
THE COMPETITIVENESS OF EUROPEAN ENTERPRISES IN THE FACE OF GLOBALISATION - HOW IT CAN BE ENCOURAGED

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# COMMUNICATION FROM THE COMMISSION

## THE COMPETITIVENESS OF EUROPEAN ENTERPRISES

### IN THE FACE OF GLOBALISATION - HOW IT CAN BE ENCOURAGED

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SUMMARY SYNTHESIS
INTRODUCTION

On the eve of the third millennium Europe faces an acceleration of the globalisation of economies equipped with its strengths and weaknesses, its market, its traditions and values. This challenge requires not only adaptation on the part of enterprises but also a political response.

Amidst the uncertainty created by recent movements in the world economy, the haven of economic stability and non-inflationary growth formed by the Union illustrates the benefits being reaped already from the drive to construct Europe. The experience acquired in the process, the efforts put into building the internal market and the creation of the Euro are proving positive assets.

Globalisation is an opportunity for Europe to seize, not a threat. Far from being the cause of unemployment in Europe, it is a potential source employment creation. There is a close link between the development of world trade, economic growth and employment. A major part of the Union’s prosperity today is based on trade and international investment. But to make the most of it and obtain maximum benefit in the interests of Europe’s citizens and economy, the Union must adjust to this new state of affairs without delay and equip itself with the best means for capitalising on it.

It is clear however, that this process of globalisation involves adjustments which can give rise to concerns or even risks, for example from the social or the environment perspective. This is why the protection of European values must, in parallel to this adaptation, constitute both an objective and an advantage in order to address the phenomenon of globalisation in the best conditions. For Europe durable and sustainable development must also aim to simultaneously create the economic and social conditions for preserving the environment, support competitiveness and contribute to employment creation.

The competitiveness of enterprises is also of concern to the general public. It affects their jobs now and in the future, their working conditions, social welfare and environment - all subjects close to their hearts. It depends on the quality of their skills, their creativity, their capacity to take the risk to innovate and their entrepreneurship.

Europe has an industrial policy designed to boost the competitiveness of its enterprises in an open, competitive economy and that contributes to reinforcing the priority given to employment policy. The demands of globalisation together with citizens’ concerns raise the question of whether and how to reinforce the capacity to stimulate innovation and the spirit of enterprise in Europe.

This communication is a reflection document which describes the principal challenges that the European Union must face up to in order to benefit from globalisation. It indicates the ways forward to be explored by the Union, the instruments to be used and identifies the priorities for future action. These orientations are in line with the Union’s overall policy for reinforcing growth and the creation of employment in the framework of the economic reform process, of the guidelines on Employment and of the broad economic policy orientations.
I. TRENDS: THE PHENOMENON OF GLOBALISATION

Globalisation is not a new phenomenon but has gained pace in the post-war years in three successive waves:

- the internationalisation of trade (which has been growing faster than output since the '50s);
- the transnationalisation of capital flows (which have been growing much faster than trade since the '80s);

And, recently, the globalisation of information flows (which have been growing much faster than either trade or capital). Globalisation is now a fundamental development component of all the industrial and emerging economies and for virtually all manufacturing or service industries.

- Since 1950 every year the growth of world merchandise trade has exceeded that of world merchandise output (6.3% average yearly expansion versus 4% for output).
- Between 1985 and 1997, Direct foreign investment flows of the OECD countries multiplied by a factor of seven, rising from around 50 to 382 billion dollars.
- Transborder payments of fees and royalties have more than quadrupled to more than US$ 50 billion since 1983.

The opening of world markets is a daily competitive reality for European companies, a historic change in societies and mentalities and a factor calling for, and encouraging, public authorities to refocus and adjust government regulations.

Marked by the intensification of cross-border flows, globalisation also, and more importantly, represents a fundamental transformation of the structures, organisation and nature of international trade. Practically all industrial sectors are undergoing profound structural changes. These phenomena are particularly evident in those sectors incorporating a rising share of advanced technologies, such as the automobile industry, pharmaceuticals and telecommunications. The impact of globalisation equally affects more traditional manufacturing sectors, such as the textile industry, which see recurrent international tensions.

One major aspect of globalisation is the growing importance of services relative to manufactured goods and, more recently, the emergence of a new networked economy.
General Electric (Number 2 in the world in terms of market capitalisation, on US$ 223 billion) now makes 60% of its profits from services, particularly financial services provided by GE Capital. Another branch of the group - GE Information Services (with a turnover of US$ 700 million in 1997) generates the highest operating margin in the group (23%).

In 1996 high-tech industries generated 6.1% of US GNP (3.85% in services and 2.27% in manufacturing industry).

I.1 THE DRIVING ELEMENTS OF GLOBALISATION

Four driving elements are feeding the globalisation phenomenon. These elements are technological, entrepreneurial, financial and institutional.

Technological evolution favours globalisation. The development of the information society plays a driving role through the installation of global digital networks linking a multitude of actors. It contributes in this way to a new global economy based on networks and intangible assets.

The development of multinationals has consolidated the globalisation of trade. To enhance their competitive positions, companies have integrated the international dimension into their organisational structure and strategy by externalising certain of their activities, by relocating their production and by promoting the diffusion of their products on multiple markets in order to benefit from economies of scale. This is evidenced by the segmentation of their operations into separate activities, carried out at different sites and in different countries and the important agreements, in the form of mergers, acquisitions and strategic alliances, which are observed today.

New forms of international inter-firm collaboration are emerging, notably in trade- and technology-intensive industries, giving rise, for example, to licensing deals, research agreements, or services to enhance transfer of technologies.
In 1998 transnational corporations number at least 45,000 parent firms, which in turn control over 280,000 affiliates worldwide. In 1994 these accounted for nearly one third of global product and their internal trade made up around one third of world trade.

Production of goods and services by multinationals in local markets in 1997 totalled US$ 6 000 billion, i.e. greater than total transnational trade.

Through their volume and liquidity, the international financial markets fuel globalisation by allowing more cross-border mergers and acquisitions. And, as demonstrated by the present financial turbulence in Russia, Asia and other emerging countries, the instantaneity and volatility of financial flows in turn can have a direct impact on the conduct of companies and on the countries' economies. In this regard the arrival of Euro creates a pole of monetary stability that privileges growth and employment within the internal market. Moreover, the Euro will be a tool allowing the Union to work for greater stability in the international monetary system.

These economic and financial trends were facilitated by institutional factors notably the liberalisation and opening of markets, such as the dismantling of customs tariffs (40% in 1948; 4% in 1997) in the framework of the GATT. Successive agreements on liberalisation in the context of the WTO have made a significant contribution to economic growth, improved standards of living and, for example in the telecommunications sector, created new employment opportunities.

I.2 THE NEW KEY FACTORS OF COMPETITIVENESS

In the new environment of liberalised markets and open networks, European enterprises are immediately confronted by the existing competition, which crosses sectoral and geographic borders. Competitiveness factors are evolving: quality, speed, customisation, a product's image and after sales service are overtaking traditional cost factors. These new factors often require intangible investments such as organisation, human resources and research.

