (0.9% of its GDP) in direct investments from outside the EU, but invested €130.6 billion (1.4% of GDP) in non-member countries²⁴. Most of these investments go to OECD countries, with the United States being the biggest single recipient. Direct investment flows to China have increased since the mid-1990s, but in 2002 represented less than 2% of European direct investment flows out of the EU and less than one-third of the total which went to the Far East (behind Singapore and the Philippines)²⁵. On the other hand, Europe still has a number of important features of attractiveness, which contribute to an overall favourable environment, such as the quality of its education and infrastructures, the performances of public services, and the quality of its social dialogue.

Moreover, their effect on employment at macroeconomic level remains uncertain. Foreign investments can generate additional trade flows. Some studies have emphasized the complementarities between trade flows and investment flows: in other words, investments abroad do not replace existing exports, but rather, help to boost trade²⁶.

This does not disguise the fact that some sectors and regions have been hit very hard by relocations. A local and sectoral approach is also required in order to understand the phenomenon and the factors which cause it: whether these are a concern to reduce costs and/or the desire to escape what is perceived as an unsatisfactory regulatory framework.

- Participating in emerging economies' growth

Given the size of their populations, the emergence of countries such as China and possibly India is helping to change the profile of international competition. Their growth potential is very considerable, but also offers opportunities. The Chinese market is growing rapidly and certainly has major potential for European companies. European industry has actively sought to establish itself in the fastest-growing market in the world, and with some success: European car manufacturers account for more than 60% of sales in the rapidly growing Chinese market, and similar successes have been seen in important areas such as the manufacture of mobile telephones.

In addition, productivity gaps between countries such as China and the EU are still wide, which means that, for the moment, Chinese manufacturers do not acquire a clear comparative

²³ A report produced by the French Senate in 2001 shows that relocation constitutes a marginal phenomenon and that its impact on employment would not exceed 200 000 to 300 000 jobs. It would account for 5% of French direct investment in markets near to France (CEECs, Maghreb countries) and less than 1% in remote markets.

²⁴ These estimates confirm the decline in these flows following a period of growth from 1997 to 2000.

²⁵ European Union Foreign direct Investment, yearbook 2001, Eurostat.

²⁶ Fontagné L., Pajot M., Investissement direct à l'étranger et échanges extérieurs: un impact plus fort aux Etats-Unis qu'en France, in *Economie et Statistique*, No 326-327, 1999, 6/7.

advantage in the sectors where they invest²⁷. The commercial opening of China is a considerable opportunity for European industry, so long as it is not shut out of the Chinese market by new non-tariff barriers.²⁸ China now accounts for almost 8% of EU imports, as against 2.6% in 1990, but only 3.4% of its exports, compared with 1.5% in 1990. Growth rates in some sectors of the Chinese economy are strong²⁹ and are likely to stay that way. The rapid development of the Chinese economy already constitutes an engine of world trade. Economic development is not a zero-sum game. A developing and increasingly wealthy China will be a China which imports more. Moreover, European industry has not taken part in the process of fragmentation of production in Asia, and its trade is based more on complementarity³⁰. The opening of the Chinese market may therefore provide it with an opportunity to exploit its advantages.

2.3. The European Union in the face of change

The arguments can be summarised as follows.

It is not possible to conclude that Europe is experiencing genuine deindustrialisation, but rather the effects of the permanent - often painful if its effects are concentrated in certain sectors or regions, through which resources are continually reallocated to those sectors where comparative advantages exist. Analysis of the medium-to-long-term trend indicates this adjustment process, rather than deindustrialisation.

More recently, however, and particularly since 1995, worrying signs have emerged, including existing indicators of Europe's recent poor performance in terms of productivity growth, research spending and innovation capacity. This was first observed in the high-tech sectors, but also in industrial sectors where Europe was strong.

If the phenomenon of market opening of industrialised economies is not a new one, the actors and the modalities of this international division of labour have changed: a rapid development since the first oil crisis, the end of the traditional international division of labour between North and South, a new competition from the countries of the South without the dominant position of the North in World trade being seriously undermined, a division of labour within branches and not only between branches, an international segmentation of production processes. The rapid expansion of exports from developing countries is based on an accumulation of human capital which allowed these countries to implement new investments and to penetrate sectors that are relatively highly technological.

Between the industrialised countries, we are witnessing, more and more, a qualitative division of labour (or intra-branch trade in products of differing quality). Inasmuch as the products

²⁷ Some empirical estimates comparing labour productivity in Germany and China show that there is an important productivity differential between the two countries, with labour productivity in China being only 8.6% of that in Germany. Ruoen R., Manying B., China's Manufacturing Industry in an international perspective: A China-Germany Comparison, *Economie Internationale*, 92 (2002), pp. 103-130.

²⁸ When it joined the WTO, China gave its trading partners a commitment to substantially improve access to its immense market of nearly 1.3 billion potential consumers: an average fall in import duties on manufactured goods from 17% to 9%, plus a reduction in peak tariffs, the elimination of quotas by 2006, the opening up of most service sectors, the protection of intellectual property, and improved conditions for foreign businesses to become established, etc.

²⁹ The energy sector experienced strong growth (+ 22%) over the period 1995-2002. Other sectors such as electronics and chemicals also recorded good growth (+12% and + 13% respectively) (Source: BCG).

³⁰ WP N°2002, CEPII (2002); WPS 2197, the World Bank (1999).

traded differ in their quality and in the productive combination with which they are associated, their trade is based on a new form of comparative advantages. This leads therefore to a market segment positioning. A country which is specialised in high-end products in a number of branches will make more use of R&D and of innovation, with positive and cumulative consequences on its growth.

The analysis is, however, complicated by the adverse economic situation, particularly in some EU Member States. To what extent have recent difficulties been the result of this situation, and to what extent do they reflect long-term economic trends? The answer, admittedly a highly unsatisfactory one, is that it is too early to say. Moreover the EU's cost competitiveness has also been affected by exchange rate movements in recent years, as the newly launched euro rapidly lost value against the dollar before rebounding equally strongly.

The elements identified above are risks, not certainties, but, given the nature of those risks and what is at stake, they cannot be ignored.

Competitiveness is the key factor in resolving industry's problems. If it is neglected, examples of poor performance could multiply. The decision to foster competitiveness has already been taken, in Lisbon. Other documents have hinted to the persistent gap between the EU's ambitions and its achievements³¹. But the current public debate has identified certain topics which present numerous challenges for the EU's industrial policy.

3. THE OPPORTUNITIES PRESENTED BY ENLARGEMENT

On 1 May 2004, ten new Member States will join the EU. If the respective markets have been largely opened for the last ten years, enlargement offers equal competition conditions, as European norms and regulations will have to be applied in the acceding countries. This enlargement will constitute a major opportunity for European industry, both in the current and the new Member States, providing that the possibilities it opens up are exploited to the full.

Box 3: Industrial Change in the acceding countries

On the basis of the figures for 2000, industry in the new Member States will account for 9% of industry in the enlarged EU, and 15% of its jobs.

The structure of these countries' economies has changed considerably in the last decade. The shares of agriculture and subsequently of industry in the economy as a whole have decreased, while services have expanded strongly.

The new Member States currently tend to be more specialised in labour-intensive sectors. Their largest industrial sectors are food and drink, transport equipment, raw metals, and metal products. Some countries, particularly the Baltic States, specialise in textiles and wooden products, but the industrial structure of most of these countries has been gradually reoriented towards intermediate or high-tech sectors, thus initiating a process of convergence. The development of their trade with the EU reflects these trends.

³¹ 'Report from the Commission to the Spring European Council: Delivering Lisbon: Reforms for the Enlarged Union' COM(2004) 29, 21 January 2004; Broad Economic Policy Guidelines (COM(2003) 4 final).

These countries will, however, certainly continue to undergo a process of restructuring in response to intensified competition from EU15 in the coming years.

Source: European Competitiveness Report 2003. European Economy, Economic Paper, No 181, January 2003: "Structural features of economic integration in an enlarged Europe: patterns of catching-up and industrial specialisation". Impact of Enlargement on Industry; SEC(2003) 234, 24.2.2003

3.1. The lure of the new Member States

Enlargement will enhance further the attractiveness of the new Member States for foreign investors. Geographical and cultural proximity and the adoption of the 'acquis communautaire' are amongst the additional advantages for European enterprises and their internationalisation process.

Unit labour costs in the accession countries are currently significantly lower (by between 16% and 53%) than in EU15³². This advantage is temporary: most of their economies will undergo a process of convergence with the rest of the EU³³, although the rates of convergence will vary. Moreover, their cost advantage is reduced by the fact that their labour productivity is much lower than in the current Member States. Nevertheless, the comparative advantage of the new Member States has already led numerous producers in EU15 to locate some of their production there, and this is likely to continue. The accession countries' highly qualified workforces, the flexibility of their labour markets and the high levels of foreign investment which they have managed to attract are therefore paying off.

The fall of the Iron Curtain and the resulting opening of markets paved the way for a reallocation of production capacities on a continental scale. The transfer of production capacity to Central and Eastern Europe could continue to prove to be a major problem for regions of the present Member States affected by this relocation. Such changes have a major local impact, particularly for the regions which have traditionally specialised in the activities concerned. This was the case, for example, in Baden-Württemberg in the 1990s, when it lost out to competition from Central European countries where a number of German companies in the engineering and automotive sectors had set up operations. However, out of this crisis came new opportunities. The regional authorities focused their efforts on innovation and the promotion of 'clusters' in industries such as micro-electronics or ICT, thereby transforming an apparent crisis into a success.

The impact of the extension of the single market on industry is likely to be the more severe in certain geographical regions and sectors in the current Member States. Border regions may well be particularly affected, and especially SMEs which serve their local markets (notably in Germany and Austria). Similarly, the accession countries' high degree of specialisation in labour-intensive products has already increased, for ten years or so, the competitive pressure on EU15 countries which are also specialised in those sectors (e.g. Greece, Portugal and Spain).

For the time being, however, access to the new Member States may make it possible to keep within the EU production that would otherwise have been transferred to Asia, and to maintain the competitiveness of the sectors concerned, thanks to the reorganisation of the value chain

³² Competitiveness Report 2003.

