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ADVISORY ASSISTANCE FOR PREPARATION OF MASTER PLAN
FOR PROMOTING AND MONITORING THE DEVELOPMENT
AND TRANSFER OF TECHNOLOGY

SI/CYP/85/801

CYPRUS

Terminal report*

Proposals for improving the system of identifying
and promoting industrial investment

Prepared for the Government of Cyprus
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of Thomas McCartan,
expert in industrial economics

United Nations Industrial Development Organization

Vienna

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EXECUTIVE SUMMARY

1. The present system of identification of industrial investment is based upon 'one-off' opportunity studies undertaken at intermittent intervals which do not reflect the dynamic nature of the industrial sector and tend to present a picture at one point in time. Moreover, their emphasis on import substitution demonstrates only one of mainly strategies for industrial development and, when combined with levels of protection, may create an imbalance in the sector and a misallocation of resources.
2. The system of promotion is hampered by a lack of project-specific proposals of a calibre and level of detail sufficient to attract and hold the attention of the potential investor.
3. A permanent system of identification should be implemented and based upon a rigorous analytical exercise which determines the present and future comparative advantage of Cyprus. All other studies connected to planning, re-structuring and rationalisation of the sector should hinge upon this exercise.
4. Due to the clear implications for national policy and strategy, the identification system should be the responsibility of the Ministry of Commerce and Industry, with formal links to the private sector and the institutions, to ensure a balance of work sharing and a cross-fertilisation of ideas, opinions and advice. Furthermore, the identification system will have consequential implications for the level and direction of protection and incentives, and on the up-grading

of the post-investment services, all of which are the responsibility of the Ministry. Although alternatives to the Ministry were examined, neither the willingness nor the capability to undertake such an exercise were evident.

5. In order to create the necessary environment and atmosphere and to present an image of a new approach to this important aspect of development, the identification system should be located separately from the Ministry and should be formed into the Industrial Investment Advisory Centre.
6. The Centre will disseminate information on sub-sectors, programmes and projects with potential for investment, will serve as a focal point for all information required by an investor and will incorporate a 'one stop agency' whereby advice on forms and procedures is given regarding applications for incentives and where decisions as to these applications are communicated.
7. Whenever practical and possible the investment advice will be at pre-feasibility level, allowing an investor to decide whether to proceed with further investigation. Advice on suitable consultants and joint-venture partners will be included in the service.
8. The Centre will have a co-ordinating role as regards studies and analyses relevant to industrial investment and undertaken by the institutions or the private sector, for which funding will be made available by the Centre.

9. The two senior staff of the Centre will need to be capable of energetically promoting the work of the Centre and of undertaking and directing the analytical work involved in placing Cyprus within the context of international markets and competition.

10. The Centre should be supported financially in its first year by a major aid-agency (World Bank; European Development Fund) or by Government with the implicit understanding that the Centre will establish operational effectiveness such that self-financing is increasingly possible, probably by means of a charge levied on the results of implementation of those projects identified by the Centre. Other charges may be made, for instance pre-feasibility studies, introduction of joint venture partners or studies in more depth than is normally provided by the Centre.

11. These proposals for improvements to the existing system of identification and promotion provide a framework within which the finer detail may be worked out by the Ministry of Commerce and Industry in conjunction with the institutions and the private sector. For example, an Advisory Board chaired by the Minister of Commerce and Industry to oversee the work of the Centre, the actual physical location of the Centre, and the ways and means of recruiting staff. Once the broad principles have been accepted it would be advisable to convene a seminar of representatives of the industrial sector to explain the decisions taken, to discuss these points of detail and, if necessary to elect a working party to finalise such detail.

12. The importance of establishing the centre at an early date is emphasised because of the vital need to press ahead with the work of identification upon which all other policies and strategies connected with the industrial sector depend. A target date of the end of 1986 should be feasible.

Background

UNIDO is involved in a series of projects in Cyprus aimed at re-structuring the industrial sector.

The first of these projects^{1/-} was completed in January 1986 and showed the likely effects of the second phase of joining the Customs Union of the European Economic Community.

A further project will formulate medium-term strategies for each of the main sectors of industry; this project is likely to begin later in 1986.

In the meantime, the Government has requested assistance in improving the system of industrial investment identification and promotion. The consultant arrived on 8 April for a 3-month assignment and completed the work on 2 July 1986.

Job description

A late change was made to the main tasks of the assignment. Initially there were to establish a promotion and monitoring system for the development and transfer of technology, raising the technological level in existing industries and identifying investment opportunities. It was to be a two-man project; that is, an industrial economist and an engineer.

The tasks were altered to that shown below and as this description appeared adequate, no formal job description was issued.

- " (i) Review and assess existing arrangements for the identification and promotion of industrial investments with a view to improving and facilitating the formulation of industrial ventures with foreign investors for the financing and implementation of new industrial projects, and
- (ii) Suggest and advise on the most appropriate institutional arrangements to be set up for the implementation of his recommendations, including activities to be undertaken, organizational structure, operations, co-operation with other existing services, means of budget financing etc." (original given to the consultant by the DRR on 8 April 1986).

Methodology

A work plan and bar chart were submitted to UNIDO and UNDP on 13 April, 1986.

The consultant was allocated a counterpart - Mr. Soteris Soteriou - who arranged and attended a series of meetings with a representative cross section of the industrial sector (shown at Annex 2 in the main report).