- The multilateral environment: a new institutional framework

  New multilateral structures and processes for regulating world trade are gradually replacing traditional national or regional control. While globalisation per se does not challenge legal sovereignty, it reduces the scope for effective unilateral action by national governments. However, it increases the scope for effective action by the European Union on a multilateral basis. Today commercial policy addresses questions touching non-tariff barriers, notably in the framework of the World Trade Organisation. Alongside the Union's internal market we can see a regional integration of trade gradually being constituted with the emergence of ALENA, MERCOSUR, ASEAN and APEC.

  The creation of the WTO exemplifies this evolution. The member countries negotiate multilateral agreements through which they take on obligations in certain areas. This international regulation is tending to replace national ways of acting or intervening. This is leading to an urgent need to define priorities and innovative ideas in order to manage the multilateral environment and to guarantee fair rules of the game at an international level in competition matters ("level playing field").
Many agreements, preparing the path towards a greater opening of world markets can be mentioned; the WTO agreements on telecommunications services, the agreements in information technologies, the mutual recognition agreements as well as the TRIPS agreements on intellectual property rights. As demonstrated by the implementation of the 1997 telecommunications agreement however, extreme vigilance will be necessary to monitor and fully enforce the multilateral commitments made by Europe’s partners.

Knowledge industries: the new challenge

Knowledge-based industries, and notably industries based particularly on copyright or know-how (e.g. entertainment, software, and business services) are outstripping traditional sectors in growth, capitalisation and exportability.

Investments in these fields are concentrated on industrialised countries. Europe’s main competitors are not developing economies with low labour costs, but rather those partnerships controlling the most advanced technologies.

As well as competing for cash, companies and countries also compete for brains. The intellectual potential and organisational qualities of a company, rather than traditional assets, determine its value.

Measures by governments (for instance the increase in quotas of high-tech visas to enable skilled foreigners to live and work in the USA) and economic incentives by industry (stock options in particular) are used to attract and retain talent, whether from Europe or from developing countries.

With knowledge constantly changing, the globalised economy creates needs not only for technical skills but also for the capacity to adapt to cultural diversity, to which today's training and education systems must still respond.

Internet and electronic commerce: new media, new practices

With the “death of distance”, access to world markets for EU companies is counterbalanced by similar access by their competitors to European markets. Web sites marketing goods or services are consulted to compare and analyse prices and business strategies. Figures on the salaries on offer also circulate faster.

Electronic commerce is a catalyst synonymous with greater market transparency and immediate global competition. Even in traditional labour-intensive industries, it is a powerful driver of change and an incentive to competition. It favours the diffusion of varied products and services as well as developing the diversity of European know-how and Europe's productive base. For SMEs; market niches; their traditional targets, can now be exploited globally. Innovative start-up companies and SMEs can have access to global markets and acquire an international dimension from the beginning.

At the same time, electronic commerce is engendering entirely new activities, in particular new intermediaries, for example, logistics companies, certification and authentication services and credit-rating agencies. In 1996 the Internet generated 1.1 million new jobs throughout the world, 760 000 of them in the USA.
- **Research and technological development: a compressed time-frame**

  Research is increasingly global. For example, American enterprises invest more than 10 billion Dollars annually in research and development outside the USA.

  The traditional linear model (dividing research into “pre-competitive fundamental research ⇒ industrial research ⇒ pre-competitive development activity”) is still used as a reference, notably by the World Trade Organisation. Nonetheless, that model must in due time be subject to a review which has to take into account future developments in this field.

  As in the case of biotechnology, unexpected end-products can result from fundamental research. New communication techniques in turn have accelerated the dissemination of knowledge considerably. Projects are developed in a constant exchange of information between all involved (universities, laboratories, manufacturers and users).

  There have also been changes in the general organisational structure of enterprises and especially in the management of technology under the pressure of growing interaction between areas of research. Unable to cover all relevant areas of research and innovation with their own resources, enterprises are increasingly co-operating either among themselves, through strategic alliances or joint venture, or with universities and public and private research centres.

- **Small and medium-sized enterprises: new global players**

  Digital networks lower the cost of entry to world markets. In the USA, the digital economy is building on the critical mass of SMEs and innovative, networked start-ups. Fuelled by easy access to capital at every stage of their development, these enterprises are able to rapidly leap from a simple idea to world leader in their field. Despite having three times as many SMEs as the US (15 million versus 5 million), Europe is lagging behind in this process.

  The creation of employment is at stake. In the US two thirds of new jobs created over the past four years were in high-tech companies, half of them in SMEs. In Europe 50% of new jobs were created by a fast growing group of 4% of Europe’s SMEs.

- **Employment and quality of life**

  The combination of new technologies with the globalisation of markets reinforces the competitive advantages of those industrialised economies that specialise in products with a high knowledge and organisational content. This implies an important increase in investments in research, education and spending on business services; activities characterised by a high level of salary expenditure. Contrary to received ideas, if the adaptation to these new competitive conditions is conducted in an active fashion, it should translate into a reduction in the rate of unemployment. This is moreover what has been witnessed in recent years in the United States. High technology enterprises represent 40% of American growth during the last two years. The 1999 Employment Guidelines and the Commission’s recent report on Job Opportunities in the Information Society have highlighted the potential for
employment growth in these sectors in the EU, and have underlined the need for concerted action to maximise this potential.

Furthermore, the acceleration of the emergence of new technologies, while giving rise to new training needs, also creates certain temporary shortages locally for certain qualifications. These unfulfilled demands coexist with a high level of unemployment.

- **Durable and sustainable development**

  The concept of "eco-efficiency" means taking more completely into account the objective of producing more with less, thereby increasing the productivity of natural resources at lower cost. The concept of "eco-innovation" seeks to raise awareness in enterprises leading to a better integration of environmental protection into the manufacture of products and throughout the products' life cycles.

  Furthermore, we should not forget that the capacity of European enterprises to anticipate the use of ambitious environmental standards is an advantage on world markets, both in terms of the products and the clean technologies developed in this way. This can also contribute to the maintenance and even the attraction of a qualified labour force to Europe.

  All the policies linked to these objectives are followed coherently in Europe. They are mutually reinforcing and must allow consumers to be offered the products they are seeking, citizens to experience the living conditions to which they aspire and enterprises the opportunity to improve their competitiveness.

II. THE POSITION OF EUROPEAN ENTERPRISES IN THE FACE OF GLOBALISATION: DIAGNOSIS

In the face of globalisation the competitiveness of European enterprises remains high and is even improving in certain fields. This position must be nuanced as the specialisation of European industry also shows certain weaknesses. These concern notably high-tech industries.

European firms also make more modest use of and have more limited access to the tools for promoting innovation (research, patents, venture capital and partnerships). There is still room for improvement at European level in the way these are organised and in the rules under which they operate.

