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Expert Group Meeting on the Implications of the Single European Market for Industrialization in Developing Countries

Vienna, 18-20 March 1992

REPORT*

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PREFACE

The creation of the Single European Market is the most significant step in economic integration so far taken. The creation of a single economic area in which capital and labour, goods and services all move freely is the target set by the countries of the European Community to be achieved by the end of 1992. Given the size and strengths of the Community, the changes under way may be expected to have significant impacts beyond its borders.

UNIDO, with financial support from the Government of the Netherlands, held an Expert Group Meeting to examine the main implications of this process for industrialization in developing countries. The expected growth effects of the Single Market will have implications for the world economy, including changes in trade and investment patterns. Other associated EC policies, especially in the areas of regional policy, competition, technology, environment, energy and technical standards will also affect a wide range of industrial sectors, and thus the prospects for industrialization in developing countries. The Expert Group Meeting reviewed the implications in terms of key industrial sectors: food, textiles and clothing, footwear, steel, chemicals, and electronics.

The report of the meeting has been prepared by the Regional and Country Studies Branch of UNIDO, with Dr. Thomas Pietschmann as UNIDO consultant.

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INTRODUCTION

The Expert Group Meeting was held in Vienna from 18 to 20 March 1992. It reviewed an issues paper and six sectoral papers prepared for the meeting. The meeting was attended by thirteen participants from developing countries, together with representatives from international organizations and a representative of the Commission of the European Communities. What follows is a summary of the presentations made and an ordered narrative of the views expressed. The agreed recommendations of the meeting are given in section IX.

I. OPENING OF THE EXPERT GROUP MEETING

The meeting was opened on behalf of the Director-General of UNIDO by the Deputy Director-General of the Department of External Relations, Public Information, Language and Documentation Services.

After outlining the purpose of the meeting, emphasizing the importance of the meeting to UNIDO and thanking the Government of the Netherlands for its special financial contribution, the Deputy Director-General stressed the importance of economic integration as a "tool" for development, not only for developed countries but also for developing countries. Thus not only the direct consequences of the Single European Market (SEM) are of interest to developing countries; developing countries should also investigate whether it would not be worthwhile to take European integration as a model for similar efforts in other parts of the world as well to foster economic development.

The meeting was then addressed by the Head of the Regional and Country Studies Branch. He drew attention to the increased importance of factors such as quality, flexibility, economies of scope, competitive alliances, tailor made products etc. There are new driving forces of competition and economic success that have led to the "price argument" losing some of its original importance and are a new challenge for industry in developing countries.

These new trends call for high-skill labour. At the same time the wage content in the total product price has started to decrease which reduces the traditional competitive edge of developing countries. (A good example in this respect is a Swiss company in which only 2 per cent of total product costs are due to labour costs; the company can thus afford to pay extremely high wages.)

The institutional environment has also changed. Government policy in many countries is characterized by deregulation and privatization. The period of using state-owned enterprises as a development tool has come to an end. This does however not mean that the overall role of the state has decreased. On the contrary, the state has to move towards finding solutions for new tasks. State activities can be seen today perhaps as even more important than in the past because of the complex nature of the problems that countries are faced with today.

One problem which many countries, especially those of Eastern Europe, the countries of the former USSR as well as a number of developing countries face is how to move from a centrally planned economy towards a free market economy and privatization. A simple "laissez faire" approach does not seem to be the correct answer. Economies need guidance on their way towards privatization and a free market economy. Even in many so-called free-market economies in developed countries the state is responsible for setting safety and security regulations, to promote R&D etc. In addition to such tasks governments in developing countries will have to strengthen their abilities in new areas, such as the conduct of trade negotiations, as for industry in developing countries much depends on successful trade negotiations and free access to major markets.

Regionalization of the world economy is another trend. About 60 per cent of trade occurs within the three large trading blocs (EC, North America and Japan). Another 23 per cent of trade is between the three large trading blocs and only 13 per cent is accounted for by trade with developing countries. There is a tremendous adjustment necessary for developing countries to improve this imbalance.

Turning to Europe, one can observe a new dynamism within the EC. New potential member countries are eager to enter the European Community. This will lead to both a more aggressive competition within the EC market and may call for a stronger trade protection from third countries, including developing countries. Larger international trade could also be achieved through successful GATT negotiations. But it is not yet clear whether a positive outcome will be reached.

The larger European market will have effects on technology and human resources, and it may have a positive impact also as a growth centre for neighbouring regions.

The trend towards regional integration in many parts of the world was also noted.

Additional issues to be taken into account included

mergers and acquisitions and the formation of corporate alliances;
changes in the production and consumption patterns;
the new forms of competition policy;
the increased importance of industrial standards;
the increased importance of environmental legislation (affecting the industrial process, packaging, recycling etc.).

The question arises as to how developing countries can monitor all these changes. There may be a new task for UNIDO to assist developing countries in these efforts of monitoring and evaluating the likely consequences. It is complicated by the fact that the EC is still not a 'monolithic' grouping. Rather, a significant number of decisions are still being taken by national and local governments as well as to the EC Commission and other EC institutions. Other actors including EC corporations, R&D institutes, universities, industrial associations, trade unions and a large number of other 'lobbies' are also responsible for shaping the final outcome of the EC decision making process.

The Head stated that the task of the Expert Group Meeting was to express openly the opinions and concerns of developing countries against the background of these new trends. It is important that the message of the findings and concerns be widely spread, that an awareness of the changes under way be created and that regional or even sub-regional implications be discussed. An important task of the meeting is also to identify the next steps, i.e. the follow-up activities. A communication network could be considered or a series of expert group meetings of a similar kind on a sectoral or sub-sectoral level for different regions in order to make policy makers aware of the very concrete consequences of EC integration for developing countries.

The meeting then proceeded to elect a Chairman. Dr. Adel Ismail Gazarin was elected Chairman by acclamation.

II. ISSUES PAPER

After explaining the structure of the meeting the issues paper[1] was presented by a member of the UNIDO Secretariat. It was explained that the SEM concept can be understood as a mechanism to eliminate technical trade barriers within the European Community. The Single Market Concept was a response to the imperfections of the EC market. These imperfections resulted from a number of sources including national government purchasing, different norms and standards and the administrative burden in enterprises in exporting to neighbouring countries.

One major consequence of the SEM will be (or has already been) the emergence of larger firms in the EC which are able to benefit from economies of scale. The tendency towards mergers and acquisitions has been especially strong in food and beverages as well as in electronics.

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[1] "Overview of issues", UNIDO, ID/WG.523/4(SPEC.), 9 March 1992.

Further factors include the extension of the SEM by the entry of new members, the creation of the European Economic Area and the special relations with countries of the former East bloc. The EC has ties with nearly all parts of the world, the closest being those with the ACP (African, Caribbean and Pacific island countries) in the framework of the Lomé agreement.

For Africa the question of manufactured food products has the largest importance and for Asia the question of textiles and electronics seems to be the central issue. Trade and investment links with Latin America are still relatively weak.

Cross sectoral issues include the trend towards mergers and the increased importance of quality. The likely enlargement of the SEM will give even more emphasis to these trends.

Technological issues include the question of R&D. There is a likelihood that the already large technological gap between developing countries and developed countries will grow even further as a result of EC programme of R&D.

Another major problem for developing countries is the question of EC standards. Environmental protection has only recently come on the agenda of the EC. The question for developing countries is how the new legislation concerning environmental protection will affect developing countries. On the one hand, EC enterprises might shift production capacities out of Europe to developing countries for cost reasons, thereby fostering global industrial development; on the other hand, there are already pressures for an extension of EC regulations to developing countries and this might become a new kind of trade barrier for developing countries' exports.

The Expert Group Meeting thus should analyze what are the implications of the new EC legislation for developing countries and which responses might be feasible, for developing countries' governments and enterprises, as well as the role of international co-operation.

After these introductory statements, the Vice Chairman and the Rapporteur was elected. Mr. Ungsuh K. Park was elected Vice Chairman and Mr. Eoin Gahan of the Regional and Country Studies Branch of UNIDO was chosen as Rapporteur.

In discussion of the issues paper, it was pointed out that the formation of the SEM occurs parallel with a number of other major trends, including the events in Eastern Europe and the GATT negotiations which may have for developing countries perhaps even more direct relevance than the SEM. Furthermore political events are of significant importance as well. For international trade in general and Europe-Arab trade in particular, the Gulf war, for example, was certainly much more important than the SEM. It is extremely difficult to single out the effects of the SEM from other international trends and events. The new challenges ahead are not any longer the question of the SEM but the question of monetary and political union as envisaged in the Maastricht treaty. Overall, there seems to be a global trend towards "regional integration". Europe is not a unique case. These trends can be seen in Latin America, in the Gulf Region, in Sub-Saharan Africa and in many other parts of the world.

The environmental question has to be considered on its own accounts as it has gained a momentum of its own. It thus should not be interpreted as a way to build up new market entry barriers for developing countries.

One has to be careful in predicting future implications of the SEM. It is always dangerous to simply extrapolate past trends in order to predict the future. Many aspects of the SEM have already become reality. Decision makers (including those on the corporate level) have already anticipated the completion of the Single Market. Thus, the peak of the concentration process might already have been reached.

It is correct that many foreign companies invested in the past few years in Europe; again this re-direction of international investment flows was in anticipation of the SEM. It is by no means clear that this trend will continue once the SEM has been completed. It is much more likely that the SEM will have an overall 'neutral' effect on investment decisions in the future. Investment decisions - as the past has shown - are also often overshadowed by other (political) events.

Concerning fears of the creation of a "fortress Europe" as a consequence of the SEM, it was pointed out that in recent years the European Community has on the contrary been extremely open, with the exception of agriculture and the textile sector. Imports grew from developing countries much stronger than EC exports to developing countries. The Multifibre Agreement (MFA) was not able to halt or reverse these tendencies. Production capacity in the field of textiles continued to move away from Europe towards developing countries. The MFA has only restricted the speed at which this transformation process could take place. A positive negotiation result of the Uruguay round will also lead to the complete dismantling of the MFA within the next ten years. It was mentioned that a number of studies have come to the conclusion that the overall impact of the SEM for developing countries will be neutral. These studies speak of possible 'trade diversion' effects which are neutralized by the EC-demand pull effect through higher income in the EC.

However, the studies are only correct if one accepts all the underlying assumptions, but these assumptions tend to be very restrictive and sometimes far away from reality. If the EC becomes more efficient internally - and this is the goal of the SEM - this does not automatically give EC companies a competitive edge. It can also work to the advantage of European consumers instead, and thus indirectly to the advantage of producers from developing countries. All published studies have as an implicit assumption that the foreign exchange markets are stable and remain stable. In contrast to this scenario one could assume another scenario in which the currencies of the European Monetary system (EMS) bloc would start to appreciate *vis-à-vis* the currencies of developing countries if large-scale efficiency gains were to be realized. Within a short period of time the whole system would move once again into balance. However, the higher income in the EC would then translate into a general rise of demand in the EC. The EC would thereby fulfil the role of an economic locomotive. In other words, instead of a new competitive edge and a marginalization of developing countries as some studies suggest it was pointed out that a more efficient European Community could make more income available to its citizens who then would be able to increase their consumption and their imports from developing countries.

Norms and standards have an important place in the Single Market process. The EC Commission is aware that for developing countries European standards might be difficult to meet. Especially for those developing countries with which the EC has had very close relations, the standard question could emerge - unintentionally - as an impediment to trade. On the other hand, common European standards also help developing countries to gain huge markets once they produce goods in conformity with these standards, instead of having to comply with a number of different standards in various EC member countries.

The new approach is based on so called "framework directives". In these framework directives it is laid down what standards are supposed to achieve (especially in respect to health and safety requirements) and it is left to the national standard setting institutions to come up with details of how these objectives are to be achieved. The real important feature of the SEM is that once a product is allowed to be brought into circulation in one EC country it automatically can circulate throughout the community, i.e. there is a mutual recognition of standards of EC member countries. Recently the EC Commission has obtained a mandate to conclude similar mutual recognition agreements with non-EC member countries or country groupings which will also include developing countries. This would then make it significantly easier for developing countries to sell their products on the European market. Given the problems developing countries face in complying with EC standards, the EC has already started to give technical assistance to a number of developing countries to help them achieve the new standards required. (One of the first countries was India.)

More demanding industrial standards will certainly be a challenge for many Latin American countries. In this connection it will be important to have quality certification centres in Latin American countries in order to facilitate the access to the European market. There are already some indications that standards will increasingly be used as a new form of protectionism. A recent example is the discussions concerning HDTV. What would be needed would be an active participation of developing countries in the standard setting process of the EC, the USA and Japan.

With respect to Africa, it was pointed out, that although the implications of European integration are important for Africa, one has to underline that the first step has to be for African countries to help themselves. Africa has to produce what it needs. While it would be even better if products are made to comply with European standards, the priority of African companies has to be Africa.

On the question of trade liberalization and Latin America , it was emphasized that the process of dismantling protectionism in South America in general and in Argentina in particular had already begun. In the past regional integration in Latin America had also implied a higher common protection against third countries. The new integration process taking place in Latin America - such as in the MERCOSUR project - however does not only mean the dismantling of protectionist barriers within the region but also in relation to third countries. The new approach has been based on an unilateral dismantling of protectionism (reduction of both tariff and non-tariff trade barriers) which should also enable increased trade between different sub-regional markets.

