As recognised in successive reports over the last decade, the telecommunications industry covers a range of technologies which will be critical in developing Europe's competitive advantage for decades to come. The CAG believes that completion of the internal market in this area is now a matter of urgent priority for the Commission, and should be established as one of the Union's primary objectives in the next two years. The ability to deliver efficient telecommunications services would enhance the competitiveness of EU enterprises both internally - through lower tariffs, higher quality service and the development of new and innovative services - and externally - in the rapidly developing global market for telecoms services.

III. 3 Encouraging the development of small and medium sized enterprises

A programme of action to improve European competitiveness must incorporate specific measures to respond to the needs of small and medium sized enterprises which play an important role in innovation - transforming research and technical progress into new products and services, both on behalf of larger enterprises and in their own right.

Changes in the structure of economic activity - in particular the ever increasing use of information technologies within manufacturing, and the growth of consumer demand for differentiated products - serve to reduce the significance of traditionally defined economies of scale and should provide favourable conditions for smaller firms to develop and prosper.

Small businesses share many of the concerns of larger companies, and will likewise share the benefits of efforts to improve competitiveness at the macroeconomic level. There are clearly, however, specific problems relating to smaller enterprises. The evidence suggests that Europe has not been very successful in overcoming obstacles that can hamper the creation and growth of small businesses, particularly in advanced and emerging sectors.

The CAG believes that the numerous initiatives to assist small businesses in the various Member States and across the Union should be simplified and clarified in a coherent framework, readily accessible to a'' 'xisting and potential enterprises and building on the developing European Innovation Policy for SMEs.

Smaller enterprises can be divided into two distinct categories - those which effectively act as sub-contractors and are dependent on their relationship with larger enterprises, and those which have developed their own niche markets. A framework of support should recognise these distinctions, and the disparate nature of SMEs by ensuring that assistance is available to meet requirements across a wide range of issues. Such a framework would include measures to encourage cross business co-operation, to improve access to external sources of knowledge and to facilitate the pooling of skills - for instance in understanding market developments in Europe and internationally, and in providing better information on the range of finance available.

The CAG believes that the role of the state, whether at the European or the national level, should aim at ensuring small businesses enjoy a climate and infrastructure in which they can establish themselves and pursue opportunities for growth. There are, however, a number of areas in which a more active role is required to remove barriers to business development and expansion. Thus, for example:

- creating incentives for individuals to become entrepreneurs able to grow and flourish;

- setting standards to ensure prompt payment of debts by larger enterprises and by the public sector;

- seeking to enhance the competitiveness of SMEs through *ad hoc* legislation;

- supporting programmes to simplify and clarify the regulatory framework within which small businesses operate;

- opening the processes of public procurèment to give small businesses a fair and equitable chance to compete for new business;

- creating dynamic mechanisms to stimulate technology transfer to SMEs.

Each and every element of such a framework should wherever possible, establish common Europe-wide processes and standards.

Financial issues are crucial to the success of small businesses and to their growth into larger enterprises. Although there is no absolute shortage of capital, we recognise that the mechanisms for investment in new and expanding small businesses are inadequate and, as shown by a recent Commission paper, SMEs within the Union are less well capitalised than their counterparts in the USA and Japan.

In addition to the various initiatives already underway under the auspices of the Commission and the European Investment Bank - for instance on mutual guarantee systems, venture capital, interest subsidies and seed funding - we believe that the development of the Second Tier Stock Market - similar in concept to the American NASDAQ - would be highly beneficial in bringing smaller entrepreneurially managed enterprises into direct contact with the capital market. We support the initiatives already taken in this area by the Commission and urge rapid completion of the process to establish EASDAQ.

IV ENHANCING HUMAN RESOURCES

Human resources are major factors in productivity, quality and innovative capacity. They are also a component of total costs, the weight of which is determined not only by wages, but also by the influence of labour market regulations and social security systems.

The CAG intends to examine both sides of the problem. From a strategic viewpoint, European competitiveness can be restored by producing better goods and services and by minimising costs through higher productivity. To achieve both, development of Europe's human potential is essential and urgent. The Report focuses on this central issue which involves many facets that lead to emergence of a learning society.