³³ Moreover, it appears that some of these countries have already encountered the problem of relocation of activities which they had previously succeeded in attracting to countries with lower labour costs (Romania and Ukraine).

in Europe. The textiles and clothing industry, where labour costs make up a large share of the final product price, has reorganised its production chain in neighbouring Eastern European and Mediterranean countries. More recently, other sectors, such as the car industry, have started to reorganise their value chains so as to benefit from the advantages offered by the acceding countries. Such a strategy could also allow the EU (15) to maintain activities that, otherwise, would risk being delocalised to other countries. By way of example, the Finnish company Nokia has delocalised part of its production to countries of Eastern Europe in order to reduce its costs and to preserve its factories in Finland (Oulu, Salo) which are oriented towards high technology. For the moment, however, the process of vertical differentiation is concentrated in certain sectors (including electrical equipment, textiles and the automotive sector) and certain Eastern European countries³⁴. Responses to a survey carried out in 2003 by the Netherlands Ministry of Economic Affairs³⁵, indicate that one company in five in the engineering and electrical products sectors stated that they had an establishment in Eastern Europe or wanted to invest there in the next five years. They cited labour cost differentials and the quality of the workforce as major factors.

3.2. Exploiting these opportunities requires regulatory protection and stability

The efficient operation of the internal market in the enlarged Union may limit the partially negative effects of the process of reallocating resources to sectors which enjoy comparative advantages. European industry will become more competitive if the new Member States can be integrated quickly and effectively, and genuine respect for the internal market rules can accelerate the process of resource reallocation. This requires an effort on the part of both new and existing Member States in transposing and applying the *acquis* so as to benefit from the opportunities offered by the internal market and from competition-driven innovations.

The creation of a harmonised, stable and predictable legal framework will guarantee the orderly functioning of markets. It will further bolster economic activity in the new Member States. It should also facilitate their transition to the knowledge economy, thanks, in particular, to more effective protection of intellectual property rights.

Furthermore, the internal market's legal framework often lends itself to flexible solutions which stimulate innovation. This is often the case with the regulation of products. The Commission will ensure that internal market rules are properly enforced in the new Member States. In the last few years, prior to enlargement, it has attached considerable importance to effective implementation, by ensuring that the future Member States have adequate administrative capacity. The ground has been prepared for the integration of the new Member States in the internal market particularly through free trade in industrial products and many services, the application of Community rules on competition and state aid, and the conclusion of agreements on mutual recognition and conformity assessment for certain products.

However, implementation of the '*acquis communautaire*' continues to require a major effort on the part of industry in the new Member States. Industry will have to make major investments in order to come into line with Community rules in areas such as the environment and public health, at a time when competition is likely to be growing in intensity. It is therefore important to be vigilant so as not to weaken the competitiveness of enterprises in the new Member States already facing the challenge of the implementation of the *acquis*. Thus, as

³⁴ World Bank WP No 2611 (2001).

³⁵ Verplaatsing productie-faciliteiten naar Centraal en Oost-Europa. EMF. CWM. Ministry of Economic Affairs, 2003.

part of the Commission's integrated impact assessment procedure, particular attention will be paid, wherever necessary, to the impact of proposals and other initiatives relating to industry and the general economy in those countries. Predictability and stability in a high-quality legislative environment are thus crucial if enterprises in the new Member States are to rise to the challenge of enlargement.

4. INSTRUMENTS TO SUPPORT THE PROCESS OF STRUCTURAL CHANGE

The above analysis highlights the weaknesses of EU industry, the dangers to which it is confronted, and the need for it to be able to cope with international competition. The new financial perspectives proposed by the Commission for the 2007-2013 period also confirm the priority that will be given to strengthening the Union's competitiveness³⁶ and are designed to provide it with the means necessary for achieving this end.

Facilitating the process of structural change requires three types of action:

- The "better lawmaking" approach will continue to give industry the benefit of a market that is as integrated as possible, but must also ensure that the regulatory burden does not exceed what is necessary.
- Other Community policies which contribute in their own way to the competitiveness of industry must also be mobilised, without losing sight of their own objectives. An example of the potential for progress in this domain is the Communication on a pro-active Competition Policy for a competitive Europe that will be adopted on the same day as this document, and which will examine in detail the contribution of Competition policy to the competitiveness of Europe's economy.
- Finally, the specific needs of the various industrial sectors must be taken fully into account.

Of course, the measures that the EU will implement to accompany structural change can be usefully based on the experience already acquired in terms of accompanying measures, notably in sectors such as steel.

Box 4: The Commission methodology for tackling competitiveness problems

Over the last few years, the Commission has developed a methodology for tackling competitiveness problems at both horizontal and sectoral levels. It is based on a combination of three elements: analysis, consultation and action.

An analysis of competitiveness must be the foundation, since it identifies the challenges. Only a thorough analysis of industry's competitiveness which brings to light its strengths and weaknesses, as well as those of the framework conditions that have to be improved, can justify measures in the field of industrial policy at both horizontal and sectoral levels. This work can contribute to identifying and accompanying structural change, notably at a sectoral or geographical level, and to facilitate the definition of the appropriate accompanying measures. Recent initiatives regarding biotechnologies, aeronautics and pharmaceutical products were all based on a preliminary analysis of the sector, each time identifying the underlying issues.

³⁶ Communication 'Building our common Future - Policy challenges and Budgetary means of the Enlarged Union 2007-2013', COM(2004) 101, 10 February 2004.

Consultation with the parties concerned is another fundamental aspect. It has to be sufficiently broad and open to allow all the relevant points of view to be expressed, to target measures more accurately and to ensure that the parties concerned are willing to accept them. The initiatives are based on the creation of high-level consultative groups bringing together representatives of industry and the public authorities that issue recommendations for improving the competitiveness of the sector (G10, STAR 21, LeaderSHIP 2015), and other processes of consultation with the parties concerned.

The relevance of these recommendations is endorsed, wholly or in part, in a Commission Communication. Their implementation is the responsibility either of the EU or the Member States, and makes use of various methods, some regulatory, some not. These measures must meet in a specific, proportionate manner the needs which have been identified.

4.1. A regulatory framework favourable to industry

4.1.1. Better law-making

Box 5: The role of the European Union and of the Member States in regulating

Many aspects of business activity are covered by regulations. When making investments, businesses must comply with rules on town planning and land use. Their daily activities are subject to company law, tax rules, social security rules, labour law (including aspects of health and safety at work), rules on pollution control, and competition law. Their products must comply with technical rules on safety, health, and environmental and consumer protection. Some professions are highly regulated, as is the right of establishment and the provision of certain services, particularly financial services (for obvious prudential reasons). Finally, the supply of some public services (transport, energy, postal services) is still covered by specific regulations, although measures at Community level have had the effect of significantly reducing their monopolistic character.

Regulation can be favourable to competitiveness, as shown by the experience of the internal market (in which a single set of rules replaced national rules). On the other hand, the absence of rules can sometimes be a handicap to industrial competitiveness, as is the case of the delay in introducing the European patent. Regulation at Community level can also simplify the administrative burden on enterprises if it eliminates the need to apply to a large number of national administrations and replaces them by a “one-stop shop”. Similarly, by replacing barriers to intra-Community trade, boosting consumer confidence in a cross-border market and simplifying the procedures for gaining access to markets or the rules on products (product safety, food safety, etc.), Community regulation can make markets more secure, both for the consumer as for businesses, a fact which can bolster competitiveness.

Businesses, purchasers and public authorities recognise the value of a structure defining the limits within which businesses are free to act. Many of these rules are indispensable (for instance, as regards taxation, social security or food safety), although it is questionable whether they are always as clear and efficient as they could be. Furthermore, some countries which have fewer rules address the same public concerns, but through other means. For example, in the United States, the legal culture and the need to cover possible liability by means of insurance has created its own set of rules and constraints.

Community regulations cover a small part of company law, taxation and social security rules, particularly as regards cross-border activities. However, the bulk of legislation is of national origin. Rules on the labour market, safety at work, consumer protection and pollution control are shared responsibilities, with both national and European input. The rules on public services are predominantly national, albeit within a Community framework.

Technical rules on products is the field in which Community regulations play by far the most important role. About half of all products are subject to formal requirements before being placed on the market. Some simple requirements concern labelling or packaging and are intended to inform the consumer of the risks inherent in the product. Others are weightier, and may range from compliance with safety requirements to prior authorisation for placing the product on the market, as is the case with pharmaceutical products. Community rules are adopted to ensure recognition of national protection measures. There are many more national regulations than Community regulations: 14 proposals relating to products were adopted at Community level in 2003. Over the same period, the Member States notified the Commission of 486 measures. Some 15% of the drafts notified by the Member States were not compatible with Community law.

Simplifying and improving rules is a long process. That process began with the harmonisation of diverging national rules which laid the foundations of the internal market. It has continued by efforts to find less restrictive ways of achieving public objectives. The Community's "New Approach" is one of these methods. Eliminating unnecessary complexities at national level ("gold-plating") must also continue, since they can lead to market fragmentation and increase the constraints on businesses. "Better lawmaking" is an integral part of this improvement process, which is far from complete.

- Progress has been made ...

Implementation of the "better law-making" action plan has already yielded significant improvements in the manner in which the European Union makes its rules: any initiative that potentially has significant economic, social or environmental effects is subject to a detailed impact assessment, the aim of which is to analyse simultaneously the various effects of the initiative, in particular on industry and its competitiveness. It is sometimes useful to continue such work. For instance, in the case of the REACH package, the Commission will work together with industry to complete the impact assessment already undertaken, targeting industry's specific concerns.

In addition, the use of alternative methods of regulation (for example, self regulation, the use of European standardisation, particularly in combination with co-regulation, voluntary agreements and framework regulations) may, in certain cases, be a more effective way of achieving an appropriate balance between the objectives pursued and the interests of industrial competitiveness. Provided that certain requirements are observed, particularly the principle of legal certainty, these approaches may offer advantages.

Finally, progress has been made regarding the consultation of interested parties prior to launching any initiative likely to have a significant impact on business competitiveness.

Box 6: Better consultation: the example of REACH

On October 29th 2003, the Commission submitted its proposal for a new regulatory framework for chemicals. The proposed system (REACH, Registration, Evaluation, Authorisation of Chemicals) is intended to improve the protection of health and the environment, whilst preserving the competitiveness of the Community's chemical industry and its ability to innovate.