On R&D and EC technology policy, it was pointed out that the problem in many developing countries is not only the lack of sources available for R&D purposes, but the overall wrong approach towards R&D. Many poor developing countries engage into areas of pure science, a completely wrong approach. A far more pragmatic approach is needed. The creation of research centres which produce papers for the international research community does not help a developing country at all. Research in developing countries has to be directed primarily towards applied research and has to take the resources and the industrial potential of the country as a guideline. There is not much sense in simply copying EC research programmes as long as the industrial potential is completely different from that in the EC.

Regional co-operation and integration is seen in this new concept as a mechanism and first step to dismantle trade barriers in order to achieve global free trade at a later stage. Therefore, regional integration must not create new barriers for third countries while dismantling existing trade barriers among member states. This is the belief that Latin American countries share in Mercosur, and this philosophical approach should also apply to the EC. If Latin America opens up its markets, it expects the rest of the world, including the EC, to follow suit. There should not remain sectoral exceptions such as with the EC and its so-called 'sensitive' sectors. Either one is in favour or against free trade.

The problem in many Latin American countries has been that trade liberalization and deregulation of the economy were in many cases not an autonomous decision by government but used as an instrument to stabilize the domestic economy. In order to cut high inflation rates Latin American economies had to open up. But this opening of the economy could hardly be called a controlled process. The consequences so far have been overall positive, but the consequences would have been far more positive if other countries also had liberalized their foreign trade following the Latin American example.

In order to become competitive developing countries need increased investment into both technology and human resources, especially management. The highest return on investment is certainly for most developing countries to invest into management, i.e. training or re-training of management. As examples in Brazil have shown, better management can increase the efficiency of existing resources significantly and increase overall competitiveness.

Although Latin America has ceased to be the protectionist continent it was known as for many decades, the changes that have taken place in Latin American countries are hardly known in Europe; the external tariffs have been reduced in many countries to a maximum 20 per cent and regional co-operation within Latin America (MERCOSUR, Andean Pact etc.) is gaining momentum without any increase in trade barriers *vis-à-vis* third countries. Also the 'Bush'-initiative is fostering deregulation in Latin America.

However, there are relatively weak linkages that existed between Europe and Latin America which call for joint efforts in strengthening them. The EC should consider increasing its investment in Latin America. Improved trade links with Europe both for Latin America and other developing regions will however depend on a successful termination of the GATT negotiations in the Uruguay round. UNIDO could and should help countries of Latin America by making European decision makers at all levels aware of the positive changes under way in Latin America.

The case of Kenya was mentioned. For Kenya the real issue is how the SEM is going to effect its tea and coffee sales to Europe. Possibilities for increased industrial exports are of secondary importance only. With the amalgamation of West and East Germany exports have risen to Germany. So, if the EC becomes more integrated and the demand for coffee and tea products in the EC thus grows the SEM must be judged positively. There are indeed some indications which suggest that the demand for commodities such as tea and coffee will increase (especially if former East bloc countries become members of the EC). Judging the merits of the SEM for a developing country like Kenya will largely depend upon its effects on tea and coffee trade, with everything else being of secondary importance.

Concerning the relations between developing countries and Europe, the question was raised as to how far Europe needs the developing countries? The answer was not clear. On the other hand it was very clear that developing countries need the EC. Thus there was certainly an element of imbalance in the relations between the EC and developing countries and this imbalance was not to the advantage of developing countries.

The importance of regional integration for African countries was also stressed. There is co-operation within the Framework of the Lomé convention with the EC and all other Sub-Saharan African countries. Furthermore, there is the Preferential Trade Area (PTA) for East and South-East African countries, and also other sub-regional groupings are starting to play a more important role in Africa. UNIDO should engage in assisting those regional groupings in Africa so that they can develop and gather strength. An important role of UNIDO would also be to disseminate information concerning the developments in the SEM, as there is a possibility of increasing EC bureaucracy which might make it more difficult for developing countries to meet requirements.

All countries, and in particular developing countries, have to avoid the emergence of gaps between their trade policy and their industrial policy. At the national level, trade policy has often been pursuit without due regard to industrial policy implications. In many developing countries, tariffs for so-called high-tech goods, including electronics, have often been charged with high tariffs, being regarded as "luxury items", despite the fact that in most cases, no local production of such 'high-tech' items existed anyway. Such a high-tariff trade policy often severely reduced both the competitiveness of industry as well as its innovative potential in developing countries - without even raising any significant revenues for the government. Due to the high prices, overall consumption is very low. The EC Single Market will increase the competitive pressures world-wide. Developing countries will have to respond to this challenge by pursuing policies which will aim at improving their competitiveness *vis-à-vis* the EC. A better integration of new technologies is certainly a key element in such a strategy.

On the question of industrial policies, those developing countries, switching from an interventionist regime to a more market based system are faced with a number of problems. In the old system, industrial policy was simply a question of protection and subsidization. The old system has come in many countries to its limits. Highly subsidized industries tend to become inefficient and are faced with all kinds of export restrictions, including on the SEM. Although many governments in Latin America have already started to change their traditional industrial policy it is not yet clear to many government officials how to 'guide' the industrialization process in the new liberalized environment. Government officials are still looking for a new framework which they could follow in order to take up the challenge of industrial competitiveness.

Another feature of the "new economic order" is that the gap between developed countries, which are increasing their high value-added production, and developing countries, which are left with only low value-added production, widens. The trend towards global trade liberalization may further widen that gap. There is the danger of developing countries being considered as a dumping place for polluting and low value-added industries only. Increased emphasis these days is being given in developing countries to capture markets and introduce new lines of products. In addition developing countries compete against each other for foreign investment. Care has to be taken that this new approach of economic development will not be at the expense of the people working in these 'competitive' industries (child labour, no social net, no bargaining power for home workers etc.).

The EC market will also mean an increase in the competitiveness of European firms, both in Europe and outside Europe. The view was put forward that the impact will be slightly positive for developing countries; however, the impact will be between 10 and 100 times more positive for the EC than for developing countries. In other words, the actual net positive effect for developing countries due to the EC Single Market will be very small for developing countries, implying that rich countries will get richer while the gap with poorer countries will increase.

Although access to markets is important, it was stressed that the supply side must not be neglected in developing countries. In many developing countries there is an element of inflexibility in the supply side. The Caribbean Initiative (CBI) which was launched a couple of years ago has so far not brought the anticipated results. The reason for this relative lack of success has to be seen in the initiative itself which excluded some key sectors for the countries involved, and in addition, it has become clear that it takes time until industry in (poor) developing countries is able to benefit from the opportunities offered due to the opening of large markets.

The lesson for developing countries is that market access is a necessary but not a sufficient condition. Supply side measures have to be taken as well. Finally, it has become clear that the negotiating skills of governments from poor developing countries have to be improved as well. Governments have to ensure that in such preferential schemes improved market access is allowed for those sectors that are of prime importance to the developing countries concerned.

On the question of regional integration among developing countries, it was pointed out that the EC should have an interest in promoting regional co-operation schemes in other parts of the world as well. A higher degree of efficiency is not only to the advantage of the region concerned but to the global economy. In addition, it would certainly be far easier for the EC to deal with a few larger country groupings than with a large number of small and fragmented markets. Therefore it should be in the interest of the EC to promote regional integration world-wide, including in Arab countries.

So, how should trading blocs be seen from a developing country point of view? A larger SEM will certainly bring developing countries some benefits concerning export possibilities. The question is what kind of role trading blocs are going to play.

There are two scenarios. According to one scenario, trading blocs tend to be protectionist. Such trading blocs certainly prove to be an obstacle to world trade and have to be considered negatively. According to another scenario, trade blocs are a mechanism to increase world trade; they are a transitory phenomenon on the way towards global free trade. Such trade blocs are certainly positive for the world economy as a whole.

There may be indeed a global trend towards free trade. This should not be denied. However, there is also the danger that structural problems will be actually "cemented" because of this trend. There is not yet any proof that the simple assumption of free trade being able to equalize structural imbalances in the world economy will hold true.

Regional integration is a phenomenon to be observed all over the world, and it is overall seen positively not only by the EC but also by international institutions such as the OECD or World Bank. The EC considers itself as a world trading power with interests everywhere. Regional integration is thus supported and seen as a first step towards an open multilateral trading system. For many countries, immediate liberalization could be painful and arouse strong internal opposition. Regional integration is a mechanism to start a regional liberalization process which at a later stage and in subsequent steps should lead to a general liberalization of world trade. However, although the EC supports regional integration, it is certainly not in favour of the creation of strong "trading blocs" which in the end could mean less international trade due to a protectionist policy by these blocs. In the regional integration process the final objective of a multilateral free trade system has always to be kept in mind.

Although there is a global tendency towards regional integration, the motives behind vary significantly from region to region. In the EC, the Single Market concept was based on 'efficiency', 'economies of scale' etc. In many developing countries, the roots for regional integration have been 'solidarity', 'self-reliance' etc. This is however not to say that such integration efforts could not lead to efficiency gains also. The 'success' of an integration scheme has however to be assessed against its objectives.

Closer regional co-operation is certainly a healthy reaction of developing countries as a response to the SEM. There has to be a combination of developing countries helping themselves to solve their economic problems in addition to assistance being given to them by the international community.

There seems to be a global trend towards a regional trade zone approach. In addition, there is a trend towards a stronger overall liberalization of trade. Such free trade may bring developing countries some advantages. Free trade is often also connected with free movement of capital and developing countries could benefit from fresh capital. However, some caveats have to be kept in mind. There may be free movement of capital, but there is also the danger of an increased concentration in ownership.

There seems to be a global tendency towards liberalization, deregulation, less state intervention etc. Especially the liberalization of trade, which will also include the abolishment of quotas, voluntary export restraints (VERs) etc., will guarantee a better access to all markets. Such open global markets would certainly work in favour of developing countries and give a new impetus to their industrialization efforts.

Free trade was praised as a mechanism to spur industrialization in developing countries. However, it has to be emphasized again that free trade can also have a high 'social' price. There may be dislocation of workers and of whole industries and these social costs have to be taken into consideration as well.

Even more important than the SEM for Costa Rica and the other Central American countries is the North American Free Trade Association (NAFTA). With the Mexican economy joining the economies of the USA and Canada, Mexico will gain in importance as an investment location. This does not mean that Costa Rica or other Central American countries oppose NAFTA, but it means that there are concerns that this could have some negative effects for the countries of Central America. Therefore, the priority for Costa Rica is to participate in a scheme which could guarantee an easy access to both the Mexican and the US market. There are some indications that Chile could be next to join NAFTA and at a later stage countries of Central America such as Costa Rica might join as well.

However, it was pointed out that regional integration is not necessarily positive for all developing countries, and India was given as an example of the adverse effects regional integration can have for a developing country. The more regional integration in Europe proceeded, the more India lost its traditional markets. Officially India also is involved in a regional integration scheme in the framework of SARC. However, all other participating countries fear the economic power of India and so no economic integration can be foreseen for this scheme. On the other hand, Eastern Europe and the USSR were for a long time an important market for Indian products. With the break up of the Soviet Union and the reorientation of Eastern Europe towards the EC, India has lost most of its markets in Eastern Europe. The case of India and other developing countries that cannot participate in regional co-operation thus need to be studied specifically.

The priority for developing countries at this stage is adequate information concerning the implications of events in Europe. This information is needed at all levels. The problem of an adequate mechanism to distribute relevant information has thus to be addressed as a priority.

III. THE FOOD INDUSTRY

The paper on the food industry[2] was presented by Prof. Alan Matthews (UNIDO consultant). The main points were as follows.

Food manufacturing (including beverages and tobacco) is the most important manufacturing activity in developing countries. The share of the food manufacturing sector (food products, beverages, tobacco manufacturing) in MVA in developing countries amounts to 17.5 per cent versus 11.8 per cent for developed countries (see Issues Paper, p. 13 ff). For the EC the importance of the food sector is with 12.5 per cent slightly above the developed countries' average. The highest share of the food sector in MVA is to be found in Africa where the share of the food sector is slightly above 25 per cent, i.e. the food manufacturing sector has - in relative terms - a far greater importance for Africa than for other parts of the world. Nevertheless, Africa only contributes around 1.6 per cent to world food production (including beverages and tobacco manufacturing). The share of all developing countries together is around 19 per cent with nearly 9 per cent coming from Latin America and another 9 per cent from Asia. The share of the EC is around 27 per cent.

Twenty-two per cent of the EC member countries' total manufactured food imports (food, beverages, tobacco) originate in developing countries, while the food imports from the EC towards developing countries stand at 13.6 per cent of developing countries' total manufactured food imports.

The growth of the food manufacturing sector reflects growth in overall economic activity, both in the EC and in developing countries. Following general economic trends, manufacturing in general and the food manufacturing industry in particular progressed in developing countries significantly faster than in developed countries, both in the 1970s as well as in the 1980s. Growth of output in the food processing industry amounted to 60 per cent in developing countries in the 1980s whereas the increase in the EC was only 17 per cent.

The progress of African countries was relatively poor, while developing countries in Asia actually managed to double their output in the food manufacturing sector in the 1980s.