II.1 COMPETITIVENESS: THE NEED FOR NEW DEFINITIONS

The acceleration of globalisation and the rapid emergence of new forms of competition call for the revision of traditional industry demarcations and of the concept of competitiveness.

As companies slice up the value chain of their products and services across separate markets, traditional criteria focusing on individual industrial sectors are becoming less and less appropriate. The true yardstick for competitiveness should not be sectors but rather activities and markets.

Similarly, national or regional competitiveness is becoming difficult to measure. With the increase in cross-border equity, in the relocation of operations, in the
rapid rotation in ownership and in teleworking, a company’s geographical identity is becoming more and more diffuse.

Finally, it must be added that although competitive positions based on the application of advanced technology or important intellectual know-how are capable of rapidly generating high value they are also far more volatile.

II.2 THE POSITION OF INDUSTRY: TRADITIONAL RATHER THAN HIGH GROWTH

A competitive European industry, but displaying weaknesses in specialisation

Globally, the manufacturing enterprises of the European Union have maintained good performances on export markets, demonstrating a high level of competitiveness in an environment that is increasingly globalised (see the 1998 Competitiveness Report). Their market shares have remained stable over the 1990’s at around 27% of world markets, while the shares of the US and Japan have contracted.

Simultaneously, the trade surplus of the European Union more than quadrupled to reach 130 billion ECU in 1996, i.e. 2% of European GDP. This surplus arises out of trade with countries other than the US and Japan. With these two countries, the trade balance is approximately balanced and in a market deficit, respectively.

The US and Japan apart, the EU benefits from advantageous terms of trade which allow it to bill for its exports at a higher price this its imports. This situation results from European specialisation in relatively high value added products. These are either traditional products, in which Europe uses its technological know-how, its cultural wealth and the competence of its workers to specialise in top of the range and top quality (i.e. textiles, clothing, furnishings, sports goods, cultural tourism and crafts), or technically sophisticated, research intensive products (for example machine tools, motorised vehicles and chemicals). These last three sectors combined generate a trade surplus greater that the total surplus of the EU.

In contrast, the EU is underperforming and, consequently poorly specialised in those high growth segments of the market which are characterised by rapid technical progress, such as the information technology industry. This is equally the case in those segments where rapid changes in consumer tastes require strong product differentiation and marketing strategies (notably through advertising). Compared to the USA, the EU retains relatively weak market shares in research- and advertising-intensive industries.

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Between 1995 and 1996 the information technology and electronics industries added 250,000 jobs to the American economy. Two million jobs are generated currently from the software industry, which accounts for more than 44,000 companies. In relation to salaries, these industries offer employees remuneration that is 73% higher than the average private sector salary in the US.

High-technology enterprises drive growth and drag along other sectors of the economy. However, in a certain number of innovative areas with very high value added, European industry does not have a leading role.
Limited use of information technology

In the area of IT use, both the US and EU ICT markets are today characterised by vigorous growth although starting from very different levels.

The economic importance of these technologies, their penetration in the different sectors of the economy and their share of companies’ investments are larger in the US than in Europe.

Some European enterprises are making excellent use of these technologies. On average, however, European firms invest less than their American or Japanese counterparts in equipment and infrastructure and have been doing so for many years. What is more, all too often they are still kept for traditional uses (for example, word processing or automation of production lines), while these technologies have in fact become commercial and decision-making tools.
However, the combination of the millennium bug, the introduction of the Euro and the take-off of electronic commerce should allow European companies to modernise their systems and vie with the USA.

The delayed globalisation of business services

In many fields Europe has failed to develop a services mentality. European world leaders in this sector are very rare. This lag in development reflects different traditions in organising production. Many companies in Europe have only recently discovered the potential advantages of outsourcing certain service functions.

It is also the result of the relative fragmentation and late opening-up to competition of certain activities controlled by public authorities. We can refer for example to activities linked to transport, telecommunications and postal services.

All in all, one advantage held by US firms over Europeans lies in their superior strength in business services, in particular logistics, business and legal consultancy and auditing. In the specific case of financial services, recent comparisons with the US show that capital productivity is around 30% lower in Europe. In addition, employment in the EU is significantly below that in the US in all services sectors. Action to exploit the employment potential of the services sector forms an important element of the European employment strategy.

II.3 CULTURAL IDENTITY AND AUDIOVISUAL BUSINESS - A CHALLENGE AND AN OPPORTUNITY

It is a fact that the European audiovisual sector is experiencing difficulties in benefiting from the vast employment creation potential linked to the arrival of new technologies and the globalisation of markets. In areas such as the development of digitalisation or the sale and distribution of audiovisual products, Europe finds itself in an unfavourable position (a growth in the market share of American films from 56% to 78% in ten years against a fall of the European share from 19% to 10%). Europe must therefore create the conditions for greater competitiveness of the audiovisual production industry and maintain its presence on the ever-expanding programming market.
An important debate is now taking place at a global level about the recognition of the specificity of the audiovisual sector and about the application of the principle of cultural exception in international trade negotiations. European cultural diversity and its languages are not a brake on the evolution of this sector but can be the source of a real European value added by guaranteeing a variety of programmes where the consumer can choose those which best suit his needs.

II.4 SCIENCE AND TECHNOLOGY POLICY: INSUFFICIENT EFFORT AND ROOM FOR IMPROVEMENT IN ORGANISATION

Each region in the triad has realised that an effective research and technological development policy is crucial in order to build up firms’ competitive potential. Compared with its leading rivals Europe is at a disadvantage on three fronts:

- **Lower resources and growth in resources:**
  Japan and, in particular, the US have been investing more, in absolute terms, than Europe for decades.

  **Figure 5:** R&D expenditure as percentage of GDP in the Triad, 1996

![Figure 5](https://example.com/figure5.png)

The US allocates a far higher volume of resources to research than Europe (ECU 179 billion in 1997, compared with ECU 127 billion for the Union) or Japan, a large proportion going to product development and certain high-growth industries (for example, aircraft and computing).

In 1997, public R&D budget appropriations increased by 6.8% in Japan and by 2.8% in the US. They decreased by around 1% in the EU.
Fragmented, uncoordinated policy:

While Japanese policy is centrally organised under the “Science and Technology Basic Plan” adopted in 1996 and the US has a network of agencies which are largely autonomous, but all determined to foster America’s competitiveness, Europe’s research is split between the Member States (which control the majority of the resources) and the Community. Research policy and organisation vary greatly between Member States, with considerable duplication of effort between the national programmes.

Less efficient take-up of research results:

Most US research programmes take the form of public procurement contracts. Universities and federal laboratories in turn enjoy great flexibility in forming partnerships with industry. The Japanese Government in turn encourages R&D cooperation between Japanese companies, in the form of establishing technology consortia.
In Europe, national research organisations make no use of public procurement to promote certain high-tech industries. For example, while European governments still all follow their separate defence and defence procurement policy there is no institution which could play a role comparable to that of the US Department of Defence.