When the Commission started the preparatory work on the REACH proposal, it widely consulted all the parties concerned including through an Internet consultation, in order to optimise the proposal's cost-efficiency ratio. Over 6 000 replies were received. As a result of these contributions, several changes were made to the original proposal. The Commission was able to revise its impact assessment and carry out improvements which, according to estimates, should lead to a saving of 80% of the direct costs to industry (i.e. more than €10 billion).

- ... but further steps are needed to reduce the weight of legislation

The Council has stated its wish to make progress in two directions³⁷. On the one hand, with regard to new initiatives, it wants to see the competitiveness dimension taken more fully and more carefully into account in the integrated impact assessment procedure, which also covers the environmental and social dimensions. On the other, efforts should be made to assess the combined impact of existing Community legislation on business competitiveness, taking into account possible interaction between legal or regulatory instruments in different policy areas. Such assessments could prove particularly suitable for certain specific industries whose competitive position is highly vulnerable to competition from non-Member countries. The automobile industry could be a good example.

The 2004 spring European Council (Brussels, 25-26 March 2004) took up these demands, noting with satisfaction that the Commission had undertaken to improve further the integrated impact assessment process in collaboration with the Council and the European Parliament in the context of the inter-institutional agreement on better law-making, by placing special emphasis on strengthening the competitiveness aspect and, in cooperation with the Council, devising a method for measuring the administrative burden on business.

President Prodi, while reminding that the approach of the European Union as regards impact assessment is cross-sectoral and has to be articulated around the 3 dimension of economic, social and environmental impact, has also confirmed that the Commission will examine to what extent competitiveness aspects, and particularly those linked to the administrative burden on business, can be improved in the framework of this procedure.

Box 7: The cumulative effect of regulations: the example of the car industry

The car industry is a significant part of the EU economy. It provides 6.5 million direct and indirect jobs and accounts for 5% of gross domestic product. It makes a major contribution to the growth of industry and innovation and employs a skilled labour force, thus contributing to the achievement of the Lisbon objective. The sector is innovative and it responds to market challenges. For instance, the average fuel consumption of European vehicles is considerably lower than that of U.S.-produced vehicles.

³⁷ Contribution from the Competitiveness Council to the spring European Council of 2004 (11 March 2004).

Over the last thirty years, the European Union has managed to set up a single approvals system for automobiles. This harmonised *acquis* constitutes an important progress compared with the previous situation, in which national rules “coexisted”. Furthermore, the European approach to regulation in this field has spread throughout a large part of the world, under the aegis of the United Nations Economic Commission for Europe.

The regulatory environment in which this industry is developing is becoming increasingly complex. The volume of rules has increased, linked, for example, to aims of road-user safety or of environmental protection, since both the EU and the Member States have taken regulatory initiatives, sometimes in an uncoordinated manner, which have not been fully evaluated as regards their interaction and cumulative effects. A more integrated approach is therefore necessary, as are efforts to take into account the various factors influencing the competitiveness of the automobile industry. This is the aim of the ERTRAC (European Road Transport Advisory Council) technology platform.

The Commission is also embarking on new ways of improving the quality of regulatory work at both Community and national levels:

- Exchanges of good practice as regards regulation with and between the Member States;
- Work to define regulatory quality indicators;
- Ex-post studies on the impact of legislative or other initiatives;
- Work to identify the causes of excessive regulation.

The quality of detailed impact assessments is also crucial to the credibility of the Commission’s proposals. To ensure the quality of these analyses, the Commission plans to set up an in-house consultative body comprising specialists in these issues, which will be responsible for giving advice on the methodology for such exercises.

In addition, the impact of regulations on the markets for both new and existing products and services, particularly research and innovation, should be examined and taken into account. From this point of view, an important aim is to identify sufficiently early the fields in which existing legislation (or the absence thereof) constitutes an obstacle to developing and deploying new technologies, and, where appropriate, to define measures to remedy the problems. This pre-emptive approach to adapt the legal framework to the acceleration of technological progress will be implemented with all the parties involved in the European technology platforms initiative.

4.1.2. The responsibilities of each party

The competitiveness of EU industry concerns everyone. The Council and the European Parliament must ensure that the measures resulting from the legislative procedure, whilst achieving their objectives, do not damage competitiveness. The Commission is willing to support this endeavour. It could help the other institutions assess the effects of the proposed amendments as part of the “better law-making” initiative. In this connection, the Competitiveness Council, in response to a request from the European Council, announced its intention to monitor proposals likely to have a significant impact on competitiveness, even if they are not its direct responsibility.

Finally, Community competence and Community instruments as regards industrial policy are limited. The Member States must ensure that the rules they adopt do not have a negative impact on the business environment (for instance, by complicating access to the market or slowing down the development of new activities or new technologies) and do not create unjustified barriers to trade, which are contrary to the principle of mutual recognition.

4.2. Optimising synergy between different policies

Europe's competitiveness depends to a large extent on its industry. However, the Community institutions and the Member States must help create a favourable business environment. The need for an integrated approach to questions of competitiveness was recently raised by the Commission and the Council³⁸.

The previous Communication on industrial policy highlighted possible areas of synergy between different Community policies. A close examination has identified specific initiatives in five areas (knowledge, the internal market, cohesion, sustainable development and the international dimension) for improving the contribution which Community policies make to industrial competitiveness.

Box 8: Unifying the analytical foundation of Community policies

Optimising the synergies between various Community policies so that they have the maximum positive impact on industry's competitiveness requires that those policies be based on an analytical foundation which is adequate and consistent. This facilitates greater coherence between the effects of each policy. In order to improve that foundation, the Commission has undertaken two exercises known as "analysis of the analyses".

The first exercise examined the interaction between employment and growth. The results of the analysis show that there is no contradiction in the simultaneous pursuit of growth of productivity and of employment, especially not in the medium term. Improvements in our standard of living depend on these two factors.

In the medium term, economic growth is determined, in the first instance, by productivity growth, which itself depends on various factors: investment in capital and in ICT, technological progress, organisational modernisation, and education. Employment growth is determined in the long-term by the performance of labour markets and factors affecting the labour supply. In recent years, it has been employment growth, rather than productivity growth, which has made the bigger contribution to overall growth. Greater labour market participation, higher levels of qualifications and greater adaptability have contributed to economic growth that is rich in job-creation.

Encouraging strong growth in productivity and employment requires specific reforms. These reforms aim to increase the labour supply and worker adaptability, improve regulation, encourage entrepreneurship and innovation, open the internal market for services and improve the modernisation of human capital and technology. At the same time, they have to be underpinned by a stable macroeconomic framework and stable budgetary policies.

³⁸ Some Key Issues in Europe's Competitiveness – Towards an Integrated Approach, COM(2003) 704 final, 21 November 2003.

The second exercise centred on the impact of environmental policy on the European business.

According to the results of this exercise, environmental regulation is concentrated mainly on the creation and the attribution (or the reattribution) of property rights as regards the use and the pollution of environmental resources. By forcing the interested parties to take account of the growing scarcity of environmental resources, this policy can contribute to a better economic efficiency. However, whilst potentially improving the efficiency of this allocation of resources, the policy also has significant implications in terms of distribution, therefore creating 'winners' and 'losers'.

The final result of environmental regulation, in terms of cost, is that, for certain companies and sectors, production is more expensive. If it is important to have a correct idea of the costs of environmental regulation for companies, for the latter, what counts are the effects of these costs on innovation capacity, profitability, prices and demand dynamics. These effects depend to a large extent (i) on the type of regulation (i.e. how this affects the inputs and the production process of the finished product); (ii) on the way in which the company affected can finance pollution-reduction technologies; and (iii) market structures (demand elasticity, level of exposure to international competition ...).

In terms of advantages, the final result of environmental legislation is that some companies or sectors benefit from positive effects in terms of demand and employment that would not have happened in the absence of such regulation. This regulation should also lead to reductions in input costs, both for the regulated industries (by encouraging a better use of resources) and for the industries that, in the end, benefit from inputs that are less polluted and the reduced costs in terms of worker health and public health.

The existence of common environmental rules at the EU level ensures a level playing field for companies operating inside the internal market. Differences between countries in the strictness of environmental protection rules can be justified by differences in environmental problems or in the effects of pollution. However, different national approaches, whether in terms of ambition or in instruments, must be carefully examined to ensure that they are effectively and legally compatible with the proper functioning of the internal market.

The cross-border and global character of many environmental threats requires actions that are beyond the ability of one country or region. Measures taken solely at EU level to restore the ozone layer or reduce greenhouse gas emissions, for example, are not sufficient. These issues require global action and concerted multi-lateral efforts. Hence the need to guarantee the participation and equivalent contribution of Europe's main trade partners when envisaging actions.

4.2.1. Using knowledge for the benefit of businesses

For industry to be competitive, better use must be made of knowledge: this requires measures on research, innovation, workforce training, ICT and a competition policy that takes this dimension into account.

- Investing in research: an action plan for Europe

In addition to the creation of a "European Research Area" designed to create an internal market for research and technology and counter the fragmentation currently affecting European research, Europe has an action plan to increase investment in research and meet the objective fixed by the European Council in Barcelona of increasing total R&D spending in

Europe to 3% of GDP by 2010³⁹, whilst improving the quality of research and its appropriateness to the needs of the market. The action plan requires the mobilisation of numerous policies, beyond those relating directly to research and innovation, and improvements in all the instruments of public support.

The action plan has three main priorities:

1. To increase public funding of research, both at Member State and EU national levels (within limits compatible with the European budgetary guidelines), and to strengthen the ties between public research and industry.
2. To increase the human potential in science and technology, by improving researchers' career prospects and mobility, rekindling young peoples' enthusiasm for science and making it easier for the best researchers from non-member countries to enter and remain in the Union⁴⁰.
3. To improve the framework conditions for offering businesses an environment which lends itself to investment in research and which encourages them to increase their investments in Europe. New actions will be required in sectors such as intellectual property, market regulation, competition rules, financial markets and tax regimes.

The aim of this system is to strengthen Europe's attractiveness for research investments, especially from private investors, and to increase public funding to 1% of GDP by 2010, using the open method of coordination.

