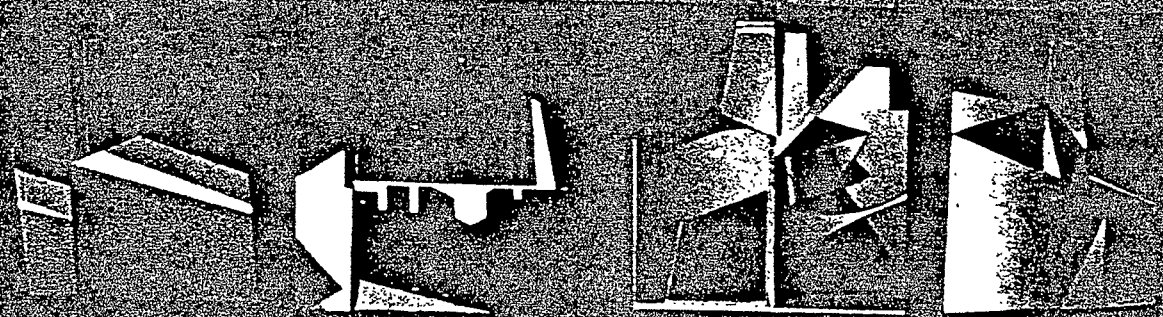
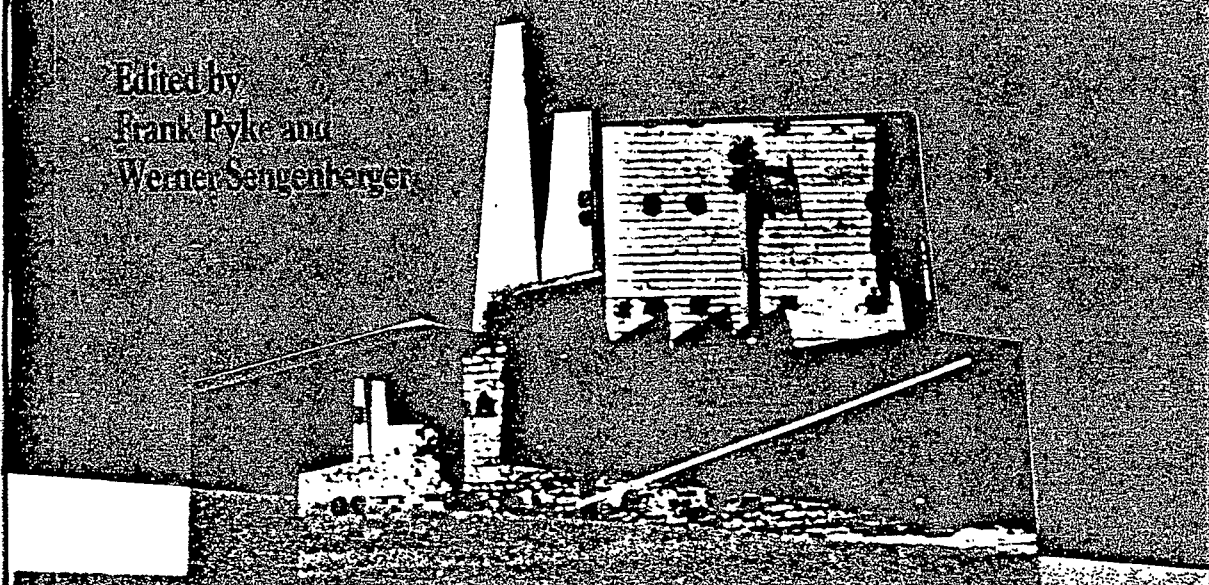


# Industrial districts and local economic regeneration

Edited by  
Frank Pyke and  
Werner Sengenberger



International Institute for Labour Studies - Geneva

# Industrial districts and local economic regeneration

Edited by F. Pyke and W. Sengenberger

International Institute for Labour Studies Geneva

and their direct competitors, and how governments and quasi-public institutions can most effectively implement industrial policy.

The bulk of the recent literature has analysed operating examples of flexible specialisation. It has provided a new way of looking at the economic landscape, a re-reading of what is and what has been. It has rescued small firm industrial districts and networks from the shadows, suggesting that, far from being relics of the past, they contain within them a sustainable model for the future; a model, furthermore, which is in many ways more appropriate for smaller Third World countries and vulnerable regions. It has done this by showing how existing industrial districts and flexibly specialised firms have been holding their own against, if not outcompeting, conventional mass production industry and it has analysed the nature of the operating systems that have allowed them to do so.

The industrial districts themselves were not organised on an explicit principle of flexible specialisation. Nor was the local and regional government support which has proved so important. The districts grew as a result of particular circumstances, and the public policies were responses to felt needs. They were not driven by a theory. Each case - and it is as true of dispersed networks as much as districts - had its own specific history. Flexible specialisation as a concept emerged as a way of recognising the significance of these cases, and suggesting their potential as an alternative to mass production.

There has been much less experience of trying to implement an explicit strategy of flexible specialisation *ab initio*. Indeed, some have argued that the conditions which allowed the development of successful industrial districts have been so specific that they cannot be replicated. Such a conclusion would necessarily reduce the significance of the many studies of flexible specialisation as it actually exists. But I do not think it is warranted. For it is one of the features of the FS approach that particular productive systems should not be replicated. It is the mass production model that leads to a Ford factory in Cologne being laid out and operated in the same way as a Ford factory in Australia. Ford, like McDonalds, mass produces or replicates a particular system of production. Flexible specialisation seeks to adapt its system to the particular circumstances and histories of the places where it is applied. You cannot create a Carpi in Bombay nor in Kingston, Jamaica. But what you can do is to seek to use the insights of the FS approach to develop new methods of production appropriate to the societies in which the economies are embedded. Just as an FS firm seeks to customise its products to its customers, so an FS strategy would seek to customise the policy as a whole to the specificities of place.

But is it possible and how should it be done? This is when theory is no substitute for experience, and experience is still limited. In this chapter, I want to report on the initial stages of one such attempt to develop an FS strategy. It is the case of Cyprus, whose government has explicitly adopted flexible specialisation as its approach to industrial restructuring.

## 10 Flexible specialisation in small island economies: The case of Cyprus<sup>1</sup>

Robin Murray

### I. Introduction

For the last 30 years, the debates on industrial development have been mainly conducted in terms of the problem of markets: import substitution versus export promotion; whether internal markets should remain unconstrained or be subordinate to a plan; whether distortions in price structures meant a bias against small-scale and labour-intensive technology. There was little said about the strategy of production and its organisation, the nature of work processes or of product design. The assumption was that it was mass production which offered the main path to increasing productivity and lower product prices. Development depended on supplying the factors and creating the conditions for mass production to work: capital for fixed investment, blueprints and machinery from abroad; the right mix of skilled and semi-skilled labour; modern management; and an approximation to mass markets at home and abroad. The supply of these factors and the creation of these conditions have been the basis of three decades of development policy and academic discussion. Flexible specialisation has challenged all this.