Food exports of developing countries towards the EC are still characterized by a high share in the "commodity food" segment (56 per cent of total exports in 1990). But the growth rate of this market segment has been, at 11 per cent, below average. Thirty-nine per cent of exports to the EC have undergone primary processing. Only 4 per cent of developing countries exports can be considered as "secondary food items". These secondary food exports to the EC are dominated by prepared fish. Manufactured foods (in a narrow sense) account for only 20 per cent of the secondary foods sector and less than 1 per cent of all developing countries' exports of foods, drink and tobacco to the EC.

All tariffs affecting food trade within the EC were abolished by 1968. Nevertheless, a significant number of non-tariff trade barriers remained. The most important non-tariff trade barriers arose from conflicting national regulations and were especially due to regulations concerning:

- restriction on the use of specific ingredients;
- regulations relating to content and its description;
- packaging and labelling.

Further non-tariff trade barriers within the EC exist due to

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[2] "The food sector", UNIDO, ID/WG.523/2(SPEC.), 6 March 1992.

- tax discrimination;
- specific import restrictions due to health regulations.

Thus, the food industry featured prominently in the Commission's original 1985 White Paper on Completing the Internal Market.

However, at least as important as the SEM for developing countries is the actual change taking place in consumption patterns. The European consumer asks for diversity, quality, and minimization of health risks and is concerned with the environmental impact of the food items to be consumed.

Within the food sector new possibilities arise for developing countries' exports to the EC especially in the EC growth segments of "delicatessen food", "ethnic food", as well as confectionery. Another growth sector is ready-made food.

The effects of fiscal harmonization should be particularly positive for coffee producers as excise duties on coffee in Germany (more than 40 per cent) and other European countries will have to be removed. On the other hand, tobacco producers will have to reckon with losses as tobacco will remain highly taxed in the EC for both health and fiscal policy reasons.

The most beneficial effect for developing countries will be the removal of national quotas in EC member countries. In addition, mutual recognition of standards means that once a product is imported into the EC and its sale is authorized in one EC country, it can also be sold from this country to other EC member states, irrespective of higher or different local standards in other EC countries. Thus, third countries can indirectly benefit from the principle of mutual recognition as well. For example, Swiss beer does not comply with the German definition of beer. But Swiss producers can ship their product first to France and then re-export it to Germany. However, such indirect exports still imply some extra costs and might make it worth while only for products at the "higher end" to engage in such activities.

Three Community R&D programmes have so far been of relevance to the food manufacturing sector: BRIDGE (Biotechnology Research for Innovation, Development and Growth in Europe), ECLAIR (European Collaborative Linkage of Agriculture and Industry through Research) and FLAIR (Food Linked Agro-Industrial Research Programme).

Mergers and acquisition have played and will play an important role in the EC market. However, merger activity is now carefully monitored by the Commission to check on the emergence of dominant positions by firms in the community.

Environmental legislation is also an important consideration for the food sector. However, a recent GATT panel ruling on the Mexican complaint against an US embargo on yellowfin fish found that imported products may not be accorded a less favourable treatment than domestic products based on a comparison between production regulations in the exporting and the importing country. The implication of the panel judgement is that a country or a group of countries (such as the EC) could not restrict imports of a product merely because they originated in a country with environmental policies different from their own. What may be extremely important for developing countries in this context is that the EC took up the Mexican position and supported the panel ruling.

Overall the positive effects of the SEM (locomotive effect, greater transparency of the EC market arising from the harmonization of food standards and the acceptance of the mutual recognition principle) are likely to be more important than the negative effects of trade diversion and the negative impact resulting from the raising of food and environmental standards.

In the discussion which followed, the question of standards and information thereon was examined. For developing countries the real challenge of the SEM will be in the fulfilment of the standards required. What needs to be addressed is the availability and the quality of services in connection with the food manufacturing process. These services include transport, warehousing, refrigerating, marketing etc. One should not stop at the core of the manufacturing process. Agro-business has to be considered as a whole, including agriculture, manufacturing and services. Even traditional activities such as flower exports in the case of Columbia, or the export of mangos in the case of Venezuela, are extremely service intensive and are a profitable high-tech business, if done properly. The logistics necessary to export to the EC are very demanding. Sometimes it may be even necessary to develop the taste of European consumers. Especially for logistics and information services developing countries would need support. Furthermore, an early involvement or participation in the European standard setting process would be of significant importance to developing countries.

Food manufacturing is already determined by a large number of standards and they are going to be increased even further after the completion of the SEM. Higher standards may make it certainly more difficult for developing countries to sell their products in Europe. But one should not neglect the largely untapped potential of South-South co-operation in this context.

In general, the crucial element in connection with the SEM for developing countries is the question of standards. The central problem for developing countries will thus be timely information on these standards. New mechanisms will have to be developed in order to pass on this information to manufacturers in developing countries. In this area, UNIDO could certainly play an important role.

However, although UNIDO is interested in assisting developing countries, UNIDO on its own is certainly not in a position to answer all questions concerning EC standards, EC market structure, EC sales potential for different products etc. Nevertheless, a system could be envisaged of pooling relevant information in local chambers of commerce for further diffusion to local business. Among other institutions, UNIDO could assist local chambers of commerce with the supply of relevant information.

The question concerning the development of an adequate mechanism to pass on information on standards to developing countries should certainly be addressed to the EC Commission also. There is already an electronic data base and in principle there is enough information available within the EC Commission which should be made available to developing countries as well.

In the EC Commission, in DG 1 (external relations) a special branch exists which deals with standards. Developing countries can direct enquiries to their Commission delegate and developing countries from the ACP region can contact the ACP-EC consultation group in this respect.

This information may also be relevant for export processing zones (EPZ). Especially enterprises in EPZs need to be up to date. In addition, there may be help needed in the establishment of such zones. Although the production in offshore centres (EPZs) is still of a rather small magnitude (around 5 per cent of exports), they have become increasingly important.

However, EPZs play a rather minor role. In a number of countries there is already a trend away from export processing centres, since export processing centres often lack linkages with local manufacturing or other sectors of the local economy and the value added is thus relatively low and it is in many cases restricted to cheap labour only.

Concerning the question of EPZs, developing countries should not be too optimistic. In many cases EPZs only use local infrastructure without bringing much to the country if the linkages with the local economy are not developed as well. In many cases EPZs are based on footloose industries which were just set up to circumvent quota regulations. If these quota systems change or if labour is found to be cheaper in other countries, these industries are likely to move on to other countries. Often, no labour laws exist in such EPZs, and if they exist they are not applied. Labour associations are not allowed to operate in EPZs etc..

EPZs do not seem to be the correct approach for a well designed development strategy. Industry should be established where it can perform best, and not where it does not have to pay import duties. This can lead to an inefficient allocation of resources. EPZs only play a role if the customs system of a country does not work. If a country thinks that it needs EPZs for the development of a new industry and if the customs system is well developed, it should try not to force enterprises to settle in a special region only.

On the new market possibilities for developing countries, it was suggested that what is needed for developing countries is a higher value added in their exports to the EC. Foreign investment so far has not been extremely helpful in increasing the value added content of Indian food exports. Foreign firms are mainly interested in the Indian market, not in exporting from India. The emphasis should be shifted towards foreign investment leading to a higher share of processed food exports.

However, there are also some caveats. In Hydarabad a large food processing plant was built which resulted in a complete depletion of the cattle herds in the region. The lesson of this negative example of a large export oriented food processing factory has to be that already in the design phase of such projects the size of the factory has to be brought in line with local resources available.

Again, many developing countries, including India, are confronted with the dilemma that it takes a long time to build up brand names in developed countries' markets, including for manufactured food items. A brand name does not only depend upon quality but also upon stable supply. For no-name products, prices will always be low. However, many developing countries are characterized by an unstable supply of their natural resources, often due to natural catastrophes. This then leads them to withdraw from export markets to cover the needs of the local population. But this also means that they are not able to position themselves in the 'up-market' segment in the EC. A more flexible approach, including the temporary importation of food items from the world market, in order to fulfil a developing country's obligations, might be a strategy to break out of the above described vicious circle.

Food exports of Arab countries have experienced a decline and Arab countries largely depend upon imports of food items, which is also due to the strong population growth rate in the area. The new strategy of Arab countries is to persuade European companies to set up joint ventures with local Arab companies to engage in food manufacturing in order to reduce the import dependency of Arab countries in processed food. European companies could supply capital and technology and the Arab partners will supply labour. As a first step towards achieving this objective, a conference between Arab and European food manufacturers will be held later this year in Europe, organized by the Arab Chamber of Commerce.

The concentration in the European food sector has already become very strong and new mergers can be expected in the future. This will make European food producers more competitive. They have already started to increase their exports towards developing countries, thereby changing the long-term trends in the trade pattern. Developing countries may have to establish joint distribution networks in order to gain increased access to the SEM for their manufactured food products. However, due to the expected higher income in the EC and on the assumption of existing income elasticities, there should be some possibilities for developing countries to increase their food exports towards the EC. The total developing countries' food exports are thus likely to increase. To what extent manufactured food exports of developing countries can benefit from these trends is however less clear.

On the question of national strategies, it was pointed out that agriculture, food manufacturing and the services geared to these activities, form a complex - the agro-business - which should be addressed and analyzed as a whole. The paper under discussion had shown that the large majority of exports of developing countries were food commodities while only a fraction of total exports were secondary food exports. This would suggest to imply that developing countries are only strong in exporting food items in a raw form and not as manufactured goods. However, this picture may be extremely misleading as the case of Brazil shows. The largest food exports of Brazil are indeed commodities such as soya beans, orange products, poultry etc. But all these commodity production systems are extremely technology and service intensive (including marketing, the creation of distribution systems etc). The creation of such complex technology and service intensive production systems in commodities enabled Brazil to gain international competitiveness by making better use of economies of scale, and they guarantee the country a high value added.

On the other hand, there are a number of very simple low-tech manufacturing activities in food processing which scarcely improve the value added position of a developing country. It is the value added of agro-business as a whole which really counts and not the question whether a certain manufacturing activity is undertaken in a developing country or not. In the promotion of agro-business special emphasis has however to be given to the question of environmental sustainability as the long-term cost of a "non-environmental" equilibrium may be very high. Also the costs of "non-quality" may be extremely high. Overall, it is important to have a balanced growth in agro-business. If one concentrates only on one element of agro-business, costs may be high as well. Market information is also important. For example, some time ago there was the idea of developing silk trade in India and thus silk production in India. After the industry had been developed, it turned out that there were no export markets for these industries.

On the technology issues, it was pointed out that the problem for developing countries is not only that the EC moves up-market through R&D programmes (seed banks, intensive cultivation etc.). The problem for developing countries is that many of the EC R&D programmes are also designed to improve traditional fields of food processing. Thus, it would seem important for developing countries to be given the opportunity to participate in the R&D programmes of the EC. However, it was also noted that R&D programmes of the EC concern only pre-competitive research. Thus, one should not over-emphasize their importance. Most of the results are published anyway and can be directly used by third parties as well. The results so far achieved have not been very promising and were not really appreciated by EC industry. They do not seem to have given EC industry a competitive advantage because the results were basically open to all interested parties. Therefore, EC industry actually opposes these programmes in the food sector as they have not delivered results which could have made food industry in Europe more competitive. Although it should be relatively easy for developing countries to participate in these programmes - as long as they pay - it does not seem to be an advisable strategy.

The research activities which really give EC firms a competitive edge are either done in-house by the large EC corporations or by private EC research firms. These private research firms are engaged in activities such as animal breeding, pig meat and poultry improvement etc. The real problem for developing countries to be addressed is how to benefit from this private research in the EC which is much closer to the commercialization phase. Pre-competitive EC programmes are not really a help to industry. Far too much importance is attached to these programmes which does not correspond to reality. So far, most of the programmes have failed to give real assistance to EC industry. Thus participation of developing countries in EC R&D projects does not seem to be a very promising strategy. One should not be too optimistic in this respect. The EC would certainly not mind having third countries participate - on a project basis. However, EC programmes are designed in such a way that a third country can only participate on a project basis and not on a programme basis. In any case, the third country would have to pay 100 per cent of its R&D efforts. Given the pre-competitive character of these programmes, the potential benefits for developing countries seem to be rather limited.

On the question of consumer pressure within Europe, it was stressed that developing countries should be aware that consumer pressure in Europe is growing. Environmentally unsound production or production based on brutal exploitation of the workforce in developing countries is thus likely to be labelled as "unfair" and may be subject to boycott. In Switzerland, for example, there has been a very successful campaign by consumer associations to boycott the products of firms known to use child labour in third world countries. Similar campaigns in Europe based on the argument of "unfair labour practices" are likely to gain momentum in the years to come.

IV. TEXTILE AND CLOTHING INDUSTRY

The paper on the textiles and clothing industry[3] was presented by Mr. Veli Matti Kankaanpää (UNIDO consultant). The main points were as follows.

Although there was some investment going into EC textile and clothing industry, the EC textiles and clothing industry was not given the same priority as other industries such as electronics. Its share in total EC investment in recent years was thus relatively meagre.

The new challenges for the EC textile and clothing industry are the economies of the former East bloc. A new outward processing traffic (OPT) network was emerging between the EC and Eastern Europe. Especially Poland, Hungary and Rumania are at the forefront of this co-operation which will increase European productivity and reduce the costs of production. The republics of Yugoslavia, due to the internal crisis, on the other hand, have lost their importance as an OPT partner, for the time being.