The purpose was to gain an impression of the efficacy of the existing system and to obtain reaction to proposals for improvements. Wherever possible follow-up meetings were arranged.

A draft of Section 3, 4 and 6 of the main report was issued on 2 June, 1986 to be discussed within the Ministry.

Following these discussions, meetings were arranged with key representatives of the industrial sector to discuss the recommendations and a draft final report completed. A copy was made available to UNDP on 23 June.

Further UNDP inputs

A study tour has been recommended of two or three countries which have successfully introduced systems for identifying and promoting industry, for example, Singapore, Japan, Israel, Republic of Korea. The tour should also include countries where the 'incubator' system of promoting industry has been successful, for example, Israel.

The provision of short-term(one month) consultancies to assist in the setting-up of the Industrial Investment Advisory Centre should be considered and the areas are identified in the Summary to Section 5.

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Summary of Recommendations

1. A permanent system of identification and promotion of industrial investment should be established.
2. The identification procedure will be based upon the existing and future comparative advantage of Cyprus.
3. The results of the identification and the distinctions made, for instance priority areas, will be the basis of national industrial policy and strategies.
4. The identification and direct promotion of industrial sub-sectors, programmes and projects will be the responsibility of a new organisation, namely, the Industrial Investment Advisory Centre (The Centre).
5. The Centre will come within the responsibilities of the Director General of the Ministry of Commerce and Industry (The Ministry) and will be staffed by officers recruited from within the service if it possible to locate candidates of the high calibre that is necessary.
6. The Centre will be in a location separate from the Ministry and ideally in a central position with ease of access to the main institutions and the Ministry. Enquiries should be made to see if funding might be available to support the centre in its initial stage of, say, one year when it should be practicable to evolve a system of split funding based

on services rendered once the service has demonstrated its value to the industrial investor. Aid-agencies such as the World Bank and the European Development Fund should be approached for this initial funding.

7. The centre will incorporate a "one-stop agency" which will act as a focal point for all information connected with the industrial sector, advising on rules, regulations and procedures for investment in industry and obtaining decisions on investment as quickly as possible.
8. Output from the centre will be distributed to financial institutions and other institutions to help ensure a fair and wide ^{local} coverage of the advice being offered, via the existing trade missions and UNIDO Investment Promotion Service for overseas distribution.
9. Closer liaison should be established between the "back-up" organisations offering a post-investment service especially in the area of identifying the need and selecting foreign consultants.
10. The gaps in the sources of finance, namely venture capital and development capital, should be filled by expanding the scheme proposed for the Cyprus Investment and Securities Corporation and by evaluating the position of the Cyprus Development Bank in the financial system.
11. A study tour of two to three countries selected because of their success in establishing systems of identification and promotion of industrial investment, should be arranged for the two officers most closely associated with the centre. In addition a short-course

should be arranged to enable the two senior officers appointed to the Centre to obtain up-to-date knowledge of the practice and theory of comparative advantage.

12. Once a decision has been made as to recommendations to be implemented, a seminar should be convened of a cross-section of the industrial sector to explain the system to be adopted. This form of co-operation and liaison with the private sector and institutions should become a permanent feature in future development of the sector.

13. An Advisory Board should be established to oversee the work of the Centre and should be composed of senior officials from relevant Government Ministries, the institutions and the private sector.

SECTION 2

The Industrial Sector

2.0 In 1985, the Industrial Sector^{1/} contributed 18.7% to Gross Domestic Product of which the manufacturing sub-sector contributed 16.2% having grown from 10.5% in 1960. The rate of growth of the manufacturing sub-sector has demonstrated an overall decline since 1977 as shown below. Comparisons of growth of selected manufacturers are shown at Table 1, Annex 1.

<u>Percentage Growth of Manufacturing</u>								
<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
15.3	8.4	9.6	8.1	6.6	5.4	1.5	5.9	1.9

2.1 Industrial products made-up 75.2% of all exports by value in 1985 (Table 2.0, Annex 1) and the value index (1979=100) of exports of manufactured goods stood at 123.0 in 1985 having declined in all years since 1981 when it stood at 131.2 (Table 2.1, Annex 1). The main manufactured exports of clothing, footwear and paper products have taken a fairly constant share of all exports since 1981 at about one third (Table 2.2, Annex 1) but clothing exports as a proportion of gross output have declined from 52.9% in 1980 to 49.7% in 1985 (Table 2.3, Annex 1).

2.2 As a general measure of the export scope of the newly industrialized countries the degree of export diversification compared with Cyprus is shown at Table 2.4, Annex 1 and the proportions of world exports made-up by principal exports from Cyprus at Table 2.5, Annex 1.

1/ Comprises: Mining and Quarrying
Manufacturing
Electricity, gas and water

2.3 Several reasons have been put forward for the decline in manufactures: one is that the level of wage rates has increased relative to competitors. Certainly labour costs as a proportion of gross output rose from 14.3% in 1976 to 20.1% in 1983 (Table 3, Annex 1). More important would be a comparison of productivity but no relevant data is presently available. Some indication may be gained from absolute wage rates and those prevailing at 1980 - the latest year of international comparisons - are given for the three main exports at Table 4, Annex 1. At that time wage levels were at a level similar to Hong Kong, Singapore and the Republic of Korea.