In its recent proposals for the financial perspectives for 2007-2013, the Commission led the way by planning to more than double the EU's research budget. The EU will need to concentrate its actions on a number of major themes which have a direct bearing on industrial competitiveness, such as pan-European partnerships between the public and private sectors, with a view to bolstering technological research, research infrastructures, human resources, the dynamism and productivity of European research, the creation of poles of excellence and the coordination of national and regional research programmes and policies.

Of the initiatives provided for in the action plan, the technology platforms merit particular attention. They will help to mobilise the research and innovation effort and facilitate the emergence of "lead markets"⁴¹ in Europe. By defining common research agendas, they will provide an impulse for Europe's potential in advanced technologies (e.g. nano-technology and hydrogen technology), and in traditional sectors which face particular challenges. They could make a major contribution to improving competitiveness. For example, research into new materials or production processes will be one of the fields of action to be explored and developed in the context of the technology platform for the textile and clothing sector. European technology platforms should also help establish effective public-private relations between researchers, industry, the financial community and policy makers. In particular, the participation of representatives from the private sector will ensure that technology platforms

³⁹ COM(2003) 226 final, "Investing in research: an action plan for Europe", 30 April 2003.

⁴⁰ The Commission recently made some proposals aimed at accelerating and simplifying the conditions under which researchers from non-member countries can obtain residence permits (COM(2004) 178 final, 16 March 2004).

⁴¹ See the Communication from the Commission on "Innovation policy: updating the Union's approach in the context of the Lisbon strategy", op cit., for an analysis of "lead markets".

take full account of the needs and expectations of the future potential market in the fields in question.

- Innovation policy

An action plan on “Innovation for Europe’s competitiveness”, which the Commission will present in the summer of 2004, will aim to put business at the heart of European innovation policy.

The action plan will comprise six main objectives:

1. To encourage all forms of innovation, technological or non-technological (e.g. organisational), and to promote excellence throughout business.
2. To stimulate the effective spread of knowledge and technologies among businesses. The Member States and regional and local authorities should play an active role, particularly by encouraging initiatives based on business clusters.
3. To develop human resources for innovation. There must be greater and more effective investment in education and training, in order to develop the skills necessary for innovation. On the basis of analyses of skills requirements, the Commission, the Member States and the parties concerned must promote the mutual recognition of professions specific to innovation⁴² and encourage professional mobility, particularly between sectors and to SMEs.
4. To increase the funds for investments in innovation. Community financial instruments must be brought closer into line. The 6th R&D Framework Programme (€17.5 billion) and the regional funds (€195 billion over the period 2000-2006) have made a start. This trend is expected to continue in subsequent programmes.
5. To promote a regulatory and administrative environment which favours innovation. The management of intellectual property rights needs to be improved, particularly by reducing costs for small businesses and creating a help service for the defence of patents and intellectual property rights.
6. To develop a model of innovation governance for the Union. The players (the Member States and other interested parties) will be involved in discussions allowing common objectives to be identified and synergies created. The Commission intends to propose ambitious common objectives to the Member States and to invite them to adopt those objectives by March 2005.

- Thinking about the future of research in the manufacturing industry

From a more horizontal perspective, a strategic agenda on the future of research in the manufacturing industry will be presented in autumn 2004, with a view to identifying the main guidelines for research in order to make a medium- and long-term contribution to the competitiveness of manufacturing businesses.

⁴² The professions in question are varied and relate to different fields: understanding patents in the context of intellectual property, using new technologies, financial risk analysis for innovation, technological and regulatory alertness, technology brokerage in the context of technology transfers.

The document will propose measures in the field of future technologies and in the areas of education and training, international cooperation and the creation of an environment which is favourable to industrial innovation. It will thus form the basis for drawing up research and innovation measures that will be proposed under the Seventh R&D Framework Programme (2007–2011).

- Investing in human capital

A highly educated, well-trained and adaptable workforce is a key element in competitiveness, productivity and the growth of employment. The report of the Task Force on Employment, chaired by Wim Kok, and the Spring European Council of 2004 stressed that Europe must invest more, and more effectively, in its human capital. For this to succeed, responsibilities and costs associated with this additional investment need to be shared between the authorities, industry and the individuals concerned. A series of actions are planned to improve human capital and worker skills, and to bolster training.

In line with the objectives of the European strategy on employment, the authorities have to develop ambitious policies to adapt worker skills, raise levels of education and, in particular, reduce school drop-out rates and encourage more of the least qualified sections of society to follow training. Certain sectors of industry, often characterised by a high proportion of SMEs, invest less in their labour force. As the market is unable to make sufficient investments, systems of joint cost and profit sharing must be strengthened (e.g. sectoral or regional training funds). From this point of view, the European Social Fund and the future European programmes on vocational training will play an important part in the modernisation of education and training.

This investment effort in human capital is all the more urgent in the current context of a rapidly ageing, and soon falling, working population, which increases the risk of inadequate qualifications and skill shortages. From this point of view, skills requirements should also be more fully anticipated and the supply of training accordingly adapted, especially as industry often complains of a shortage of qualified workers. The Commission has proposed that the Committee on Employment of the Council undertake an ambitious experience-sharing exercise on this topic under the strategy for employment. In this context, a high level of public health can also contribute to a high quality and productive human capital.

Through its vocational training initiative, the Commission intends better to anticipate and identify skills shortages, in cooperation with the parties concerned (particularly the Member States, via the open coordination method) in order to provide more adequate responses. It will also ensure that the next generation of Community programmes in the field of education and vocational training will be better able to meet horizontal needs (e.g. training for engineers) and sectoral needs for certain types of qualification. The Commission has also proposed a single framework to ensure the transparency of qualifications and skills (Europass), to assist communication in the labour market⁴³.

The Lisbon Strategy stresses the need to invest more, and more effectively, in training, education and life-long learning if the Union is to achieve its goals in terms of

⁴³ COM(2003) 796.

competitiveness⁴⁴. Levels of private funding for continuing vocational training, adult education and higher education are still totally inadequate.

The open method of coordination is applied to these questions. It is supplemented by local programmes, networks and exchanges of good practices. Those countries which have revitalised their lifelong learning systems are those with the best record in productivity, research and innovation.

It is also the most competitive countries which have created links between industry and the academic world, creating networks between the actors, including the financial sector. Lifelong training structures can also help countries to reduce the impact of industrial change on their workforce.

- ICT in the service of competitiveness

The “eEurope 2005” action plan brings together initiatives in the development of services and networks in order to create a coordinated approach of Community policies in the field of ICT. This plan concentrates on areas in which public policies can provide added value. The main areas which influence industrial policy are:

a) e-business, which aims to create an environment which stimulates the integration of ICT in all aspects of production and business processes. Community actions in this domain are designed to make the legal and non-legal framework favourable to the use of e-commerce. Other initiatives will help SMEs to define their e-business strategies, with a view to optimising their use of ICT, help them select the most suitable technology, adapt their practices and implement the necessary organisational changes. Close attention should be reserved for SMEs in the manufacturing sector.

b) Broadband communications: Member States will develop national strategies which will concentrate on both supply and demand, especially for advanced applications which open the door to new services and new markets;

c) Improving the legal framework for the use of information technology. The interoperability of technological platforms will give end users, both individuals and companies, secure access to public and commercial services. The legal framework of e-commerce will be consolidated with the transposition of directives on electronic signatures, on-line trading and royalties, and the adoption of directives on public procurement, which introduces on-line purchases for the public sector. Moreover, the adoption of a domain name incorporating the letters "eu" could boost confidence in e-commerce in the European Union.

- The contribution of competition policy to developing and spreading knowledge

In terms of aids to research, the revision in 2005 of the framework for aids to research should allow a response to the changing reality of research activities.

The Commission is also planning to adopt a Communication on state aid for innovation in 2005. This revision aims to improve the possibilities for support for investment by SMEs in innovative projects, recruiting skilled staff, or the innovation services provided by incubators and other intermediate bodies. In addition, the Commission will, before the end of 2004, draw

⁴⁴ Joint Progress Report of the Council and the Commission ‘Education and Training 2010’ adopted on February 26th 2004.

up a 'Vade-mecum' or user-guide. This document will condense into a single text the possibilities of aids to innovation as well as the approach to aids to incubators and other intermediate bodies.

The treatment of aid for the development of venture capital will also be reviewed in 2005. In the meantime, the approval of small amounts of aid which do not have a significant effect on competition, including aid to innovation, will be made simpler and more flexible.

A re-examination of the exemption Regulation for technology transfer has just been finalised. It aims to facilitate the dissemination of technology licences as far as possible, by focusing its efforts on agreements which could be anti-competitive. The review will attempt to achieve a fair balance between the exploitation of intellectual property rights and the legitimate competition concerns that could consequently result.

4.2.2. Improving the operation of the markets

Competition within the single market is the best guarantee of competitiveness in the medium and long term. The creation of the internal market for both products and services continues to be a priority with a view to optimising the interaction between industry and services. As a general rule, the Community harmonisation of existing national legislation or their effective mutual recognition contributes to improving the working of the internal market.

- Improving the free movement of products and services

There are five important initiatives at Community level.

- (1) Industry needs high-quality services to stay competitive. The swift adoption of the recent proposal for a directive on services will create a genuine internal market in this field. By encouraging cross-border economic activity and stimulating competition, it will broaden choice, improve quality and reduce prices for consumers and for businesses that use services.
- (2) A more consistent application of the various directives arising from the New Approach will allow businesses more fully to exploit the flexibility resulting from these instruments.
- (3) Consideration of the strategic role of European standardisation in supporting the development of European businesses both internally and in the EU's immediate neighbours, or even internationally, will improve the use made of this instrument.
- (4) Creating an integrated market for capital and financial services is an essential element in a European strategy for competitiveness and notably to improve the competitiveness of the manufacturing sector. The main strategic objective of the Action Plan for Financial Services, launched in 1999, was to allow pan-European financial markets to fulfil all their potential and therefore to reduce the capital costs of investment. Finalising this plan in 2005 remains a primary objective for the competitiveness of Europe's industry.
- (5) Implementing the Action Plan on Company Law and Corporate Governance will successfully conclude an integration and modernisation of company law and corporate governance that business, markets and the public demand.

