Speech by Liam Connellan, Director General, Confederation of Irish Industry at Irish Federation of University Teachers Conference, "The Future of Third Level Education in the EEC" held in Carysfort College, on Saturday, 21st March 1987.

UNIVERSITY - INDUSTRY LINKS

INDUSTRIAL DEVELOPMENT TRENDS

Ireland is not a poor country by international standards. It has the thirty-second highest income per capita of 152 countries in the United Nations. Among the industrialised countries it had over the last twenty-five years one of the fastest growth rates but it still has one of the highest rates of unemployment. Industry now accounts for almost 40% of value added in the economy.

During recent decades the distribution of the workforce in Ireland has moved much closer to that of the European Community. The main reason for the relatively low living standards in Ireland compared to our Continental EEC partners is that the output of the Irish industrial sector is only half that which would be necessary to support Continental living standards.

There have been many changes in the policy for the development of manufacturing industry. In the 1930s a policy of protectionism was adopted so that Ireland could produce its own requirements of grocery products, furniture, clothing, and footwear. This policy proved effective initially and industrial output expanded. However, the limitations of a small home market and the disadvantages of manufacturing an extensive range of products became very obvious in the mid-1950, when industrial production stagnated and emigration reached massive proportions.

At the end of the 1950s emphasis was placed on the encouragement of exports by established firms and the attraction of overseas industries to set up plants in Ireland to manufacture for the world market. Throughout the 1960s industrial output expanded rapidly. In the mid-60s the process of dismantling tariff barriers commenced and was finally completed in 1977, and the transition period following our entry into the European Community ended.

While the growth of industrial output slowed down over the last decade due to the impact of two major international recessions, the expansion of Irish industrial output since 1980 compares favourably even with Japan.

MANUFACTURING OUTPUT AND EMPLOYMENT

Industrial output has now become the predominent influence on the development of living standards and on employment change in the economy. When Ireland joined the EEC in 1973 our GDP per employee was 61% of the European average. This ratio had improved to 71% by 1985.

Since Ireland joined the European Community in 1973, manufacturing output has expanded on average by 5% per annum compared with an expansion of only 1.3% per annum in the European Community. Over the same period total employment in Ireland increased by an average of 0.2% per annum while employment in the European Community fell by 0.2% per annum. The reason the Irish unemployment rate is so much higher than the rest of Europe can be seen in which demonstrates that the population of the Republic has increased at a rate five times faster than that of the European Community. There is, therefore, a need for a much more rapid growth of manufacturing output in order to support higher levels of employment throughout the economy.

I believe that Ireland has the potential to expand industrial output by 7% per cent per annum over the next decade. However, the achievement of this objective will require that the highest priority is given to stimulating faster industrial growth as the primary means of creating additional employment throughout the economy.

The performance of industry in Ireland is strongly influenced by international developments. Irish industry exports approximately two-thirds of its output. Experience over the last five years shows that there is a close relationship between Irish industrial growth and the expansion of industrial output in the United States and Japan in particular.

This relationship is strongly influenced by the fact that more than one-third of Irish industrial output is produced by American or Japanese-owned companies and also that these two economies account for more than half the output of the world market economies.

DEVELOPMENT POTENTIAL

There are many reasons why Ireland has the potential to achieve a 7% growth in manufacturing output over the next decade. The structure of industry in Ireland has changed dramatically in recent years. Manufacturing industry can be sub-divided into three broad categories:

New technology firms, generally comprising firms in electrical, electronics, chemicals and pharmaceuticals;

Food, drink and tobacco sector based on agricultural products, and

The traditional sector, comprising industries such as textiles, clothing, footwear, furniture, packaging, and building materials.

Since 1973 the growth performance of these sectors has varied widely. New technology sectors have expanded output by 15% per annum, the food, drink and tobacco sector by 2% per annum, and the traditional sectors have suffered a decline in output of 3% per annum. The strong growth performance of new technology firms has been influenced heavily by the introduction of new firms from abroad. For example, there are now hundreds of electronics and pharmaceutical firms throughout the country. The growth in output of the food, drink and tobacco sector has reflected the growth of agricultural output. Decline in output of traditional industries has been due to the elimination of tariff protection and the impact of recession which has reduced demand for many industrial products.

Since 1979 the structure of industry has changed significantly. The new technology sector now accounts for 44% of output while traditional sectors account for less than one-third. Since a much higher proportion of industrial output is now engaged in the fast-growing new technology sector, there should be a greater possibility of sustaining a much higher total industrial growth rate than in the past.