2.4 Another reason given is the more recent weakening of the Arab markets for manufactured exports. In 1984, Arab countries took 75% of Cyprus total of manufactured goods exported by value but by 1985 this proportion had dropped to 69% and in January 1986 it was 55% compared with 7½% in January 1985. The trend of destination of exports is given at Table 5, Annex 1.

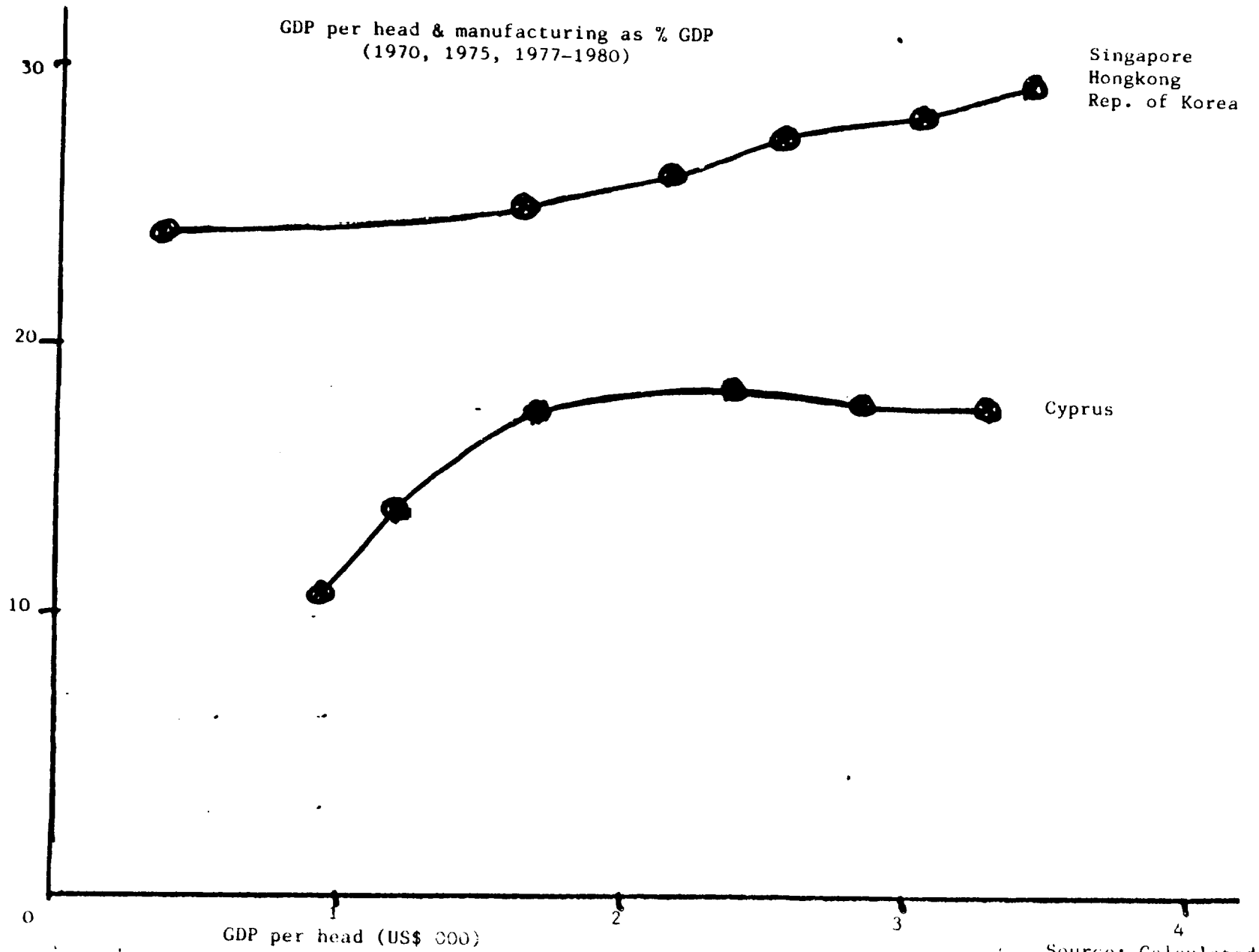
2.5 A further reason put forward concerns the structure of the manufacturing sub-sector which is considered too fragmented for long production runs and for the required level of investment, particularly in research and development, to compete with the newly industrialised countries and with European manufactures.

2.6 The average number of employees per enterprise in 1983 was 7 for wearing apparel manufacture, 19 for footwear and 14 for paper products, the three main exports of the sub-sector. Comparisons for 1980 (Table 6, Annex 1) with Japan, Singapore and Hong Kong show that numbers employed per establishment for wearing apparel in Cyprus were well below the average but footwear was more comparable.

- 2.7 Finally, a comparison may be made between the progress of three of the successful newly industrialised countries (Singapore, Hong Kong and the Republic of Korea) by using the approximate guide of income per head and the proportion manufacturing contributes to Gross Domestic Product. This comparison is shown overleaf and demonstrates a flattening-out of the progress towards industrialisation in Cyprus.
- 2.8 Future developments in the sector will be affected by the proposed Customs Union with the European Economic Community, especially manufacturing. According to a recent report^{1/} these effects, taken overall, could be adverse.
- 2.9 The brief outline of the industrial sector given above tends to confirm the view that Cyprus has reached a plateau of development in industrialisation and requires motivation to move up the development ladder. This motivation could come from technology, from strengthening of linkages between sectors, sub-sectors and industries, a higher level of import substitution and export-led growth or any combination of the factors associated with such development. The identification of these factors, the most suitable way and means of exploiting them, culminating in implementation of chosen projects, must be seen as of the highest priority.