Apart from a few exceptions (such as the Fraunhofer Institute in Germany) partnerships between public research institutes and universities on the one hand and industry on the other are still less developed than in the US and Japan.

### II.5 INEFFICIENT PATENT AND LICENCE-TRADING SYSTEM

For an enterprise operating on an open market, intellectual property rights (patents, trade marks and licences) are a tool for protecting and capitalising on the results of its research and creativity, negotiating favourable terms for technological cooperation and, possibly, even dominating the market.

The imbalance between the US and Europe in terms of the number of patents and volume of royalties is growing, particularly in research-intensive sectors, notably information technology, pharmaceuticals and biotechnology.

- Between 1985 and 1995, Europe’s share of patents granted in the US fell from 21% to 16%. At the same time, the share of US patents granted to US inventors remained stable at around 55%.
- From 1985 to 1995 US applications at the European Patent Office rose from 27% to 34%, while the EU’s share dropped from 50% to 44%.
- The American "technological reconquest" can also be observed in the total number of patents: between 1985 and 1995, from 15 244 to 16 095 for European firms in the US, and from 9 918 to 29 330 for American firms in Europe.
The US is a net exporter in terms of trade in intellectual property. Royalties and fees received from foreign firms have, on average, been three times as high as payments by US firms to foreigners for access to their technology.

**Figure 8:** US royalties and licence fees generated from industrial processes between unaffiliated companies in 1995 (US dollars)

American SMEs benefit from cheap and swift patent facilities. Federal legislation encourages universities to commercialise their research efforts in allowing them to license inventions to industry and to use their intellectual property in partnerships with industry. However, the costs of maintaining these rights are high, given the procedural tradition and the difficulties sometimes encountered in proving compliance with the “first to invent” criterion specific to the US system.

In Europe, the high cost and complexity of the procedures for obtaining effective protection throughout the single market scare many SMEs and universities away from taking this course.

II.6 **ALLIANCES, MERGERS AND ACQUISITIONS IN ADVANCED FIELDS: A DEGREE OF INHIBITION**

Faced with the increasing complexity of technological systems, the shortening lifecycles for high-tech products and the exponential increase in design and development costs, companies are forced to enter into alliances to gain access to additional know-how, to share the risks and to extend their distribution networks at both regional and world level. Operations like these are also a quick way of creating value on markets.

- **Mergers and acquisitions**

  Mergers and acquisitions in the various worldwide technology industries rose by 25% in 1997. US buyers accounted for two thirds of these deals, the majority of which were made through stock swaps.
In 1993 the Defence Secretary called on the leading US defence firms to regroup. From the legal perspective, a relaxation in the examination of merger and acquisition cases allowed the approval of many important consolidations in these already oligopolistic industrial sectors. As regards finance, the government has subsidised mergers and borne a large proportion (up to 50% in some cases) of the restructuring costs.

At the moment there is a marked imbalance between US and European enterprises. The defence sales of the top American companies (Lockheed Martin and Boeing) are three times higher than those of the leading European (British Aerospace). Europe's balance of trade with the US in defence sales shows a deficit of 1:6.

- **Research partnerships**

  Research partnerships grew at an average of almost 11% per year worldwide between 1980 and 1994, particularly in information technologies, biotechnology and new materials. Since the mid-'80s, non-equity R&D agreements have become the most prevalent modes of global industrial R&D cooperation.

  More than five times as many technological alliances are formed between US firms than between European enterprises which, generally, are more concerned with defending their position from competition from the world market than with conquering the market.

  **Figure 9**: Top ten countries in terms of number of national technological alliances from 1988 to 1995

  ![](image)

  Source: 2nd European report on S&T indicators 1997.

This weakness partly reflects how difficult it can be in Europe to form joint research projects or alliances in high-technology fields.

**II.7 EUROPE HAS NOT DEVELOPED RISK-TAKING SUFFICIENTLY**

Europe has too few entrepreneurs. This is due to a number of economic reasons to which cultural, societal, historical and legal reasons contribute. The Commission paper on risk capital has identified the most important of these, i.e. lack of entrepreneurial culture in schools, universities and other educational institutions, excessive punishment for "failure", fear of loss of "control" of a company, lack of importance attached to corporate governance, reluctant attitude towards risk taking and stock options. During the last twenty years, the US
The economy has developed ad hoc financial instruments to provide easy access to capital for high-tech start-ups, which have contributed to creating millions of jobs.

Total investments by European venture capital funds in 1997, amounting to ECU 9.6 billion, are comparable to levels in the USA, where venture capital funds invested a total of ECU 10.3 billion. However, up until now the sums invested in high technology have been minimal.

- **Information technologies**: In Silicon Valley alone eleven new companies are formed every week and one is floated on the stock exchange every five days. Every year 300 venture capital companies invest US$ 1 to 3 billion in start-ups there. Between 1981 and 1990 the value of the PC industry, of which 70% of the firms were supported by venture capital, rose from 0 to US$ 100 billion. Compaq, Cisco, Sun, Oracle, and Apple were all born with the aid of venture capital. None of them existed 20 years ago.

- **Biotechnologies**: The biotechnology industry consists of small, dynamic, innovative firms combining basic university research with the capacity to apply the results immediately (some 1200 firms in the US and a thousand in Europe). These start-ups are essential partners in the innovation strategy of big businesses, particularly multinationals in pharmaceuticals. The factors militating against European start-ups include the difficulty of gaining access to venture capital and of funding their research and development activities (US$ 2 billion invested in Europe compared with US$ 8.5 billion in the USA, producing revenue of US$ 3 billion and US$ 16.5 billion respectively).

For several years Europe has been taking corrective measures to expand the venture capital markets, but these will not bear fruit until the medium term. Europe’s performance remains insufficient on three fronts:

- Companies in the early stages of development received only 7.4% of the total investments from European venture capital funds against 34% in the USA. American start-ups have access to a series of methods of financing (start-up capital, venture capital, business angels, strategic partnerships) tailored to the different phases of their development, which enables them to grow faster than their European counterparts and to build up strong positions on the world market earlier.

- There is not always a sufficient volume of truly innovative projects capable of generating value rapidly.

- In Europe, entrepreneurs find it more difficult to gain access to the market, which is more fragmented and less liquid. In 1997 NASDAQ raised seven times more capital than EASDAQ, Euro-NM and AIM combined (NASDAQ was created in 1970, its European counterparts 25 years later). However, there are some positive signs of regrouping and co-ordination now taking place.

**III. POINTERS TO A NEW INDUSTRIAL POLICY**

The analysis of world trends and of Europe’s position highlights the need to adapt its industrial policy, notably to spread the enterprise culture and encourage risk-taking and to promote the emergence of innovative companies able and willing to conquer the world market.