- Promoting competitiveness through an efficient competition policy

The key role of competition policy in supporting industrial competitiveness will be strengthened by the entry into force on May 1st of the new regulation on anti-trust and on the control of concentrations. The new anti-trust framework will lighten the legislative burden by abolishing the system of notification system. This will allow companies to gain time in their strategic decisions as they will no longer have to wait Commission approval of their agreements. It will also allow the Commission to concentrate the application of antitrust rules on the most serious and most damaging competition problems. Taking efficiency gains resulting from concentration more explicitly into account will allow the Commission to distinguish better between mergers that reduce competition and those that don't⁴⁵.

Furthermore, the revision of the guidelines on rescue and restructuring aid aims to allow and speed up restructuring whilst minimising the distortions of competition in the industrial sectors concerned to which this type of aid could lead.

- Reconciling energy constraints with competitiveness

Three major challenges in the energy sector will have significant effects on industrial competitiveness. Firstly, the security of energy supply will remain crucial, and the Commission will continue to launch initiatives to guarantee this security. Furthermore, the opening, between now and 1 July 2004, of electricity and gas markets to any commercial user will benefit industry as a whole, including SMEs. Finally, the rise in electricity prices could have a significant impact on competitiveness. The EU is committed to meeting its Kyoto obligations in a cost-efficient manner to minimise the compliance costs. The Commission will look into this issue in order to ascertain the impact of environmental costs on energy prices. Other factors, such as the liberalisation of energy markets and fluctuations in the price of oil, will also be taken into account.

- Abolishing certain fiscal barriers to completion of the internal market

European businesses have to operate in a single economic zone where all the different national corporate taxation systems apply. This causes a loss of economic efficiency, specific costs to comply with these regimes, and a loss of transparency.

With a view to reducing the impact of tax formalities which apply to SMEs that have cross-border activities within the European Union, the Commission is considering proposing a first measure, on an experimental and optional basis. This measure will consist in a company taxation according to the rules of the state of residence rather than the different according to the different tax codes of the Member States in which the company carries out its operations. Member States participating in this pilot project will consequently have to commit themselves to mutual recognition of the various methods of calculating taxable profit.

With regard to a consolidated and common tax base for companies that carry out their operations inside the European Union, the possibility of applying the treaty rules concerning enhanced co-operation could be envisaged, if it is clear that progress is not possible for all the EU Member States.

⁴⁵ Council Regulation (EC) 139/2004, OJ L 24 of 29.1.2004, p. 1; Commission Communication, OJ C 31 of 5.2.2004, p. 5.

In addition, a simplification of VAT obligations is planned for 2004. It is expected to include a one-stop shop system. This system should be based on the experiences acquired in the case of the European one-stop shop for VAT owed by on-line traders in non-Member countries. It will considerably reduce the administrative burden associated with VAT, since it will allow businesses to deal with just one tax authority, in their own language, and to comply with just one set of obligations.

Finally, the Commission will also assess ways of using the open coordination method to encourage the dissemination of best practices with regard to the simplification of tax rules.

4.2.3. Using cohesion policies to promote industrial and structural change

- Support for the process of industrial change and regional innovation systems

Cohesion policy should not only support structural change but also adopt a forward-looking approach by encouraging regions to increase their competitiveness and develop their ability to innovate.

The Commission recognised these objectives in its third report on economic and social cohesion for the 2007-2013 programming period, which placed great emphasis on innovation in companies, notably by encouraging tighter links between research institutes and industry. Promoting access to ITC and encouraging their use will be another priority. Improving access to financing and to knowledge will promote entrepreneurship. This will happen via the creation of new companies from universities (spin-offs), by improving the interface between industry and research centres, or by promoting the development of incubators. Through these elements, cohesion policy can best use the potential of industrial clusters as a means to improve the competitiveness of regions.

Support to less developed regions – both in the new Member States and in the current ones – is the first priority of cohesion policy. In these regions, direct support to industry will be accompanied by an improvement of the framework conditions in which these companies operate, as well as the extension and improvement of transport, telecommunications and energy infrastructures. The creation of an ‘adjustment fund’ has also been proposed. It would receive up to €1 billion a year, which would offer the possibility of accompanying economic restructuring in specific regions and sectors which are particularly exposed to international competition or other asymmetric shocks.

- Putting the European Employment Strategy at the service of competitiveness

The European Employment Strategy, which is an integral part of the Lisbon Strategy, emphasises the priorities directly contributing to the competitiveness of Europe’s industry, such as the development of human capital and life-long learning, creating jobs and entrepreneurship and promoting the adaptability of workers and business to economic change. These priorities are supported by the European Social Fund, which contributes to the development of a sustainably competitive knowledge economy, thanks to investment in training, education, active measures for the labour market, and activities to promote social inclusion.

- Developing trans-European networks and major European projects

Investment in European networks is of paramount importance in order to ensure greater accessibility and reduce congestion, the cost of which could, according to some estimates,

represent up to 2% of the Union's GDP. Accessibility is cited by businesses as one of the most crucial criteria in their siting decisions. Promoting major projects in relation to trans-European networks is also a central element in the growth initiative launched last year, which includes, in particular, 8 important projects in the areas of R&D, innovation, and broad-band networks.

The challenge for these projects is not only identifying the best projects, but also funding them⁴⁶. New possibilities must be explored, such as charging, public-private finance or European loans, although eventually these projects will have to be funded by their users.

Several initiatives in this field are in progress or planned:

- The implementation of the trans-European network by the adoption of new guidelines (Decision 1692/96/EC is being revised), proposed new rules for financial aid in the period 2007-2013, and the possible creation of a management agency.
- Major technological projects are also creating markets for European industry and potential exports of technology; the 'priority projects' of the trans-European networks, will alone generate a market of €30 billion for rolling stock and signalling equipment for high-speed trains. From this point of view, the liberalisation of rail services will also play an important stimulating role.
- Implementation of the Galileo project through the granting in 2004 of a concession for its deployment and operation; and the introduction in 2005 of an initiative for an industrial programme to develop an integrated air control system and have it in place by 2015.
- The reform of charging for infrastructure use by heavy vehicles as part of the ongoing revision of the "Eurovignette" Directive, which will allow a greater transparency in the use of the proceeds from this charging system for the benefit of the transport sector, which will benefit industry as a user.

4.2.4. Reconciling better sustainable development with competitiveness

- Creating the conditions for sustainable production

Sustainable production is a necessary condition for breaking the link between environmental degradation, economic growth and production. The idea behind it is "producing more with less", in the economy as a whole, but also at sectoral level and inside individual businesses. More efficient production habits – both ecologically and economically – are required in order to meet this challenge. Sustainable production also constitutes a market for suppliers of equipment and technology or service providers in a field where certain Community enterprises are among the world leaders.

In 2004, the Commission will propose a political framework designed to promote sustainable production at enterprise level. Its aim will be to create the conditions in which the largest possible number of enterprises find an economic interest in improving their environmental

⁴⁶ The trans-European transport network alone is expected to cost € 600 billion between now and 2020, € 230 billion of which is to be earmarked for priority projects declared as being of European interest by the Council and the Parliament.

performances and take account of these considerations in their management and development strategies. In particular, strengthening the partnership between local authorities and the private sector will be proposed, with a double aim: better integrating business in the preparation of environmental measures relating to production systems, and promoting business commitment in implementing such measures.

- Promoting clean energies and technologies

A new impetus is needed for developing clean technologies and new, renewable energies. The traditional approach in this field has focused on providing support through the joint financing of research projects. This approach demonstrates little interest in businesses' real needs, since it focuses excessively on basic research. To remedy this, there is a need for additional instruments which promote greater cooperation between the public and private sectors by creating joint management structures for specific, jointly defined projects. This approach was adopted in the Ecotechnologies Action Plan (ETAP) and was implemented most notably in supporting technology platforms (see above). There are many applications to be investigated, in industrial areas in which Europe has an expertise or can rapidly develop such expertise (wind energy, energy efficient technologies or alternative fuels such as hydrogen, water purification and waste management, etc.).

Furthermore, public procurement could play a very important role in the development of clean technologies by supporting new markets.

- Encouraging social dialogue, including sectoral issues

Social dialogue is a valuable instrument for consultations and negotiations between the social partners, and helps create a better balance in the economic and social pillars of sustainable development. The social partners are committed to discussing questions arising directly from the Lisbon Strategy.

In 2002 they adopted a framework for life-long learning, and guidelines for anticipating and managing the changes which flow from corporate restructuring.

In addition, inter-professional social dialogue could be supplemented by social dialogue at sectoral level, which can contribute to job creation and to the process of industrial change.

The European Monitoring Centre on Change (EMCC), which specialises in the exchange of practices, information and ideas on anticipating and managing change, could also help to monitor changes in the European economy.

4.2.5. Allowing European businesses to develop internationally

- Facilitating access to markets outside the European Union

A competitive European industry must have access to non-Member countries' markets under the same conditions as its competitors. The Union must therefore continue to monitor the opening up of those markets, in line with the agreements entered into by our trading partners, especially in the WTO framework.

The Community is implementing a strategy for access to markets which is designed to reduce and eliminate barriers to European exports of goods and services to third countries. Special vigilance is required regarding emerging countries whose success in European markets must be matched by their observance of rules to which they have agreed to abide.

As regards tariffs, although previous rounds of multilateral negotiations have made it possible to reduce substantially the obstacles to market access, they have nevertheless led to extremely disparate tariff structures, with considerable differences in areas such as peak tariffs, duty progressivity, the percentage of consolidations and the gap between consolidated and applied rates. The main issue in the multilateral negotiations on market access for products is to compress the current level of customs duties applied by WTO member countries as uniformly as possible, and to place a ceiling above peak tariffs.

Improving the conditions for market access by European exporters also takes the form of integrating new WTO member countries and, where appropriate, of concluding bilateral trade agreements (negotiations are continuing with the countries of the Gulf Cooperation Council (GCC) and Mercosur).

The gradual reduction of tariff barriers, at least in developed countries, requires paying greater attention to non-tariff barriers, the growing number of which could cancel out the tariff concessions. An increase in regulatory cooperation with some non-Member countries which are important markets for the EU (USA, Latin America, China, Japan, Canada ...) complements the measures agreed on at multilateral level, and may offset the lack of bilateral commercial agreements.