^{1/} Murray DP/CYP/82-003 - December 1985

Manufacturing
as % GDP



S E C T I O N 3

Present system of identifying and promoting
industrial investment

A. Identification

- 3.0 A number of studies have been made to identify opportunities for investment in the sector, ranging from the Manderstam reports of 1975 and 1976 to Phase 2 of the CFTC study of June 1986.
- 3.1 As far as can be seen from these studies, there has not been an attempt at an in-depth analysis to determine where the comparative advantage of Cyprus might lie, or to predict future changes. Most studies concentrated on the potential for import substitution as expressed by an analysis of trade statistics, to be followed-up by feasibility studies to determine viability.
- 3.2 Without an initial exercise which in one way or another established comparative advantage, it remains doubtful if these studies could produce projects, the implementation of which would result in a balanced growth of the industrial sector. Moreover, if the feasibility studies were carried-out objectively and showed the projects to be of negative value, the source of new project ideas would seem to be limited.
- 3.3 The communication of identified opportunities to the potential investor was not dealt with adequately and tended to fluctuate from a list of headings to recommendation for "comprehensive sectoral studies". One study identified cotton yarn as having import substitution potential but this recommendation was "subject to a full survey of the textile

industry" - a task likely to daunt the most enthusiastic investor.

3.5 The Government has formulated a list of priority projects which are considered important to development. For manufacturing these include construction of factories and purchase of machinery and capital equipment. A full list is given at Annex 2. To finance this investment the commercial banks are allowed to maintain a liquidity ratio of 29% instead of the normal ratio of 35%, the balance being retained in a separate account at the Central Bank for drawing down to approved projects. In 1985 some £18m was disbursed of which £8m or 44% went to industry.

3.5 In 1984, a ten-year tax holiday was introduced for entrepreneurs who manufactured products new to Cyprus and in general terms applications for new investment are considered according to a criteria technological transfer and export potential. An inter-Ministerial committee is presently examining ways and means of attracting more foreign investment with particular emphasis on the level of ownership.

B. Promotion

3.6 The present system of promotion may be divided into three areas

- Establishment
- Operations
- Sales and marketing

3.7 Establishment of a new industrial project is assisted by the following measures;

Industrial estates
Industrial Zones

Bonded warehouses

Government guarantees

Advice from the Ministry

3.8 Operational assistance is provided by

Income tax relief

Import duty relief

Tax relief on exports

Depreciation investment allowances

Protection by tariffs and quotas

Export credit insurances

Export guaranteed loans

Extension service by the Ministry

Cyprus Productivity Centre

Industrial Training Authority

Cyprus Chamber of Commerce and Industry

Federation of Employers and Industrialists

Standards and Quality Control(Ministry)

3.9 Sales and marketing assistance is given by:

Trade Missions)

Trade Fairs)

Market Research)

Ministry

Conduct Promotion Programme - CFTC

Export Promotion Council

3.10 Full details of these promotion activities are contained in the investors guide. Improvements seen as necessary to the existing system are discussed in Section 4 - Conclusions.

Methodology

3.11 To obtain an impression of the efficacy of the present system of identification and promotion, meetings were arranged with a cross-section of representatives of the industrial sector. Follow-up meetings were set-up, where possible, to gain reaction to initial proposals for improvements. A list of representatives is given at Annex 2.

S E C T I O N 4

Conclusions

A. Identification

4.0 In accepting the need for an improved system of identifying new industrial investments, the main priority is to establish a permanent system which allows for a continuous up-dating, monitoring and reviewing of all those factors which comprise the industrial sector in Cyprus and which affect the markets into which the industrial output is to be sold. These factors and their effects present an ever changing set of conditions and opportunities which need to be fully understood if industry is to play an increasingly important role in the development of the economy.

4.1 The "one-off" surveys, conducted at intermittant intervals, are unlikely to be able to capture the dynamic nature of the factors involved and are only able to give at best a picture at one point in time; whereas the requirement is to establish events and movements over time and to be in a position to predict likely changes in the future.

Criteria for the system

4.2 Any proposal for a new and permanent system will need to meet several criteria, some general and some specific to Cyprus. The general criteria are:

- there should not be duplication of existing services

- the system adopted needs to be workable within the existing framework;
- the system must have access to the best available data.

4.3 The specific criteria are:

- the system must have the general confidence of the private sector and of the institutions and strong links must be established with both to ensure a cross-fertilisation of ideas, opinions and strategies;
- the output of the system should be a basis for national industrial policies and strategies;
- Proposals for investment in the industrial sector need to be in sufficient detail to allow the investor to be in a position to reach a first level decision as to whether to proceed or not with further investigation.

Operational aspects of identification

4.4 The process of identification will build-upon the work done by the CFTC project by establishing all the information and data required to determine these areas of industry, programmes and projects which are calculated as representing the most suitable for investment.