Against this background, strong efforts to adapt are urgently needed from all economic, societal and institutional players. Networking between these players, facilitated by IT, is an important advantage to improve the competitiveness of the entire economic and social tissue of the Union, especially through reinforcing information exchange and partnerships. To rally their support, particular attention
must be paid in negotiations at international level to create a level playing field in line with Europe’s economic and social model.

### III.1 PROMOTING GLOBAL COMPETITIVENESS

To improve the business environment, the accent must be placed on intangible investment and a spirit of enterprise, with the following priorities:

- **Adapting the systems for acquiring skills and fostering the spirit of enterprise**

  The distinction between education and training is blurring as new forms of transition between education and the labour market are emerging. These developments call for the adaptation of the roles of public education providers and of enterprises respectively and for closer collaboration between the two.

  Amongst the skills and mechanisms required to create the best possible conditions for tackling globalisation, it is necessary:

  - To upgrade technological skills and provide refresher courses throughout individuals’ working lives: This implies establishing standard classifications and skill levels allowing the setting-up of accreditation systems for basic school and university education and for additional further training (there is an estimated shortage of 500 000 computer and telecommunications workers in Europe at the moment, with projections pointing to 1.2 million by 2002, if no corrective measures are put in place);
  - To improve understanding of the use of information society technologies: In particular, schemes for the introduction of information technologies and for the use of the Internet in schools in Europe must be continued;
  - To learn to work in virtual teams, if necessary remotely, with greater autonomy, creativity and commitment on the part of the individual and a less hierarchical approach on the part of the organisations;
  - To expose students to the entrepreneurial culture. The proximity and example of successful entrepreneurs should influence cultural attitudes and create a taste for risk-taking among new graduates. Europe should encourage initiatives such as “schools for entrepreneurship” as in the USA;
  - To develop networks bringing together industry and universities in order to extend enterprises’ capacity to absorb technology transfers and to allow innovative, high-tech SMEs to work together with providers of venture capital and with universities. Promising results have been obtained in a number of enterprise parks, such as the Cambridge enterprise zone with 1200 high-tech companies employing over 4000 people.

- **Improving the system for research, take-up of results**

  Alongside national mechanisms (for example, tax incentives and mobility of researchers to companies) and greater use of public procurement contracts to foster the emergence of innovative markets, three areas must be given priority at European level:
- Improving research productivity and resources: the concept of “key actions” introduced in the 5th Framework Programme should lead to closer cooperation between industry, researchers and users and focus research and development effort on a limited number of socio-economic objectives. In the long term, closer coordination must be ensured between Community research and the national programmes and between the individual national programmes.

- Encouraging risk capital to develop the results of Community research: During recent months the European Union has multiplied the initiatives to stimulate the use of risk capital for technological activities. At the Amsterdam European Summit in June 1997, it was decided to loan one Billion ECU from the EIB budget, through the EIF, to innovative projects. Moreover, one of the essential objectives of Community research policy is to develop the use and diffusion of research results. It is important that Research Framework Programme actions in favour of innovation and, in particular those targeting the reorientation of risk capital funds towards the early phases of innovative investment, should be continued and enlarged. The pilot I-TEC initiative allowed the selection of 28 investment funds, committed to mobilising 1,3 Billion Euros of private funds of which 500 millions will be specifically dedicated to new high technology enterprises. Its success encourages consideration of the extension of this type of activity under the Fifth Framework Programme.

- Improving the system for protection of intellectual property, by modernising the functioning of the European patent system, by developing intermediation services, and by adopting at the Community level the measures necessary to assure easier access to such protection (i.e. creating a single Community instrument for protecting patents, complementary harmonisation for software, reducing costs and delays in procedures and specific measures for SMEs). With this in mind, and under the framework of the Green Paper on patents, the Commission will be putting forward major initiatives.

- **Facilitating risk taking**
  The biggest challenge in this respect is to overcome the fragmentation characterising the venture capital markets in Europe. Investors and the markets which bring together investors and high growth firms must improve the liquidity, transparency and prudential aspects of the market. Overcoming this challenge is essential for job creation. Europe must create a large enough pool of suitable firms available to adequately diversify risk. The introduction of the Euro will facilitate the development of a Europe-wide market for venture capital.

  Risk taking will be facilitated by removing institutional and regulatory barriers to its development and improving the tax regime for venture capital. Furthermore, European insolvency and bankruptcy laws should allow a "right to fail" which is indispensable in the learning process of business.

- **Redirecting public aid to enterprises towards intangible investment**
  The competitiveness of European industry will depend far more on its ability to invest in research, in training and in the proper use of information technologies than in new production capacity. This is reflected in the Commission’s state aid
policy. It is advisable to encourage the Member States to develop a financial, fiscal and regulatory environment favourable to investment by enterprises in R&D and in the training of their personnel. The Commission has already started to modify its state aid policy in order to shift the emphasis from material (regional) investment and restructuring towards more support to R&D and training. The Commission has recently adopted guidelines to make training aid more flexible and increase the aid intensity.

Concerning for research and development aid, the forthcoming review of the framework must also keep abreast of developments in the research process (while taking account of the following constraints: coherence with the definitions of the World Trade Organisation and the operational character of the concepts used).

The possibility of granting aid to promote research between different actors in order to achieve important projects of European interest is foreseen by the Treaty and, whilst respecting the criteria laid down by the Commission, could be invoked more frequently by Member States. Lastly, it should be recalled that an aid can only be authorised in so far as it offers an incentive effect – in other words that it allows an enterprise to conduct research that is qualitatively or quantitatively more ambitious or leads to more rapid realisation of results.

In the case of information technologies’ use, efforts should also be made to disseminate best practice, particularly through investments along the lines of the Structural Funds and through public awareness campaigns.

- **Develop Human capital**

In the face of demographic change in Europe it is essential to promote life long learning and to study strategies to avoid the loss of know-how and acquired competencies, notably through progressive and non-abrupt retirement schemes which would allow the use of such expertise in non-traded activities. The same need to develop human capital explains why the maintenance or the improvement of life styles and social cohesion is becoming one of the main positive factors of the competitiveness of European enterprises. Social policy is a productive factor which brings benefits for the economy, for employment and for competitiveness. The European employment strategy, based on the four pillars of employability, adaptability, entrepreneurship and equal opportunities, has a major contribution to make in this regard. The objective is to seize the opportunities afforded by growth and macroeconomic stability to strengthen structural reform and significantly increase Europe's employment rate, bringing it into line with its main competitors and thereby underpinning Europe's prosperity and the long term sustainability of the European social model. Other priorities such as the improvement of the urban environment (which is the target of a key action under the Fifth Framework Programme), various forms of social innovation (such as micro-credit, multi-contracting) or the development of its cultural wealth and diversity should equally be considered as essential to European competitiveness in due course.

- **Increase mobility for individuals**

It is important for both European competitiveness and for the overall level of employment that the intra-Community mobility of individuals should be
increased. The reversal of the particularly low rate of intra-Community mobility of labour is an important issue for competitiveness.