This process of change is not new. Industrial sectors rise and decline over long periods of time. As the sixteen hundreds witnessed the growth of the woollen industry; the seventeen hundreds the growth of the silk industries; the eighteen hundreds the growth of the linen and shipbuilding industries, particularly in the north east; and the latter half of this century has witnessed the remarkable growth of the electronics industry, which is likely to be followed by major developments in bio-technology in the 1990s.

EXPORTS

Irish industry exports 70% of its output. The home market is becoming less important except for smaller and medium-sized companies. Our export performance is becoming almost synonymous with output performance. For these reasons Irish industry has been a strong proponent of the development of the European "internal market". While this development may cause some difficulties for firms competing on the home market only, the strong reliance of industry on export markets means that the balance of advantage for industry lies in having unhindered access to all the markets of the European Community.

In recent years there has been a dramatic change in the nature of our exports. In 1986 the top five exports were computer equipment; chemicals; meat; dairy products; and electrical machinery. These five products accounted for almost half of all Irish exports. However, they had very different growth rates. The new technology exports of computers and chemicals are expanding much more rapidly than food exports. Ireland is a significant net exporter of new technology products.

When we joined the European Community in 1973, the United Kingdom accounted for 55% of our total exports and Continental EEC countries for 21%. Last year we exported significantly more to Continental EEC countries (38%) than to the United Kingdom (34%). This diversification has occurred because of the rapid growth in exports to the Continent. Despite the fall in their share of our total exports, the volume of Irish exports to the United Kingdom in 1985 was much higher than in 1973.

This change has occurred because prior to 1973 Irish agricultural exports were denied access to Continental markets, and because new foreign-owned industries established in Ireland sell far more to the Continent where purchasing power is much greater than in Britain.

Let us now examine more closely the share of our exports taken by different EEC countries. Almost three-quarters of all Irish exports are sold to other European countries. Looked at from the point of view of purchases of Irish products per capita, the European market can be divided into three distinct bands.

Inner Band

The United Kindom and Benelux countries which purchase between £40 and £50 per annum of Irish products per capita and account for 44% of all Irish exports.

Middle Band

France, Germany, Switzerland, Denmark, and

Scandinavia, which account for 24% of Irish exports and purchased between £15 and £26 per capita of Irish products in 1985, and

Outer Band

The peripheral countries of Portugal, Spain, Italy, Greece, and Finland, which accounted for 6% of Irish exports in 1985 and purchased between £3 and £11 per capita.

Examination of these developments suggests the establishment of an export front pushing into the densely populated and affluent areas of Northern Germany and Northern France.

The importance of the German and French markets is underlined by the fact that Germany and France have each got greater purchasing power than the United Kingdom. Ireland is already exporting as much to the Benelux countries, France and Germany as to the United Kingdom. It seems likely that by 1990 our combined exports to France and Germany will exceed those to the United Kingdom. It is possible that within a decade, Ireland will be selling as much to Germany as to Britain.

The main reasons for this diversification is that Ireland now has free access for its food products to the Continental markets; and that Germany and France have each got a greater purchasing power than Britain. Thus when new industries are set up in Ireland to supply the European market, a much higher proportion of their output will normally be sold in Germany and France than in the United Kingdom. This changing pattern of our trade raises major issues relating to the development of the transport infrastructure and our attitudes to learning modern Continental languages.

There is ample evidence that Irish people are enterprising marketeers. I would like to see a greater reallocation of State resources from grant aiding fixed asset investment towards the provision of incentives for the recruitment of 1,000 graduates for a one year training programme in export marketing. These trainees should be recruited by companies in the manufacturing or traded services sectors, including export tourism, and should already have reached a minimum standard in French, German, Italian, or Spanish. At least nine months of the training period should be spent in Continental EEC countries.

IMPLICATIONS FOR EDUCATION AND EMPLOYMENT

Let us now look at some of the changes that are taking place in employment trends. For boys and girls who entered employment directly from second-level schools in 1985 industry was the main source of employment for boys followed by the distribution sector. Industry was also the main source of employment for girls, although professional services and personal services were becoming increasingly important.

The recently published study of the Carnegie Foundation for Advancement of Teaching shows that 90% of US high-school students and 88% of parents see education as a means to a livelihood. Another study by the Higher Education Research Institute of UCLA finds that the attitudes of first year students have been changing during the last decade: in 1974 only one-third considered becoming financially well off a prime objective of university education, while in 1984 two-thirds being very well off financially an important objective.