Wages are still significantly lower in former East bloc countries than in Western Europe, but so is productivity. Labour productivity in Poland, for example, is still only one fifth of that in Germany. But with new technology productivity in former East bloc countries is increasing quickly. At the same time, productivity in Germany - although the highest in Europe - is low if compared with that of many NICs. In the Republic of Korea, for example, a weaving mill works on average 7000 hours a year compared with 3000 to 5000 hours in Germany.

Standardization has so far only occurred in home textiles and protective clothing.

The demand for quality products has certainly increased in Europe and this trend is likely to continue.

A new feature of the European textile and clothing industry is the rapid decline in profitability in distribution. There is increased pressure from the retail trade on producers to cut costs as well, and many producers are thus obliged to enter into OPT activities which could benefit developing countries. However, the bulk of these activities is going to be directed towards Eastern Europe.

The reason for this is not only the low wages in Eastern Europe but also the proximity of Eastern Europe and the changes in the consumption pattern. In many cases, two collections a year are not enough any more. In order to cut costs, retailers have started to reduce their stocks. They order smaller quantities but at a more frequent rate, and they change their orders significantly during the season. Producers have thus to become more flexible as well. Time is becoming the key factor. Systems in Europe have already been established - and they include producers of Eastern Europe - which allow for a period of just two weeks from fibre to finished garment. Twelve collections a year have thus already become a reality for some producers.

These changes under way should prompt developing countries to either participate in production and distribution networks as subcontractors or to build up their own production and distribution networks in Europe. But developing countries have to understand that in any case "time" is the new key factor if they want to be successful on the European market. Developing countries must be aware as well that if time is the key factor they might have to restructure the whole production chain from weaving to finishing in order to increase flexibility. But this may be expensive. For most developing countries, the more appropriate approach may therefore be to look for a competent European partner who has the necessary distribution network.

Overall, the removal of internal GSP quotas in EC member states should offer some possibilities for the majority of developing countries. However, before 1994 no improvement for developing countries in respect to access to the EC market can be expected.

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[3] "The textiles and clothing sector", UNIDO, ID/WG.523/3(SPEC.), 9 March 1992.

In the discussion which followed, trade policy received particular attention. A positive end of the trade negotiations in the Uruguay round would certainly be to the advantage of developing countries and would help them increase their access to the European market as well. But so far, no agreement has been concluded.

Developing countries in general, and India in particular, have so far been specialized in the low price brackets. In India most garments producers are small firms. When the EC national markets merge to one large EC Single Market, there is a likelihood of further concentration in EC distribution systems. This could also mean larger lots. Such community wide orders would however be extremely difficult to fulfil for small scale producers. With the entrance of new members into the EC and closer co-operation with Eastern Europe this problem would even increase. The outcome could be once again a decline in Indian finished product exports to Europe. Developing countries such as India therefore need additional assistance for both quality improvement of national resources and for new mechanisms to cope with the structural changes on the demand side.

Although the abolishment of national quotas within EC member states should make it easier for developing countries to expand their markets in Europe, it is probable that this advantage will be to the benefit of larger companies from developing countries and at the expense of smaller companies. If a developing country is characterized by relatively small production units, it cannot be ruled out that this country is actually not be in a position to take full advantage of the new possibilities offered by the SEM.

The SEM is seen with some suspicion in Thailand. Around 20 per cent of Thailand's exports in garments goes to the EC, most of it to the UK. In order to promote exports and international competitiveness, Thailand subsidizes its textile sector. The EC has reacted with countervailing duties. In Thailand, there is the fear that Europe based on a SEM would react even more drastically. Even if Thailand wants to abolish its subsidization system, it nevertheless needs time. In the Uruguay round tariff cuts are foreseen, but they are of no use if countervailing duties are used instead and Thailand is not in a position to simply abolish its subsidization system from one day to the next.

There is a likelihood that the EC will in future use the countervailing duties instrument more "efficiently" if the slightest form of subsidization can be found. With competition increasing in Europe, more cases based on "unfair trade" arguments will be opened. Thus, developing countries will have to take care in order not to give the EC reason to charge their exports with countervailing duties. Nevertheless, tariff harmonization should work in favour of developing countries.

The case of India was also quoted in this context. India has been forced by international institutions (IMF, World Bank) to abandon the subsidization of exports. If the EC uses countervailing duties to react to exports which were subsidized, one should not oppose such measures. Otherwise countries like India, which were forced to abandon subsidization, would always be at a disadvantage. As long as countervailing duties guarantee equal chances for all exporters they are certainly justified.

The central issue for most developing countries in connection with the SEM and the textile sector is the question whether the abolition of national country quotas will actually raise the overall quota for exports into the Community. Another question is whether the EC market will expand and increase the export opportunities of developing countries.

For Brazil, it was felt that the SEM will indeed help in gaining access to the European market. So far the national quota, for example, in France for Brazilian garments was so small that it amounted only to a few days sale of garments in Rio de Janeiro.

On technological trends, it was noted that with the emergence of synthetic fibre the border line between the textile and the chemical industry has become blurred. The EC has invested heavily in synthetic fibre production and the consumption of synthetic fibre is rising. Especially in this field the EC tries hard to maintain a competitive edge and is likely to emerge as a new competitor for developing countries.

Synthetic textiles do not only offer possibilities for garment production but also for some high-tech branches such as civil engineering, the aerospace industry, and also for some more traditional goods such as carpets. Thus, the textile industry is diversifying and moving towards some high-tech applications in the industrial field. It is this field which is highly profitable. Developing countries should be aware of these trends and not leave the textile industry to developed countries only. There is enough room for both developed and developing countries in this area as the fields of applications are very wide.

However, it was also felt that if there is a tendency towards more synthetic fibre, this would affect some developing countries negatively, including India, which would be unable to compete.

The textile and garments industry has traditionally played a major role in the industrialization process of developing countries. The problem is that the possibilities for developing countries to follow a successful industrialization strategy, based on textiles and garments, have declined. Especially the problems of Eastern Europe and of the countries of the former USSR complicate the situation. In the countries of the former USSR there is a workforce of about 6 million people, many of them looking for opportunities to find new employment in this sector. The Italian textile and garments industry was cited as producing with a workforce of 300,000 approximately as much as the USSR produced with a workforce of 6 million, i.e. only slight improvements in productivity could raise output significantly (which may be a potential threat for developing countries).

For countries in Central America improved links with European firms through sub-contracting should be envisaged. European companies should extend their production networks to Central America which would enable them to penetrate the US market as well. Streamlining of logistic systems will however be necessary in order to be successful. For Latin America in general it was suggested that the immediate opportunities in the textile and garments field are more in the first stages of manufacturing. Spinning is certainly an area which needs to be developed in Latin America, especially in Peru where the quality of cotton is excellent. Another area would be leather clothes and the footwear sector, based again on the excellent Latin American leather quality. Some possibilities certainly exist for sub-contracting as well. But the time factor and transport cost will not allow for large scale-activities in this area to take place in the near future. Nevertheless, there are still significant opportunities for development.

While sub-contracting or the creation of distribution networks are possible responses to the SEM, it was pointed out that a major Brazilian textile and garments manufacturer had proved that a third option exists as well. It invested in Europe (in Portugal and Spain) to build up production capacities where the market is. The success was tremendous. Against strong competition the firm was able to increase its market share in a short period of time and make profits. Public opinion in Brazil originally opposed such a shift in production capacity towards Europe. But this opposition has ceased in the meantime as this Brazilian champion has indirectly opened the doors for other Brazilian producers. Thus for large companies, it might be worth while considering shifting part of the production to Europe in order to increase the presence in the European market and avoid discrimination.

But in order to be successful in international markets, companies have had first to become competitive. The competitiveness of Brazilian producers was only achieved through liberalization of the Brazilian economy. It became clear that with existent national raw materials, the Brazilian producers could have never become competitive outside Brazil. So the tariffs for imported raw materials were reduced to zero and now 80 per cent of raw materials for the textile and garments industry are imported. Nevertheless, the value added could be increased. The value added is now based on production (especially due to improved technology and management) as well as the creation of new channels of distribution. In a few years time this process had helped the Brazilian textile and garments manufacturers to gain international competitiveness. The highest tariffs were reduced to 40 to 50 per cent and despite some fears the increased competition did not ruin the Brazilian industry; on the contrary, it significantly improved quality and international competitiveness of Brazilian producers.

Although sub-contracting has its advantages, it was also recognized that the bargaining power of small producers in developing countries may be extremely small and is sometimes exploited by large companies from developed countries. Thus there are a number of cases in which a developing country enterprise (in an Asian LDC) is given $4 a piece for the production of a certain garment which is then sold in Europe for $60, i.e. the largest part of the value added chain often remains with developed countries' corporations.

On the international division of labour it was suggested that labour-intensive and/or polluting lines of production might be placed in developing countries while high-value added lines of production are going to prosper in developed countries. A typical example would be the highly polluting dying processes which will be shifted towards developing countries as environmental awareness in developed countries increases. This relocation of industrial facilities, nevertheless, could be a wealth creating mechanism which works in favour of the poorest developing countries. There will thus be stronger intra-industry as well as inter- and intra-regional co-operation, with integrated production facilities losing some of their original importance.

On the position of Africa, it was pointed out that, while it may be that the SEM will increase the opportunities for developing countries' exports, in order to be able to export one needs products which can be exported. So, what Africa needs is not only a free access to the SEM but production facilities to produce the goods which may be exported to Europe. For some time to come, Europe will be pre-occupied with Eastern Europe. But it should also be made clear that there are costs of "non-Africa" which have to be addressed as well. Looking at the statistics, one can see that Africa as a whole plays some role for the European garments industry. But large scale OPT operations are basically confined to just two countries, Tunisia and Morocco. These two countries are among the largest OPT partners. Apart from these two Mediterranean countries, exports to the EC are very limited.

Sometimes however trade policies of developing countries, which were not well designed, further deteriorate the export potential. It was mentioned that in one country of the PTA area, export oriented garments factories were not able to produce garments for export to the EC because they were not allowed to import the necessary spare parts, due to the lack of foreign exchange. Examples of this kind were to be found in a number of developing countries.

If Africa wants to reduce its import and aid dependence it must join forces and follow the EC example by pursuing a policy of regional integration. A positive approach in this context is the creation of the African Economic Community. But in order to achieve a successful regional integration of national markets, infrastructure in many parts of Africa still needs to be developed and improved. In order to overcome the severe economic problems of Africa, Africa in addition needs European investment and technology to be paid for by exports to Europe.

V. FOOTWEAR INDUSTRY

The paper on the footwear industry[4] was presented by Mr. Anthony Clothier (UNIDO consultant). The following are the main points made.

Contrary to other sectors, the footwear sector enjoys very little protection in Europe. It seems that in spite of all the apparent importance of the 1992 changes, there will actually be little real change in the footwear sector because a relatively free market has already been achieved both within the EC as well as on the international level. With economies of scale not applying and market entry barriers very low, there has been a pressure to relocate large sections of the footwear industry to low labour cost countries. Even the Italian shoe producers experienced in the last three years a decline in their competitiveness *vis-à-vis* developing countries.

[4] "The footwear sector", UNIDO, ID/WG.523/1(SPEC.), 4 March 1992.

The EC seems to have given up the struggle to keep imports out of Europe and to keep producers in Europe, knowing that this was a lost cause anyway. Duty levels and other trade arrangements have never much inhibited the flow of footwear into the European Community. A great deal of footwear has entered duty free under the GSP system. This has however not benefitted as much the poorer developing countries as the NICs, which have exported substantial quantities of footwear duty free using this route.

EC research has not had yet any significant impact on the European footwear sector. Under the BRITE programme six projects out of 300 concerned the footwear sector. EC sponsored projects are however at the fundamental end of the research spectrum rather than market led. Because of the bureaucracy involved, EC research programmes have been rather inhibiting for a number of larger enterprises and there are some doubts whether the EC research programmes make footwear producers develop in the correct direction.

Product standards only apply to safety regulations to reduce injury. Thus standards exist, for example, for boots for construction workers or for oil rig workers to reduce industrial injury. However, the regulations have proven an excellent barrier to entry for imports as well.

The next target will be the sports footwear sector. If standards were applied, it would affect developing countries quite significantly as most of the very lucrative sport shoe production has been shifted to developing countries over the past years. Nevertheless, the barriers in this market segment should not be too serious to create new trade distortions.

Environmental questions will play a more significant role in the future. So far, environmental legislation did not have any notable effect on the European shoe industry. But this is likely to change. There have already been moves to eliminate certain chemicals and materials from footwear production (such as PCPs in Germany). Especially tanneries could be hit if environmental legislation increased with effluent treatment becoming increasingly expensive. This could indirectly help developing countries. On the other hand, it is likely that exporters to the EC will have to comply with internal EC laws which prohibit the use of certain chemicals and materials.

Regional policy questions could play a significant role in connection with the on-going restructuring process in Eastern Europe. In the past very considerable assistance was given to the footwear industry in Portugal. In order to accelerate the improvement of the economies of Czechoslovakia, Hungary and Poland, schemes similar to those of the EC are likely to be introduced in these countries. What is still needed, however, are key people to run those new factories successfully.