IV. 1 The information society and the learning society

We are moving towards an information society in which the diffusion of information technologies (IT) is transforming our way of producing, consuming and learning. Knowledge becomes the principal factor of production. The CAG supports the main thrust and arguments of the Bangemann High Level Group on the Information Society: the information society and the learning society should be seen as complementary.

In parallel with the diffusion of IT, information and communications services offer vast opportunities to create skilled jobs, with major impact on global competitiveness as well as on employment. A powerful virtuous circle of growth can be generated. The more knowledge is produced and, above all, assimilated, the more competitiveness can be reinforced. And the more competitiveness is reinforced, the more information can be produced and assimilated - as more time and resources become available to create and to learn. There is a central link between European competitiveness, the information society and the learning society.

Technological solutions to set off this circle are potentially now in place, especially as a result of the rash of advances in fields such as telematics and multimedia. Yet everywhere this transition is underway, the main obstacles seem now to be in economic and social areas. Our trading partners are facing similar problems. But Europe, with its long standing traditions, has a tougher task in changing attitudes and practices.

In responding to this challenge, however, Europe's strengths come from our average level of education, from our cultural richness and diversity, from a good basis in science and excellence in some technological segments. Europe's weaknesses lie in technological lags in key IT sectors, poor telecommunications infrastructures, a low level of information services and insufficient take up of IT in user sectors and society at large.

IV. 2 A strategic approach

Transition to the information society will be faster and smoother if technology push is combined with demand pull. On the demand side, the CAG identifies one important obstacle to the diffusion of IT and information in the inadequacy - and even the obsolescence - of European education and training. Despite the often undervalued efforts by our teachers and trainers, European educational and training systems (if with important regional differences) lag far behind current advances in technology, methodology and organisation. The need for new priorities is evident. Overall, our societies must become learning societies: societies in which individuals seek and obtain open, active and lifelong learning in education, in training, in the workplace and even in their leisure time.

The demands of competitiveness call for a strategy to develop a learning society. In Europe, there is a far too tenuous link between information producers and information users. This link must be regenerated and the CAG indicates as one contributor to this the identification of what we tentatively call "Knowledge Resource Centres". Our aim in this Report is to offer a philosophy, an approach. We do not offer a prescriptive solution to Europe's current difficulties. This, in fact, is an area which might benefit from more detailed study on the part of the Commission.

Knowledge Resource Centres could be existing institutions or, where suitable candidates are lacking, new bodies created ad hoc. They would become facilitators between information supply and demand, providing:

- *organised information on educational and training objectives, curricula, scientific and technological content available via different multimedia supports (databases, CD-ROM, CD-I, videocassette, etc.);*
- *demonstration services for new multimedia and new teaching methods;*
- *specialised trainers and consultants;*
- *training of trainers;*
- *links to INTERNET and other information carriers;*

- *links to a European network comprising all the Knowledge Resource Centres throughout Europe;*

- *links to education and training institutions and to companies.*

The CAG proposes a pilot scheme of linked Knowledge Resource Centres. These should be profit-making initiatives, with the involvement of groups of citizens and associations, as well as of public administrations if required to ensure equitable access to basic information rightfully in the public domain. The idea would be to try to explore the potential of the information society, and avoid the risk of it turning into a new source of inequalities between firms, regions or individuals.

Given our current weaknesses, a further crucial aspect of any strategy must be the direct stimulation of information supply and demand. In terms of supply, this includes fostering business opportunities in multimedia activities. In terms of demand, stimulation could, in part, be achieved by diffusing multimedia solutions in education and training institutions, and by encouraging companies also to assume the guise of learning organisations.

Open, flexible education is adaptable to different needs. It also stimulates people to become more active and responsible regarding their own level of education and attainment. Flexibilisation and decentralisation of education and training will provide Europe with a more powerful tool not only to enhance competitiveness, but also to reduce alienation and social exclusion.