The academic work on flexible specialisation (FS) that has gathered pace in the 1980s has focused attention on the strategy of production, in particular questioning many of the assumptions of the mass production approach. In doing so, it has cast a new light on old issues - the choice of techniques, firm size, inter-firm relations, the implications of multinational investment, of foreign technology supply, the appropriate forms of financial markets and institutions. Of particular importance has been the spotlight it has thrown on the question of forms of economic organisation. It has asked how firms can be effectively structured, how they relate to markets, suppliers

---

1. This article summarises the work of the UNIDO/UNDP Cyprus Industrial Strategy team carried out between 1987 and 1989 and I would like to thank all those who contributed: our colleagues in Cyprus, in UNDP and UNIDO, and other members of the team - John Bessant, Michael Best, David Evans, Jane Humphries, Raphael Kaplinsky, Paul Levy, Mario Pezzini, Jim Rafferty, Drew Smith, Peter Snell and Jonathan Zeitlin.



## II. Cyprus: The economic background

Cyprus achieved independence in 1960. During the 1960s, it grew modestly, with manufacturing accounting for little more than a tenth of GDP at the end of the 1960s, and only a fifth of commodity exports. From 1970 there were signs of an industrial take-off. Between 1970 and 1973, manufacturing value added rose by more than 50 per cent. Then in July 1974, the Turkish army invaded the island, cutting it in two with 45 per cent of manufacturing capacity remaining in the Turkish-held northern part of the island. The Greek population from the North moved South. Unemployment in the South reached 40 per cent. In 1975, manufacturing value added in the South was 45 per cent down on the 1973 figure for the whole of the island.

By 1977, unemployment had fallen to 3 per cent. By 1980, the economy had grown by more than 70 per cent of the 1975 figure, and manufacturing value added had doubled (all figures in real terms). Private consumption had also doubled, and at the same time investment was running at 23 per cent of GNP by the late 1970s. The events of 1974 had given way to an economic miracle in the Greek section of the island, centred round a construction boom following the Government's rehousing programme and commercial rehabilitation, and a manufacturing export boom to the post oil price rise markets of the Middle East.

Between 1980 and 1985, growth slowed (with consumption growing at 5 per cent per annum as against 10 per cent per annum in the late 1970s) with the main dynamic in the internal economy shifting from construction to tourism. Manufactured exports faced an increasingly competitive and slower growing Middle East market, though with heavy protection Cypriot producers continued to supply three-quarters of the home consumer market. By 1983-85, manufacturing was contributing less than 10 per cent to the overall growth of the national economy, and by 1986 it experienced negative growth for the first time in a decade.

At the same time as this slow down, the Government decided - largely for political reasons - to apply for associate membership of the European Economic Community. This would involve reducing tariffs on manufactured imports whose nominal rates for clothing, footwear and furniture ranged between 63 per cent and 72 per cent. With declining export markets and with signs of a slackening in tourist growth and domestic consumption, manufacturing faced substantial cut-backs during the late 1980s and 1990s. It was at this point that the Government decided to draw up a Cyprus Industrial Strategy (CIS). It wanted to see what could be done to upgrade Cyprus industry so that it could reorient itself from the Middle East to Europe, and hold its own in an increasingly open home market. To this end, it enlisted the help of a team of economists and sector specialists centred at the Institute of Development Studies, University of Sussex, United Kingdom, who had been working on small-scale industry in developing countries, and development banking by local government in the United Kingdom and the United States of America.

### III. Proto mass production

The team worked in Cyprus for the month of January 1987, with follow-up visits during the first half of that year. They visited some 110 plants, and held discussion meetings with sectoral industry associations, with parastatals and with government officials. The picture which emerged from this work was of an industry geared towards mass production. The rapid growth of internal and external demand meant that there was a premium on output rather than quality. Many of the industrialists who 15 years before were artisans - butchers, tailors, shoemakers and carpenters - were encouraged by the demand boom and capital incentives to buy equipment from abroad, to copy foreign designs and recipes, and then to concentrate on volume. In the second half of the 1970s, when labour was plentiful, their growth was extensive. When the labour market tightened in the 1980s, they looked to new capital equipment to substitute for labour, raising the growth rate of productivity from 1.4 per cent per annum in the latter 1970s to 2.6 per cent by 1985.

There were, however, inherent difficulties in pursuing mass production strategies in Cyprus. Firstly, the internal market is small, the Greek section of the island having a population of only 600,000, with an annual tourist flow which was forecast to reach a million.

Secondly, because of the small market, machinery was often used at under-capacity, or could not be justified in the first place. The capacity problem was particularly marked in the meat processing industry where five firms had modern machines, each of which could have supplied the Cypriot market on its own. In footwear, the downturn in the Middle East left a number of firms stranded with specialised equipment which could not be turned over to other uses. In tetrapak juices, knitwear and underwear, and large batch furniture production, equipment designed for long runs was operating at low capacity or lying idle.

Thirdly, as island producers, manufacturers face a long supply line for their imported intermediate goods, and where they are produced locally this is usually by one, or at most a few, suppliers. The long supply lines were particularly damaging for the fashion industries, with industrialists in the footwear and clothing sector commenting on the danger of fashion obsolescence when material might take one to three months to arrive.

These problems were compounded by the structure of industry. Cyprus was a small firm economy. Out of 6,616 manufacturing firms in 1985, only 56 had more than 100 workers, and only one had more than 500. The 56 accounted for less than a third of manufacturing value added, and a fifth of employment. The great majority of producers were family firms. In 1984, imputed wages and salaries for proprietors and their families came to a third of all payments to labour. Only 20 per cent of firms with more than 50 workers were public companies. The resulting fragmentation of ownership was made more serious by the lack of specialisation between firms. In furniture, for example, many of the producers had their own shops and were

thus forced to produce a full product range, most of the items in small batches. Far from competition having encouraged rationalisation and specialisation, it led if anything to product diversification.

Mass production, even in large markets, has always been vulnerable to market fluctuations, supply failures and capacity utilisation. It has always had quality problems. For these reasons, it has tended to carry high stocks and work in progress as a buffer against uncertainty, and to exhibit low stock turns (stock:turnover ratio). It has also run up against labour supply problems in a boom, and continuous labour turnover of its semi-skilled workforce in boom and slump. These difficulties have been offset by the scale economies of production.