III.2 PROMOTING ACCESS TO THE GLOBAL MARKET

To put themselves in the best position to tackle the global markets, European companies must be able to benefit from the latest progress on the internal market and from a framework that conforms to the Treaty while allowing the necessary restructuring. Solidarity, equal opportunities and services of general interest are fundamental values for Europe. In reinforcing its economic and social cohesion Europe should be better able to defend and promote its values.

- **Further harnessing of the competitive advantages offered by the single market**

  The single market gives firms in the Union a competitive advantage in that it encourages them to acquire transfrontier experience and a critical mass. Since the creation of the Union, trade in goods between the Member States doubled to the point that it now represents 17% of EU GNP while trade between the EU and the rest of the world has remain stable at around 8-9% of GNP.

  This framework can provide leverage for building a consensus at world level. In an increasing number of cases with a global dimension the Union is preparing coherent frameworks for Europe while, in parallel, negotiating with its partners in order to guarantee the greatest degree of compatibility worldwide. Examples include:

  - **European standardisation**: this supports European regulation and provides a platform for establishing world standards.

    Traditionally based on official standardisation bodies giving the specifications legitimacy and visibility, this must give industry a more active role and create other less formal mechanisms where the need for a broad consensus is less pressing than the need for a rapid response.

    In the telecommunication field, for example, the European standardisation system has already proved its worth with the worldwide success of the GSM system. The same approach would seem appropriate for the next generation of mobile telephony (UMTS).

  - **European company statute**: This has been on the drawing board for twenty years or so but is now close to finalisation. Together with the work planned on coordination of tax policies, it should make it easier to set up genuinely European undertakings. It is an essential element to facilitate the European regrouping needed in order to be more competitive on world markets, as in the case of aeronautics.

  - **The co-ordination of tax systems**: The 15 different tax systems negatively affect the functioning of goods, services, capital and labour markets. They translate into obstacles to trade and a fragmentation of the single market and, as a result, into a sub-optimal allocation of resources. This directly affects overall European competitiveness on world markets, but also increases the risk of encouraging fiscal competition between the Member States in order to attract investment, without a positive direct benefit for Europe as a whole. This is why it appears necessary on the one hand to co-ordinate fiscal policies at
European level and on the other hand to continue the harmonisation of indirect taxes.

- **Business services:** Greater benefit can be gained from the internal market by introducing world class services (for example, lawyers and accountants); this implies stepping up the efforts on mutual recognition of qualifications.

- **Mutual recognition agreements:** This approach, applied successfully for establishing the internal market, could be used in relations with trading partners whenever a legal framework exists, when mutual benefit is guaranteed and where the negotiations cover a package rather than isolated measures. To date, mutual recognition agreements have been signed with Australia, New Zealand, Canada and the US. Their beneficial effects have been principally felt by SMEs, as they are the most sensitive to regulatory or standards based barriers on export markets.

- **Adaptation of the regulatory framework to the information society:** Important legal work has been achieved by the EU and will be extended in order to adapt the protection of intellectual property, guarantee the protection of privacy and establish a favourable framework for the development of electronic commerce and the free circulation of on-line services (electronic signatures, on-line contracts, the responsibilities of intermediaries).

- **The creation of the Euro:** It is dedicated to ensuring prosperity and stability on our continent and allowing Europe to make its voice felt on the international scene. A positive impact on economic activity is expected, in particular in relation to growth, employment and the competitiveness of enterprises. The new money will improve the profitability of exporting companies and will reduce the costs of investment.

The increased transparency created by the introduction of the Euro, will in turn increase the pressure on the competitiveness of the EU economy, and therefore the need for efficient and flexible performance of the markets. The economic reform exercise, will monitor this process of improvement of the economic structure of the single market on the one hand, and of national markets on the other.

Enterprises with export activities will reduce a good number of their costs such as the cost of currency conversion within the monetary union. The Euro also will lead to the elimination of the costs associated with covering exchange risks within the Euro zone and, with the progressive international use of the Euro, with many of our non-European partners.

The single currency will also facilitate access for European enterprises to markets in monetary zones that have privileged relations with European countries (Central and Eastern Europe, the Mediterranean basin and West Africa). Finally, in freeing European and attracting global savings, the Euro will offer enterprises the possibility to finance their investments in a less onerous manner (the expansion of the
monetary volume available, the growth of competition between financial institutions).

In addition, the countries seeking to become members of the Union, in taking on board the Community acquis, will progressively enlarge the size of the internal market. On the international scene this reinforces recognition and adds to the attraction of the approach followed on the internal market and of the measures and consensus evolved within this framework.

- **Assuring efficient competition would allow the global, innovative nature of markets to be taken into account**

  Community competition policy plays an important role in how industries are structured, not only at European, but also at world level. Its role is to create a competitive environment benefiting the consumers both in terms of price and innovation. Competition policy is therefore conducive to innovation, investment and, ultimately, growth and employment. Competition policy already takes into account technological progress and globalisation. The pace and scale of the current restructuring in various branches of industry at global level, demonstrates the dynamic character of this process and reinforces the need for further reflection on this issue.

  In general, enterprises that evolve in a highly competitive environment in their market of origin are better equipped to confront globalisation. Competition and competitiveness policies are complementary: Their interaction contributes to the success of European industry faced with globalisation.

  In response to the increasing pressure of competition, Europe's competition policy will continue to be modernised to keep abreast with globalisation, with particular emphasis on the following aspects:

  - **Geographical delimitation of the relevant market.** In many industries, the entrepreneurial, technological, financial and institutional factors of globalisation tend to enlarge the relevant geographic market from a European to a World level. The principles contained in the recent Commission notice on the definition of the relevant market allow a dynamic approach in the determination of the relevant geographic market. In these industries, a growing share of the notifications of merger and alliance in Europe result from the willingness of European enterprises to focus on their core activities and to acquire a critical mass on a global scale. In the recent multi-sectoral framework on regional aid for large investment projects and in the forthcoming new rules on aid to firms in difficulties, the Commission makes clear that, where appropriate, the relevant geographical market may be considered to be global;

  - The stage of the product cycle a particular market is at: When evaluating market dominance in the case of an entirely new product or service (for example, new audiovisual services) an alliance or merger of companies sometimes temporarily acquires a quasi-monopoly position, which, however, must not necessarily be considered permanent.

  To this effect, the market must remain open to potential new entrants and should not exhibit important barriers to entry. The accessibility of the market must assure that no enterprise can acquire a lasting dominant position.
Vertical agreements between producers and distributors are currently being radically revised to take account of the changes in markets and distributions systems. The changes are prompted by a number of factors including globalisation and advances in information technology. The thrust of the review is to adopt a more economic approach whereby only those agreements concerning parties that enjoy relatively high market power will be individually scrutinised.

Existing horizontal research and development agreements between companies already benefit from a favourable treatment under the competition rules. A swifter and simplified treatment is still needed for those cases involving such agreements, in so far as they do not create distortions of competition and they stimulate European companies to close the gap in terms of international technology alliances. Such an accelerated procedure is already in place since March 1998 for all full-function joint-ventures, which are now examined under the short, fixed deadlines that are applicable for mergers.