IV. 3 Towards a learning society

An important market is being created for information and communications services at world level. How the market will be shared out among the international contenders will depend not only on the evolution of the information superhighways - the carriers - but also of the information carried on them - the content. The stakes, both economic and in terms of protecting cultural pluralism, are high. Europe must match American dominance of information services by expanding its own provision of such services, drawing on its rich cultural and scientific resources.

Europe's capacity for multi-cultural dialogue and multi-disciplinary R&D is a potential boost to competitiveness and to global market prospects. Moreover, it enables Europe to play an important role in providing the world with information to match the most diverse needs. This information is a resource which it is in our own interest to promote and to market.

For their own good and for society's well-being, companies must play a better role in education and training. This role is particularly important in retraining the present active population and in diffusing new habits of lifelong learning. Europe's perception of training, and also of learning, has to adapt to new competitive conditions, to become a valuable auxiliary in mitigating unemployment and social problems. To face this challenge, companies must evolve also to assume the guise of flexible and dynamic learning organisations. A learning organisation is managed specifically to learn faster - how to increase productivity, achieve flexibility, raise quality, take up innovation.

This transformation in management is visible throughout Europe. Still, even taking into account country-to-country disparities, the pace is slower here than among our trading partners. European management at its best stresses such characteristics as individual initiative and creativity, social and communications skills, the ability to respect and manage international diversity, a long-term outlook and awareness of social responsibilities. These must be reinforced in the new learning context.

Education and the learning society is an area to which the CAG intends to return in a later report. A 'learning school' might seem, at first sight, something of a paradox: schools are expected to teach, rather than to learn. Yet now they too must learn in their own environment. And as they improve the organisation of their learning capacity, so they will improve their capacity to teach.

There are significant differences between Member States in the quality and organisation of education. Throughout the Union, however, it is vital to bring about radical changes in existing education and training systems - at all levels. The proper functioning and integration of both these systems will be a *sine qua non* for a learning society.

As a first approach, the CAG points to the need for actions to transform Europe's education and training systems. These might include:

- *pursuing best practice in learning models;*

- *diffusion of best practice through training programmes for teachers/trainers;*

- *greater reliance on IT and multimedia solutions;*

- *better access to telecommunications networks, information highways and Knowledge Resource Centres.*

The CAG stresses that priority attention must now be directed to the two extremes of the educational spectrum:

- *raising the quality of primary education, which offers a unique opportunity to introduce the young into the learning society;*

- *reintegrative training for the long-term and mid-life unemployed, who otherwise risk permanent exclusion from the productive workforce and even from a full role in society.*

Open, multimedia training that is richer, more flexible, and more individual-oriented than what we have today will speed emergence of a learning society. But if this new concept of learning is to contribute to Europe's growth and competitiveness, quality targets and benchmarks must be accepted and acted upon by educational and training establishments, firms, individuals and the social partners.

Such targets and benchmarks will also rely on the employment forecasting and vocational guidance systems which exist in the Member States, albeit with varying degrees of sophistication. Both systems must be given a much stronger capacity to produce information that is credible, strategically useful, regularly updated and functional as a means to encourage lifelong learning and, crucially, facilitate occupational mobility in a Europe-wide frame.

There must be a radical change from mid-century concepts of what constitutes an 'educated person'. Together with the humanities, central to the individual in society and to a critical, creative mind, there must be a solid grounding in mathematics, science and technology, management sciences and information technology. Moreover, fundamental behavioural skills also have to be taught, with special attention paid to the new techniques of learning. We need a Charter of Basic Skills which every European citizen should possess to meet the technological and organisational changes now underway.

Rome, 15th June 1995

PAGINA BIANCA

SECONDO RAPPORTO

DEL

GRUPPO CONSULTIVO

SULLA

COMPETITIVITA'

(cd. GRUPPO CIAMPI)

PAGINA BIANCA

ENHANCING EUROPEAN COMPETITIVENESS

Second Report to the President of the Commission,

the Prime Ministers

and Heads of State.

December 1995

COMPETITIVENESS ADVISORY GROUP

COMPETITIVENESS ADVISORY GROUP MEMBERS

C.A. Ciampi, former PM Italy, former Governor of the Bank of Italy, **Chairman**.