For a small island economy like Cyprus, the scale economies are necessarily limited, while the problems of mass production are enhanced. A country with a small internal market is particularly subject to the effects of world market fluctuations. It has few labour reservoirs. Most of its machinery and intermediate goods have to be imported (in 1984, the figures were 69 per cent for intermediate goods and 81 per cent for capital goods) and this compounds the problem of long supply lines. Coupled with its capacity utilisation problems, this leads to low stock turns. Of the sample firms analysed, the majority had stock turns of less than 4; 16 per cent of the metalworking firms had a ratio of less than 1, that is to say their stocks exceeded their annual turnover. For manufacturing as a whole in 1985, the ratio was 5 (in contrast, say, to Toyota, who achieve a ratio of 90, their stock turning over once every four days).

In sectors where there are volume economies, small country mass producers will need protection for the home market and/or the advantages of raw materials or cheap labour in order to export. But limited quantities of labour - when coupled with the disadvantages of mass production in such economies - mean that the capacity to sustain a mass production strategy is limited. Cyprus faced these constraints by the mid-1980s.

The public policy response both by the employers' organisations and the Government had been largely developed within the same strategic framework. The Government's incentive schemes were focused on fixed capital: up to 45 per cent of capital expenditure qualified for an investment allowance, any capital expenditure was allowed as a deduction from income in the year it was spent, and there was a tax reduction from 42.5 per cent to 25 per cent on profits set aside for investment in new machinery. The Government encouraged amalgamation, public companies paying only 25 per cent profit tax, and there has been pressure to establish a stock exchange to further shift industrial ownership away from the family towards professionally managed public firms. There have also been attempts to attract foreign mass producers through the establishment of a Free Trade Zone at Larnaca, and other fiscal incentives.

All these policies have by and large failed. During the first half of the 1980s, firms with under 20 workers increased their share of manufacturing output from 27 per cent to 34 per cent, while the share of

firms with more than 100 workers fell from 41 per cent to 34 per cent. By 1987, the Free Trade Zone had only a dozen firms, and much of it lay unutilised. Singapore and Hong Kong were located close to sources of labour. The same was not true of Cyprus.

For their part, the firms which were facing declining markets and increased competition in the Middle East attempted to reorient themselves to the internal market and towards Europe. There was increased price cutting competition within Cyprus by 1987 (notably in metalworking), and a move into retailing (footwear). Some were trying to diversify into other products (a switchgear producer seeking to start printed circuit board production, for example) while others aimed to become importers of goods from other parts of Europe, using the retail outlets they already owned (as was the case in the furniture industry). However, none of these defensive strategies offered the long-run prospect of overall industrial growth.

A number of firms saw their future as subcontractors to other European manufacturers, and regional service points for their products. In clothing, for example, Cyprus manufacturers had for some time undertaken Cut, Make and Trim (CMT) subcontract work for London wholesalers. In 1983-84, a survey found a third of a sample of 70 clothing companies engaged in CMT work. In our own 1987 sample, the figure had risen to 45 per cent and one industry source estimated the figure as 70 per cent for industry as a whole. Other volume clothing firms had established longer-term contracts - one providing shirts to three large European jeans manufacturers, another underwear to Germany. In footwear there were three "sourcing" plants, and in furniture three exporters of pine chairs.

At the same time, a number of footwear and clothing firms established technology agreements with other European firms, giving them access to design and brand names in the Cypriot and regional markets. Of 12 such contracts studied, five limited sales to Cyprus, four restricted them to regional markets, and only three served wider markets, including those in advanced industrial countries.

There was clearly some potential in both these strategies. Cyprus was well placed to act as a European shop window for the Middle East. There has also been a tendency for European light industrial production to move processes to the southern periphery of Europe, and the evidence suggests that Cyprus still has a wage cost advantage over EEC countries, with the exception of Portugal and Greece, though a disadvantage in relation to North Africa.

Yet the margins on both licensed and subcontract production are narrow. The fees on the technology contracts ranged from 4-10 per cent of sales, while pre-tax profits in a sample of 19 clothing firms averaged only 6.7 per cent in 1986. For the subcontractors much depends on wages - it is the decisive advantage - but, with tight labour supply and a strong trade union movement, wages have been increasing faster than in the rest of Europe (by 58 per cent as against 17 per cent between 1980 and 1985), thus narrowing the gap. The employers had been pressing for the de-indexation of wages

*Flex*

(which  
conten  
incre  
margin  
and p  
for cl  
which  
Hong  
wages  
set of  
follow  
labour

"Cypru  
term fi  
slowly  
expecte  
produc  
constra  
Kong c  
product

alternat  
applicat

#### IV. Th

efficient  
specialise  
many par  
was itself  
and had a  
each othe  
there wa:  
accountin  
1975, the  
reflected i  
provisions.

2. Institu  
the United N  
Cyprus, Brigh



In many ways, too, the Cypriot economy in the late 1980s was markedly sophisticated. The Cypriot domestic and tourist markets, though small, are quality-conscious and demanding; acting as a stimulus to design-led strategies in the consumer goods sector. There is a strong tradition, too, of education: the proportion of graduates in Cyprus is one of the highest in the world. Having no university of its own has meant that Cypriot students have been educated at universities and polytechnics in many different countries, and this has contributed to a cosmopolitan culture. Many of the sons and daughters of industrialists are among those trained abroad, and this second generation is already bringing a new approach to Cypriot industry.

It is not surprising, therefore, that there are already a number of firms following a policy of upgrading. The dairy producers have been actively marketing Cypriot "niche" products in Europe. In clothing, there is a medium-sized children's wear firm where designers make up 9 per cent of the workforce. As a result, the firm has been able to establish and promote its own brand name in the Cypriot market. Its owner, who had at one time worked as an engineer for a European quality car firm, had brought many of the quality lessons with him, as well as an emphasis on management information systems and skilled labour. This firm is exporting to Sweden and Holland under its own brand name. There were other clothing firms like this: one exporting 100 per cent of its fashionwear through relatives in the United States of America, another producing leather clothing for export, a third producing knitwear, buying its collection each year from a freelance designer based in Milan. So there were already working examples in Cyprus of an alternative production strategy.

A number of points which showed the contrast of these firms to the traditional mass producers emerged during sector association meetings attended by the Sussex team. All of them were competing on design and quality rather than price. The fashionwear clothing firms spent considerable sums on keeping abreast of design intelligence from abroad, one firm spending C£800,000 a year on fashion forecasting reports, foreign travel and salaries for its 10-person design staff, or 4 per cent of its total turnover. Others have sent their daughters to London and Paris for specialised training in garment design. In the shoe industry, a number of firms had subcontracted design to Italy as a step towards making themselves competitive in Europe. In furniture there were cases of outstanding design, but here the problem was how to shift from being one-off luxury producers to being more automated, low priced yet still high quality firms.