As regards reducing these barriers, cooperation between European standardisation bodies (CEN/CENELEC/ETSI) and their international counterparts (ISO/IEC/ITU) is resulting in international standards likely to facilitate access to various markets, provided that these standards are also applied by our trading partners. The Community should also express itself with one voice in international organisations governing the transport sector (IMO, ICAO, OTIF) to guarantee a fair market for operators and vehicle and equipment manufacturers. The problem of a fair market is particularly sensitive for the shipbuilding industry.

Similarly, in the negotiations for the Doha Development Agenda, the EU is asking for greater proportionality between the burdens that are imposed and the legitimate objectives of non-tariff barriers (public health, environmental protection, fiscal controls, etc.). The customs facilitation measures (simplification of customs formalities and controls in order to reduce disproportionate administrative charges for operators, especially SMEs) are also helping to open up markets. The use of modern techniques, especially information technology, will facilitate a simplified, paperless environment for businesses, customs and other bodies involved in monitoring international trade. Moreover, the development of certification of businesses and hauliers, coordinated with our main trading partners, will help to lighten security checks on trade.

Finally, a proper protection of intellectual property rights is essential. The Community is therefore attentive to intellectual property rights, both at international level, in the context of the Agreement on Intellectual Property Rights in Trade (TRIPs) and other relevant international agreements, and at the domestic level, with respect to the fight against piracy and counterfeit.

- Guaranteeing compliance with international trade rules (anti-dumping, anti-subsidy and safeguard measures)

In addition to the actions referred to in the previous section, Community trade policy is designed to prevent the building of new barriers to European exporters. This is ensured, for example, by careful monitoring of the use of trade defence instruments (anti-dumping, anti-

subsidy and safeguard measures) by our trading partners, to ensure that all such measures are not implemented in an illegitimate fashion.

In the other direction, the EU applies its own trade defence instruments so as to ensure that imports from non-member countries respect international rules. Although not having a direct effect on the competitiveness of enterprises, they contribute to it indirectly via a leverage effect and by creating a stable and predictable investment climate. This positive effect will be extended to the new Member States following enlargement.

- Extending single market rules and EU standards to neighbouring countries

The Union must increase its efforts to export the internal market model and its disciplines to neighbouring countries, so as to ensure competition based on the same rules. This is already happening with the candidate countries (Romania, Bulgaria and Turkey) and for the western Balkan countries which also have an option to join the Union. The new “Wider Europe” policy⁴⁷ proposes to Mediterranean and east European countries a rapprochement of their legislation particularly for industrial products.

An action plan on the free movement of industrial products has already been adopted by the trade ministers of the EU and Mediterranean countries. It is based on the adoption of European legislation and standards by the Mediterranean partners with a view to promoting trade between the two regions. One of the aims of this action is to conclude agreements on conformity assessment and the acceptance of products, thus allowing free access of products to the respective markets. The negotiation of similar agreements will be proposed to East European countries which have a partnership status in the framework of the European neighbourhood policy, such as Ukraine and Moldova.

- Developing the international dimension of environmental policy

The Union has an important part to play in international discussions on the environment. International commitments can add costs on Community businesses, especially if the enterprises in our main competitor countries are not subject to the same commitments, or do not live up to them. This can be particularly worrying in the case of enterprises from countries which are experiencing rapid industrialisation (e.g. China, India, Brazil and Argentina), not to mention the reluctance of the USA to enter into similar commitments. The Commission will define principles which will ensure, during the negotiation of multilateral environmental agreements, a proper balance between the three pillars of sustainable development. This will allow taking into account fully considerations of competitiveness or the cost-benefit ratio in the Commission’s negotiating mandate, and to ensure that the Union’s international commitments are compatible with its internal legislation.

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A detailed examination of Community Policies has identified many complementarities. Given these benefits, the Commission intends to study this information in greater detail in specific Communications which will analyse the impact of various Community policies on the competitiveness of European industry and ways of improving that impact.

⁴⁷ Communication from the Commission “Wider Europe – Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours” COM(2003) 104 final of 11 March 2003.

4.3. Application of industrial policy tailored to the needs of each sector

The 2002 Communication on industrial policy stressed the need to take account of the specific features and characteristics of each sector in the implementation of horizontal measures. The framework conditions differ to some extent from sector to sector and therefore require suitably adapted responses.

In some sectors, the regulatory environment is crucial, either for allowing innovation, as in the pharmaceutical sector, or because of concerns related to sustainable development, as in the automobile or chemical sectors. In sectors such as textiles or ship building, on the other hand, the international dimension is the determining factor, whether due to a competition - not always fair – from emerging countries or because of difficulties in penetrating the protected markets of non-Member countries. Finally, in a sector such as defence, it is primarily the lack of a genuine internal market which constitutes an important problem. These examples illustrate the diversity of manufacturing sectors and the need to reflect this diversity by ensuring the best possible interaction between policies.

The Commission's development of sector-based activities does not indicate a return to the interventionist policies of the past, but is based on adapting measures which are essentially horizontal in nature to the specific needs of a given sector, on the basis of the methodology described above. The action planned for the coming years should allow this to happen, with a view to identify, to anticipate as far much as possible, and to accompany the structural changes, in close co-operation with all the interested parties

Continuing existing activities

The work of the G10 Working Party has led to several recommendations on the competitiveness of the pharmaceutical sector: defining a series of performance indicators which will permit comparisons and benchmarking, improving regulations and access to innovative medicinal products, promoting innovation and strengthening the scientific base. The important thing here is to strike a balance between health concerns and the need to encourage innovation. Activities already under way in the pharmaceutical sector, based on the work of the G10 Working Party, will be continued. The Leadership 2015 Group has identified a number of priorities in the field of maritime industries: strengthening R&D and innovation, establishing a level playing field at world level, developing financial and guarantee schemes, ensuring the protection of intellectual property rights, and providing access to a skilled workforce. Implementation of these priorities will be subject to particularly close scrutiny. In both cases, this will mean implementing the guidelines proposed by the Commission and adopted by the Council on the basis of the recommendation of the High-Level groups.

The Commission will also continue its work on the basis of the guidelines for its strategy on life sciences and biotechnologies.

In the textile and clothing sector, the 2003 Communication clearly identified the key issues in the sector: innovation, R&D, training, and industrial policy cooperation with China. The High-Level Sectoral Working Party set up by the Commission will analyse the challenges to Europe's competitiveness and draw up recommendations for European and national policy makers on the essential issues facing the sector. The Commission will report on this process in July 2004. Finally, a European Forum has just been set up for the business services sector. It will analyse in depth the interaction between the manufacturing sector and business services, in order to identify the trends which are making these services a growing source of added value for manufacturing.

Future initiatives

The Commission will ensure firstly a monitoring of the competitive situation of the main industrial sectors and the evolution of the process of structural change. This should allow, in particular, detecting any sudden decline in the situation of a sector, in order to put in place a serious response.

In addition, the Commission will continue to examine the competitiveness of some specific sectors each year, and will, if necessary, launch the necessary initiatives on this basis. In its choice of sectors to examine, the Commission will endeavour to reflect the diversity of the competitive challenges faced by the different sectors: regulatory factors, the international context, the importance of innovation (both technological and non-technological) or areas where the internal market has not yet been completed.

For 2004 to 2005, for example, the following initiatives are planned:

- an initiative in the mechanical engineering sector, which plays a crucial role for the economy as a whole as a supplier of capital goods to all branches of industry;
- an analysis of the eco-industries sector will be carried out with a view to taking some eventual measures; it will cover its international competitiveness, of its growth potential (including in the new Member States), as well as the obstacles to its development;
- In the automobile sector, the creation of a high-level group has already been announced. It will examine a number of key themes: innovation, training, safety, and the environment. A particular focus will be given to the cumulative impact of legislation on the sector's competitiveness.
- Finally, the Commission will study the non-ferrous metals sector, which is, above all, experiencing difficulties accessing recyclable materials, and the IT sector.

5. CONCLUSION: BOOSTING THE COMPETITIVENESS OF EUROPEAN INDUSTRY

The European Union is facing a process of structural change which manifests itself at various levels:

- **On the macro-economic level.** The ongoing process of resource reallocation from manufacturing industry to services should not be confused with a process of deindustrialisation. This process does not in any way imply a decline in manufacturing activity, but rather, reflects changes of a structural nature (changes in demand, organisational change, etc.). Seen in this context, the growth of labour productivity in industry is a condition for maintaining a strong industrial base in the European Union.

- **In the manufacturing sector.** International competition, whether from industrialised countries (the USA or Japan) or emerging countries (China or India) makes it necessary to pursue a shift towards sectors with a higher technological content. This is the only approach which will permit European industry to meet the challenges facing it.

- **Within individual sectors.** Competition from emerging countries in labour-intensive sectors requires enterprises in those sectors (textiles, shoes and leather, etc.) to constantly innovate and focus on activities with a high knowledge input. This is the only strategy capable of

limiting the risk of deindustrialisation in sectors which are particularly sensitive to this type of competition.

These changes are necessary. It would be an illusion to pretend otherwise. Rigid adherence to existing positions can only have the effect, over the longer term, of making the inevitable adjustments more painful. It is therefore important to identify and to anticipate these changes, and to foster them when this is necessary.