Prof. F. Maijers, former Chairman Unilever, Chairman Philips Supervisory Board. **Vice-Chairman**.

P. Barnevik, President and CEO of ABB.

D. Simon, Chairman, British Petroleum Company plc.

J. Gandois, Président du CNPF, Chairman of Cockerill-Sambre, former Chairman and CEO Péchiney

C. Solchaga, former Minister of Finance, Spain.

P. Cassells, General Secretary of the Irish Congress of Trade Unions.

J. Ollila, President and CEO of Nokia.

B. Breuel, Commissioner General of the World Exposition EXPO 2000.

G. Sapountzoglou, Vice President and General Manager of "Ionian and Popular Bank of Greece"

W. Peirens, President ACV, Membre du Comité de Direction de la CES.

K. Zwickel, President IG Metall.

Commission Permanent Representative: Professor Alexis Jacquemin, Conseiller Principal.

I. INTRODUCTION

The European economy is at a crossroads. Re-establishment of the links with Eastern Europe artificially severed for many decades, deepening of the European integration process, progressive opening of markets in the newly industrializing countries, the rapid pace of the information revolution: all provide major opportunities for the resumption of sustained non-inflationary growth in the European economy. In turn, sustained economic growth is essential to allow Europe to tackle its long-standing unemployment problem. Exploiting this set of opportunities will however require a great deal of flexibility to adjust to a rapidly changing economic environment. Inability or unwillingness to respond in a flexible way to the new challenges could push European economic policies into a defensive posture.

In this context, as made clear in our first Report, competitiveness should be seen as a basic means to raise the standard of living, provide jobs to the unemployed and eradicate poverty.

Europe is well equipped to face the challenges. It is essential, however, that European policy-makers make a devoted effort to overcome the obstacles that still exist to the completion of a truly unified market, to strengthen the European enterprise so as enable it to face stronger competition abroad, to enhance human resources so as to promote flexibility in economic adjustment and ensure that the benefits of growth are evenly distributed. The second CAG Report again addresses this set of issues adopting an empirical approach, with a view to identifying areas where actions by policy-makers and economic agents alike have become imperative to restore the competitiveness of the European economy.

Completion of the internal market represents an absolute priority to enhance European competitiveness in the world economy. The first CAG Report focused on three major issues:

1) the adoption of a European Company Statute,
2) the acceleration of the Trans European Networks,
3) the enlargement of the European Union to Central and Eastern European countries.

Now we focus on the role of the State in the provision and the regulation of basic infrastructural facilities. Without a stronger and competitive basis in the fields of energy, public transport and telecommunication, the European economy will be at a disadvantage.

We look at the various experiences of restructuring and at the introduction of competitive pressures into the public utilities. While no single model of deregulation and privatization applies throughout Europe, this range of actions can help us to draw some useful general lessons. What matters most is not so much that the ownership - and management - of public utilities moves from the state to the private sector, as that competition is introduced and extended wherever possible. Where government budget constrains limit investment in much-needed infrastructural investment, privatisation can provide sizeable benefits. The decision whether to privatise or not should be the sole discretion of the Member State concerned. As in all cases of deregulation, it must take account of the social impact in terms of unemployment, availability of basic services and the structure of prices.

The creation of an efficient trans-national infrastructural network in Europe goes, however, beyond efficient national systems. It requires that real interoperability of infrastructures across Member States be carefully monitored.

We take this opportunity to reiterate that further progress on the way to the completion of the internal market requires that European Monetary Union be fully implemented as scheduled. Many of the benefits bestowed by an integrated internal market can materialize only with the introduction of the European currency, which *inter alia* will no longer expose intra-European trade to sudden gyrations in nominal exchange rates. The benefits of EMU for all participating countries, irrespective of the present condition of their currency, will in turn be the greater, the higher the number of participating Member States.

There are still many hurdles on the path to EMU, that require further efforts to achieve economic convergence. Yet, the obstacles ahead should not discourage us from taking decisive action towards realization of a European Union economically and politically integrated under clearly set institutional arrangements.