Such firms also placed importance on the quality of their labour force and on good industrial relations. In the clothing industry, for example, it was the quality conscious firms which undertook training, and who were unanimous in the view that moderate increases in wages would not pose major difficulties for their businesses. In the footwear industry, there was a clear correlation (0.75) between average wages and value added per worker.

It was also striking that all these firms remained independent of foreign firms who wished to use them as subcontractors. One design-oriented

Flexib

furnitu  
Unitec  
cent I  
subcor  
mark  
Only o  
Europe  
French  
final s  
produc  
outside  
French  
market.  
designer  
Europe  
own des

was a fe  
different  
taking up  
many of  
for their  
mark-ups  
develop

I  
the tradit  
were sim  
districts in

T  
the lines t  
approach  
appear the  
agreed - t  
promising  
Industrial  
1987, outli

## V. The t

The  
follows:

- (i) the  
den

(which had long been a feature of Cypriot industrial relations). They have contested wage settlements more vigorously, and there has recently been an increase in labour migration from North Africa. But any of these will only marginally affect the central issue - that there are geographic, demographic and political limitations on Cyprus being able to act as a long-term platform for cheap labour subcontracting to the rest of Europe. Other economies which have followed a path of labour-intensive volume production - Ireland, Hong Kong, South Korea, Singapore - have all evidenced a tendency for wages to rise and foreign-owned or contracted production to move to a new set of lower wage countries. In each, a labour-intensive stage has been followed by an attempt to upgrade production. Cyprus has been through its labour-intensive stage.

The University of Sussex team concluded, therefore, in its report "Cyprus Industrial Strategy",<sup>2</sup> that volume production did not have a long-term future for Cypriot producers. The internal market was growing more slowly and was due to lose its protection. Low wage competition could be expected to intensify in both domestic and overseas markets. Quality products made under licence promised limited growth, while labour supply constrained the future of subcontracting. "Cyprus will not become the Hong Kong of the Eastern Mediterranean on the basis of low wage volume production", the report concluded.

The question was posed, therefore, of whether there was an alternative strategy, one centred on upgrading, and, more specifically, on the application of the principles of flexible specialisation.

#### IV. The potential for flexible specialisation

Curiously, a number of the features which had worked against efficient volume production provided a basis for a strategy of flexible specialisation. Most immediately, the small, family-owned firm structure had many parallels with those in the industrial districts of the Third Italy. Cyprus was itself small - a similar population to, say, Modena in Emilia-Romagna - and had a strong civic and national cohesion. Industrialists tended to know each other, as well as local and national politicians. As in Emilia-Romagna, there was a strong Communist Party (the Communists and Socialists accounting for some 40 per cent of the national vote in Cyprus) and, since 1975, there has been a social pact between labour and their employers reflected in the continuation of wage indexation and substantial state welfare provisions. The threat from Turkey acted as a force of national cohesion.

2. Institute of Development Studies. 1987. *Cyprus Industrial Strategy*, Report prepared for the United Nations Industrial Development Organisation on behalf of the Government of Cyprus, Brighton, University of Sussex.

furniture firm had refused an offer for a joint venture with Habitat, a large United Kingdom retailer, on the grounds that the contract stipulated 100 per cent Habitat designs. The design-oriented clothing firms preferred to subcontract design abroad rather than tie themselves to a licensing and trade mark contract which restricted them to the Cyprus and regional markets. Only one of the designer clothing firms had entered into a subcontract with European firms, in this case French and British designer companies. The French company sent its designers to Cyprus several times a year to work out final samples with the local Cypriot management. The Cypriot factory produced for the French market and was allowed to sell the output anywhere outside France. The Cypriot firm had its design team working with the French designers, developing original designs of their own for the regional market. In this case, the owner/manager saw the link-up with the overseas designers as a means of learning about the requirements of design in the European market, rather than as a long-term substitute for developing its own designs.

In this case, the Cypriot firm sold in Europe and elsewhere, and it was a feature of all the firms that they had "turned towards Europe" in a different way to the low-cost subcontractors. The new wave firms were taking upon themselves the responsibility for overseas marketing and design, many of them using the tourist and Cypriot home market as a testing ground for their products. They saw the domestic market less as a place for high mark-ups to finance their competition abroad than as a site for product development for eventual expansion into developed country markets.

It was quite clear that these firms had a quite different outlook to the traditional mass producers, and that the strategies they were pursuing were similar in some ways to those followed in the successful industrial districts in Western Europe.

The question was how firms of this sort could further develop along the lines they were following, and whether it was possible to generalise the approach to other firms in the key sectors. In none of the sectors did it appear that flexible specialisation would be easy. But what became generally agreed - by industrialists, and the Government - was that it was a more promising strategy than the alternative of volume production. The "Cyprus Industrial Strategy" (CIS), which was delivered in draft in the autumn of 1987, outlined a number of paths by which the strategy could be pursued.

## V. The turn towards flexible specialisation: where to start

The key features of flexible specialisation can be summarised as follows:

- (i) the adaptability of production systems to movements in market demands;

- (ii) the customisation of products to particular segments of the market;
- (iii) a capacity for continuous innovation in both process and product (in the case of Cyprus this was more through design than research and development);
- (iv) a focus on the economy of working capital, through such means as Just-in-Time production, low defect rates, and making to order;
- (v) a focus on continuous learning both within enterprises and between any one enterprise and its suppliers, its final markets and its competitors. The enterprise is opened up to the external world which is seen as a source of stimulation and new ideas rather than a hostile arena;
- (vi) the labour in the enterprise is seen as an asset rather than a cost - a repository of skills and ideas, and crucial to ensuring quality at the point of production;
- (vii) the organisation of the productive system as a whole involves a mixture of decentralisation (to small firms and plants) and centralisation (of certain indivisible or collective services), as well as inter-plant specialisation to ensure economies of scale.

Flexible specialisation is not about small firms or small batches, but rather about a productive system which can produce either large or small batches with flexible production systems, without the costs of excess capacity and stock build-ups characteristic of the mass production system. It is about intra-organisational flexibility in response to changing external requirements.

## VI. Micro-level restructuring

All these imply a different way of looking at production, at organisation, and at economic relationships. The starting point is necessarily at the level of the enterprise. The firms themselves have to recognise the nature of the alternative strategies and see the potential of the flexibly specialised path. To this end, the manner of producing the strategy is itself the first step in its implementation. New industrial policy cannot be satisfactorily developed by economists - whether indigenous or from abroad - advising the Government on changes in state instruments. It must start from those immediately involved in production - both management and workforces - for it is on them that all change in the economy ultimately depends. In the case of the CIS, the recommendations emerged from the sectoral discussions, firm visits, and public meetings and were seen as a first approximation to be further developed.



The employers' organisations played an important part in this process. They not only hosted the sectoral meetings, but translated the relevant parts of the draft strategy into Greek, distributing them widely throughout industry and organising a series of discussion meetings by sector. These continued for many months and were followed by a series of seminars in the new approach funded by the industrialists themselves.

