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REPORT ON SOME STRUCTURAL ASPECTS OF GROWTH

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I. EUROPEAN INDUSTRY AND THE CRISIS

A. PRESENT SITUATION AND OUTLOOK

1. The prolonged recession has exposed a number of structural weaknesses many areas of European industry that had earlier been masked by steady and unprecedented growth in demand. In addition, the competitive position of some Community industries has been undermined by the underlying rise in the cost of raw materials and by a sharper increase in unit production costs than elsewhere.

With a more selective world market, entire sectors of the Community's industry have been placed in jeopardy, and this for numerous reasons: monetary instability; heavy dependence on exports to third countries; official "lame duck" assistance in several industries for firms with outdated plant and machinery, work organization, and business organization and strategy; and the reluctance to invest in innovation in the smaller firm.

The resulting crisis has reinforced rigidities of attitude discernible in the behaviour of managements and workers alike. In consequence, it has become difficult to achieve consensus on how to share the consequences both, good and bad, of essential restructuring.

In retrospect, it has to be acknowledged that more effective action could have been taken to cope with the crisis if firms had been more exposed to competition whether this had been achieved through opening of public contracts to all bidders, through eliminating technical obstacles, or coordinating efforts for the promotion of advanced-technology sectors.

2. Community industry must now not only rectify certain structural shortcomings and cope with cyclical difficulties but also adapt to a new international division of labour. This is because labour-intensive, and now, to a growing degree, capital-intensive industries have burgeoned in regions outside the three leading industrial powers.

Such a development is certainly acceptable and, indeed, desirable. Indeed, it is in the Community's interest that the impoverished two-thirds of humanity should increase their share in world industrial production, thus joining the industrial revolution that got under way in the late eighteenth century, and, thereby, creating new markets that will help provide, towards the end of the century, the main sources of economic growth for the whole planet.

3. Acceptance of this development means that the Community must maintain an outward-looking trade policy. With the Community's role as a processor of raw materials, virtually all of which come from abroad, such a policy is, in any event, essential.

This openness cannot mean, simply, a transfer of whole industries to the developing countries ; what is needed is a policy of adjustment with two aims.

First the performance of firms in the industries in difficulty must be improved so as to maintain in continued existence within the Community the widest range of activities. Secondly, innovation must be encouraged in order to satisfy new needs emerging in our home market, increase the Community's share in world trade, and retain a substantial role in the development of new technologies.

B. THE FIRM AND THE MARKET

4. As in the past, the growth of any activity will be determined by supply and demand, by the capacity of a Community industry to match both the volume and nature of actual and potential demand better than its competitors.

As always, it is for the firm to reply to the challenge of the profound changes in the conditions in which, from now on, European industry must operate. It is for the individual firm to take initiatives, to take risks, to demonstrate its adaptability, to occupy itself with the vital structural adjustments.

No-one can guarantee a firm growth prospects in one sector rather than another, nor prescribe the appropriate structure. There are too many imponderables for public authorities to attempt forecasts of this sort - this would be but to risk encouraging costly and mistaken investment. Entire industries may, at any moment, become leaders of growth. But it would be a mistake to contrast them with other industries, written off as unfit for action in the struggle for growth. On the contrary, virtually every industry features rapidly expanding competitive firms and in most there are sectors in which new technologies and new markets are stimulating growth.

5. Examples of this fundamental fact abound. In the albeit long-established paper industry, "no-carbon-required" paper is a product in a newly and rapidly expanding market. Similarly, the printing industry is today developing photocomposition techniques and the corresponding equipment.

In the footwear industry, plastic soles and heels have become a separate growth sector.

In the ceramics industry, there is a new demand for high-temperature structural ceramics based on oxides and carbides designed to replace metals at temperatures of over 1 000° C as the use of energy becomes more rational.

In the textile and clothing sector, many firms, closely following changes of fashion or, making intensive use of modern equipment, continue to prosper even where they manufacture products in markets reckoned to be vulnerable to cut-throat competition.

Although the chemicals industry is having to contend with difficulties, for example, in the fertilizer sector, there are other branches in the industry, such as fine chemicals, with a record of exceptional growth and with a highly promising future.

Even in the motor vehicle industry, where the contraction in European and world demand and the emergence of new competitors would suggest an end to the process of job creation in the Community, there is still an impressive potential for growth for commercial and special vehicles. The same is true of the development, manufacture and sale of plant and machinery for new motor vehicle industries elsewhere in the world, and for high-technology components (engines, electronic systems) that Europe could continue to manufacture for these new industries.

6. If it is to adjust to the conditions of international competition and to satisfy new market requirements, industry must make much greater use of modern techniques and of more advanced equipment than of an increase in its workforce. This tendency towards a relative decline in industrial employment was discernible in the United States first of all, and, in the Community, even before the crisis.

In many sectors, growth in industrial production will have to take as much account of the need to protect the environment as of the risks of shortage of energy or of raw materials.

For these reasons it is likely in the future, as in the recent past, that it is the tertiary sector that will offer the greatest scope for new jobs : for the employment potential of the tertiary sector to be fully realised, it is essential that the productivity and efficiency - in short, the performance - of the secondary sector be such as to stimulate the growth of market services (banking, insurance, transport, communications, tourism, distributive trades, etc.) and to provide the wealth necessary to maintain the expansion of the non-market sector. In its turn, the advance of the tertiary sector (health, education, training, engineering and consultancy) assists the harmonious and competitive development of industry.

II. SEARCH FOR A GROWTH STRATEGY AT COMMUNITY LEVEL

7. Studies show that the interaction of different aspects of the crisis -- falling demand, static investment, rising costs, declining competitiveness, growing labour supply, currency instability, etc -- leads both to slower growth and delay in the development of a number of important manufacturing and services industry, while at the same time aggravating regional disparities within the Community.

As a result, the Community economy has lost some of its former ability to cope with structural change, that is, after all, a permanent feature of economic activity. In present circumstances, the maintenance of a dynamic economy open to world trade makes necessary an effort by national and Community authorities in order to make the structural adaptation of sectors stricken by the crisis -- steel, textiles, shipyards -- possible and acceptable.