In the discussion that followed, the questions of design and quality were addressed. The example of Venezuela was cited in this connection. Venezuela is certainly not a mass producer in footwear. Labour also is not as cheap as in some other developing countries. The Venezuelan footwear industry can build its competitive edge only on quality. The problem of the Venezuelan footwear sector is that there are no large companies for which it would be easily possible to penetrate the European market. Venezuela is characterized by a large number of small companies. In the past Italian immigrants brought the shoe industry to Venezuela. But this generation is now retiring and there is a lack of new entrepreneurs. Quality is good in Venezuela but in design Venezuela is not always up to date. UNIDO could help Venezuela to improve its exports to the EC and to other markets by further improving the quality of its resource base and by creating mechanisms which would improve the design capability in Venezuela. Joint ventures with enterprises from Europe might be also of assistance in this respect. In addition, the question of an adequate distribution network for the SEM has to be addressed as well.

The example of Egypt was also mentioned. For Egypt the priority is technical assistance to upgrade its tanning industry. Only, once the leather quality is improved, new large investments into the footwear industry make sense. Egypt's shoe exports went to a significant degree towards Eastern Europe. However, with the breaking up of the Soviet Union and the new orientation of Eastern Europe towards the West, Egypt lost nearly all of its market in that region. In a very short time, Egypt succeeded in redirecting its exports towards Western Europe by upgrading the quality of its footwear. Exports towards Germany and France are gaining momentum. There is certainly a significant potential in the SEM, but further improvement of quality will be necessary.

It was pointed out that, while in many other sectors the success of exports to the EC depends on the ability of developing countries to achieve more favourable trade regimes, the footwear sector reflects the potential and competitive state of the industry of each developing country. As the paper had pointed out Brazil experienced a significant success of its footwear industry in the 1970s. The reason given for the stagnation of Brazil's footwear industry in the 1980s, i.e. the very restrictive import controls which were inhibiting technical development, have been removed in the early 1990s. Before the liberalization process of 1990, especially chemicals for tanning were extremely expensive and a bottleneck for the leather and footwear industry. Since then the import for chemicals has been liberalized, and in 1991 also the imports of machinery and spare parts was liberalized. The only remaining problem is the quality of leather. However, with MERCOSUR this problem will be also solved as Brazil will have access to high quality leather from Argentina.

The question of EC assistance for quality improvement was raised, and it was indicated that if reasonable projects are put forward, there are certainly funds available for the upgrading of the leather quality in Latin America or other developing countries. A special instrument is the "European Investment Partners" which make funds available for the establishment of joint ventures. Multinationals are excluded from this scheme. The idea is to bring small- or medium-sized European firms together with enterprises in developing countries. The EC Commission DG1 or the Commission delegates in developing countries should be contacted for further information.

On the question of country of origin legislation the statement in the paper that it was mainly NICs who benefitted from the open markets in Europe was referred to. It was pointed out that in today's integrated world it becomes ever more difficult to identify which product is produced in which country. Intra-industry trade goes across borders. Thus, if Korea exports footwear to the EC, a significant number of other developing countries benefits from these exports as well. If Korean exports or the exports of other NICs to the EC are restricted, other developing countries will also be negatively affected.

Government policy on the industry in India was also discussed. While it was true that lack of infrastructure has impeded the development of the footwear industry in India, it was not felt to be correct that lack of progress was due to government policy as was suggested in the paper. Government policy gave stronger emphasis to environmental issues, and this was necessary. Otherwise India would continue to attract only low labour cost industries as well as highly polluting industries. Although there is an interest in attracting new industries, India must not remain an international dumping place for highly polluting branches of manufacturing.

It was pointed out, however, that although it is correct that there is a number of highly polluting tanneries in India which would urgently need at least some effluent treatment, it was the Government's explicit policy in the past to attract such tanneries. Because of these Indian tanneries, a large number of European tanneries had to close down, and many policy makers in Europe were far from happy to see this happen. So, it is not correct to say that the EC or other developed countries dumped their polluting industries of the footwear sector in India, but it was the Government of India which had found that tanneries were a necessary element in their overall industrialization strategy.

On the general question of corporate strategy, it was observed that within the value added chain in the shoe market an ever increasing share is going to services at the expense of traditional manufacturing. Thus of the $20 bn global shoe market, only $5 bn go to producers and $15 bn to the distribution networks. Indeed, significant economies of scale are not in shoe manufacturing but in the distribution networks. Concentration thus takes primarily place in the distribution networks in order to make better use of these economies of scale.

The question to be raised is whether it is really the correct strategy for developing countries to concentrate on the manufacturing side where the share is shrinking. If profits are made in distribution, would it not be a strategy for developing countries to put less emphasis on new manufacturing but more on tapping the value added of the profitable distribution side? The Brazilian example of building up a brand name in Japan using the name of an internationally recognized Brazilian sportsman was given as an example.

On this question however, the point was also made that general advice to follow changes in the value added chain might be actually misleading and put many developing countries on the wrong track. Value added figures by themselves do not say anything about whether it is worthwhile engaging in a certain process or not. Even if the value added share of a certain process declines in relative terms vis a vis the total value added, it still might be very profitable for a company to engage in this activity. To move towards processes with more value added does not say anything about profitability; profitability might even decline. The question to be addressed is in which economic activities a company is able to use its resources to make profits in the long run. There may be a number of cases in which more emphasis on the distribution side might increase overall profitability. It is clear that developing countries' companies should then enter this field. On the other hand it has to be said that the creation of whole distribution networks and the creation of brand names needs significant investment. In many cases the competitive edge of developing countries might not be in these activities. Advice can be given only on a case by case basis.

VI. CHEMICAL INDUSTRY

The paper on the chemical industry[5] was presented by Mr. Willem Molle (UNIDO consultant).

Overall the chemical industry is already relatively well integrated in Europe. Nevertheless, the SEM will certainly have significant implications for both the EC industry and the chemical industry in developing countries. The chemical industry is not a very homogenous industrial sector. Thus a certain degree of disaggregation is necessary as the different elements behave quite differently. The four subsectors investigated were thus the pharmaceuticals, fertilizers, plastics and petrochemicals.

The pharmaceutical industry and the plastic industry have experienced significant growth rates in the EC over the past few years (5 per cent per annum), but petrochemicals also showed relatively good growth rates (3 per cent per annum) while fertilizers experienced a decline (- 2 per cent per annum).

Generally, the chemical industry is highly concentrated. Four of the world's five largest firms are of European origin. The five largest firms have 40 per cent of world turnover. In other words, there is no major industrial sector in which EC firms are as important and dominant as in the chemical sector. Notwithstanding the concentration, competition is very strong. The chemical companies operate on a global scale. For new companies to enter the markets, there are a number of significant entry barriers. Economies of scale, high R&D investment, patent life regulations and strong marketing efforts by the large chemical corporations make it difficult for new entrants to penetrate the EC market.

In response to fierce competition, company strategies of EC corporations have been directed towards stronger high-value added production, rationalization of operations and towards the core business (to go back to a corporation's "basics", i.e. the original core business where the competitive edge of the company in the market has been). Overall, the restructuring which took place in the chemical sector in the EC as a response to the challenges of the SEM has strengthened the competitive edge of the EC chemical industry both in the EC market and on the global scale. Nevertheless, trade creation in the chemical sector is likely to be more important than trade diversion. This is due to the fact that the chemical industry is interrelated more than other sectors with the whole EC economy, so that additional growth in the EC economy as a result of the SEM immediately translates into growth of the chemical sector and into increased imports. Regarding investment, on the other hand, there may be some diversion from new investment in the chemical industries of developing countries to new investment in the EC as the cost of labour plays a minor role compared with the question of the availability of a highly qualified workforce and a good infrastructure.

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[5] "The chemicals sector", UNIDO, ID/WG.523/7(SPEC.), 18 March 1992.

On the whole, industrial policies seem to play only a minor role for the further development of the chemical sector in Europe. The research budgets of the large European corporations are significantly larger than the EC funds available for research purposes. So, the possibilities to direct or influence the behaviour of large EC corporations by monetary incentives are rather limited. EC research is pre-competitive and thus the financial funds made available and the output of the research are often of more interest to European universities than to industry. What may be important is that existing price differentials in the different EC markets are going to decrease as a consequence of the SEM. This will reduce profits and might reduce, as some industrialists claim, the incentive for EC corporations to engage into cost intensive R&D activities. On the other hand, patent life is likely to be increased and this will make the success of research activities more lucrative.

Regional policies have not played a major role in the chemical sector so far. In connection with the restructuring process of Eastern Europe, this situation might however change.

Standards are of course of importance. The harmonization of standards was at the heart of the White Paper put forward in 1985 and the Single European Act of 1987.

Environmental issues will certainly gain in importance in the years to come. If the environmental legislation, such as the planned CO_2 tax, should be too severe, a shift towards other regions is likely to occur which could benefit developing countries. In the pharmaceutical sector, Latin America especially would benefit from such a move. For fertilizers, North Africa and the ACP countries could be expected to be prime beneficiaries. For plastic production the prime beneficiaries would be countries in the Gulf region, in Latin America and some ACP states. For petrochemicals a relocation of industrial capacities would primarily benefit the Gulf region. Generally, developing countries with low feedstock prices and a less severe environmental legislation than the EC will be prime beneficiaries of production capacity shifts out of Europe.

In the discussion which followed production possibilities for developing countries were examined. It was pointed out that the chemical sector offers an extremely large area of manufacturing possibilities for developing countries. Although European companies may hold a strong position in their core markets, there are ample opportunities for developing countries at all stages of chemical production as well. A good example for simple downstream activities in the chemical sector is plastic moulding. Packaging for pharmaceuticals may be another area for developing countries to enter the chemical sector.

However not all options are possible. R&D expenses increase dramatically in the chemical sector and research has become a high risk activity. It would be bad advice to tell developing countries to take such risks and engage themselves in high-tech industrial activities in the chemical sector in order to enter high-value added market niches. The best opportunities for developing countries are certainly in the low-tech to middle-tech areas of chemical production. Only once developing countries have a firm grip in these areas, they should think of moving up-market.

The example of Venezuela was given. It has feedstock at very low prices and companies settling in Venezuela could supply the whole of Latin America and even the USA. Venezuela is keen to attract European investment in this industrial field. In Argentina, the chemical sector was so far controlled by a large state-owned company which was also suffering from low capacity utilization rates and which had to be heavily subsidized in order to generate foreign exchange. Finally, the enterprise was sold to the private sector at an extremely low price. The hope is that this enterprise is now going to move up-market to more sophisticated products and that it can make better use of the complementarities of the MERCOSUR.

Following the import substitution path, Brazil developed an overall large, but very fragmented chemical industry. In most areas the critical mass to enter into necessary R&D activities was not reached. Important R&D activities are only carried out in the Brazilian petroleum corporation but hardly at all in the fragmented chemical industry. Overall, the import substitution path led to a stagnation of the Brazilian chemical industry. However, on a sideline Brazil succeeded. Due to the import substitution policy, Brazil had also to develop its own equipment for deep sea exploitation of oil fields and in this area Brazil has gained a competitive strength on which it can build on in the future. With privatization and liberalization of the economy, it is hoped to reactivate the chemical industry. However, like in other countries, Brazil's chemical industry is negatively affected by global over-capacities in basic chemicals. At the moment, exporting companies can on average only earn 10 per cent on variable cost, i.e. the companies are not able to recover their fixed costs.

However, with respect to the investment strategies of EC firms, given the capital intensiveness of modern chemical plants and thus the long-term engagement, it has become clear that the perceived risks play a major role for decision makers at the corporate level. These risks go beyond political risk. Plants which are nearer to the headquarters are easier to control and thus pose less risks to the management in the headquarters. The complex technical nature of modern chemical plants and the danger of accidents due to mistakes by a labour force that is not well trained or that is not aware of all the implications of its actions poses a potential threat to the security of the plant and thus to the economic performance of the corporation. There are now cases in which corporations are only willing to open new plants overseas if all engineers and all technical personal are recruited from existing plants in Europe in order to minimize risks. Again it was pointed out that there is over-capacity world wide in basic chemicals, including petrochemicals. A significant number of developing countries is affected by this glut. Whereas developed countries have been able to move up-market, developing countries face the problem of having to compete in markets of global over-capacity and they suffer losses.

It was mentioned that in the late 1970s and in the 1980s a number of countries in the Gulf region built up a modern petrochemical industry using the latest technology available. However, all these industries suffer now from low capacity utilization rates as they cannot sell their products to Europe because of the its trade policy. Local demand is not large enough to absorb the excess quantities of these export oriented industries. Better access of these industries to the European market would thus be of prime importance to countries in the Gulf region. Reference was made to ongoing negotiations concerning the conclusion of a free trade agreement between the Gulf Corporation Council and the EC. It was pointed out that, with independent oil producing countries taking over their oil fields and oil production from the multinational companies in the 1960s and early 1970s, the original chain from production to final consumption was interrupted. From this moment on, OPEC countries were responsible for production and the multinationals for refining and distribution. The strategic mistake of oil producing countries after the first and second oil price hike was to invest in Europe and the USA in a wide area of activities, i.e. into all different kinds of industries, into housing, offices, hotels, etc., instead of closing first the production-consumption chain by investing strategically into distribution networks of petrochemical products.

It is logical that in times of global over-capacities multinationals buy refined oil products primarily from their own refineries in Europe or the USA. Without distribution networks of their own, oil producing countries must have problems in finding customers for their manufactured products, irrespective of official trade policies pursued by the EC or other developed countries.