One important initiative centred on one of the new wave clothing firms. The owner/manager came to the United Kingdom at his own expense to attend a 6-week seminar on flexible specialisation, then returned home to further reorganise his production. He introduced a new cellular layout with each worker performing 3-4 different tasks at 2-3 different machines, whereas previously each had done a single repetitive job at a single machine. Batch size was cut (from 400 to 120), and lot sizes cut to 5-6 pieces, providing only limited buffer stocks between workpoints. Each worker was made responsible for quality at source, and no faulty goods were to be accepted by the next worker. He also established a joint venture with a Cypriot softwear writer and developed a computerised integrated database containing the detailed characteristics of all orders, their cut details and the delivery data. It automatically provided a bill of materials - helping to reduce raw material and final product stocks; it provided more accurate orders to raw material suppliers abroad, and up-to-date detail on which items were selling well. It also helped production scheduling, allowing control of the scheduling to pass to production staff, thus freeing senior management. Finally, the need to integrate design, production and marketing and the flexibility offered by the new form of production led the firm to open its own chain of shops.

The result of this reorganisation has been as follows. First, work in progress and final stocks have been drastically cut. This gave a once and for all reduction in working capital requirements which itself more than covered the costs of reorganisation and enabled a saving in annual interest charges of C£6,000 a year. Sales per worker increased by a third. Space requirements fell by 28 per cent, the value of the space saved alone being equivalent to more than the total cost of restructuring. Throughput time has fallen from nine to three days, and production lead time from six months to three. Product flexibility rose from 15 to 20 varieties and the system has the capacity to handle up to 40 different varieties without negatively affecting production efficiency. Overall, the reorganisation produced once-off net savings of 25 per cent of annual sales, and annual net savings of 7 per cent of sales.

These are striking results and they have recently been written up by the manager together with one of the original Sussex team to provide a case study of the difficulties (for there were some) and the benefits of restructuring. It is clear that such firm-level restructuring needs to be an important component of any broader strategy, centred at first on a small number of "new wave" firms and then extended through a system of consultancy and advice.

**VII. Sectoral restructuring**

Micro-level restructuring is a starting point, but it is not enough. For in a small firm economy like that of Cyprus, there are many economies internal to large firms which have to be achieved through sectoral planning and co-operation. The first of these is specialisation. It was clear from the Sussex team's studies that there were many potential economies of horizontal specialisation which were not being developed through the market. The furniture industry, with so many of the medium-sized manufacturers having their own retail outlets, was a case in point. If the manufacturers shared retail outlets, and then specialised between themselves, they would be able to move to larger batch sizes.

With the support of the Cyprus Development Bank, a group of 12 (now 13) Limmasol furniture makers did this. They agreed to open a joint retail shop, for which they would produce newly-designed products on a specialised basis. One firm was charged with kitchen furniture, another with bedroom suites, a third with children's furniture, a fourth concentrated on upholstery and so on. Each firm would submit designs for its speciality to a design committee, bearing in mind the styles being produced by others. The members of the consortium (known as the A-Z Consortium) were allowed to keep their own retail shops and their lines of production, but the specialised furniture could only be sold in the joint shop.

There were two immediate economies. Firstly, unit costs in the specialised furniture fell by 20-25 per cent as the result of longer runs, and the new lines have allowed one of the manufacturers to move into larger facilities, and several others to invest in new, more specialised machinery. Secondly, there have been clear retailing economies. The consortium can employ a specialist interior designer at the point of sale; it offers a wider variety of product (economies of scope); and has two marketing staff to engage in research and propose new product development. It also has a joint delivery system, and can afford a greater level of advertising than any of its members did previously.

What was soon evident was an extension of these economies of specialisation back into production and purchasing. Joint retailing required careful costing, and a costing subcommittee of the consortium was established to visit each manufacturer, examine his or her costs, and advise on costing methods and materials and production itself where the costs were out of line. By such means, the consortium provided a way of spreading the most effective methods. They were also able to fund specialist consultants from Italy and, by joint purchasing, cut material costs by up to 25 per cent.

The results have been strikingly successful. The consortium now has shops in each of the major towns in Cyprus. Its consortium sales exceeded those projected in the initial feasibility study. In 1989 they won a major export order to the Soviet Union and have become successful exporters to Saudi Arabia. From being a group of small manufacturers competing for the domestic market, they have become - if all their employment is added

Flexibi

togeth  
growirexport  
These  
of sect  
maker  
experi  
the lat  
centre  
provid  
well aof inp  
inputs  
are su  
and m  
tensio  
other  
discus  
of the  
stockh  
indust  
have iSome  
sector  
a rolli  
some  
funde  
includ**VIII.**which  
anothe  
policy  
of fina

together - the second largest manufacturing concern in Cyprus, with a growing export record.

This is one kind of consortium. There are potentially others - in exporting for example, or finance, or the provision of common services. These are the kinds of consortia found in Italy. As part of the development of sector strategy, a group of clothing manufacturers, and another of furniture makers, visited Emilia-Romagna and the Milan region, to examine the experience of consortia and the centres of "real services". The example of the latter at Carpi has been taken as something of a model for Cyprus, as a centre - to be run and part-funded by the industrialists themselves - to provide a mixture of market intelligence and technological information, as well as to provide access to Computer Aided Design equipment.

A further area of sectoral action is the improvement of the quality of input supplies. In some sectors, the problem was the price and quality of inputs from existing local facilities (lasts, for example, for the footwear sector are supplied from a single source and have been found to be of lower quality and more expensive than imports). In both furniture and food there was a tension between the final manufacturers and the suppliers, each blaming the other for low quality and poor production techniques. The sectoral discussions also produced suggestions for new input facilities - an expansion of the textile dyeing capacity, a third leather finishing plant, a joint steel stockholding facility, and a collective converting operation in the clothing industry by which a consortium of clothing firms would buy up grey cloth and have it finished in line with members' requirements.

These are all examples of projects emerging from a sector strategy. Some can be taken forward by groups of firms. Others require broader sectoral support, not least in the development of a sector strategy itself, on a rolling basis, as a context for enterprise and government initiatives. In some countries - notably France - the industry associations are publicly funded to produce sectoral strategies of this kind, but in many others, including Cyprus, the capacity for sector strategy remains limited.

### VIII. Inter-sectoral and national policies

Beyond the enterprise and sectoral levels, there are also some factors which require inter-sectoral and national action. One of these is finance, another is design, a third is education, training and the whole area of labour policy, a fourth is industrial estates. There is also the question of the system of financial incentives. I will deal with each in turn.