8. At the same time, efforts are needed to facilitate the development of new activities -- the ample human, technical and financial resources still available in Europe must be mobilized and organized.

No Community initiative has yet been taken to this end, although in the United States and Japan -- two major economies with which the Community must compete if it is to survive -- official policies play a key role in fostering the climate needed for growth. This is not to say that the Member States' Governments do not influence the climate for growth at national level. Notably, they seek to promote basic technologies, create markets and infrastructures, remove obstacles to growth and, through the education system, accelerate society's speed of reaction to the opportunities offered by technology.

The Commission firmly believes that the Community, too, has an active role to play in promoting growth. It takes the view that the Community possesses large reserves of competitiveness and of demand that, from the size of investments or of the market involved, are more appropriate for realization on a continental, in other words, a Community scale.

To seize these opportunities, to englobe national efforts in a common design, is to render economically possible and socially acceptable action in hand to organize the withdrawal from some activities for the Community, as a whole, notably indicating alternative possibilities for employment and the means of realizing them. It is also to provide openings for the difficult task of reducing the structural disequilibria between the economies of the Community's different regions.

Last but not least, a common growth strategy, by widening the range of issues subject to Community political debate will facilitate the search for a dynamic equilibrium in the functioning of the Community.

This is already necessary for the existing Community. It will be essential for the viability of a Community of twelve.

9. The Community provides the appropriate setting for a strategy for the expansion of an economic activity whenever Community action:
- enables the resources that will, in any event, be devoted by Member States to the promotion of different activities to be used more rationally, either by avoiding duplication, or by obtaining the greatest possible advantage through cooperative efforts;
 - reduces the acute structural imbalances that exist in and between Member States' economies, shifting the emphasis from the localized and ephemeral advantage to common long-term benefits;
 - facilitates interpenetration of industrial aptitudes and national experience;
 - enables vital support to be provided for other Community policies or initiatives.
10. Most measures taken by the public authorities to sustain growth have financial implication, be they for example, economic research, pilot schemes, aid to research or to investment, in infrastructure or in production.

Since its inception, the Community has been able to call on financial resources entered in the general budget of the Community that may be used, in differing degrees, for these purposes; the new financial instrument now forms part of these. The European Investment Bank is also active.

Moreover, the support that a coherent policy for the use of budgetary resources can give to a common growth strategy must be stressed. These must be concentrated on priority objectives. In addition, use of the substantial funds available in the market can improve employment prospects and help restore confidence in the future of the Community's economy.

III. THE STRATEGY OF GROWTH : GLOBAL ELEMENTS

11. The Commission suggests that a strategy for recreating an economic climate and the confidence favourable for growth be aimed at providing the right environment and general measures of support for the individual firm.

Each measure proposed by the Commission has its own merit but also forms part of a mutually supportive whole. Progress should be made on all of them in parallel.

The Community does not have the same degree of responsibility for all of the proposed measures. While its institutions must show renewed vigour in carrying out those tasks imposed upon them by the treaties, they must also seek to realize the Community's potential by complementing and supporting the effect of national measures.

A. GROWTH AND THE COMMON MARKET

12. An overall growth policy for the Community must be founded on the Common Market. Secure, unhampered access to a continental-size market subject to fair competition remains one of the main sources of impetus for industrial change. It provides both a powerful catalyst for economic growth and a framework within which public authorities can take effective action to enhance the competitiveness of European industry.

Although very substantial progress has been made in the establishment of the common market, there are many further steps which must be taken and as quickly as possible. There is a need to eliminate those customs and technical barriers that still distort production or trade-flows to the detriment of firms. Progress is also necessary in the harmonization of those fiscal measures and those laws that impinge upon the daily operations of companies.

13. Community solidarity must also be reinforced by substantial progress toward Economic and Monetary Union.

The importance of greater monetary stability must be stressed. It would encourage recovery of investment through facilitating companies corporate planning, as much as through the development of services such as banking and insurance.

It behoves the Council of the Community to take, as a matter of urgency, the political decisions necessary to give effect to the five-year programme which the Commission has submitted for this purpose.

14. Government and nationalized industries' procurement practices pose a special problem in this context. The isolation of the national markets is symptomatic of an in-built desire to protect the industries involved but, under the impact of technical progress, it may will give rise to a kind of "siege economy" that will push up development costs by adding considerably to the number of product specifications laid down and thereby reduce the capability of firms to compete on the world market.

Although the Community directives already adopted help gradually to strengthen competition, the fragmentation of the markets for those products still excluded poses a serious obstacle to the development on a continental scale of the industries involved. There is an important lesson to be learned from the massive encouragement to embark on large-scale ventures given to US industry by the US Administrations's procurement policy.

It is necessary to abolish progressively the compartmentalization of markets that still exists, while taking account of the close relations that have existed between supplying industries and their customers, and of the employment situation.

It would not be enough, in order to achieve the opening of these markets, simply to apply the principle of non-discrimination. The public purchaser must be required to behave in such a way as to make evident the openness of his procedures. This liberalization process must be put in hand rapidly, with precise timetables first of all for everyday products purchased by public bodies before going on to that hard core of more specialized products in respect of which the liberalization process will have to be accompanied and facilitated by a considerable measure of standardization.

Proposals to this end will shortly be drawn up by the Commission.

In this context, military equipment cannot be disregarded. Even though overall Community action in this field entails substantial progress towards European union, it is essential, from an industrial viewpoint, that Member States' Governments do not lose sight of the importance of increasingly closer cooperation whenever circumstances so permit.

B. GROWTH AND EXTERNAL DEMAND

15. External trade has traditionally been one of the driving forces of the European economy. The need to face international competition has afforded and must still afford the Community a spur to progress. Its trade enables a region poor in natural resources as is Europe to finance the necessary purchases of raw materials and energy by the export of finished products.