In discussion of the trade issue, it was further suggested that in trade talks it would make sense to point out the differences of variable and total costs and to set rules which apply to everybody. If developing countries, which only recently have set up new factories, sell at variable cost plus a small margin to the EC or other developed countries because they cannot find a market for their products at total average costs, this is regarded as "dumping" and entails negative consequences for developing countries' exports, including countervailing duties, loss of quotas etc. This may then decrease their capacity utilization rates even further. On the other hand, old chemical plants in Europe or other developed countries, which were already written off, can *de facto* sell their products globally at variable costs plus a small margin without this being regarded as "dumping". These producers are not compelled to charge a fixed cost element on top of their variable costs as long as they can prove that their factories have already been written off. For them variable costs correspond to total average costs and the odd situation occurs that old factories are allowed to run at nearly full capacity while new factories in developing countries are left partly idle.

In discussion of the environmental question, it was pointed out that opportunities for developing countries had been suggested in areas which are either polluting or which have a very low value added. From a moral point of view, this is unacceptable. Developing countries should not be the dumping place for polluting industries of developed countries or of industries which generate hardly any value added. This is certainly no solution for developing countries' problems.

The problem in many developing countries is that policy makers have not really been aware of the risks involved in attracting foreign investment, especially in the chemical field. Developing countries' policy makers should not allow developed countries to solve their environmental problems on the back of developing countries. If developed countries wish to get rid of their polluting industries, they should also be prepared to pay higher prices for the products of these industries, so that new and less polluting technologies can be incorporated in building up these branches of industry in developing countries. It was not acceptable that "deadly" industries be simply shifted from developed countries to developing countries without significant improvements in technology taking place, only to enable developed countries to move into new, less polluting and higher value-adding areas of manufacturing while developing countries are left alone with their environmental problems and with industries which may even generate losses instead of profits.

However it was pointed out that no developing country is forced or will be forced to accept the establishment of a chemical industry in its country against the will of its policy makers. The reality is completely different. Nearly all countries, including developing countries, are eager to attract new investment in the field of industry. The EC certainly is not pushing these industries out of Europe and towards developing countries. On the contrary, the EC Commission tries hard to keep the chemical industry in the EC. However, if environmental legislation, influenced by public opinion, gained momentum in the EC, there would be a certain likelihood that other measures available to keep the chemical industry in the EC would not be sufficient. The EC chemical industry might be tempted to look for other places to produce, and this search would include developing countries as well. If one developing country does not grasp the opportunity, other countries will certainly do.

There are certainly good reasons to shift polluting industries out of Europe. A chemical plant might pose a problem to areas with a large number of other polluting industries and a high concentration in population which do not offer possibilities to set it up outside such conglomerations. It certainly would not make sense to shift such an industry to a developing region such as Taiwan, for instance, which has similar or even worse environmental problems than the EC and an even higher concentration in population. However, the same industry may be perfectly suitable for the deserts in the Gulf region where it could prove to be an interesting income and wealth creating device for the local population which does not necessarily have to live next to the factory.

Attention was drawn to a trade-off between industrial development and environmental issues. If a country wants to develop and create income and wealth for its people it has to attract new industries. Only when it has reached a certain level of development it can afford to follow a more selective industrialization path, and then it will certainly increase its environmental standards. This again may make polluting industries leave and chose countries at a lower level of development as production sites where the same process is then repeated. Thus these shifts should not be seen only negatively, since they are part of the global industrialization and wealth creation process.

The example of India was cited. It has over the years developed a chemical industrial sector of its own. However, the Indian chemical industry is not large enough to engage significantly into R&D activities and this again makes it difficult in the EC to compete. There has been a significant amount of foreign investment in chemicals as well. In the past, there was however not enough awareness of the risks related to the chemical industry. The dramatic accident of Bhopal has certainly changed public awareness in India. Environmental issues are now treated much more seriously and it has become clear that foreign investments in chemicals have to be checked much more thoroughly by public authorities in order to avoid another accident of this kind. It was also stated that companies from developed countries often employ "double standards" when producing in developing countries. They produce a number of products or engage in a number of polluting processes which they would not dare to do in their country of origin. It should be clear that environmental issues must not be ignored, neither in a developed country nor in a developing country.

The particular situation of Africa was also addressed. Developing countries in Africa are faced with a special dilemma. They cannot enter the market for basic chemicals because there is already a glut with over-capacities world-wide. For more high-tech chemicals they lack R&D experience and funds. Finally, they do not have the distribution networks to sell their products in the EC.

In other words, they can only produce for the small domestic markets and this may be very inefficient due to the lack of economies of scale. The result is that these countries have no other opportunity but to rely on their traditional exports of raw materials to the EC and other developed countries. Structural imbalances in the global economy are thus perpetuated.

In conclusion, the importance of information about global trends was emphasized. A developing country policy maker should not expect any longer that the technical life of a factory is identical with its economic life. Rapid changes in technology have shortened the economic life. These trends are certainly not directed against developing countries, they simply occur. Nevertheless, developing countries' policy makers have to be aware of these trends in order to react correspondingly.

VII. STEEL INDUSTRY

The paper on the steel industry[6] was presented by Mr. Peter Wisinger (UNIDO consultant). The following are the main points.

The global steel industry stagnated over the past 15 years. Global steel production reached 740 million tons in 1974 and it stands now at 734 million tons (1991), i.e. below the 1974 figures. From 1974 to 1977 steel production was below the 1974 level. In 1977 and 1978 it surpassed the 1974 levels before falling back again after the second oil price increase and the recession in the early 1980s. From 1984 to 1990 steel production gained momentum and in 1990 it reached 770 million tons before collapsing to 734 million tons in 1991.

If one analyses global steel production, one can see that OECD steel producers kept their production levels stable in the 1980s (112 million tons in 1981, 114 million tons in 1990) while the big winners in the 1980s were the developing countries which almost tripled their production output (from 10.6 million tons in 1981 to 27.2 million tons in 1990). Thus, about 80 per cent of the total increase in world steel production in the 1980s was accounted for by developing countries.

Eastern Europe and the USSR also increased their production in the 1980s (from 19.5 to 22.1 million tons). However, due to their needs for restructuring and the collapse of markets in Eastern Europe and the former Soviet Union, production figures in 1991 are expected to have declined. In any case they are expected to decline in 1992 to between 40 and 50 per cent of their levels of the late 1980s.

The progress of developing countries can also be seen by looking at global steel trade. Developing countries managed to more than triple their exports to industrialized countries in the 1980s (from US$ 2.3 bn in 1980 to US$ 8.5 bn in 1989), and they tripled their exports to other developing countries (from US$ 2.4 to US$ 7.3 bn). Exports to Eastern Europe also increased (from US$ 0.3 to US$ 0.6 bn).

Although industrialized countries managed to increase their exports to other industrialized countries (from US$ 38 to US$ 54 bn) in the 1980s, their exports to developing countries stagnated (at around US$ 21 bn) and their exports to East bloc countries declined (from US$ 5.2 bn to US$ 4.1 bn).

The East bloc countries increased their exports to developing countries in the 1980s by 55 per cent (from US$ 1.8 to US$ 2.8 bn) and they more than doubled their exports towards industrialized countries (from US$ 1.3 to US$ 2.8 bn).

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[6] "The steel sector", UNIDO, ID/WG.523/5(SPEC.), 9 March 1992.

With respect to technology policy, a comprehensive European policy on R&D and technology in the steel sector was developed over the past 30 years based on the agreements of the European Coal and Steel Community. The guidelines for research activities are laid down in the EC framework programmes. The latest guidelines are incorporated in the third framework programme which gives priority to information and communication technologies (ESPRIT, RACE, etc. - 39 per cent of the total budget), followed by industrial and material technologies (EURAM, BRITE etc. - 16 per cent of total budget). Co-operation with third countries is possible through bilateral agreements or based on project-related participation. In the latter case, the third country participant has, however, to look after its own administrative and financial contributions. For the steel sector the Community has issued mid-term guidelines for the ECSC programmes called "Technical research for steel" for the period 1991 to 1995 which cover research for both process innovation and product innovation. So far 101 R&D projects regarding steel and 14 pilot plant projects received financial aid to the total value of 41 million ECU in 1990. Although not too much weight should be given to the importance of R&D efforts by the EC, it is nevertheless true to say that EC R&D efforts stimulated scientific progress in the EC steel sector.

The SEM is of some importance to the steel sector, but the real issue will be the "Multilateral Agreement on Steel Trade Liberalization" (MSA). Multilateral negotiations began in 1990 after the USA had proposed a "multilateralization" of the bilateral "Steel Consensus Agreements" agreed earlier between the USA and other countries with steel importing interest in the USA. The MSA negotiations are not part of GATT negotiations, but it is clear that a positive outcome of the GATT negotiations would also have positive implications for the MSA. There are strong pressures in the EC and the USA to finalize the MSA, but there are equally strong pressures against.

One of the major stumbling blocks in the negotiations for an MSA has already been partly eliminated. The 7th revision draft of the MSA concerning subsidies contains almost the same wording as the ECSC Steel Subsidies code. The basic idea is to allow some specified subsidies for research and development, for environmental protection purposes and for the permanent closing of a steel producing entity. However, whereas all participants apart from the USA support the idea that subsidies which are not prohibited by the MSA should also not be actionable under national trade laws, the USA has so far not been willing to accept such 'restrictions' by the MSA.

Other issues discussed in the MSA negotiations concern export credits and tied aid. If an agreement comes into force, it will be certainly much more difficult to use export credits or tied aid to penetrate foreign markets with steel products. The MSA will bring more discipline in this respect. The main argument is that financing for steel plants and equipment should have nothing to do with steel trade. On the other hand, MSA would provide for duty-free treatment for imports of steel products. It is intended that duty-free treatment for steel products should be achieved in a five to ten years period. It is also clear that hidden trade barriers will have to be stopped as well. The MSA contains a set of rules which should prohibit such non-tariff trade barriers.

Another important question is dumping and the abuse of anti-dumping measures. The most important proposal in this respect concerns the introduction of special anti-dumping rules. According to this proposal the initiation of an anti-dumping investigation could only take place after a so-called multilateral "Parties Group" had decided that there existed appropriate and sufficient evidence of dumping and material injury.

All these measures, if adopted, would certainly work in favour of developing countries. On other aspects of EC policy the EC competition laws deal with questions of mergers and acquisitions. In theory, developing countries also have the obligation to comply with these EC rules, but in practice thresholds are so high that EC merger control will not have any direct implications for developing countries' enterprises.

There is no EC or ECSC steel investment policy as such. However, a number of ECSC regulations has had a strong influence on investment. Since the early 1980s, the European coal and Steel Community (ECSC), set up in 1952, has sought to reduce capacity in crude steel and in semiproducts. The instruments used were: a strict policy concerning governmental capital supply to state-owned steel industries, the quota system which *de facto* had effects on investment, and the codex of prohibited subsidies which restricted subsidies to research and development, to environment protection purposes and to subsidies used for the permanent closing of steel plants. In addition, regional funds and structural funds had effects on investment decisions and the locations of capacities in the EC. They have also supported the tendencies towards specialization and permanent upgrading.

The EC has intervened little in cross country mergers and acquisitions and thus indirectly provoked some investment into the modernization of the production processes without there having been an increase in the overall crude steel capacity of the EC. These investments mainly concerned an increase in the level of specialization and in the degree of finishing and have thus contributed to the reorientation towards a stronger value-added intensive production.

As Eastern Europe is going to be integrated into the European markets, it is clear that Eastern Europe also has to bring down its capacities in order to avoid new price wars in the European steel markets. At the same time, the asymmetric trade policy established by free trade agreements between the EC and a number of former East bloc countries will certainly intensify steel trade flows between Western and Eastern Europe and it will give further strength to the process of intra-industrial specialization.

Over the past years, general investment conditions have changed as well. Generally, one can see a tendency towards a reduced state influence. Steel enterprises will therefore increasingly have to rely on their own resources for finance. Nevertheless, the steel sector will remain a basic industrial branch in developed industrial countries as new processing technologies are going to be introduced. Within the next ten years, the introduction of innovative production processes like thin strip casting can be expected which will contribute *inter alia* to a more flexible capital use.

Standards are playing an ever increasing role for steel producers and steel trade. The trend towards ever demanding standards may however constitute a new kind entry barrier for producers from third countries. In addition, exporters making deliveries from one EC country to another will benefit from administrative simplicity which will not apply to the same extent for exporters from non-EC countries. EFTA states are however in a more favourable position than other non-EC countries as they are already fully integrated in the European organizations for standardization.

Environmental legislation could have severe effects on the steel industries in EC countries. Taxes on SO_2, dust and CO_2 would drive up costs significantly for the EC steel industry and they could even increase total emissions in Europe. Unless such taxes would be introduced on a global scale, the problem might be that production would be simply shifted to the former CMEA countries which still have ample capacities available but at significantly lower environmental standards than one finds today in the EC. Thus, the EC has already announced that the steel sector might be excluded from a new CO_2 tax. On the other hand, if environmental legislation were introduced on a global scale, new technologies such as the COREX or the FINEX process could be introduced which would boost natural gas consumption instead of the polluting coal consumption and this would also lead to some processes being shifted to iron ore producing countries beyond EC borders.

In the discussion that followed, the characteristics of the European industry were noted, following on the ECSC. General tendencies have included a concentration process with a significant number of mergers and acquisitions over the years. In this regard it was noted that India is still mainly a steel importer. On the other hand, India exports iron ore to the EC. The drive for cost efficiency in the SEM might prompt the EC steel industry to increase pressure on India to reduce prices on iron ore. The more the EC steel industry is concentrated, the more the bargaining position of India may decrease.