## 1. Finance

Many of the manufacturers complained about the commercial banks. They were, it was said, passive, lending for the most part on the basis of collateral with a short- or medium-term time horizon. They lacked sectoral expertise, and gave little technical support to their borrowers. This is a complaint often heard against commercial banking - notably in Britain.

It was clear that some of the working capital needs could best be addressed by improving the use of working capital through firm-level restructuring. One firm complaining of a lack of working capital had three years of steel stocks in an under-used factory. This was not primarily a problem of the banking system.

But it was also clear that a flexible specialisation strategy did require a much more supportive industrial banking system capable of taking a long-term developmental view, in the manner of the Cyprus Development Bank (CDB). The CDB, like the great majority of development banks, was established to do all that the commercial banking system did not do - provide long-term funds; look at projects and potential bankruptcies from the viewpoint of national development rather than solely in terms of the balance sheet; give hands-on advice and other support services to domestic industry, and so on. The CDB has done all these things, and is one of the few Cypriot institutions to have developed sector specialisation. As we have seen in the furniture sector, it has also actively intervened to encourage sectoral restructuring. It has, however, suffered from a restriction of public funds, and on the freedom to diversify into new fields which would give it access to sources of private funds.

The CIS argued that development banks had a central role to play in promoting industrial restructuring - indeed, this should be seen as the main function of a development bank, beyond its role as a project defined institution. It suggested that the function should be greatly expanded, primarily as a front-line agency to give hands-on advice and support to firms and sectors reorienting themselves along flexible specialisation lines.

## 2. Design

Design is one of the pivots of the new competition and, with notable exceptions, Cypriot firms had little, if any, design capacity. This reflected a lack of a design culture within Cyprus more generally - in spite of a keen consumer awareness of its importance. Thus, while individual firms could take steps to strengthen their design staff, what was needed were more widespread measures to raise design skills and design consciousness in Cyprus as a whole. The CIS proposed a number of ways this might be done: through establishing a Cyprus College of Art and Design linked to a Museum of Contemporary Art and Design; through the Ministry of Education, extending art and design teaching in secondary schools, and giving priority to



students intending to go to design colleges in its selection guidelines for study abroad. These ideas arose from discussions with members of the small design community in Cyprus and with educationalists and industrialists. Their aim was to strengthen the educational and cultural infrastructure in the design and, more generally, the visual field.

### **3. Labour and education**

Cyprus already has an Industrial Training Authority (ITA), funded by a levy on employers. The ITA has produced some of the best sector studies that exist in the country, and has been working on skill programmes with employers and unions. Some of these reflected the division of labour and responsibilities characteristic of mass production, but the ITA was among the first to embrace the implications of a flexible specialisation strategy for its training programmes.

The ITA studies suggested that the problem was less the supply of trained labour than the way labour was employed. The level of wages and poor working conditions meant that labour turnover was high in manufacturing. In metalworking there was a clear substitution of inexperienced and unskilled workers for the 78 per cent of workers leaving their jobs who were skilled or semi-skilled. It was common for workers with specific skills to be doing jobs requiring quite different training. There was a notable lack of child-care facilities - particularly serious in a manufacturing wage labour force of which 55 per cent were women.

Thus, any new policy which treated labour as a key asset in the production process required not only a reorientation of training, but a transformation of the conditions of employment, of the design of the work process and of industrial relations, if it were to succeed. The strategy therefore called for the preparation of a detailed Labour Plan for manufacturing - covering new payment systems, working conditions, health and safety, child-care, incentives for firms to employ quality-of-work consultants, the operation of the labour market, the future supply of labour, the employment of women, industrial relations and productivity increases, as well as the whole field of training and education.

### **4. Industrial estates**

The government had for some time run a successful industrial estates programme, but the estates had not been operated in such a way as to encourage sectoral concentration and industrial districts. There were two small traditional industrial districts in the centre of Nicosia which the urban planning authorities wanted to remove, and the CIS encouraged both the municipal authorities and the Government to plan for sectoral districts, which provided common facilities and services.

### 5. Financial incentives

Cyprus operated a range of tax allowances and incentives geared to encouraging investment in fixed capital, new product development, exports, mergers and the formation of public companies. There were three main problems with the system as it stood. First, tax evasion and avoidance was widespread. The Ministry of Finance estimated that only 30-40 per cent of firms actually filed tax returns, and many of those which did showed little, if any, profit. Incentive schemes based on tax allowances cannot therefore be expected to have much purchase. Secondly, the take-up of many of the schemes was low. There were only four applications for the generous new products scheme in 1987, for example, and the general guarantee scheme for loans to industrialists was running at a rate of three approvals per year in early 1989. Three of the schemes alone accounted for 78 per cent of the usage. Part of the problem was the lack of incentives in tax relief, as mentioned above; a number of the schemes were administratively complex and this was a further disincentive; nor did some of the incentives apply to the key concerns of manufacturers (in clothing, footwear and furniture, design is at least as important as R & D).

This touches the third problem which was that the incentives encouraged investments in hardware rather than software. Because of the generosity of the capital allowances, some industrialists - like the meat processors - clearly over-invested in machinery. The allowance system encouraged investment in surplus capacity. The areas that received much less encouragement were investment in training, the development of management information systems, design, or marketing structures. The Industrial Strategy therefore proposed a switch of emphasis in the incentive programme from hardware to software.

The proposals that have been developed over the past two years suggest that this is done not simply by changing the items of expenditure that are eligible for allowances. Rather, they propose incentives which are geared to a process of firm-level restructuring of the kind I described earlier. Firms would be encouraged to engage an innovation consultant who would act like a General Practitioner in the medical field, in identifying where the key problems were and, as in medicine, advising the firm to move on to a specialist consultant in, say, management information systems. The Government would cover part of the cost up to a limit, but responsibility for the consultants and part of the finance would be with the firm. One of the results of this process would be to identify where investment - both in hardware and software - is needed, some of which would qualify for government support on the basis of the consultants' assessments.

Variations on such schemes have recently been developed in Europe, and one of their advantages is that they have encouraged the development of innovation consultancy itself. They have customarily been delivered from outside the normal civil service structures by a managing agent - the Design Advisory Service in the United Kingdom is run by the Design Council, an

Flexibl

indepe  
standa  
resear  
design  
Resea  
handle  
up an  
contro  
such a

IX. I

state.  
respor  
imple  
import  
admin  
enterp

the ru  
have s  
and C  
and pi  
of play  
and th  
are ge  
Comr  
protec  
partici  
in pro

mass p  
its mi  
based  
graded  
receiv  
appoi  
or the  
in deli  
Its we  
orient  
betwe  
unsuit

independent non-profit body concerned with promoting better design standards. In Germany, the administration of schemes is often given to research organisations; for instance, the scheme to promote computer-aided design and manufacturing is managed by a small branch of the Nuclear Research Centre in Karlsruhe. In such centres, administration is normally handled by two or three people, with a minimum of form filling, who build up an approved list of consultants in order to exert a measure of quality control. The Cyprus government is currently considering the adoption of such a scheme.