In 1976, the make up of the EEC's exports surplus was as follows:

(EUA 1,000 million)	All manufactured products (STC 5 to 8) (except agrifoodstuffs)		Machinery and means of transport		Other manufactured products	
	Exports	Surplus	Exports	Surplus	Exports	Surplus
Extra-EEC, of which:	120	57	62	41	58	16
European countries with market economies	38	15	18	11	20	4
Other developed countries with market economies	24	+0	11	+0	13	+0
State-trading countries	13	8	6	5	7	3
Developing countries	45	34	27	25	18	9

This table brings home, first of all, the crucial role in Community exports played by all kinds of capital goods, which accounted for 52% of Community exports of manufactured products in 1976, and 72% of the Community's surplus on trade in these products. Despite some loss of competitive edge in recent years in relation to the United States and Japan, this is where the Community can and must earn its living in the world.

16. Just over 50% of Community exports go to the developed world, and there is still ample potential for growth in mutual trade, particularly with the United States and Japan. Growth in the Community's manufacturing and services industries - particularly in the key capital goods industry - will depend to a large extent on the pace of development of the third world and the share of third world markets which the Community can secure. In 1970, 29% of Community exports went to developing countries. This figure increased to 36% in 1976, owing to increased demand from OPEC countries. Nevertheless, non-oil producing developing countries have maintained their share of total Community exports at around 20%, despite their balance of payments difficulties following the oil price rise.

World Bank estimates put real per capita GNP growth rates for developing countries as a whole at an average of 3.4% per annum between 1978 and 1985. Above-average rates can be expected for Latin America, Eastern Asia and the Middle East, but more impoverished areas still represent an immense reservoir of unsatisfied demand.

17. Balance of payments constraints and the availability of cheap local labour in most parts of the developing world tend to exclude mass imports of consumer goods.

By contrast, there is fierce competition between the industrialized countries with market economies, the Eastern-bloc countries and, increasingly, the developing countries themselves to meet the immense needs of these countries for capital goods for industry, energy and transport, communication and urban infrastructure.

If the potential additional demand represented by the developing countries is to become a reality that will furnish opportunities for the Community's own growth, then there is a clear interest for the Community to promote the development of these countries not only by its financial contributions, while avoiding measures which would impede the developing countries' export prospects, but also, and in particular, through joint measures whose implementation is favoured by the special links between the Community and these countries.

18. Two factors, which can strengthen the Community's position in this, merit particular attention:

- more support for research into the needs of and the most appropriate technologies for developing countries, and for the required vocational training. Consequently part of the Community's research effort must be specifically geared to these needs.
- mastery of the art of mobilizing and organizing, in partnership with the developing countries, the entire array of supplies, services and finance needed; this ability to integrate and administer all the elements of a project can be a trump card in the hands of Community suppliers competing for a stake in the development process. International public contracts recently concluded demonstrate the complexity and variety of factors that can be involved, in particular the need to provide at the right time homogeneous financing and credit arrangements from what are sometimes heterogeneous sources (direct portfolio investment from suppliers, from local private and public capital, from international institutions; bank loans of varying duration, suppliers' credits, export credit guarantees). A serious examination is needed of how to improve the cohesion of such complex financial arrangements, especially when an integrated project calls for techniques and commercial services from several Member States.

19. The creation of such packages is above all a matter for the private sector supported by appropriate measures (e.g. export credit guarantees) of Member States, but the following elements merit Community attention:
- common action in the evaluation of the market and in commercial promotion for small and medium sized Community companies;
 - mechanisms for guaranteeing, protecting and promoting investment in third countries, completing national means at a Community level and covering their gaps;
 - arrangements for better coordination of export facilities to overcome the present fragmentation of such mechanisms in the Community.
20. In a more general way the Community must play an active part in seeking formulae which will allow international (and regional) financial institutions to collect the surplus short term funds available on our markets in order to finance long term investment in the developing countries. This can take place by:
- the increase in capital resources of these institutions (the International Bank for Reconstruction and Development for example);
 - the extension of the practice of joint financing between these institutions and private capital;
 - the allocation of a part of the necessary growth in Public Development Aid to softening financing conditions (reduction of interest rates, lengthening of repayment terms).

While reserving a central role to the World Bank and to the regional development Banks in support of the investment demands of the developing countries, it is necessary to consider to what extent the Community interest could be served by an enhanced role for the European Investment Bank in this field.

C. GROWTH AND REGIONAL DEVELOPMENT

21. A large reservoir of demand is to be found in the Community's less developed regions; there is a still larger one in the candidates for accession. The tapping of this sources is a necessary part of any growth strategy. An increased demand for goods and services will flow from greater employment and a higher standard of living in these regions. The very instruments of regional policy - to improve agricultural productivity, improve infrastructure, attract and develop industries and services - themselves involve elements that call for the purchase of goods and services.
22. The search for a growth strategy adds another motive and a sense of urgency for the Community's contribution to helping the less favoured regions advance.

It is important, therefore, that the Commission's new guidelines for regional policy, proposed on 3 June 1977, be rapidly put into effect. A close link should be established between the different elements of the strategies for resolving regional problems and for growth.

D. HELPING SMALL AND MEDIUM-SIZED ENTERPRISES

23. There are small and medium-sized enterprises (SME's in all industrial and services sectors. It is estimated that, excluding agriculture and the public authorities, about two thirds of the working population of the Community are employed by these firms: SMEs are therefore "typical" firms and not the exception to the rule.

Whether old- or newly-established firms, it is the SME which give the economic system the flexibility to enable it to satisfy better the needs of our society - needs which are not only very varied and complex but which are also continually changing.

They frequently offer a more favourable environment for innovation than large organizations, which may be paralysed by the "not invented here" syndrome. They are the life-blood of the service industries. Moreover, the explosive development of information technology offers immense opportunities to the small enterprise to use the world's available technology and to introduce on the market, through a world communication system, new products or services.

SME have therefore a major role to play in the growth strategy of any sector in which their small size is not an obstacle to the introduction of the most advanced production methods. Furthermore, they have a vital part to play in improving the industrial structure in the Community's less-favoured regions.