Continuing the successful efforts in liberalising public utilities:

The EU's liberalisation policies concerning utilities like electricity, gas and telecommunications launched a few years ago have been quite successful. The example of the telecommunication sector shows that opening these formerly monopolistic markets up to competition has allowed new entrants to challenge the incumbents. The liberalisation of mobile and fixed line telephone markets has not only led to lower prices and better services for customers but it has also encouraged the industry to compete beyond Europe and to successfully seek international alliances.

III.3 PROMOTING A GLOBAL CONSENSUS AND LEVEL PLAYING FIELD

The World Trade Organisation, recognised as the institution responsible for the implementation of global economic rules, is the most appropriate framework for the treatment of such questions. In the perspective of the WTO Millennium Round of negotiations, thought must as a consequence be given to the strategy and instruments to create a level playing field for international competition while favouring the emergence of strategic alliances at European level. More generally, a regulatory framework, monitoring mechanisms and global disciplines must be introduced tailored to the challenges of globalisation.

Promoting the establishment of a global framework for competition

To prevent conflicts of law and jurisdiction, the Union is actively promoting an agreement on competition rules regarding the treatment of anti-competitive practices of companies with international implications. The Union and its Member States have taken the initiative in proposing the establishment of a framework for competitive rules in the context of the forthcoming round of negotiations in the WTO.

Minimum common principles should be developed for the anti-trust authorities of the countries in the WTO and closer cooperation should be established between the European and US competition authorities to deal with risks of dominant positions. Furthermore, in areas where the State plays an active role, such as public procurement, Union action should explicitly ensure that the rules
of the game of our commercial partners in this area are transparent and encourage competition.

- **Monitoring enforcement of the rules**

  Vigilance is necessary to monitor enforcement and implementation of the multilateral commitments made by the Union’s partners.

  The Union is currently the only member of the triad applying an internal subsidy control system stricter than the rules on research and development subsidies in the WTO subsidy code. This situation is due to the absence of any coordination of the granting of public aid on federal or national level in third countries.

  As European industry's competitors are not subject to such a national subsidy control system and the WTO lacks an adequate monitoring system, the Commission could propose development of a system for monitoring public support, in particular to research and development in industrialised countries, and should conduct in-depth studies comparing the European, US and Japanese approaches to the subject.

- **Defending European positions: greater vigilance, prepare negotiations, work together**

  If it is to be effective, any Community action must be supported by the Member States and European companies, which should pass on any information they have on cases of discriminatory practices or rules. This principle is put into practice in the Union's market access strategy, which is founded on a close cooperation between the Commission, national administrations and European enterprises in identifying and tackling barriers to trade.

  In so far as long rounds of negotiations are always required to achieve a global result, resolution of these issues cannot be left entirely to worldwide organisations such as the WTO or OECD. Where appropriate, the Union should also take action within the scope of bilateral cooperation and commercial agreements between the Union and third parties without compromising the Union's position in the multilateral context.

  The Union's general objective is to secure for European enterprises, and particularly SMEs, investment and trade opportunities on other markets. In this context, the Trade Barrier Regulation represents a useful instrument for those SMEs interested in extending their activities to emerging markets. This regulation allows enterprises themselves, separately from Member States and industrial sectors, to denounce the remaining trade distortions and for the Commission to take appropriate measures to remove all barriers to third markets.

  Collaboration between the public and private sector in Europe is moreover necessary to help the Union clarify and define its main areas of negotiations. The preparation and expression of common positions on international aspects, for example services, space (Global Navigation Satellite System) or the allocation of frequencies, broadly reinforce the European capacity to develop its interests and points of view.

  In order to help to remove technical barriers to trade, it could, for example, be appropriate;
- to sign new agreements with regional economic entities not yet covered by specific agreements;
- to widen the scope of existing agreements to new fields, such as product certification and conformity, mainly within the framework of mutual recognition agreements.

In preparation for the 1999 WTO Ministerial, where conflicts on a number of issues are expected, a broad consensus and basis for an alliance will have to be built around EU positions, in particular with developing countries, while taking account of the particular constraints on these countries linked to their economic and social situations.

The European Union has for the last three years been pursuing a dynamic strategy of multilateral market opening which should favour European enterprises, especially SMEs. On the one hand it involves the consolidation of the achievement of the Uruguay round by ensuring that the signatories of the Final Act are respecting their commitments. On the other hand it involves active use of the dispute settlement mechanism of the WTO. In short the identification of those areas that must still be opened to competition and international investment.

During the trade negotiations which will open under the WTO framework, the Union will commit itself to raise new themes for discussion, such as those already included in the work programme agreed during the Singapore Interministerial Conference (on the issues of competition, trade facilitation, social and environmental clauses and investment). The Union will seek to consolidate and extend the agreements on tariff elimination, notable on industrial products. It will maintain the specific nature of European culture in the negotiations on the liberalisation of services (notable in the audiovisual sector).

- Work towards closer co-ordination at world level

The interest raised by the example of electronic commerce has prompted a succession of international organisations (OECD, WTO, WIPO and ITU) all to look into the subject. This can result in the multiplication of work, in the persistence of grey areas and in the prospect of diverging responses to the same question. In response to these problems, Europe has taken the lead in calling for global coordination.

The approach proposed for very open issues like these is to seek solutions in a multilateral context on the basis of established Community positions and frameworks, rather than through national or bilateral initiatives.

For example, the Commission has proposed a global non-binding understanding, such as an international charter, to attempt to ensure consistent solutions to a number of issues vital for the development of electronic commerce (e.g. taxation and security of transactions) and for preserving European interests (cf. the current debate between Europe and America on protection of personal data).

- Placing greater responsibility on industry

Competitiveness is the primary responsibility of enterprises. The Commission and the Member States must make sure that implementation of international agreements does not impose stricter constraints on European industry than on the industries of its main developed trading partners.
In this context, it could be useful to examine the possibility of achieving agreed targets by promoting voluntary industry initiatives (at world or OECD level or at the level of bilateral or multilateral agreements) involving public authorities and industrial federations. Such voluntary action has the advantage of avoiding the protracted bureaucracy involved in imposing new norms and monitoring their implementation.

More generally, the business community could launch a new global forum for self-regulation and defining expectations, along the lines of the Global Business Dialogue launched by the Commission, which has secured strong participation from European industry. Parallel to these industrial fora, the Commission could also propose a Global Government Dialogue to examine the taking account of their recommendations in a policy context.

- Promoting the interests of consumers and users

Globalisation offers consumers and users a wider choice but it also brings them new uncertainties, which are sometimes difficult to incorporate in a regulatory framework. New safeguards must therefore be established at global level, including, for example, forms of self-regulation by industries.

So far globalisation has been left largely to industries, but now consumers and users must have global fora where they can assert their rights and aspirations.