Manufacturing industry has been increasing its share of new third-level recruitment steadily in recent years. For example, in 1984 manufacturing industry recruited 30% more third-level award holders, while the rest of the economy increased its recruitment rate by only 3%. There has been a rapid increase in the demand for young people with business studies, science, and engineering qualifications.

The availability in recruitment of qualified technologists is a prerequisite for rapid industrial development. Ireland has proportionately only one-third the number of engineers and technologists as countries such as Japan, Denmark, France and the United States.

The recruitment of engineering graduates by Irish industry has more than doubled over the last three years. In 1984 industry recruited two-thirds of the new engineering graduates obtaining jobs in Ireland.

I have no doubt that industry will continue to increase its recruitment of newly qualified scientists and technologists each year. These young graduates have been trained to a high theoretical level in materials technology, process technology, and information technology. Initially they lack experience but I am confident that after an initial induction period with manufacturing firms they can make a major contribution to product and process development and the improvement of industrial productivity and competitiveness. It is vitally important that the economy obtains the maximum return on the investment by these graduates, their parents and the taxpayer in attaining a high degree in technological competence.

It is worth bearing in mind the comment by the OECD team on Innovation in Irish Industry that there was need to increase the college intake of engineering graduates by

25% per annum over the next five years in order to accelerate the pace of technological innovation.

Professor Ed. Walsh, President of NIHE Limerick, recently pointed out that the Japanese Government in structuring the noted 1960 National Income Doubling PLAN, tightly coupled economic and educational policy. The Japanese Economic Council of the Economic Planning Agency which drafted the plan underscored the importance of education when it stated that: "economic competition among nations is a technical competition and a technical competition has become an educational competition". Thus education found itself at centre stage in Japan. The Ministry of Education became the focal point for national development. In 1961 the number of places in the science and technology faculties were increased from 28,000 to 44,000 and to everyone's surprise the ten year goal of doubling national income was achieved ahead of schedule: in seven years in fact. Japan commenced to experience unprecedented prosperity.

INTERCHANGE OF PEOPLE

Growing internationalisation of Irish industry has major implications for the education and training of those who work in industry. The effective industrial executive, marketeer, or professional, will require competence in modern Continental languages, particularly, German, French, Italian and Spanish. The physical diversification of trade which has occurred to-date has been due mainly to the well-established marketing outlets of many foreign-owned manufacturers in particular countries.

Over the last decade there has been a rapid growth of Continental tourists to Ireland and Irish tourists to the Continent. Each day about 40 planes leave Irish airports for Continental destinations. Most of the major Continental capital cities have hundreds of Irish-born residents. In Ireland there are hundreds of residents from almost every EEC member state.

Trade and tourism development to-date have provided a framework for a much more intensive interaction. There is need for an even greater concentration of effort to increase our knowledge of Continental languages, and our understand of the different cultures of the Community. The marketing executive who speaks German and who can discuss the merits of its products with a German buyer is far more likely to be effective than one who has to act through an interpreter. The product development engineer who cannot share ideas with research colleagues in France is cut off from a major source of new ideas. Since the main thrust of our export development front is focussed on the cities of Northern Germany and North Eastern France, these are the languages which require most attention. The current emphasis on language training in second-level education is shown in.

Two years ago the Confederation established a European Orientation Programme for young graduates through which industrial companies sponsor the graduates to spend one year working in a similar firm in Continental Europe. Already 40 young graduates have completed this programme and have now returned to work in Irish industry. A second programme is currently under way and the number of participating firms is increasing steadily. Some member firms of the Confederation have also taken initiatives in placing young graduates for training and work experience on the Continent. It is hoped to place 70 young graduates on this programme during 1987.

CONCLUSION

There are many sectors of the Irish economy which offer considerable scope to maintain or develop a significant share of the European market. I have sought to describe some of these. While some have advantages arising from natural attributes such as the climatic conditions for the production of beef, dairy products, forestry, or the availability of fishing grounds, many others are based on less tangible advantages such as Irish enterprise, or inward investment arising from marketing a complex mix of factors. The development of companies which are in a position of world leadership in several areas owes most to the enterprise of Irish people working together with vision, and confidence to build successful organisations. I hope that their example will underline the enormous strength which this country possesses in its well-qualified, enterprising and enthusiastic young people who have the capacity to be marketeers, technologists, and above all people of enterprise. They are both our strength and our opportunity.

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