Their flexibility brings a valuable element in the search for a positive answer to the problem of the mobility of manpower in the context of structural change.

If SMEs are to provide the required impetus, they must be able to overcome the obstacles preventing an expansion of their activities, i.e. the heavy and increasing burden of administrative and tax requirements, the difficulty of profiting from the opportunities which the market may offer (particularly in respect to external trade, access to public contracts and sub-contracting), the difficulty of securing funds, especially risk capital, necessary for financing innovation.

24. Various measures have been taken or are being prepared in the Member States to improve the working environment for the SME.

The Community can help to promote the regular exchange of information between Member States on the measures taken to assist SMEs and the experience gained, in order that the most effective measures may be selected and, where appropriate, be used throughout the Community. In this context, the Commission's immediate aim is to tackle the problem of financing SMEs and in particular the problem of risk capital.

On its own initiative, the Community can take measures to facilitate the development of SMEs. To this end, the Commission plans to extend the activities of the Business Cooperation Centre. It is attempting to simplify administrative formalities, particularly those relating to intra-Community trade. It has put forward proposals for facilitating SMEs' access to Community financial resources - from the European Investment Bank, Social Fund, Regional Fund, etc.

2. GROWTH AND INNOVATION

25. The principal source of growth is innovation, the exploitation of new products, services or processes usually, but by no means invariably, derived from research and technological development. The gamut of this complex array of adventurous invention and business decisions runs from radically new products capable of generating whole new sectors of growth and employment through those new departures which must launch the renaissance of older or declining activities to the vast range of incremental improvements that maintain or improve the competitive edge upon which all depends.

Europe, though rich in inventiveness, has too often failed to complete the innovative process successfully and rapidly through economic and commercial application and exploitation. Some of the main reasons are:

- lack of a climate favourable to the small and medium-sized firm;
 - absence of the open market of ideas that is found in the United States;
 - reluctance to invest in the riskier ventures and poor communication between the innovator and potential sources of capital;
 - a tax, and even a cultural, environment unfavourable to risk-taking;
 - the slowness with which a sufficiently large homogeneous market is being established;
 - resistance of employees to innovation because of the social hardships that could ensue.
26. A mere list of the horizontal measures taken by the national authorities to promote innovation reveals how large is their number and how wide their range, even if when aimed at a few simple and constant objectives. It also shows, for most Member States, some degree of dispersion of effort and responsibility due to a process of natural evolution: numerous measures affecting innovation have been taken under other policies - in the tax, scientific, regional, social, educational and other fields - without anyone stopping to work out the exact implications for innovation itself.

Many fundamental questions remain unanswered: for example, the proportions of GNP or indeed of industrial turnover that are invested in innovation in Member States and in competing countries; the effectiveness of the main measures taken and their location within the political and institutional framework of the countries concerned; the proportion of public funds allocated to research and development which goes directly to small and medium-sized enterprises; the basic data for replying to the questions recently raised by the European Parliament concerning the technological balance of payments.

27. The problem is fundamental and complex, but the vital part which innovation plays in the growth process demands that the Community attempt to find out what action it can and should take. It might, for example, help to define and aggregate demand for innovatory products

or services, in order best to profit from the sheer size or drawing power of the Common Market itself.

To this end, proposals are being studied by the Commission. Their primary and urgent aim is to improve the availability of risk capital; it is evident, however, that the fiscal and patent environments present problems which are as important, but even more difficult to resolve.

Then there is the whole question of marketing, in which the Community's innovatory SMEs may be at a disadvantage compared with competitors established in other technically developed regions, particularly as regards:

- the marketing of complete "systems" which include innovatory elements;
- the access of small innovating firms to major world marketing networks.

Finally, the Commission believes that significant progress can and must be made towards the promotion and dissemination of innovation throughout the Community; such action will have a multiplier effect.

F. PROMOTION OF INNOVATION THROUGH RESEARCH

28. Research and development (R&D) are key elements in innovation.

Research activities are directed sometimes towards the short- and medium-term industrial use of results, sometimes towards objectives whose beneficial effects on economic growth are less immediately clear. In either case, these are activities which involve a high degree of risk and which, particularly when fundamental innovations are concerned, may sometimes take a long time to produce results, but whose benefits generally extend far beyond a single innovating firm.

For these reasons, all the Member States encourage R & D, to ensure balanced sectoral development.

However, economic constraints have caused government efforts to slacken at the very moment when shortage of funds has compelled many firms to curtail the resources they devote to R & D. This is bound to be harmful in the longer term.

This is the more serious in that industrial development tends more and more to occur in sectors where technology plays the main part: electronics and data-processing, telecommunications, aeronautics, bio-industries, production and recycling of raw materials, energy, non-polluting processes and products and new means of transport.

The development of these industries demands increased efforts from both the private firm and public authorities. With the latter, there is the problem of how to share responsibility between industry and government, and between Member States and the Community.

29. There have been several striking examples -- aircraft construction is a case in point -- of great harm that can be done when every State having the necessary resources attempts to boost the development of advanced industries by heavy injections of cash, only to find that

there are insufficient outlets for the products of these force-fed industries; either within the Community or on the world market.

The remedy is twofold: first, an attempt to improve the exchange of information and coordination with a view to a better utilization of available resources; secondly, a Community approach must be adopted at the very outset, before rigid links between government and national industries have been forged. The timely adoption of a Community approach would give the additional benefit of allowing the Community to retain the lead that it has in some areas of research.

In this context, the Commission intends to press for a political decision whenever further progress cannot be made at expert level, in order not to slow down decisions because of minor conflicts of interest.

30. Since its very inception, the Community has always been involved in joint R & D activities. Over the years, some of the initial ambitions have proved to be unattainable, whereas other possibilities have appeared. Quite apart from specific projects for the promotion of high industrial technology, there are other measures likely to be able to make a contribution to the improvement of the Community's productive apparatus, such as, support for European industrial cooperation in research, for innovation in small or medium sized firms, or for the dissemination of information. Such measures can also be harnessed to the improvement of the industrial structure of the less favoured regions.