It is also important to assure in the medium term a supply of durable energy sources, especially fossil fuels, at the best price for European consumers and enterprises. International cooperation between private and public actors should be encouraged

CONCLUSIONS

New forms of competition are emerging under the pressure of globalisation geared more towards the mastery of technologies, access to global markets, speed of action, innovation and intangible investment.

Europe, reinforced by the Euro, must harness the potential of these economic changes to unleash the strength of its entrepreneurs and build up fresh momentum for employment. In international fora it must promote its values, in particular the integration of markets, cultural identity and social protection.

The ambition of European firms should be to improve their competitiveness on all the World's markets and to be present in the leading industrial and service sectors. In order to attain these objectives, priority must be given to rapid adaptation, to active cooperation and to a sharing of responsibility between the European Union's different economic, social and political players. Therefore, the Commission invites the Council, the European Parliament, the Committee of Regions and the Economic and Social Committee to start an open debate with these players on the future orientations of a new industrial policy able to face the challenges of globalisation and accelerated technological change, in particular, on the choice of Community instruments to be reviewed, as identified in part III of this communication.
<table>
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<th>DIAGNOSTIC ELEMENTS</th>
<th>RESPONSE</th>
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| COMPETITIVENESS OF EUROPEAN ENTERPRISES ON WORLD MARKETS | • **Internal Market**:  
  - Reinforce the internal Market:  
    - European Standardisation  
    - European Company Statute  
    - Co-ordination of fiscal policies  
    - Intensify efforts in the mutual recognition of qualifications (services sector).  
  - Continue the liberalisation of the industrialised public sectors (notably electricity, gas, telecommunications, transports).  
  - Use the example of the internal market in order, at the World level, to reduce entry barriers, especially obstacles of a regulatory or standards nature on export markets (through agreements on mutual recognition).  
  - Take advantage of Economic and Monetary Union, especially cost reductions and easier access to markets near to the Euro zone (Central Europe).  
  - Continue the strategy of coordination of the policies in favour of employment creation.  
  - **Competition policy**:  
    - Continue to modernise competition policy in order to keep up with globalisation (definition of relevant market, identification of the stage of development of each market, revision of policy controlling vertical agreements, treatment of horizontal R&D agreements between enterprises).  
    - Continue the implementation of State aid policy to orient public aid towards intangible investment.  
    - Develop international principles in the area of competition.  
    - European Members States and firms should notify the cases of discrimination of which they are aware. |
| Europe does not have a strong presence in the business services sector. |  
European enterprises resort to insufficient externalisation.  
Specialisation remains insufficient in sectors with high growth, highly differentiated products and requiring a strong marketing strategy.  
The European audiovisual sector is in an unfavourable competitive position.  
European enterprises form relatively few alliances in advanced technology areas.  
The total volume of resources dedicated to investment is less than in the US and Japan. |
**Trade Policy:**
- Defend European positions:
  - Reinforce vigilance ;
  - Prepare negotiations ;
  - Put in place a competition framework at the world level.
- Establish a « level playing field » and fair rules of the game at international level.
- Follow up multilateral and bilateral agreements for the opening of third markets, introduce new themes for discussions, consolidate agreements on the dismantling of barriers to international trade.
- Defend the principle of cultural specificity (audiovisual sector).
- Develop the dialogue between industries and public authorities (Global Business Dialog), forms of self-regulation (protection of consumers and users).

**Entrepreneurship and Venture Capital Activities in Europe**

Europe does not sufficiently develop risk taking and the entrepreneurial spirit
- entrepreneurial culture is not developed.
- Concerning the adaptation of financial instruments:
  - The amounts invested by risk capital funds are insufficiently oriented towards new and high-technology industries.
  - European Enterprises can access financial markets only with difficulty.

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<th>Concerning training</th>
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<td>Expose students to entrepreneurial culture;</td>
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<td>“Schools-entrepreneurs » type initiatives</td>
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<tr>
<td>Develop the networks associating industry and universities in which innovative SMEs work with risk capital suppliers and universities.</td>
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**Improve financing** by the implementation of the action plan for venture capital:
- Integrate venture capital markets in Europe by:
  - Eliminating institutional and regulatory barriers to the development of venture capital;
  - Revising the laws on insolvency and bankruptcy;
  - Improving the tax regime applied to venture capital.
- The Euro will facilitate the development of a European scale venture capital market.
- The indirect effect of the Euro (the attraction of global savings).
**EUROPEAN ENTERPRISES AND NEW TECHNOLOGIES**

European industry is insufficiently specialised in those high growth market segments characterised by very fast technological progress.

European industries make insufficient and traditional use of information technologies.

- **Remove the barriers between public education organisations and enterprises** by developing partnerships in order to:
  - develop technological competencies.
  - develop human capital:
    - Favour education and life long learning;
    - Strategies for progressive retirement;
    - Improvement of life styles and social cohesion (improvement of the urban environment as under a key action of the 5th Framework programme);
    - Reliance on the European employment strategy;
    - Increase individual mobility;
    - Reinforce the awareness of the use of information society technologies (initiatives in support of the Internet in schools);
    - Learning to work in virtual groups.

- **Adaptation of the rules to the context of the information society** and electronic commerce (Agreements such as the « International Charter»).

**EUROPEAN RESEARCH**

The level of R&D spending in terms of EU GDP is still below that of its principal global economic partners.

European R&D policy is fragmented and under co-ordinated.

The exploitation of research results is not efficient enough, as illustrated by the underdeveloped nature of public/private research partnerships.

High costs and the complexity of procedures for achieving intellectual property protection in Europe.

European enterprises put very few joint research projects in place.

- **Better focusing of the 5th Framework Programme**:
  - More extensive collaboration between industrialists, researchers and users;
  - A concentration of R&D efforts on a restricted number of economic objectives.

- **Exploitation of Framework Programme and European research results** through venture capital and the I-Tech initiative.

- **Better use of the possibilities offered by the Treaties**:
  - Aid to promote research between different actors in order to realise important projects of European interest;
  - favour the diffusion of best practices (structural fund type investments and public information publicity campaigns);
- develop networks associating industry and universities in order to enlarge the capacity of enterprises to absorb technology transfer.

- **Modernise the functioning of the European Patent system:**
  - By developing intermediation services;
  - by the creation of a single community instrument for the protection of patents;
  - by a complementary harmonisation for software;
  - by reducing costs and delays in the procedures;
  - by specific measures for SMEs.

- **Reinforce European legislation:**
  - future revision of the Framework on aid to research.
  - Legislative work by the Union to adapt the regulatory framework to the information society (electronic signatures, contracts on-line, responsibility of intermediaries).

- **Improve public policies:**
  - Coordination between the Member States and joint efforts to improve the match between public purchasing and research.
  - Competition policy: simplified and speedy treatment of horizontal R&D agreements between enterprises.
  - Trade policy: propose in the structure of the WTO to develop a system for monitoring public support to R&D in industrialised countries.