### IX. Industrial strategy and the flexible state

Industrial planning and strategy are normally associated with the state. They are national issues and part of public responsibility. But responsibility is one thing, the means of developing a strategy and implementing it quite another. In the field of industrial policy, it is as important to apply the principles of flexible specialisation to public administrative practices as it is to encourage its adoption in productive enterprise.

In traditional forms of economic administration, the government sets the rules and the terms within which industrial enterprises operate. It may have some public production - in the case of Cyprus the Ministry of Industry and Commerce ran the largest bakery, and was the main timber producer - and provide some infrastructure, but for the most part it stays off the field of play and attempts to influence action by changing the rules of the game and the macro-economic environment. Ministries of Finance and Planning are generally at the centre of such management. Ministries of Industry and Commerce are responsible for the administration of incentives schemes, tariff protection, anti-trust regulations, and so on. They may also be charged, particularly in developing countries, with a development role, being involved in promoting sectoral restructuring, innovation, and upgrading.

This is where difficulties arise, for civil services are structured to be mass producers of administration. The Weberian model of the state - with its mixture of Prussian administrative practice and Taylorist principles - is based on rules, a clearly specified division of function, hierarchical levels of graded authority, an intentional separation of the bureaucracy from the receivers of the service, and lifetime employment with impersonal criteria for appointment and promotion. Like all such structures - whether in the private or the public spheres - its advantages are its permanence, and its efficiency in delivering standardised outputs (an immunisation campaign, for example). Its weaknesses are its inflexibility, its role-based rather than task-based orientation, its discouragement of innovation, and the distance that stands between it and the community it administers. All these make it an unsuitable structure to perform a developmental role.

In the industrial sphere, some bureaucracies of this kind have seen planning in terms of the principles of their own structures: as a set of detailed plans (like a rule book or code of practice), which the subordinate economic agents are required to follow. But the problems of information, incentives and control have all contributed to a bias in such planning towards large-scale public projects, and have made it quite unsuitable for the operation and restructuring of smaller-scale economic sectors. What has happened as a result is that planning ministries have retreated into providing a structure for the co-ordination of public projects within the context of broad macro projections, while sectoral ministries have concentrated on administering developmental schemes on the basis of the application of impersonal guidelines. What is lacking is a sense of strategic direction for particular industries and for broader sectors of the economy which can connect the many parts of the government with all those involved in industry. This is the function of an industrial strategy.

This conflict between administrative structure and developmental tasks applies to governments all over the world - East and West, North and South - as it does to international institutions like the United Nations or the World Bank. It applies to Ministries of Agriculture as to Industry, to Energy and Water as much as to Health. It is no surprise, therefore, that the Government of Cyprus - in spite of an able and highly qualified civil service - has been beset by this problem in its economic administration.

How can flexible specialisation help? First, by its emphasis on the importance of decentralisation within the context of a commonly-agreed overall plan. Economic strategy cannot be adequately drawn up by the centre and administered from the centre. Indeed, I have suggested that the starting point should not be the centre at all but those directly involved with production. Each firm needs its own strategy, which it will put into practice. But equally, for the reasons I have outlined, micro-level strategies are by themselves not enough. There is a need to establish links between firms, within sectors, between sectors, and across the national economy as a whole. The image of the Russian doll is more appropriate than that of the pyramid.

In order to encourage these different levels of strategic reorientation, the process of making the strategy, and continuously remaking it, is of the first importance. It must involve all those party to its implementation. Thus, modern corporate management has recognised that the old Taylorist division between head and hand is quite unsuitable for a world of continuous innovation. In the development of corporate strategies, workforces should be involved. At the national level, employers, trade unions and different parts of the Government, as well as user groups and special interest groups like women's organisations, need to take part. The wider the representation, the richer the strategy, and the more effective the implementation.

To date, this has been one of the most successful sides of the Industrial Strategy process in Cyprus. I have already touched on the work of employers' associations in translating and sponsoring discussions amongst its members. But the Government, too, insisted that the CIS should be

Fl

wi  
pa  
ta:  
St:  
"flon  
ge.  
wi:  
ter  
pe-  
ser  
int  
apj  
bec  
exi  
posis a  
to  
adr  
par  
cle:  
as  
capWh  
is u.  
to b  
pos:  
the  
indi  
wor.  
advi  
indu  
pub.  
"rea  
from  
wouof in  
body  
know  
betw  
placi  
recip



widely circulated and discussed. There have been public meetings, working parties and discussions within the Ministries, and the President has set up a task force, headed by an industrialist, to carry forward the ideas. The Strategy has been extensively covered in the newspapers and on television - "flexible specialisation" is no longer an academic phrase in Cyprus.

Where there has been an intense debate within the Government is on the question of how this strategic work should be organised. It is generally agreed that there is a need for a representative Strategic Council, with a small secretariat to service it. Its *modus operandi* would be to form temporary teams to focus on particular sectors - the teams to be made up of people with knowledge of the industry from inside and outside the public service and supported, where necessary, by specialists in the field of international industry. These teams would then report to the Council for approval, agreement and action by the parties concerned. The debate has been about how this new structure of strategic planning should link in to the existing government structure - a matter which has only recently been positively resolved.

The point about strategic planning is that it is a skilled task, and it is a skill which all parties require in order to be fully effective. This applies to the government Ministries - for whom in general the tasks of day-to-day administration have reduced their strategic capacity - as much as to parastatals and those directly involved in industry. The Government has a clear role in bringing all parties together - within its own structures as much as in the civil society - and in ensuring that it has an adequate strategic capacity within its main departments to fulfil the tasks in hand.

The strategic function is therefore a central one for Government. When it comes to support services and the allocation of funds, the public task is usually best administered by decentralised bodies. A support service needs to be tailored to the needs of those receiving the service, and should, where possible, be under their control. The requirements of the service rather than the institutional structures of the server should be paramount. In the industry field, this means that an industrial advice service should at least work hours in common with the industrialists they are advising, and the advisers should have the scope to update their own direct knowledge of the industry. This does not happen in Cyprus any more than it does in many public industrial extension services. When it comes to technology advice and "real services" the Sussex team have strongly recommended that they be run from centres controlled and funded partially by the industrialists. The same would be true of export marketing organisations.

In the allocation of funds or services where there may be a conflict of interest between the individual receiving enterprises and any independent body, it is still important for fund and service providers to have a day-to-day knowledge of the industry. This can be achieved by the circulation of staff between the donor agencies and industry, by frequent firm visits, and by placing a measure of responsibility on the provider for the success of the recipient. None of these functions can effectively be carried out by officials

at a head office - whether the head office is private or a public ministry. The task of a head office is to allocate tranches of funds to local funding agents and to judge their performance. This is why the new incentive scheme proposals envisage independent units and agencies with a specialist administering the schemes.