The various specific measures and initiatives proposed in the present Communication are all aimed at contributing to this process:

- **Improvement of the regulatory framework** is designed to limit the obligations on enterprises to what is strictly necessary for realisation of the objectives of regulation. Regulation must preserve a balance between the objectives pursued and industrial competitiveness. It should be replaced or supplemented by non-regulatory approaches wherever appropriate. At the same time, the rules must be sufficiently clear, stable and predictable to guarantee legal certainty, which is indispensable and an integral part of an environment which is hospitable to business;
- **Better exploitation of synergies between Community policies** will make it possible to improve their impact on industry's competitiveness, especially from the dual perspective of developing a knowledge-based economy and strengthening the cohesion of an enlarged Union. These two objectives are inseparable: only the strengthening of the cohesion of the Union can ensure that the crucial transition to a knowledge-based economy is not limited to enterprises in the most advanced regions or sectors;
- Lastly, **the search for the best combination of policies at sectoral level** will make it possible to verify whether the European Union's industrial policy toolbox is achieving its objectives in terms of strengthening its industrial competitiveness. Where necessary this will lead to proposals for improvements

The European Union is on the eve of the most ambitious enlargement in its history. Given their past, and despite the considerable progress which they have made over the last decade, the new Member States will face greater challenges than the existing ones in successfully managing the process of structural change. The priorities which have been set out, which are designed to act on the various levels which determine industrial competitiveness, are particularly important for the new Member States: regulatory restraint will make it possible to maintain their, still fragile, competitiveness. The emphasis on cohesion and the dissemination of knowledge will enable them to build sustainable comparative advantages, which will outlive the temporary advantages of low labour costs. The sectoral approach to competitiveness will facilitate a targeted response to the problems of industrial change which are particularly acute for these countries. In this way, the challenges which enlargement is setting the Union's industrial policy can be successfully met, and the opportunities which it offers exploited to the full.

An industrial policy adapted in this way will help to put industry in the enlarged Union, including that in new Member States, in a position to make a crucial contribution to achieving the objectives set by the European Council in Lisbon.

ANNEX

Statistical elements

Table 1: Deindustrialisation: the fall in the proportion of employment in industry – 1955-1998

	Peak year	% in industry at peak	% in industry in 1988	Percentage fall: peak year to 1998
United Kingdom	1955	47.9	26.6	44.5
Belgium	1957	47.0	26.1	44.5
Sweden	1965	42.8	25.7	40.0
Netherlands	1965	41.1	22.2	46.0
FRG	1970	49.3	35.0	29.0
Denmark	1970	37.8	26.8	29.1
Italy	1971	39.7	31.9	19.6
France	1973	39.5	25.2	36.2
Austria	1973	42.8	30.4	29.0
Ireland	1974	32.6	28.3	13.2
Finland	1975	36.1	27.7	23.3
Spain	1975	38.4	30.4	20.8
Greece	1980	30.2	22.9	24.2
Portugal	1982	37.5	36.4	2.9
United States	1966	36.0	23.6	34.4
Japan	1973	37.2	32.0	14.0

Source : Feinstein C., Structural Changes in the developed countries during the XX century. Oxford Review of Economic Policy, vol 15, n°4. 1999. OECD data.

Table 2: Annual labour productivity growth, EU-15 and US

%	EU-15			United States		
	1979-90	1990-95	1995-01	1979-90	1990-95	1995-01
Total Economy	2,2	2,3	1,7	1,4	1,1	2,3
Agriculture, Forestry and Fishing	5,2	4,8	3,3	6,4	1,7	9,1
Mining and quarrying	2,9	13,1	3,5	4,4	5,1	-0,2
Manufacturing	3,4	3,5	2,3	3,4	3,6	3,8
Electricity, gas and water supply	2,7	3,6	5,7	1,1	1,8	0,1
Construction	1,6	0,8	0,7	-0,8	0,4	-0,3
Distributive trades	1,3	1,9	1	1,8	1,5	5,1
Transport	2,8	3,8	2,3	3,9	2,2	2,6
Communications	5,2	6,2	8,9	1,4	2,4	6,9
Financial Services	2,2	1	2,8	-0,7	1,7	5,2
Business Services	0,7	0,7	0,3	0,1	0	
Other community, Social and Personal Services	-0,3	0,4	0,3	1,2	0,9	-0,4
Public Administration, Education and Health	0,6	1,1	0,8	-0,4	-0,8	-0,6

*Source : M. O'Mahony, B. Van Ark (2003). *Labour productivity in hours worked. .*

Table 3: Sectoral performance indicators 1979-2001

	Value added, employment and labour productivity growth (Compound annual growth in percent 1979-2001)			Share of manufacturing (in percent of value added, 1995 prices)		EU15 trade balance (EUR billion)	
	Value added (1995 prices)	Employment	Labour Productivity*	1979	2001	1989	2001
Electronic valves and tubes	8.5	-0.1	8.6	0.2	1.0	na	na
Telecommunication equipment	7.3	-1.2	8.6	0.4	1.6	na	na
Office machinery	7.4	-0.6	8.0	0.3	1.2	- 16.3	- 33.5
Radio and television receivers	3.9	-2.3	6.3	0.3	0.6	- 11.9	- 17.7
Chemicals	3.4	-1.3	4.7	4.7	7.5	14.0	53.5
Other instruments	2.5	-1.8	4.4	0.4	0.5	na	na
Basic metals	0.7	-3.1	3.7	2.9	2.6	- 5.1	- 15.6
Other electrical machinery and apparatus nec	2.5	-0.7	3.2	2.4	3.2	3.5	4.6
Pulp, paper & paper products	2.0	-1.0	3.0	1.8	2.1	0.8	5.3
Aircraft and spacecraft	2.1	-0.6	2.7	0.9	1.1	na	na
Scientific instruments	2.4	-0.2	2.6	1.1	1.4	- 1.6	0.8
Non-metallic mineral products	1.1	-1.3	2.3	3.6	3.4	5.4	7.6
Motor vehicles	1.6	-0.7	2.3	4.5	4.8	16.7	43.3
Wood & products of wood and cork	1.1	-1.0	2.1	1.7	1.6	- 4.4	- 4.8
Insulated wire	1.1	-1.0	2.1	0.3	0.3	na	na
Rubber & plastics	2.4	0.6	1.8	2.7	3.5	2.5	4.4
Food, drink & tobacco	1.1	-0.6	1.7	7.1	6.9	2.3	7.0
Printing & publishing	1.6	-0.1	1.7	3.7	4.0	1.7	3.1
Mechanical engineering	0.6	-1.1	1.7	7.7	6.7	na	na
Fabricated metal products	0.8	-0.8	1.6	6.7	6.1	5.4	6.9
Furniture, miscellaneous manufacturing; recycling	0.4	-0.7	1.1	3.2	2.7	2.0	- 6.2

* in hours worked.

Source : M. O'Mahony and B. van Ark (2003) ; Eurostat. Quoted in COM(2003) 704 final, 21.11.2003.

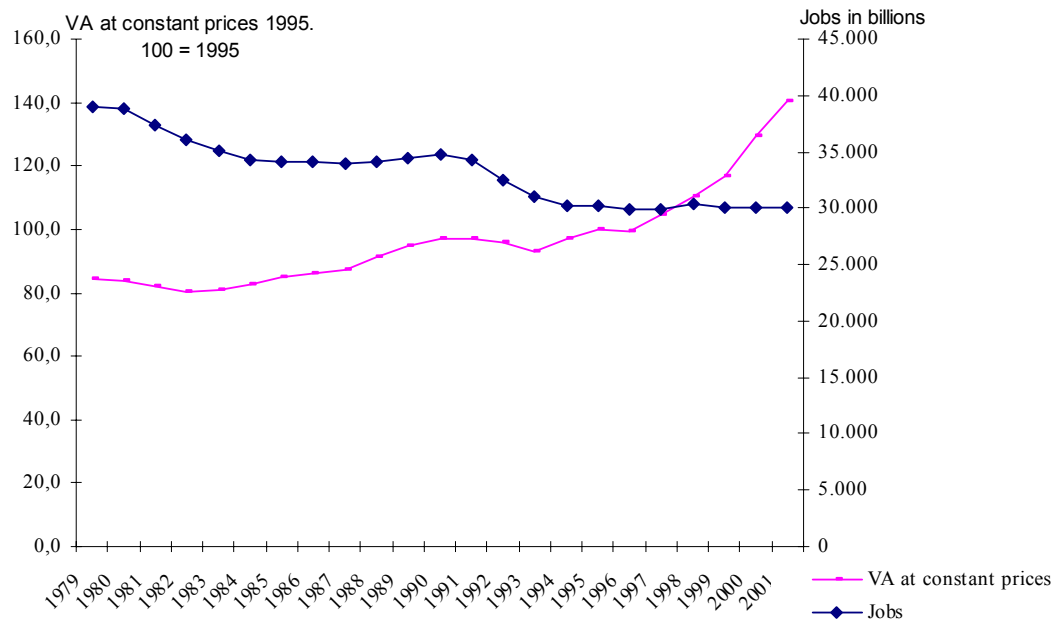
Table 4: Sectoral performance indicators 1979-2001.

	Value added, employment and labour productivity growth (Compound annual growth in percent 1979-2001)			Share of manufacturing (in percent of value added, 1995 prices)		EU15 trade balance (EUR billion)	
	Value added (1995 prices)	Employment	Labour Productivity *	1979	2001	1989	2001
Clothing	-0,2	-3,4	3,2	2,2	1,6	-9,1	-29,1
Shipbuilding	-0,2	-3,4	3,2	2,2	1,6	Na	na
Textiles	-0,8	-3,2	2,3	3,7	2,3	-0,2	-0,8
Leather and footwear	-1,1	-3,3	2,2	1,4	0,9	0,9	-3
Mineral oil refining, coke & nuclear fuel	-3,6	-2	-1,7	2,8	0,9	-7,5	-6,7

* in hours worked.

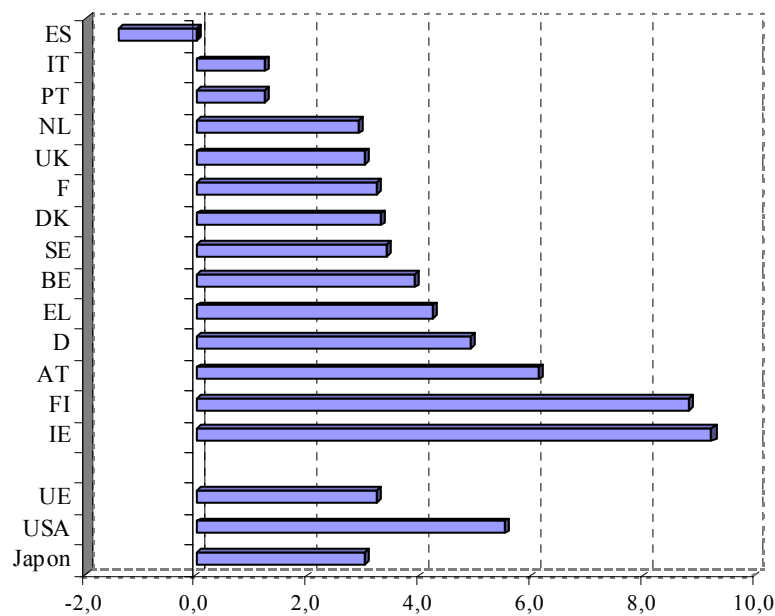
Source : M. O'Mahony et B. van Ark (2003) ; Eurostat. Quoted in COM(2003) 704 final, 21.11.2003.