G. TRAINING AND EDUCATION

31. Progress towards a high-technology oriented economy will only be possible if Europe's system of education and training keeps pace with new needs, enables its labour force to adapt to new job requirements and its citizens to make use of the social potential of new technology.

This implies a fundamental change in Europe's system of education as well as in facilities for retraining. No one over forty can have learned even the rudiments of computing at school or university.

Moreover, many administrators are unaware of the tools modern technology makes available let alone of their social consequences. The need for lifelong learning, whether in the form of open-universities, of sabbatical years, or of retraining courses in new technologies becomes ever more imperative.

It is characteristic that the Community has over 6 million unemployed, while, for example, the application and development of computing is seriously held back in several Member States by the lack of trained personnel, or while skilled engineering craftsmen remain in short supply.

In the matter of training, much remains to be done both in quantitative terms, to restore firms own efforts which, in many Member States, seem to have declined since the crisis, and qualitatively, because of a present mismatch between training and employment opportunities, and in order better to respond to future needs.

32. The Community's contribution to finding a solution to these complex problems is to be found on several levels.

As far as vocational training is concerned the European Social Fund must contribute - especially following its recent revision - to stimulating new policies based on the teaching of necessary new qualifications. Member States should cooperate in identifying future needs and to adumbrate national objectives for professional further education. The European Centre for the Development of Vocational Training in Berlin might be as much help here as nay support from the European social fund.

The Education Council adopted in December 1976 an action programme concerning the transition from school to professional life which included exchange of information, studies and pilot projects. The results, on which a more advanced Community plan of action might be based, will be available at the end of 1979 or the beginning of 1980.

H. MOBILITY AND WORKING CONDITIONS

33. Public aid for innovation must take full account of the new labour market situation.

The growth of unemployment, in particular of the young, is not only due to the contraction of demand at a time when the active population is increasing; it is also the result of the pursuit of capital intensivity in response to rising labour costs, and of attempts to use less qualified manpower.

However, the most capital intensive techniques are not always essential for industrial expansion. More apt, and much more labour intensive techniques could be developed, without harming growth of wealth, particularly in those sectors where small firms play a large part, or in those industries and services that are closest to the final consumer.

It goes without saying that such tendencies could the more easily be developed were the rise in labour costs to be moderated.

There is, thus, interest in ensuring that the development of new technologies takes account of aspirations for improved working conditions. In this, which is largely a matter for the individual firm or for negotiation between both sides of industry, new procedures need to be developed that will allow the views of the workers to be taken account of in investment decisions, but without slowing down the decision making process of the firm.

34. Mobility of labour is essential for growth. One must concentrate on sectoral or professional mobilities but combat excessive demands for geographical mobility to avoid further worsening the regional imbalances that have been intensifying these last twenty years.

Mobility must be reconciled with workers needs for security in a period of underemployment. It requires of the Member States a policy of support worked out with the social partners. Necessary changes must be worked out with the workers rather than imposed upon them. Their costs must be equitably shared.

Experience shows that financial aid for personal mobility - while not being unimportant - plays a lesser role than measures facilitating settlement (lodgings, social and cultural facilities) and the preparation for change (retraining).

35. In this field responsibilities are highly decentralised and, moreover, divided amongst those charged with economic and with social policies.

The Community, therefore, has a triple role in order to meet common needs and combat protective or regressive tendencies, namely to:

- stimulate the Member States policies aimed at supporting both mobility and the improvement of working conditions;
- provide a forum in which the social partners may express their points of view about economic policies that affect them;
- propose demonstrations and exchanges of experience.

These are the aims already pursued, notably in the work of the Tripartite Conferences and of the Permanent Committee on Employment, with the view of airing possible Community decisions.

36. One major cause of hesitations about innovation or growth is the social costs to the workers affected, be they from geographical or sectoral mobility, from outdated or downgrading of skills, or from a deterioration in working conditions - this latter occurs frequently. Although difficult to measure, these costs are particularly resented since they fall so unequally. There are many indications, for instance, that working conditions have not improved over the last twenty years by as much as the standard of living.

The requirements of redeployment and innovation will be the more easily accepted the better we can master their social consequences. This requires progress from social reactions, costly in terms of conflict and of money, to anticipatory measures better integrated in the policy for the support of innovation.

I. INFORMATION ON THE ECONOMIC SITUATION

37. General measures must include improvement of firms' and public authorities knowledge of the environment, both within and beyond the Community, in which they are operating.

Although volumes of statistics are available for each Member State, a clear view of the situation for the Community as a whole is indisputably lacking. Yet such a view is essential for many purposes, particularly to illuminate those disparities between Member States which need to be taken account of in so many of the Community's measures.

38. The Commission is working on a common analysis of problems posed by structural change. This effort to obtain data and reciprocal information is related both to the analysis of causes (international and internal factors of change, features of sectoral performance and regional imbalance) and to the evaluation and analysis of consequences (national sectoral forecasts where they are drawn up, the development of a system of sectoral indicators -- a sectoral "instrument panel" -- and, assessment of employment effects of the different restructuring formulae).

The object is to obtain progressively a clearer view of the situation in order to provide all concerned with a source of comprehensive statistics. This will help in making ex-post Community assessments of the extent to which sectoral trends have been in line with macro-economic objectives. It will also give early warning of problems which might arise as a result of known demand trends or of envisaged national or Community problems.

IV. THE STRATEGY OF GROWTH : SECTORAL ELEMENTS

A. CAPITAL GOODS INDUSTRIES : FACTOR OF WORLD COMPETITION

39. In the future, the competitiveness of European industry will depend on its ability to mobilize new technologies, to improve productivity and to supply capital equipment to the world.

This is an area dominated -- particularly where the production of machines and sub-contracting is concerned -- by small and medium-sized enterprises, with all the advantages of structure and employment that this implies. Consequently, general measures for improving the environment of these enterprises, for innovation and for R & D, will be particularly fruitful. Nevertheless, in some sectors, the public authorities must assume a directly stimulatory role.