Other tendencies in Europe included improved competitiveness, a push towards higher standards, and an increased specialization in high value-added market niches. The same tendencies are likely to be seen in the EC in other sectors after the completion of the SEM. Additional tendencies of relevance to developing countries in the steel sector are that ordinary steel products are going to find a market in the SEM as the EC specializes in high value-added market niches. There is a specialization in stainless steel or in flat products; on the other hand, the production of ordinary bars has been stopped in most EC steel plants.

With the globalization of steel production, steel trade will continue to grow, and there is also a large potential for improved South-South trade. However, developing countries will face fierce competition in their market segments from producers of the former East bloc countries.

It was noted that the proposals put forward in the MSA negotiations in connection with a new mechanism to avoid anti-dumping measures to be used as a trade weapon would certainly be of great assistance to developing countries. Although the MSA, if concluded, would seem to work in favour of developing countries, there are a number of other metal producing or metal manufacturing industries such as in the field of copper, zinc, etc. which are at least as important or even more important for a large number of developing countries than steel production. For these industries a kind of MSA agreement might also be of importance.

On anti-dumping, while it is necessary to have a weapon against "unfair competition", it is also clear that anti-dumping measures have been used as a trade weapon by industrialized countries to fend off imports. Thus, it is necessary to lay down the rules which can lead to an anti-dumping initiative. The international "Party Groups" are supposed to act as an important filter in order to exclude unjustified proceedings from taking place which otherwise would put a heavy burden on steel exporters from a developing countries. With respect to export credits it is obvious that in times of over-capacity exporters try to sell by all possible means. There will still be some type of supported credits or credits at market conditions which are better than what the customer would otherwise get. However, all official export credits will have to be eliminated if the MSA is going to become effective.

In further discussion of market possibilities for developing countries, it was pointed out that although the possibilities for steel exports from developing countries might increase due to the completion of the SEM, one cannot neglect the high costs for new integrated steel plants and the constraints that such expenses may pose for the financial equilibrium of a developing country. For developing countries a frequent problem is that there is no market for a number of intermediate products in the steel producing chain. Developing countries are thus compelled to look for integrated steel plants instead of having the chance to concentrate on a few number of processes where they might have a better competitive edge. However there is certainly the possibility to co-operate with producers in other countries and to come to bilateral agreements. Especially for developing countries, the development of "mini-mills" is interesting and there are a number of producers in the EC which would like to get rid of their large integrated steel plants and to turn towards more flexible and less capital intensive "mini-mills". Mini-mills in Northern Italy have proven their competitiveness and "mini-mills" would certainly be of interest to a large number of developing countries as well.

The example of African steel production was referred to. The 1980s were generally regarded as a lost decade for Africa. However, in steel progress has been achieved and there are good opportunities for Africa in the future. As African countries do not have important investment in traditional steel technology, they are able to directly enter the new direct reduction technology which is going to revolutionize steel production in the next decades. Out of five factories which have been built in recent years three factories in Africa are already using this new technology. They are in Niger, Egypt and Libya. In Algeria, a plant based on this new technology will be put into operation soon. African countries have large iron ore deposits as well as other raw materials such as cobalt which are necessary for steel production. Africa holds now around 1 per cent of world steel exports, but this will increase to 2 to 4 per cent in the next few years. Capacities for steel production in Africa will double in the 1990s. The direct reduction technology will also open the doors for African producers to supply EC steel producers with a number of intermediate products. In addition, the new technology will prompt the EC to increase their raw materials imports from Africa as well.

VIII. ELECTRONICS INDUSTRY

The paper on the electronics industry[7] was presented by a member of the UNIDO Secretariat who thanked Mr. Paul Hesp (UNIDO consultant) who together with him had prepared the report on the electronics industry. The following were the principal points made.

The electronics industry has started to occupy a very significant place in world industry, both because of its dynamic characteristics and because of its importance for the modernization of industry in general. Progress in automation and process control increasingly depends on inputs from the electronics industry. The electronics industry is about to replace food processing as the number three among the manufactured branches in terms of global MVA and by the year 2000 it is expected to be the world's largest industry. One major branch of the electronics industry, the computer industry, employs over 3 million people.

The share of the EC in global production in electronics as of 1990 was at about 25 per cent. Japan held a share of 25 per cent and the USA held a share of 37 per cent. Whereas the USA market share corresponds to its production share, the EC shows a significant trade deficit in electronics. Its market share is with 30 per cent significantly larger than its share in global production. On the other hand Japan's market for electronics (18 per cent) is smaller than its share in global production and it thus runs a large trade surplus in this industrial branch. Although one should not over-emphasize the importance of balanced trade links, it is interesting to note that Europe does not have the lead in this very dynamic industry.

The share of the rest of the world in terms of production amounts to 13 per cent, in terms of markets to 15 per cent. Many developed countries' enterprises have production sites in developing countries which are included in the 13 per cent share. But as the demand for cheap labour has slowed down in recent years it has become clear that developing countries cannot rely only on their availability of abundant cheap labour. Other factors such as the quality of human resources and infrastructure play a role as well.

The actual players in the world market that dominate the electronics industry are a number of large firms that are active all over the world from a home base in the industrialized countries. One hundred firms accounted for almost 80 per cent of world sales in electronics. Of the hundred largest firms 43 are American, 31 are Japanese and 23 are European (most of these are from the EC). From developing countries one can only find three firms, all of them are from the Republic of Korea. Thus, firms from developing countries still play a rather modest role at the global level. The most important developing countries with a domestic electronics industry are, apart from the Republic of Korea, Brazil, Singapore, Taiwan and India as well as a number of Pacific rim countries, Mexico and Turkey.

The electronics industry is characterized by a very high rate of innovation and by rising expenditures for investment and R&D. Continuous improvements in performance of electronic products resulting from innovation and fierce competition have exerted a strong downward pressure on prices. The time span for new product cycles has declined significantly. The immense R&D costs are leading to an increasing number of mergers and to technical co-operation agreements between major producers.

The major sub-groups analyzed in the paper were electronic components, industrial electronics, telecommunication equipment, computer/office equipment, consumer electronics, and software production which has gained importance in a number of developing countries.

The world market shares in components were 45 per cent for the USA and 34 per cent for Japan. In general, Japanese firms dominate the DRAM market, while United States firms dominate the microprocessor market. Firms from the Republic of Korea have made considerable gains and are now estimated to have 15 per cent of the world DRAM market.

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[7] "The electronics sector", UNIDO, ID/WG.523/6(SPEC.), 17 March 1992.

Telecommunications equipment has witnessed a series of technological breakthroughs and the development of Integrated Services Digital Networks (ISDNs). In addition, copper cabling is being replaced by fibre-optic cables and wireless transmission, allowing a strong increase in the volume of telecommunications traffic.

A rapid increase in demand for telecommunications equipment may be witnessed in the more advanced developing countries. The lack of reliable, widespread telecommunications services in developing countries has proven to be a major constraint for their industrial development. However, it should also be noted that progress in telecommunications technology has been such that it offers significant competitive advantages for latecomers in this field.

On computers, there are now three major market segments, PCs, workstations and minis, and large system (so-called mainframes). The respective market shares were 35 per cent, 41 per cent and 24 per cent. There is a global trend away from large systems and towards increased decentralization and the creation of networks. Another important development is the trend towards "open systems" where interconnections are possible. Standardization, especially of the smaller, mass-produced computers, is now making rapid progress. It has become clear that standards are important for producers as they reduce the risks for finding a market.

The major categories of consumer electronics include video equipment (television, etc.), audio equipment (radios etc.) and accessories. At present, the main new innovation about to be launched is High Definition Television (HDTV) which will greatly improve screen images. The development of a standard for HDTV has however been so far a controversial issue. Without a European standard it is feared that the Japanese standard for HDTV would evolve as the global standard and that this would put EC firms at a disadvantage.

The USA is definitely the largest software producer with a world market share of around 70 per cent. However, the software industry remains open to newcomers. It provides many niches for which distinctive products can be developed. Software engineering can also constitute one major means by which developing countries can increase their international competitiveness. There is an increased demand for integration services and systems engineering, especially given the broadening scope of telecommunications and its convergence with information industries. Countries which have the human resources for software production can also explore foreign software markets. India is the best known example in this respect. On the other hand, software markets are also easily lost, i.e. software producers have to keep a close eye on technological and market developments. In addition, the tendency towards global arms reduction will also release a significant number of highly skilled specialists who so far have catered for the military complex.

In 1989, the electronics industry in the EC including software production and information services accounted for 5 per cent of the GDP. By the year 2000 this share is expected to grow to 10 per cent. Computers and telecommunications equipment together account for more than 70 per cent of the output of the EC electronics industry.

Nevertheless, apart from telecommunication and communication equipment, and scientific instruments, the EC has a significant trade deficit which is likely to increase even further. Half of the total trade deficit of US$ 40 bn is accounted for by computers, and one third by consumer electronics. The rest is due to trade deficits in software, office automation and factory automation. Consumer electronics and computers together are responsible for about 85 per cent of the trade deficit in electronics. The industry is concentrated in the four largest EC economies: France, Germany, the United Kingdom and Italy. These countries account for 89 per cent of production and 88 per cent of R&D. Among the world top ten electronic firms are only two European corporations, Siemens (Germany) and Philips (Netherlands).

Imports from developing countries are particularly strong in consumer electronics. The Republic of Korea and Hong Kong provided over 50 per of the EC imports from developing countries in the late 1980s.

The unification of the EC market and the application of community wide standards will lead to potential gains in economies of scale, especially in telecommunications equipment. However, stronger competition from US and Japanese suppliers in the unified market in Europe is expected. Overall, the unification of the EC market should provide EC companies and foreign investors with a pool of qualified labour which may be crucial for the future development of the electronics industry.

As in other high-technology industries, there have been strong takeover pressures in the European electronic industries. For the period September 1990 to March 1992, in a total of 203 mergers and acquisitions involving EC companies, 72 were in the electronics sector and this tendency is likely to continue. Apart from mergers and acquisitions there is a tendency among firms to make strategic alliances.

The Community's trade policy has been to provide stimuli for the EC electronics industry by focusing on openness in international trade and on fair trading. Semiconductors, photocopiers, printers, videorecorders and TV sets from overseas sources have been the subject of anti-dumping measures. In the case of semi-conductors (DRAMs) an agreement was reached with Japanese producers in 1990 after the imposition of a stiff provisional anti-dumping duty. The outcome of the GATT negotiations is considered to be of great importance, especially in the fields of semiconductors and consumer electronics where trade barriers are considered as putting the Community's industries at a disadvantage in a number of overseas markets.

In order to defend its share in the world electronics industry, the EC has been supporting several large research projects since the mid 1980s. The two most important ones have been ESPRIT and RACE. Under the ESPRIT II programme, projects include the creation of multiprocessor computers, and projects under RACE include research in the field of fibre-optics in order to lay the foundation of "Integrated Broadband Communications".

EC research has so far concentrated on the pre-competitive phase, and there has been little co-operative follow-up among firms at the product development stage. It has thus been proposed that in future programmes should encompass all stages from basic research to marketable products. Future research is likely to focus on software development, computer integrated manufacturing, micro-electronics, peripherals, telecommunications and supercomputers. So far, the EC has pledged approximately 40 per cent of the ECU 5,700 million budget for information and communications technologies.

Other relevant aspects of Community policy include action in the field of standards.

Regional issues centred on assistance to a number of EC countries or depressed regions within EC countries for re-training schemes.

With respect to Eastern Europe, it has not so far played an important role in world electronics. Productivity has been low and technologies used were not the most advanced with the exception of some military and aerospace related applications. The opening-up of Eastern Europe will lead to a vast increase in demand for industrial electronics as restructuring of manufacturing is going to take place. Another important area is the establishment of new telecommunication networks. But Eastern Europe will also become interesting as a location for electronics manufacturing activities because of the availability of comparatively cheap and skilled labour. However, some re-training will still be needed. Software houses from developed market economies are already subcontracting production in Hungary. Major European corporations (Alcatel, Siemens etc.) have already acquired a strong foothold in the telecommunications industries in Hungary and Czechoslovakia through a number of joint ventures and in consumer electronics firms from the Republic of Korea (Samsung and Goldstar) are already active in Hungary and in the CIS producing colour TVs.

Major developing countries producers in electronics are Korea, China, Singapore, Malaysia and Brazil. There is a concentration of production in the Pacific rim. In the new emerging division of labour in the region, the Republic of Korea, Taiwan Province and Singapore are no longer a location for low-wage assembly operation. They are increasingly becoming the location of state-of-the-art production activities, for which a highly trained labour force is needed. Korean enterprises are thus increasingly relocating more simple operations to other Asian developing countries, such as the Philippines, Thailand and Malaysia and to industrialized countries in order to avoid trade barriers. Singapore is mainly relocating production capacities to Malaysia.

Whereas Korean R&D policy strategy focused on working closely together with the large private companies by creating joint research cooperatives, the approach of the Taiwanese authorities in the early 1980s was to establish national standards for the BIOS of personal computers which then enabled small and medium sized firms to enter production and start an export offensive.