4.5 By covering the whole area of industry it is evident that aspects of industrial policy and strategy will emerge which can be the basis for the Ministry's submission to the national planning process. The process will aimed at identifying as a first stage a broad spectrum of programmes and

projects regarded as priority areas and those with lesser urgency. Sub-divisions would concentrate on programmes and projects best suited to the private sector and possibly those where the Government may be required to take an initial lead, for example, projects where the rate of return is less than could be obtained in other areas, such as tourism, but which nevertheless require to be implemented. These aspects are discussed in more detail in Section 5, Proposed Method of Operations.

Organisation and Staffing

- 4.6 In examining the present system of identification and promotion in relation to the criteria set-out above, it is clearly advisable to evaluate existing resources to see how far they meet the criteria and, if they do not, what is required to up-grade the present system to the desired level.
- 4.7 There is no permanent system of identifying industrial investment. Nevertheless the Ministry has an Industrial Development and Research Department and a well-stocked library and information centre. If part of this Department could be reinforced by the addition of officers of sufficiently high calibre, if the degree of independence and a separate identify can be established to allow full concentration on the identification procedures and if semi-formal or formal links were to be established with the private sector and the institutions, there seems no reason why such a new unit could not satisfactorily undertake the work envisaged.

- 4.8 Several advantages are apparent in this proposal - the first is that it builds upon existing resources of manpower and physical assets and services. There are also the links with the sections of the Ministry dealing with controls such as import licensing, approvals for new industries, the Industrial Estates and Industrial Free Zone of Larnaca, and protection of local industry by means of tariffs and quotas. Moreover, as the unit comes under the responsibility of the Ministry, the criteria of the work being a basis for industrial policy and strategy, is more easily satisfied.
- 4.9 The most obvious alternative to utilising existing resources in this way, is to set-up a new organisation, separate from Government which would be a centre for investment studies in much the way outlined above but would also undertake the task of promoting the result of the identification. In addition the increasingly important aspects of technology could be incorporated by the new organisation being a focal point for information, especially on types and levels of technology and ways and means of obtaining chosen technology.
- 4.10 The benefits of such a separate organisation are seen as independence in staff recruitment, financial budgets and work plans. However, a possible difficulty is encountered when considering the funding of this new organisation and the likelihood of duplication of existing services unless these were integrated in some way.

Links with the private sector and institutions

- 4.12 An important aspect of a permanent system of identification, is the successful liaison with the private sector and the institutions. One obvious way to create such a link is to, by some means, co-opt staff to serve alongside Ministry staff in the work involved in identification of industrial investment. But the mechanics of such a proposal present problems, such as length of secondment, differences in pay and conditions and also in the area of confidentiality of work undertaken where it may be felt that the presence of private sector staff could impair the desirable reputation of impartiality.
- 4.13 A more effective use of the institutions would be to use their individual specialities in both the identification and promotion activities that are envisaged. To set-up a permanent system of identifying investments will require a substantial amount of work in data collection and analysis for Cyprus and its competitors both present and future. There are areas where the institutions will be able to offer assistance, for example, the Cyprus Productivity Centre for international comparisons of productivity, the Industrial Training Authority for organising an effective inventory of skills. For the promotion element, the Export Promotion Council would clearly have a role by actively 'selling' the investments identified, particularly as it seems highly likely these will be export oriented.
- 4.14 The philosophy to be adopted is one of finding out which of the existing and planned institutions is capable and willing to co-operate and to utilise this co-operation fully. This co-operation could be made more formal by establishing an Advisory Board / to oversee the new service as regards, for instance, overall policy and levels of work integration.

Role of technology

- 4.15 In any proposals for a permanent system of identification, technology will play a crucial part especially given that it seems likely the future development of industry in Cyprus will increasingly involve the incorporation of the latest techniques, processes and methods of production.
- 4.16 This role will be the subject of a separate exercise to be undertaken by a CFTC consultant as from July 1986. The terms of reference are given at Annex 2.

B. Promotion^{1/-}

- 4.17 There is no established system for the direct promotion of sub-sectors, programmes and individual projects, and to a large extent this is due to a lack of the identification of such investments on a continuous basis. When individual projects are identified, a more informal system operates, for instance by liaison between the Ministry and the Cyprus Development Bank with the objective of attracting investment.
- 4.18 As regards the provision of incentives and services, the following conclusions are given on the existing system.

Incentives

- 4.19 Whether the present system of incentives is structured to obtain the optimum pattern of investment will depend largely on the outcome of the identification exercise. Following this exercise it should be

1/- Here defined as direct promotion that is actively promoting individual investment and promotion by the provision of incentives and services to implement the investment.

possible to be more specific as to the direction of incentives, reducing any possibility of misallocation of resources through the encouragement of investments which have a positive comparative disadvantage.

4.20 Given this necessity, the summary of incentives offered by a selection of countries(Annex 2) would tend to show the need for more encouragement for exports and encouragement for the introduction of new processes, methods of production and techniques.

4.21 With a relatively small population (the other newly industrialised countries where comparisons are made are Singapore 2.4m; Hong Kong 5.3m; Republic of Korea 39.7m. The nearest equivalents being Malta 0.4m) the potential for import substitution although dynamic is not likely to be a continuous process and more a series of phases as income levels grow. Therefore, links with exports should offer the best potential for development and ways and means found to increase the proportion of manufacturing gross output that is exported - currently some 27% (Annex 1 Table 2-3).