**Figure 5: Employment and added value at constant prices
- EU manufacturing sector**



Source : M. O'Mahony, B. Van Ark (2003).

Figure 6: Annual labour productivity growth* in the manufacturing sector – 1996-2000



* By employed person

Source: Competitiveness Report 2001.

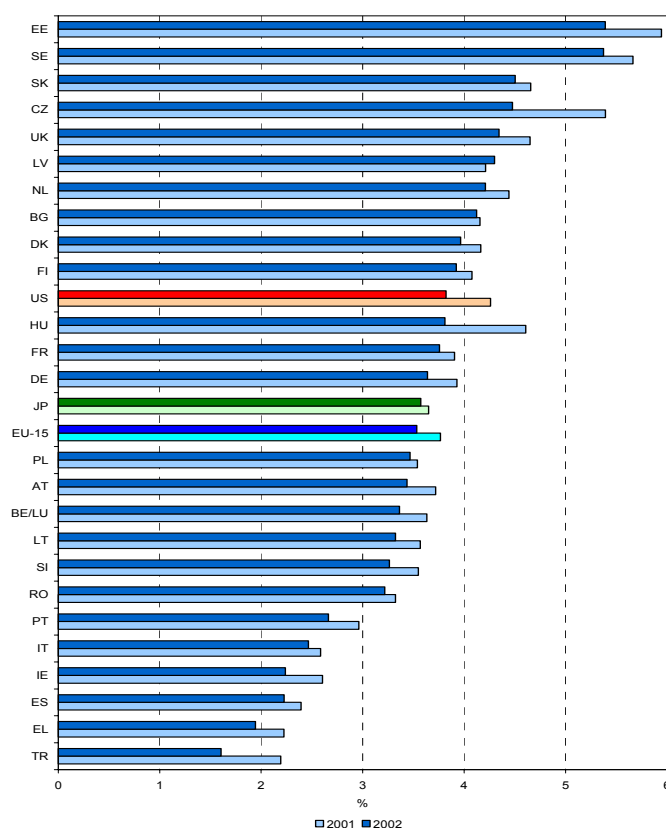
Table 7: Annual labour productivity growth* according to classification

	1979-1990		1990-1995		1995-2001	
	EU	US	EU	US	EU	US
TOTAL ECONOMY	2,2	1,3	2,3	1,1	1,7	2,2
Classification TIC						
ICT Producing Industries	7,2	8,7	5,9	8,1	7,5	10
Producing Manufacturing	12,5	16,6	8,4	16,1	11,9	23,7
Producing Services	4,4	2,4	4,8	2,4	5,9	1,8
ICT Using Industries	2,2	1,2	2	1,2	1,9	4,7
Using Manufacturing	2,4	0,5	2,4	-0,6	1,8	0,4
Using Services	2,1	1,4	1,8	1,6	1,8	5,3
Non-ICT Industries	1,8	0,5	2,1	0,3	1	-0,2
Non-ICT Manufacturing	3	2,1	3,6	2,7	1,6	0,3
Non-ICT Services	0,6	-0,2	1,2	-0,5	0,5	-0,3
Non-ICT Other	3,4	2	3,2	1,2	2,1	0,7
Skill classification						
High skilled (HS):	1,8	1,5	1,7	1,5	1,6	2,5
High-intermediate skilled (HIS):	2,2	-0,4	2,3	-0,6	2,7	1
Low-intermediate skilled (LIS):	1,9	1,3	2	1,2	1,3	3
Low skilled (LS):	2,5	1,4	2,7	1,8	1,1	0,6

* in hours worked

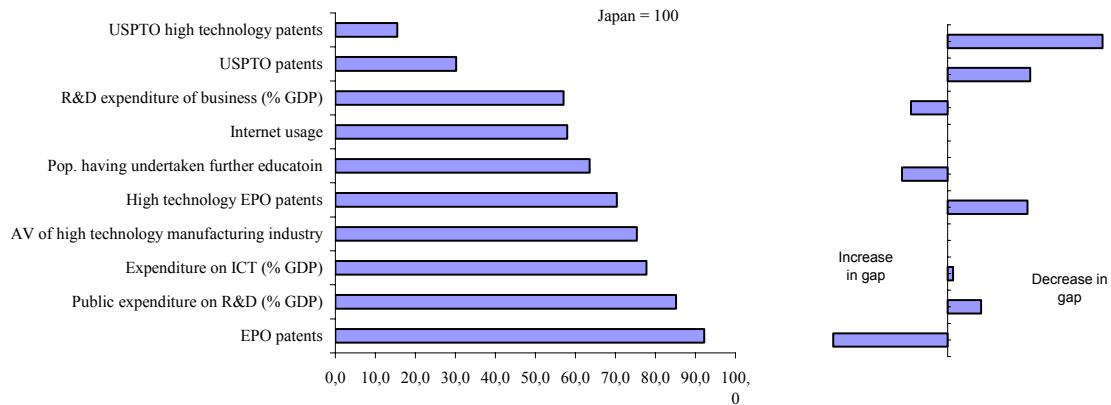
Source : M. O'Mahony, B. Van Ark (2003). See Chapter 2 for the classifications used.

Figure 8a: Expenditure on ICTs as a percentage of GDP



Source : Enterprise Scoreboard. SEC(2003) 1278, 4.11.2003.

Diagram 8b: Comparison of certain performance indicators for the EU and Japan



Source: Innovation scoreboard 2003. Technical Paper No 2. Analysis of National Performances. 2003, Trend: 1997-2001

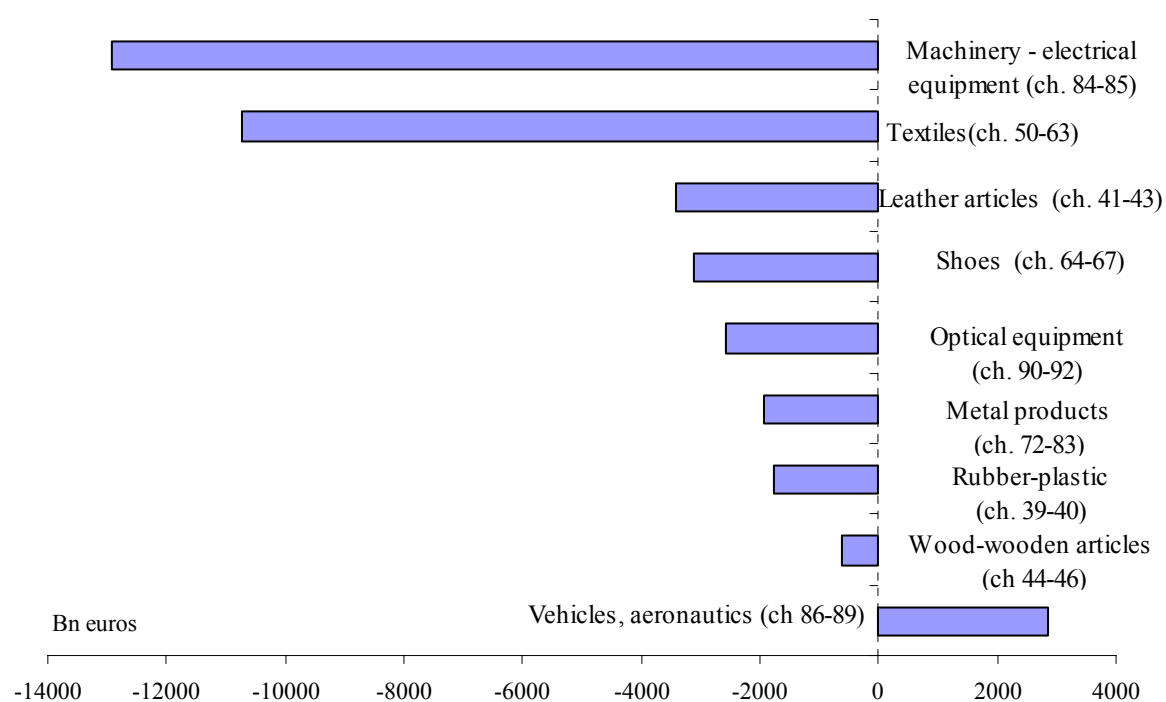
Table 9: Cost competitiveness

Unit labour costs in the EU (industrial sectors, US = 100).

	1979-81	1994-96	1999-01
Non-metallic mineral products	60,5	70,9	53,4
Scientific instruments	81,5	90	64,6
Printing & publishing	140,7	93,4	65,2
Leather	82,3	98,6	68,2
Machinery	123,1	110,3	69,3
Pulp and paper products	109,4	99,5	70,2
Fabricated metal	64,2	89,9	72
Rubber & plastics	55,1	79,3	72,4
Other electrical machinery	113,1	129,8	74,4
Wood products	116,5	116,3	77,6
Food, drink & tobacco	116,8	124,5	78,9
Textiles	82,7	106,2	79,4
Insulated wire	73,2	94,7	81
Furniture, miscellaneous manufacturing	80,9	101	82,2
Basic metals	108	98,2	83,2
Radio and television receivers	189,5	129	88,6
Ships and boats	117,1	119,1	90,1
Chemicals	162,7	144,5	93,5
Computers	82,5	138,2	105,4
Aircraft and spacecraft	165,4	137,2	117,2
Railroad and other transport	95,8	130	123,2
Wearing apparel	128,8	151,4	124,6
Semiconductors	167,8	245,8	132,1
Other instruments	135	144,1	135,7
Telecommunication equipment	184,3	211,9	142,1
Motor vehicles	220,1	203,5	181,1
Total manufacturing	92,5	113,1	94,4

Source : M. O'Mahony et B. van Ark (2003)

Figure 10: Balance of trade – EU/China. 2002. Main headings



Source : Eurostat, Comext