Encouragement may also have to be given to different industries to cooperate in the development of new types of production systems which an individual sector is incapable of developing of its own. For example, Japan's lead in robot systems springs from a series of national pilot projects; while the dominance of US industry in numerically controlled machine tools dates from a major defence promotion programme which brought together both machine tool and electronic firms. Pilot projects in the sociology of new production methods are as necessary as those in the technology itself -- willing acceptance of technical advance must go hand in hand with innovation for job enrichment and the improvement of working conditions.

Some Member States have already adopted measures in this field, but a common effort is needed to avoid distortions within the Common Market and to enhance the thrust for growth in the Community as a whole.

This intervention must of course be carried out in a manner compatible with the maintenance of our free market economy, and must not itself provoke distortions of competition between Member States against the common interest. The forms of intervention, moreover, must be matched to the problems which they aim to resolve. The Commission will take care to ensure that these limits are respected both in the proportions which it will submit to the Council and in its assessment of national initiatives in the context of the rules of the Treaty.

In some key industries, particularly electronics/data-processing and aerospace, public authorities in most industrialized countries intervene to promote research and development and create markets, partly to satisfy defence or other national public needs, partly because they consider these industries critical to economic growth and development.

Both the Japanese and United States Governments have programmes of this kind. Similar programmes are under way in the Member States and some efforts have been made by the Community, but with qualified success because of conflicts of interest between Member States and individual enterprises. This problem should be reexamined as part of the efforts to find a common strategy.

a) The electronics/data-processing complex

40. The most important of the sectors aided in this way is the electronics/data-processing complex, which is as vital a motor of economic development in the second half of the twentieth century as the steam engine was in nineteenth century Britain or electricity in the United States and Europe in the first half of this century.

This industry has three characteristic features :

41. - The computer systems industry, non-existent in 1950, employs some 200,000 people in the Community today, while some four times that number are employed by user industries. The industry, growing at present by some 15% per year, is expected to employ some 400,000 people directly and another 1,500,000 in users by the mid-1980's.

A society which knows how to conceive, design, produce and above all use the myriad forms of computing power can not only carve out for itself a major place in world markets but also achieve formidable improvements in social services and productivity. It is characteristic that of the 1 million jobs in computing in Europe today, and the 2 million tomorrow, less than a fifth are engaged in producing hardware; the rest are in the skilled service activities of programming, running systems and exploiting their output.

In the computer industry, national support programmes have helped to keep national industries alive. They have not yet achieved the aim set out in the Council Resolution of 1974 of creating a "viable and competitive industry" capable of standing on its own feet by the early 1980's. Adoption by the Council of the Commission's proposals for a four-year programme for data-processing will be a modest but essential step towards fulfilment of the Resolution.

But in addition, well before current national programmes come to an end in 1979 and 1980, it will be essential for further measures to be concerted at a European level so that from 1980 onwards they form part of a systematic common effort. Proposals to this effect will be submitted to the Council once the programmes at present under discussion have got off to a start.

42. - The telecommunications infrastructure. In our day, good and cheap communications are critical to the development of economic union. They are essential, in particular, to the development of outlying regions, to the integration of new Member States in an enlarged Community, and to the rapid development of the myriad new forms of service of an information society. During the past 50 years, the European telecommunications industry has occupied an important place in world markets. Its growth has been at a rate of approximately 20% per year during the years 1969-74.

Today, however, new challenges are emerging. As telecommunications switching becomes electronic - in essence a computer - and the telephone and television become terminals of computer systems, the two industries are becoming one. Although the move from electromechanical to electronic systems, and the use of integrated circuits, is reducing the manpower required for the production of telecommunications hardware, it will dramatically increase the importance of an efficient Europe-wide infrastructure to the development of a vast range of new information services equipment.

The EURONET network has provided a first step. This is a pilot network organized by the Community and put into effect by national administrations that is designed to ensure the effective dissemination of technical and scientific information. The creation of a wider European electronic network with common functional characteristics is of critical importance to the user and could act as a major stimulus to the European telecommunications and data-processing industries in world markets.

In the Community, continued industrial efficiency on the world market depends on a loosening of the existing ties between industry and the national public telecommunications services, through a policy of opening up public contracts without delay, and by the development of common technology. These objectives were recognized by both the Communities' Council in its Declaration of December 1976 and by the Ministers of Posts and Telecommunications in Council in December 1977.

43. - Electronic circuit technology. The third critical element in the new computer industries is the advanced electronic circuit technology which now makes it possible to make available in a pocket calculator the computing power of the early computers, and which by the early 1980s will make available on a chip the size of a ten-penny piece today's large computer or a telephone exchange which in previous generations occupied a large building. This technology is becoming critical, not only for the computer, telecommunications, avionics and defence systems industries but for most others, from machine tools to factory systems, to cars and consumer products.

It is impossible, presently, to evaluate all the future developments in this technology, and their consequences.

In these industries to-morrow's engineers responsible for electronic systems of all kinds must be capable of designing his product to incorporate the new technology. If this technology is not available in Europe, they will of necessity communicate their know-how to those outside the Community who can handle it.

Already today the Community imports 90% of its integrated circuit requirements, reflecting the commercial and technological lead of competitors.

To meet this situation, industrial agreements have been concluded between European companies and foreign industries directly or indirectly subsidized by their governments. Because of the strategic nature of the product, both economic and political, it is by no means certain that these agreements will permit timely and adequate access to the most efficient components. Nor is it certain that such agreements promote the development, within the Community, of know-how and innovatory capabilities, be it in component production or their industrial exploitation.

Alternatively, decisions could be taken at public level to establish development programmes similar to those in Japan or the United States. Up to now the cost of an adequate support programme has been an obstacle to the launching of one on a national basis. Programmes are nevertheless under study in Member States. In view of the foreseeable impact of advanced components on other branches of industry, it is essential to forestall the dangers either of a duplication of effort as a result of uncoordinated national programmes or of the abusive creation of a dominant position.