4.22 Although incentives are considered a marginal part of an entrepreneurs decision to invest, there is evidence that export incentives are effective especially when switching from import substitution. However, the incentives need to be realistic and assist the exporter to cope with such influences as inflation rates in the home market and exchange rate fluctuations overseas, either of which may rapidly erode any gains from incentives.

Levels of protection

- 4.23 In the same way, the appropriateness of levels of protection will depend on the establishment of comparative advantage. Once this latter concept is determined, it would be advisable to review existing levels of nominal and effective protection. Clearly it would be counter productive if protection were given to industries producing for the home market only when resources would be better utilised by developing exports.
- 4.24 With regard to incentives and levels of protection the experience of ten developing countries (Brazil, Chile, Colombia, Egypt, Ghana, India, Israel, Philippines, South Korea Turkey) showed that moving from reliance on exchange controls and quantitative restriction ('bias') to greater use of market signals ('liberalisation') demonstrates a positive relationship between export performance and the country's degree of trade liberalisation^{1/-}.

Back-up services

- 4.25 The back-up services are provided by the Industrial Extension Service of the Ministry, the Industrial Training Authority, the Cyprus Productivity Centre, the High Technical Institute, the Cyprus Chamber of Commerce, and the Employers and Industrialists Federation. These organisations offer a wider-ranging set of services from lay-out of factories to assistance in sales of finished goods. In some of these areas there is a certain amount of overlapping-indeed the industrialists contacted were in a certain amount of confusion as to which organisation to turn for advice.

1/- Quoted in Kirkpatrick and Nixon
'The industrialisation of less developed countries'

4.26 An investor, especially a local investor, will wish to establish the quality and availability of a back-upservice, more so when the investment involves technology new to the investor. Whereas the back-up services currently on offer are widespread and there may be a case for a closer liaison, possibly leading eventually to some integration, the role of the consultant requires special attention.

4.27 If, as seems/likely the manufacturing sector becomes more closely involved with technology, the back-up services will find increasing difficulty keeping abreast of the operational aspects of the latest techniques, and recourse will need to be made to external consultancies. The quality of such consultants requires more careful consideration than is apparant as the present time as evidenced by a level of what may be termed consumer resistance to external consultants unless there is very strong evidence that the consultant really has a significant input in terms of special knowledge not already available in Cyprus.

Patent rights

4.28 Several industrialists stated that they were loathe to introduce new processes and techniques or new inventions onto the local market due to the fear of instant copying at lower unit costs. To an extent this is a credit to the flexibility of the local entrepreneur to adapt and develop new ideas and probably forms a part of the comparative advantage of Cyprus in that small but skilled enterprises can switch rapidly their production processes.

4.29 However, the long-run effect may be to stifle innovation and foreign investors may be cautious in sharing new technology if this is adopted by competitors who did not incur the research and development expenses.

4.30 In effect the rights of those patents registered in the UK are fully protected by law in Cyprus and to set-up a system of registering patents in Cyprus would involve a large number of highly qualified staff and a great deal of sophisticated equipment.

On-going improvements

4.31 The Ministry is now considering ways of increasing the attractiveness of the industrial sector to foreign investors.

4.32 Also the existing system of export promotion is being revised, the Export Promotion Council has been nominated and given one year to come-up with a format for operating - meanwhile the present system of export promotion based at the Ministry will continue to operate as before.

4.33 A Guide to Investor has been drafted by the Ministry and Central Bank and is under discussion. It follows the normal pattern of such guides by explaining the procedures for investment, the incentives and the general advantages of investing in Cyprus industry.

Gaps in the present system of promotion

4.34 Whereas there exists a system for promoting industrial investment by means of provision of industrial estates, incentives, the back-up service, the proposed investors guide, trade missions and fairs, there is no system for promoting sub-sectors of industry, programmes of investment or specific projects - a fact which became evident following the various one-off opportunity studies where it seems the majority of potential investors, both local and foreign, remained in ignorance of these opportunities.

- 4.35 It is lack of project specific promotion which is presently missing from the system.
- 4.36 Three other areas are deserving of attention. The first is the streamlining of the system of providing information to an investor, and assisting in the completion of the formalities connected with the application for non-resident participation and for a site on the Industrial Free Zone at Larnaca or on one of the Industrial Estates.
- 4.37 This may be accomplished by the establishment of what is now known as the "one-stop agency" where an investor is able to obtain the relevant information and forms at one point either by personal visit or by other means of communication.
- 4.38 The second area is the provision of finance at appropriate rates of interest. Sources of finance for investment in the manufacturing sub-sector, the most important part of the industrial sector, are concentrated on the commercial banks which had outstanding loans and advances to manufacturing of some £215m at the end of 1985, representing 28% of total loans and advances. The activities of the other financial institutions are relatively small in comparison; some 5% of the total loans and advances to the manufacturing sub-sector and the CDB's proportion is estimated at 4% of the total (Annex 2)