Whether the services are general or specific, the same principle of decentralisation should hold: training provisions, productivity programmes, or export promotion. The central state should exercise its responsibility through (a) approval of the structure of control, ensuring that the governing boards represent the proper range of interests; (b) the broad terms of conduct of the organisation; (c) powers of information, inspecting and reporting by independent assessors; and (d) finance.

What is imperative for any such programme of public decentralisation as proposed in Cyprus is the existence of an independent public auditor. In the United Kingdom, the Audit Commission has played a useful role in local government by a close examination of services and comparisons between different service providers. It has over-emphasised the financial aspects of the audit, at the expense of services and needs, but this could be rectified by a change in the terms of reference, and strengthening its non-financial personnel. For Cyprus, an Audit Commission would need to be established with the same professional ethos as legal judges; they would need the rights of full access, as well as the right of reporting at cabinet level; and they could be asked to approve the annual report of the quasi-public body in the same way as financial auditors approve the accounts. They should also themselves be subject to audit, and replacement where necessary.

A further guiding principle is that of pluralism. There is a danger that an Audit Commission might seek to impose a particular view of how a service should be provided, and unreasonably discourage alternative experiments. Experimentation should be one of the criteria against which quasi-publics should be judged, and where relevant more than one provider should exist to encourage pluralism. A Weberian model would criticise this as duplication. In the production economy, it is called competition, though the form of competition in the quasi-public sphere would differ from that of the market.

Such an approach to economic administration removes routine administration from the key ministries, allowing them space to develop their strategic role, to ensure the delicate task of co-ordinating other parts of the government around the strategy, to administer their funded bodies (securing general finance, allocating funds to the front-line allocators, assessing their performance), and finally to stimulating short-term initiatives which might later be directed to one of the independent institutions.

I have referred to this as a flexible rather than a Weberian state, not simply because it allows the decentralised services to establish their own relevant procedures and organisational cultures, and to take a much greater measure of responsibility for their action than has been possible in centralised state structures. But also it establishes a different relationship

Flexibi

between  
The fr  
admin  
head.  
serve,  
way re  
are the  
the M.  
initiate  
Ministr  
stimula

X. C

industr  
speciali  
learnt s  
I have  
of forn  
number  
already

organis  
furnitur  
prompt  
particul  
any suc  
instituti  
moving  
likely to  
develop  
there is  
as they  
those fir  
the stra  
importan  
- both a  
strategic

discussin  
strong "c  
West. C  
mental

between the service providers and those for whom the services are provided. The front line staff in this system become the prime units in the model of administration, as though the organisational pyramid had been stood on its head. They are able to establish close relations with those whose needs they serve, in much the same way as flexible specialisation develops sustained two-way relations between a firm and its suppliers and customers. Such contacts are then a basis for service innovation - which may need to be approved by the Ministerial funder but which would have been unlikely to have been initiated by them. In such a structure, the former centre of authority - the Ministry - becomes a supporter, funder, adviser, and overall strategic stimulator of the front line rather than the controller.

## X. Conclusion

The "Cyprus Industrial Strategy" represents an attempt to redirect industrial policy and its public administration along a path of flexible specialisation. It remains to be seen how successful it will be. What we have learnt so far is that the open process of making a strategy - along the lines I have described - itself begins the process of implementation. Irrespective of formal government approval of the strategy, firms themselves and a number of the quasi-public institutions like the CDB and the ITA have already been exploring the new directions.

In general, steps which require agreement between independent organisations - public or private - have been the slowest to proceed (the A-Z furniture consortium being a notable exception, due in significant part to the prompting of the Cyprus Development Bank). The delay has been particularly marked over new national level institutions. This suggests that any such process should focus first on the micro level - at what existing institutions can do for themselves, without further public funds - before moving to the sectoral and the macro levels. The latter are necessary but are likely to take longer, and the difficulties encountered should not hold back developments at the micro level. What is clear from the Cyprus case is that there is considerable space for the micro institutions to re-orient themselves as they stand. The process of industrial strategy-making brings to the fore those firms, individuals, and public institutions who have the spirit to apply the strategic principles immediately in whatever way they can. This is important because they become the key points for further stages of diffusion - both as models of experience, and as people to contribute to the wider strategic movement.

This underlines a second point which I necessarily touched on in discussing the strategic process. It is that strategy at all levels gains from a strong "civil society". This has been a lesson from the East, and from the West. Governments and enterprises too often regard trade unions, environmental groups, consumer organisations, or community groups as an

inconvenience, an interruption to the task in hand. But what the Sussex team has found is that such groups have been centrally important in shaping the direction of an economy in a way which is both productive and socially unifying. They have been the spur to innovation, to improvements in quality, and to service delivery. Firms and states which have recognised and even supported them have found themselves to have benefited in all sorts of fields.

Cyprus has a long-standing trade union tradition, and this is a strength for the prospects of flexible specialisation. It is less strong in its consumer movement, but already the Cyprus Consumer's Association (again with the support of the Cyprus Development Bank) has taken the initiative by pursuing one of the proposals of the CIS, to publish a Good Food Guide as a means of raising quality in the food processing industry, and improving tourism. A thriving economy depends just as much on organisations like this as it does on the technocrat or planner.

Thirdly, the experience with Cyprus has shown the value of the sector strategic approach as against the generic one. By the latter, I mean organising a strategy around such things as training, foreign investment, export promotion, manufacturing versus services, new technology, and so on. One of the complementary studies to the CIS was a Cyprus Technology Strategy, which argued that new technology could often best be delivered sector-specifically, defining the sector, however, as a *filière*, a thread which often ran across traditional statistical categories. It looked in particular at the water, energy and agricultural *filières*, each including primary, secondary and tertiary industries, each needing specific forms of support services. It affirmed the need for customising the generic policy concerns to the sector since the sector is the prime contour of the productive economy. One of the reasons why the Cyprus Industrial Strategy has been so widely discussed is that it was organised sectorally, that is along the grain of daily experience and economic organisation.

These lessons have long been learnt in the industrial districts of Europe. This is why their structures and directions are so suggestive for industrial policy in the developing world. But one further lesson of these districts must also be remembered: that each has a long history, and that successful flexible specialisation takes time to grow. In Cyprus, it is now five years since a new strategy along the lines we have described was begun. That, too, has seemed a long time: but against the background of an Emilia-Romagna or a Jutland, it is still a mere beginning. The prospects it offers, and is already beginning to show, are encouraging enough to reward its patient supporters. In the matter of industrial strategy, as in economic management, it is the outlook of the gardener rather than the mechanic which is now the most relevant.