The implications of the choices for European industry are so fundamental that a Community debate at political level on the desirability of a long-term technology programme is both necessary and urgent. The Commission will make proposals to this effect.

b) Aircraft industry

44. The aircraft industry is a further growing industry with characteristics which require Community action. Even in the recession years (1970 to 1976), the annual average growth rate of turnover in the Community aircraft industry was 5,7%, almost twice the growth rate of Community GDP (2,9%).

A long-term development objective for the Community's aircraft industry, and indeed for the industry of all aircraft manufacturing countries, is to reduce its dependence on military markets (which at present account for 70% of turnover). The conditions for achieving such an objective exist, since all the forecasts point to a growing civil market, estimated at some \$ 70 000 million over the next decade for large civil transport aircraft, to which must be added the growing demands for helicopters and general aviation.

This is not an industry which will remain in competitive existence manufacturing large civil transport aircraft through market forces alone. At present, one company (Boeing) has 55% of the world market for large civil transport aircraft. Because of the intimate link with defence, all major aeroengine developments and a significant part of the systems development and airframe technology in the United States have been financed by the Federal Government Defence budget. In Europe, major airframe projects also depend in part on public funding, while the scale of development costs and the need for a large market have imposed collaboration.

Current decisions on the next generation of aircraft will shape the future of the industry for the next twenty years. Europe has a unique opportunity to launch a family of aircraft linked to the successful A 300 Airbus.

It is the task of industry to elaborate the programme and to establish its commercial viability in discussions with airlines. Governments of countries in which the major parts of the industry are based will naturally provide public launching aid to the limits of their ability.

However, bearing in mind that the USA, with a domestic market twice that of the Community, supports only three airframe manufacturers, among whom Boeing is the undoubted leader, it should be evident that no Member State is large enough to maintain this industry on its own.

45. The Community can contribute in the following ways :

(i) at industrial level :

- by providing a framework in which industries from other Community countries can contribute to national programmes;
- by creating, if necessary, a special legal framework for industrial cooperation - for example, "ad hoc" joint undertaking status, along the lines provided for in the Euratom Treaty, etc;
- by supplementing any shortfall in launching aid with Community finance;
- by helping to finance technological research, particularly through support for industrial cooperation, and the development of a major research infrastructure;
- by using trade negotiation power at Community level to support the world-wide marketing of European aircraft through the common commercial policy and through use of the Community's financial means to the extent necessary to match the support available to competitors, for example, through the US Ex-Im Bank.

(ii) as regards the market :

- by encouraging contact between airlines throughout the Community and the industry with a view to ensuring that the products conceived meet airline needs and that they therefore have an interest in procuring them;
- by taking Community measures capable of giving European industry a larger market.

It is noteworthy that the tariffs of the US aviation industry are generally lower than those in the Common Market. This is made possible because their market is so much larger, and some costs much lower than ours.

The differences in tariff and in the scale of air traffic between the US and Europe are also to be attributed to the existence in Europe of many different national airlines, requiring multiple bilateral agreements in the framework of the Chicago Convention, whereas the US has but one integrated market.

To take account of all this, the Commission is drafting a regulation applying the rules of competition policy (Art. 85, 86, 90) to Community air transport, on which it will pronounce after consulting national experts. A more competitive internal market would promote innovation and flexibility in services offered, improve efficiency and lower prices to the consumer; such aims are of particular interest to the peripheral regions of the Community, and will be of even greater interest to the candidates for adhesion.

The Commission will also seek to obtain progress from the Council on the work programme for civil aviation.

- by harmonizing national legislation - standardization and airworthiness requirements in particular - so as to make them mutually acceptable by all the Member States.

The Commission's main concern is to apply the rules of the Treaty to civil aviation. On several other points, it has already presented proposals to the Council of Ministers; it is also preparing proposals to cover gradually all the areas which at present come within its sphere of responsibility.

B. THE SEARCH FOR NEW BASIC RESOURCES

a) Energy

46. Economic growth could well be hampered in a few years' time by the problem of energy costs and its balance of payments implications. This danger, which will be all the greater as the aim is to have rapid growth, arises from the inadequacy of energy production within the Community and from the difficulty of preventing economic growth from automatically boosting energy consumption, both in the short and medium term (the difficulty of energy saving) and in the long term (restructuring of the economy).

The need to prevent energy requirements from imposing too heavy a balance of payments burden and increasing still further the Community's over-dependence on oil imports calls for three types of action:

- curbing energy consumption without restricting the growth potential of the economy; this means, in the long term, preventing economic growth from pushing up energy consumption and, immediately, undertaking energy-saving investment: such investment could cost some 15 000 million EUA in industry and 24 000 million EUA for building and heating systems between now and 1985, creating new markets for such products as heat recovery systems, insulating materials and better designed heat distribution systems.
- developing the Community's domestic energy production (including nuclear energy) by channelling towards it a growing share of the total volume of energy investment. This may be estimated at around 230 000 million EUA during the period 1976-1985 for all energy sectors, including the nuclear fuel cycle and the transport and distribution of energy products. The demands of this programme on the capital goods industries will enable them to reach the size and develop the know-how required to meet international competition. The upstream industries that would benefit include electrical, mechanical and civil engineering, pressurizing and metering equipment, the steel industry (pipe products) and shipyards (platforms and offshore equipment).
- in the longer term, in view of rising world demand, only the development of new sources and techniques (solar and geothermal energy, coal gasification and liquefaction, etc.) can help to reduce the constraint which energy, because of its scarcity and probably because of its price, could well become. Even if there is little likelihood that new energy sources can cover more than some 5% of the Community's energy needs by the end of the century, development of the technology involved cannot be put off any longer.

The Community has an important role to play in all these three fields: in defining aims; helping their realisation; promoting cooperative efforts, and; ensuring that Member States do not adopt conflicting energy policies leading to distortions of the common market for energy.