- 4.39 It is difficult to ascertain the number of investment proposals received by these institutions, the number refused and the reasons. The Head Offices of the commercial banks receive from their branch offices proposals which have already been vetted and consequently the refusal rate is low. Nevertheless, the proportion of loans and advances to the sub-sector has remained fairly constant (Annex 2) and the reasons need examination.
- 4.40 The legal limit on the rate of interest charged(9%) has undoubtedly been an important influence on growth as the rate is low by international standards, providing the investor with cheap capital. However, the question arises as to whether projects, which are evaluated by the banks as having a risk factor greater than a 9% return justifies, are stifled through lack of capital. The view of the banks is that where such a project requires funding, the amount of collateral is increased to match the risk involved. It seems likely, therefore, that where the backers of the project have insufficient collateral, their project may not be implemented, however feasible it may be.
- 4.41 The increased risk may be linked entrepreneurs who lack a record of successful business management, who wish to diversify into areas where they have no previous experience or where a new and untried process or method of production is to be introduced.
- 4.42 The proposal by the Cyprus Investment and Securities Corporation(CISCO) to offer venture capital to such investors has yet to be approved but if ratified will make available some US\$6m/^{to 9m}with an emphasis on providing capital from a minimum of £10.000 upwards.

4.43 The other area where there appears to be a gap in the source of finance is that of the project which has a development potential but may not offer a rate of return comparable with projects in, say, the tourist sector. These development projects would have more longer-term benefits, such as export earnings, establishment of linkages introduction of methods techniques or processes new to Cyprus, or any combination of the numerous development aspects considered desirable in such an investment. By the very fact of incorporating these benefits, the return on investment may be relatively low.

4.44 There seems to be no special arrangement for such projects and although in normal circumstances they would be taken-up^{by}/a development bank, it appears that the CDB operates in much the same way as the commercial banks, certainly as regards the rate of interest charged.

4.45 Finally, the provision of small units linked to a central services centre would allow entrepreneur to establish a basic production unit at minimal cost - subsequent expansion by the entrepreneur can be accomodated within the normal industrial estate system. These small units are called 'incubator units' for this reason.

General conclusion

4.46 If it is accepted that the industrial sector in Cyprus is now at a stage in development where the motivation for the original growth have largely been exploited, that is relatively cheap labour costs and access to markets which demonstrated rapid growth, there is a need to plan for the next move up the development ladder. The motivation for this could come through the establishment of an increased number of industries based on greater use of technology, a judicious mixture of import substitution and export-led growth, creation of more linkages or any of the many factors which can result in further growth.

4.47 The system proposed for the identification and promotion of industrial investment will need to determine, first, which combination of these factors is to be utilised and to demonstrate which sub-sectors, programmes and projects are likely to achieve the desired results, and, second, to promote these in a format and manner which will ensure they are as widely disseminated as is possible.

A note on institutional arrangements for incorporation of technology

4.48 Although the institutional arrangements are the subject of a separate CFTC study (terms of reference are at Annex 2) the major options are similar to those open to the placing of the identification and promotion system.

4.49 In this case the main alternative to retaining the service within the Ministry appears to be to establish a unit at the Higher Technical Institute which is the focal point of technology in the country. In this way, use is made of existing and planned facilities and if the necessary degree of co-operation could be obtained, the existing Industrial Extension Service of the Ministry could be out-posted to a new unit possibly entitled the Industrial Operations Advisory Centre. The Ministry would retain responsibility for its staff and to the present system of back-up service to industry would be added the dimension of technology. In this context, it is unlikely the staffing would be able to show a capability in the whole range of new technology and it would be advisable to concentrate resources on being able to quickly identify the sources of information. In time a capability will develop, together with the ability to propose new industrial development based on technology rather than simply reacting to requests from established industries.

4.50 The Centre would also build-up an expertise in the various ways and means of transferring technology and with the retention of the present services, would then offer a comprehensive service to the industrial sector in keeping with the anticipated pace and direction of development. Possibly a system of licensing technology linked to a system of incentives would ensure the element of control necessary

A note on financing an improved system of identifying and promoting industrial investment

4.51 With the present climate of opinion regarding expansion of the civil service and the number of semi-Government institutions, financing an improved system where this involves additional staff and extra office accommodation to be funded from the Government annual budget, could be difficult to achieve.

4.52 There is a possibility that one of the major aid-agencies - the World Bank or European Development Fund could be persuaded to offer short-term financing, ^{1/-} given the basic reason is to encourage private investment. But in the longer term the problem will re-emerge.

4.53 Moreover, asking the private sector to pay either directly for services rendered or indirectly by means of a levy, is hampered by the fact that the proposed service will take time to prove itself.

4.54 An alternative which could be said to satisfy both these aspects, is for Government to show the degree of importance attached to such a service and the confidence it feels in the eventual output being of value to the development of the industrial sector, by providing funds for the initial period on the explicit and clear understanding that the service would increasingly be self-supporting to the

1/-

First year operations including rented office space, equipment and salaries would be of the order of £52,000; thereafter about £42,000 per year.

extent that budgetary allocations are eventually not required.

- 4.55 This self-supporting finance could come from a direct fee for services rendered, for example, the provision of pre-feasibility studies or the successful identification of a joint venture partner or the provision of information packages outside the normal remit. Alternatively, a levy could be made on those investments identified by the service and which are then implemented. In this way the successful development of the service will be linked to its ability to identify, promote and help implement industrial investments.