In China, the electronics industry developed especially in the EPZ type facilities such as in the Shenzhen Special Economic Zone where dozens of joint ventures with firms from the USA, Japan and Europe were created. The large majority of electronics products produced in these EPZs are however of a relatively unsophisticated nature. Outside the pacific rim Brazil is the only developing country which plays a significant role in the world electronics industry. Until very recently, the production has been primarily for the domestic market and the electronics industry was part of the import substitution policy of the Brazilian government.

Further developing countries which have shown significant success in building up an electronics industry over the past few years include Mexico, India and Turkey. Mexico attracted a considerable amount of investment from industrialized countries during the 1980s. This was primarily US investment in assembly operations, attracted by cheap labour and the proximity of the US market. By contrast, India has concentrated on production for the local market. State interventions used to play a prominent role as India was aiming at "technological self-reliance". Thus, firm restrictions on foreign investment were introduced. Foreign firms were required to enter into joint ventures with local firms. This made, for example, IBM withdraw from the Indian market. With the policy changes under way, IBM and other multinationals have started to return to India. Significant success was achieved in the production of software.

In Turkey, the consumer electronics industry especially has grown very rapidly in recent years as it has proven to be an attractive location for EC producers because of its proximity to the EC, low wages, and existing association links with the EC.

The major implications of the SEM are the tendencies towards concentration in electronics industry and the formation of strategic alliances as investment costs and risks increase. On the other hand, international linkages will also gain in importance which may be to the benefit of developing countries. Although concentration in the industry in developed countries may reduce the possibilities of competition from developing countries, there should be nevertheless a large number of new opportunities for developing countries in niche markets of consumer electronics and in new hardware/software combinations that have been overlooked by the large developed country producers. The key will be whether producers from developing countries are flexible, agile, innovative and in touch with their markets, especially in the development of new hardware/software combinations, putting together standard components in non-standard ways. The overall trend towards standards should also be to the advantage of small developing country producers as it gives them the necessary stability for their export products. Overall, the SEM is likely to enhance the international character of the electronics industry and as technology diffuses across national boundaries it also offers developing countries scope for innovations, new products and new producers entering the market.

In the discussion that followed, it was recognized that the electronics industry is a key industry which must not be neglected by developing countries as it offers them inexhaustible opportunities for new products and processes. Unlike for sectors such as petrochemicals, the market entry costs are very low. Developing countries should nevertheless investigate and analyze carefully their potential to participate in the global electronics industry in order to find out at what level they should enter. At the same time, more should be done to increase the diffusion of new technologies in the electronics industry in order to facilitate developing countries to participate in this important industry.

Technological advance in electronics is so rapid that within an extremely short time equipment bought is outdated and the same also applies to the establishment of factories in this field as well. Developing countries such as Algeria have thus adopted a wait and see attitude until technological advance in this area has stabilized. It would be useful if UNIDO could help developing countries to clarify what is the state of the art and what can be expected in the near future. Policy makers in developing countries are no longer in a position to decide whether a certain technology is worthwhile being considered for production purposes or whether it would be better to wait for the next generation of electronic equipment, and to enter then into the production of electronic equipment.

It was pointed out, however, that the electronics industry is such a broad area that simple answers cannot be given. The electronics industry is by no means a monolithic entity. It includes a vast variety of operations. In many cases, our traditional classification system does not help us any more because of the changes in applications due to the incorporation of electronics. The main message is however that electronics does not necessarily mean large investment. It is the idea which counts. Electronics industry and the applications of the electronics industry can be developed at a multitude of levels. There are, for example, a significant number of PC producing companies in Africa and the application possibilities of electronic equipment are tremendous. The real problem in most developing countries is the lack of access to information. A small entrepreneur in a developed country can go to a news stand and buy a magazine on electronics and develop his own ideas of how to make best use of new technologies available. In many developing countries there is a lack of this basic information. It is the intellectual environment which creates ideas of how to make best use of new opportunities.

Another shortcoming in some developing countries is the lack of coherence between trade and industrial policy. Electronic equipment which is either not available or extremely expensive due to large import duties can impede significantly industrial development. It does make a difference whether a small entrepreneur can go to the next shop and buy for a few dollars an electronic kit to experiment with it. The message should therefore be that electronics must no longer be considered as a kind of "luxury item" but as a necessary tool to create new manufacturing opportunities.

It was noted that UNIDO has always given the necessary emphasis to the electronics industry as a tool for developing countries' industrial progress, and it becomes ever more clear that this strategy is the correct one for a large number of developing countries. Studies of strategy by the World Bank and the University of California were also noted. The case of Brazil proves however that even a wrong strategy in electronics can be better than no strategy as this industry is so extremely dynamic. Two per cent of GNP is already accounted for by the electronics industry, and with the modernization and expansion scheme for telecommunications under way, the importance will certainly grow despite the opening of the Brazilian market and increased competition from third countries. Before the starting of the liberalization process, the well protected electronics industry was among the loudest to protest against the opening of borders for imports (comparable to EC farmers). However, two years after the process has started, the Brazilian electronics industry makes even better profits than before, companies have become significantly more efficient and a wave of new investment is taking place. Foreign investment in the electronics sector is flooding in as well.

With respect to direct foreign investment, the electronics industry has for many developing countries the character of a rather footloose industry and it is not clear whether developing countries really should get into it. If a developing country concentrates on mere assembly activities, the electronics industry may move away again very easily. On the other hand, if a developing country tries itself to develop the overall spectrum of the electronics industry, it has to engage itself into a rather capital intensive venture and there is always the danger of producing outdated technology in the end which can only be sold at very low prices.

With respect to the footloose character, it was acknowledged that it may be easier to attract the electronic industry to a country than to hold it in a country. A good example in this respect was a European centre of a major American software company, Microsoft. In this centre, the software was adapted for the different national markets in Europe. After several years of operation in Ireland, the decision was taken to have the centre moved back to the USA. Nevertheless, one cannot say that a country should not try to attract investment by international software houses or by the electronics industry. With a number of electronic industries in one country, others tend to follow automatically. Even if at a later stage one or the other industry may be lost again, it might have been worth the efforts.

With respect to trade, it was suggested that developing countries should not be overly optimistic about free access to the SEM. For countries outside the EC the danger of the introduction of trade barriers always remains a possibility they should reckon with. Video equipment from developing countries was a good example in this respect.

With respect to the influence of standards in electronics, the point was made that if EC standards for hardware at all levels are introduced, this will certainly stimulate trade and give developing countries increased opportunities to enter the EC market. Concerning the protection of intellectual property rights, it should be made clear that too rigid rules are not only against the interests of developing countries' manufacturers but also against the interests of the EC.

There are two classic examples which support the argument. In the video market, two major Japanese companies introduced their standards some years ago. There was one standard by Sony and then there was the VHS standard. The Sony standard was much more sophisticated than the VHS standard. However, Sony's policy was to do all it could in order to protect "its" standard. The result was that a large number of small and medium sized firms in Japan and in the Pacific rim took up the VHS standard instead and in a few years time the VHS standard became the world standard while Sony lost its market as well. The other classic example were the PCs by IBM and Apple in the late 1970s and early 1980s. Whereas Apple wanted to earn on all fronts, IBM disclosed its standard and made it possible for many producers to produce IBM clones and equipment compatible with IBM computers. Nevertheless, in terms of economic performance IBM fared much better than Apple and IBM PCs became the industrial standard while it took Apple a long time to recover.

If EC companies follow the IBM example or the example of the VHS standard, they have a good chance to determine what will be the international standards, and developing countries would indirectly help to make EC standards world standards. Otherwise, US or Japanese standards will dominate the international scene. In the case of HDTV, EC policy makers will have to show which path the EC is willing to take. If the EC is ready to make the HDTV standard available to developing countries, it would not only help developing countries, it would once again emerge as the industrial leader in an area in which it has already significantly fallen behind Japan.

The software industry has certainly proven for India to be an area in which it could build up international competitiveness. However, this is only true for software production for English speaking countries. Thus, software exports to the EC are *de facto* restricted to the UK. The EC software market would allow for much higher Indian exports if there were not the language problem which acts as trade barrier. In order to better penetrate the EC market, India would need support in teaching major European languages to software producers in India. If either UNIDO, the EC or individual EC countries gave India assistance in organizing European language courses for Indian software producers, a major obstacle for the further growth of the Indian software industry would be removed.

A topic of particular concern to India is the increase in software piracy. In the software industry, there has been in recent years a trend towards standard software. A large number of firms which in the past were ready to pay for enterprise specific software package have turned to standard software packages. This would not be a problem if software piracy of these standard software packages did not ruin the market. As demand for software has decreased because of piracy, the prices for software producers in India have in some cases declined to just one tenth of what they used to get a couple of years ago. The question of intellectual property rights has thus become a crucial question for India and it should be taken up by the international community. Software piracy cannot be tolerated. As the software industry has ample opportunities for developing countries, it might be in the developing countries' interest to see intellectual property rights being respected on a global scale.

IX. ADOPTION OF RECOMMENDATIONS

Following the discussion of the issues paper and the sectoral papers, the Expert Group Meeting adopted the following recommendations:

The Expert Group Meeting on the Implications of a Single European Market for Industrialization in Developing Countries, in the light of the analysis made of key sectors and the discussions held and views expressed at the meeting, having at the same time also noted all major economic and social developments worldwide, makes the following recommendations which are of particular relevance to UNIDO action:

(a) The analysis and conclusions of the Meeting on the Implications of the Single Market are of importance for decision-makers in developing countries and efforts should be made by UNIDO to bring them to the attention of governments, the private sector and other interested parties (including Chambers of Commerce, Federations of Industries, etc.).

(b) In general, there is a need for continuing analysis and assessment of industrial change under way in Europe, in order to alert decision-makers in developing countries to key points of relevance to them. In view of the volume of information involved, selective analysis and synthesis on the central issues is of great importance.

(c) The need for information analysis and dissemination is particularly acute in the field of environmental regulation (as well as in health and safety regulation) and in industrial product standards, and an analysis of their implications for developing countries is required.

(d) General changes in industrial organization now under way, including those in connection with the Single Market but also in world industry as a whole, are placing new emphasis on industrial services and production and distribution chains (which includes packaging, marketing, and the build-up of distribution networks). Analysis is needed of new possibilities for developing countries (including through regional co-operation) that would allow them to access later stages in this chain. The possibilities of international sub-contracting and joint ventures should be examined from this point of view.

(e) Further analysis of the impact of European R&D programmes may be needed to make a full assessment of their relevance to developing countries, and their co-operative nature deserves careful consideration as a potential mechanism for encouraging industrial R&D in - and for the benefit of - developing countries.

(f) The SEM has as well as the NAFTA given encouragement to regional integration efforts in other parts of the world, and regional integration, especially through increased flexibility and other measures and a simplification of administrative restrictions to economic activity across borders, is a necessary response to the competitive pressures of world industry. Special attention, however, needs also to be given to countries for which regional integration is not an immediate possibility.

(g) There is a need in developing countries for a much more active and integrated trade and industrial policy: trade policy in particular needs to take account of the requirements of industry for embodied technology as well as other imported inputs, while industrial policy needs to take more account of the complex and changing international nature of many key industries.

(h) Industry policy makers need to take account of the ever increasing emphasis on timeliness and quality of production to respond to the changes under way at international level. In order to achieve these objectives improved working conditions and a fairer sharing of profits will be necessary as well.

(i) Industrial strategy formulation, at the regional, national or enterprises level has to be made with sufficient knowledge of the technologies and market options available, and this should be regularly updated. UNIDO should continue to analyze developments within Europe and other regions, to be able to inform policy-makers in developing countries, on a regular and timely basis, of what are the main developments in world industry of relevance to them, and in order to further develop UNIDO's own technical assistance capabilities. In view of the particular vulnerability special attention should thereby be given to the economies of Africa and to LDCs in other parts of the world.

X. CLOSING OF THE EXPERT GROUP MEETING

The meeting was then closed by the Deputy Director-General of the Department for Programme and Project Development of UNIDO. In his remarks he referred to the fact that 1992/1993 has become a magic date. However one should not forget that the process towards European integration had started much earlier and since 1958 the objective of a Single European Market was already clearly stated.

European unification began at a time when the chances for a recovery of Europe were rather gloomy. The main idea was not to have the inter-war years repeated with every European country regarding its neighbour as a potential enemy, i.e. the reasons for European unification were both political and economic. The process of European unification then took more than 40 years to culminate in the creation of the Single European Market as a first important step towards economic and political unification. Regional integration is not a process which just happens overnight.

There are now numerous efforts in developing countries to follow the European example and create similar mechanisms for regional co-operation. These efforts are certainly a promising approach to achieve economic growth and political stability. But one should not expect too much from such efforts in the short run. Regional co-operation and integration needs time to show positive results. Regional integration efforts not only need political will and the harmonization of laws and regulations, but also need investment in infrastructure and mechanisms to distribute cost and benefits in a just and efficient manner. The SEM will certainly have important consequences for third countries, although other events and global tendencies are at least as important for developing countries as the completion of the SEM. A successful conclusion of the Uruguay round of the GATT would certainly give a new impetus to global trade from which both developing and developed countries would benefit.

The Deputy Director-General then thanked all participants for their active participation in the meeting and the Government of Netherlands for having enabled those highly interesting and fruitful discussions to take place. In reply, Mr. J. Kramer, Alternate Permanent Representative, Permanent Mission of the Netherlands to UNIDO, expressed his appreciation of the arrangements for the meeting and the valuable discussions that had taken place.

ANNEX

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