47. In addition the non-oil developing countries must be helped to develop their own energy sources, especially those which are renewable. This form of energy cooperation (to be developed, as a matter of priority in the Euro-Arab dialogue and the ACP association) is in the Community's interest when it allows:
- . the realisation of considerable economies of scale in the development of new energy sources and techniques;
 - . the development with the help of European industry of certain low-cost energy sources;
 - . pressure to be brought on the continued growth of world demand which is borne by limited oil resources.

b) Raw materials

48. The increasing costs and shortages of some raw materials place a premium, given the international situation, on intensive investment in exploration, exploitation and research and development of substitutes.

There exist important opportunities for systematic industrial partnership with the developing world in long-term joint investments in all the three stages of exploration, exploitation and initial processing and industrialization.

There are a number of ways in which the Community can help to back industrial initiatives, for example:

- using the Community's negotiating capacity, reflected in the relations which it establishes throughout the world;
- applying the scheme for guaranteeing mining investment which the Commission has just presented to the Council.

49. Public policy also has a part to play in promoting recycling and the recycling industries, encouraging the design of more durable products and combatting waste of resources. Local and national initiatives are fundamental here, but the Community has a role to play in encouraging the dissemination of technology and, where useful, financing the necessary research and development schemes. The programme on the recycling of waste paper and board, recently adopted by the Council of the European Communities is a good example here.

c. THE CREATION OF NEW JOBS

50. The aspects of Community action outlined so far form part of an overall strategy for the resumption of growth, aimed at gradually reducing unemployment and creating the new jobs which will be necessary to accommodate the young people coming on to the labour market in the years ahead, especially in the less favoured regions.

However, the beneficial effects of these measures and of the broader policies envisaged will not make themselves felt very rapidly. Meanwhile, the productivity gains essential to maintaining the competitiveness of European industry will have a negative impact on employment.

A growth strategy would consequently be incomplete if it did not provide for active measures to promote job creation in the shorter term.

a) Civil engineering, building and construction

51. The sheer size of the building and construction industry in the Community (7 million employees and over 7% of gross domestic product) makes it a significant economic factor, particularly since, especially in the case of housing construction, it is largely made up of small and medium-sized firms. Moreover, the multiplier effect of orders in building and construction is significantly greater than in manufacturing industries such as chemicals, metals or metal products and textiles.

Some fundamental factors, however, lie behind the current slowdown. In road-building, for example, a large part of the infrastructure of motorways is now complete, while urban road construction is encountering fundamental environmental obstacles.

As to housing, some countries now have enough to satisfy their needs.

The main unsatisfied requirement is the improvement of the large number of substandard homes. Any revival of construction demand may well have to be significantly selective with some countries concentrating on measures to improve existing housing stock and others on encouraging saving for home-ownership.

The Community is making indirect contributions, for example, through the harmonization of technical standards, or through the work recently begun on mortgages. Less evident is the need for broad-based action to finance measures in support of national programmes.

On the other hand, environmental protection policies will continue to support demand in construction. This results from the large investments necessary to achieve anti-pollution aims, for example the construction of water purification stations.

52. In transport, development and modernisation of infrastructure will have an impact both on the service offered to Community users and on the equipment and construction industries.

Above all intracommunity traffic bottlenecks must be relieved and existing networks connected. Regional policy considerations, in particular with the prospect of enlargement, add interest to investment in infrastructure.

The Council of the European Communities was seized, in July 1976, with an action programme for a network, of Community interest, for all three forms of road transport; to date it has taken but one procedural decision (February 1978).

Rapid decisions are necessary not only on this Community measure, but also for realising specific projects.

b) The tertiary sector

53. During the last fifteen years, the services sector has been the major new source of employment. Between 1965 and 1975, while industrial employment in the Community remained more or less stable, employment in the service industries rose by about 20%, creating an average of 800 000 new jobs a year.

In 1971, employment in the services sector overtook employment in industry. The diversity of industries included in the services sector, and the fact that its development has not yet been studied properly make it difficult to draw precise conclusions on the basis of past performance.

Nevertheless, the even more pronounced trend in the United States for the growth of services to outstrip that of industry, tends to confirm the Community pattern quoted above. In America, employment in industry was overtaken by that in the services sector in the early 1950's and, since then, its growth has been but slow between 1960 and 1976. Employment in services, however, increased by almost 70%, creating on average 1 300 000 jobs a year.

54. Following discussions in the Permanent Committee for Employment, study in depth of the services sector is only just beginning at Community level. Initial discussions on the subject provide ample evidence of the importance attaching to it, but also bring to light a number of conceptual differences, particularly with regard to the division of tasks between the public and private sectors. It seems essential, without restricting the scope of discussions on basic principles, to give priority to analysis of the actual situation.

It is important to check as soon as possible a number of hypotheses which can be put forward in the light of past performances of the services sector in both Europe and the United States.

First, work should be carried out to establish which are the market services whose growth has been a consequence of growth in the production of goods (for example, commerce, banking, insurance, transport and communications). Secondly, there should be examination of services whose growth has been parallel to rises in living standards and tied more to meeting the needs of households and individuals, both in the market and in the non-market sectors (for example, tourism and recreation, health and education).

If such analyses confirm the role of manufacturing industry in generating growth in the services sector, this would further underline the need for a strategy aimed at increasing the efficiency of firms.

The non-market sector falls primarily within the sphere of responsibility of the public sector, although, to a growing extent, some of these activities, while financed by the State, are managed by organizations of a private nature. One of the paradoxes of the present economic situation is that governments pursuing a restrictive budgetary policy in a context of large-scale unemployment are constrained to make cuts at a time when new needs are constantly being identified in public services, health, education, and personal care for the aged and disabled.

As these public services not only meet deeply-felt needs, but also have value as generators of new employment in fields less subject to international competition, ways and means must be sought of reconciling their development with budgetary constraints.

The forthcoming Tripartite Conference will, among other things, examine the problems involved in the development of the services sector. Preparatory work should be pursued energetically, so that a basic consensus can be established, allowing the Community institutions to take any subsequent decisions required.