A note on implementing proposals for an improved system

- 4.56 One outcome of the discussions held with representatives of the industrial sector was the impression of a willingness to participate in the ways and means of improving the system of identification and promotion. This enthusiasm combined with the level of expertise available should be harnessed and utilised. As an initial step, a seminar composed of a typical cross section of representation could be convened with the main purpose of explaining current Government thinking on proposals and to invite comments and ideas. This type of co-operation and liaison should become a permanent feature of Government policy.
- 4.57 The participants to the seminar should previously have been provided with a copy of this draft report and the seminar should adhere to an agenda which deals with the proposals point-by-point. If necessary, a working sub-committee may be formed and charged with recommending solutions to any problems not solved at the seminar.

S E C T I O N 5

Proposed method of operations

A. Identification

5.0 The basic concept will be to establish present and future comparative advantage in Cyprus.

Data base

- 5.1 The success of the exercise will hinge upon the quality and spread of data available. The examples shown at Annex 1 are an indication of comparative data required and this will need to be extended to cover as much as possible of the headings show in the summary.
- 5.2 A basis will be provided by the CFTC project but, judging from the terms of references, much more work is needed to establish the position of Cyprus in the context of world manufacturing - only by making comparisons can the nature of comparative advantage be identified.
- 5.3 The apparent lack of data on productivity is a substantial gap in these comparisons as international data on measurements of productivity exists by type of manufacture, for instance from UNCTAD and ILO. Also there is no system of recording the levels and type of skills available - a requirement if skilled manpower is a major asset.
- 5.4 Whereas it is possible to obtain technical assistance in building-up an information centre, it would be more effective if the officer chosen to undertake the work were to familiarise himself with data sources available, for instance the various UN agencies.

Comparative Advantage

5.5 The exercise to establish present and future comparative advantage is complex mainly because there is no established methodology.

In any such undertaking much will be trial and error but the element of error may be reduced by in-depth analysis based on data of high quality and coverage and for specific projects by pre-feasibility studies. 3/-

5.6 The exercise can be based upon any one of the numerous theories of comparative advantage such as potential value added or on the endowments of human and physical capital. In this latter theory, for example, exports are taken as a measure of the best use of comparative advantage and the export structure is assumed to be based on capital endowments. Changes in the export structure follow changes in this capital endowment and other countries with different endowments take-up export opportunities resulting from such movement 1/-

5.7 A more simplistic approach is that 'a country can learn best its comparative advantage by having a price mechanism designed to search out that comparative advantage, and by taking investment decisions in the light of it' 2/-

5.8 A starting point will be an analysis of the reasons for the comparative advantage as 'revealed' by successful exports. It seems that in 1980, the last year of data available, Cyprus had a comparative advantage in wage rates (taken in the absence of productivity) in her main exports

1/- Balassa 'A stages approach to comparative advantage'

2/- Little, Scitovsky and Scott

3/- A short refresher could be arranged for the officers involved to bring them up-to-date on the latest practice & theory of comparative advantage.

of wearing apparel, footwear and paper products, over European competitors and compared favourably with Singapore, Hong Kong and the Republic of South Korea (Annex 1, tables 4.0 to 4.2).

5.9 From the comparisons made and from the existing structure of exports it should be possible to obtain a starting point as to what is the comparative advantage for Cyprus and where future comparative advantage might occur. Technology will be an important element in the future comparative advantage.

5.10 In essence, the exercise will be to show where Cyprus lies in the comparative advantage "ladder" and to predict the next step on this ladder with all the consequent implications for investment decisions. Until this exercise is complete, there is little point attempting to re-structure the industrial sector as it is likely that such restructuring will result in a mis-allocation of resources.

Implications for incentives and levels of protection

5.11 With the establishment of comparative advantage, present and future, there are implications for the structure of incentives offered to investments and to protection offered to local industry. Taking a broad view, if there is a comparative advantage in capital intensive operations, due to availability and relative low cost, there is little to be gained in directing incentives to labour intensive industry. In Cyprus, where capital is relatively cheap and wage rates appear to be moving towards the lower levels of European scales, incentives could possibly be aimed more at capital intensive high technology based industries. However, the lack of venture capital could be a serious handicap.

Output

- 5.12 The output will be to identify those investments which collectively offer the best package of benefits to Cyprus taking account of the policy of free market operations
- 5.13 Based upon comparative advantage, the aim will be to identify sub-sectors, programmes and projects which achieve this objective which may result in a structure of investments with the following attributes;
- (a) High priority - due for instance to a linkage or supportive role for other projects, the need to be in the forefront when the product life cycle is liable to be short, a high concentration of developmental attributes or simply that the anticipated return on investment is high.
 - (b) Strategic - for reasons of national security product sources to be guaranteed
- 5.14 A distinction will then be made as to source of investment and this is most likely to be private, whether local or foreign or a mixture of the two. However, it is conceivable that some areas may require Government initiative, probably acting through the Cyprus Development Bank and in this instance it would seem preferable to have a longer-term aim of establishing a public company. Much will depend on the element of risk involved and the linked rate of return.
- 5.15 Wherever possible and practical, the aim will be to produce information sufficient for an investor to reach a first-level decision whether to proceed with further investigation or not. Clearly, differences will

arise case by case but it is unlikely the stage of pre-feasibility will be exceeded - the investor will then decide, on his responsibility, whether to move to a full-feasibility study or not. Part of the services to be offered will include advice on ways and means of undertaking the full study and on technical consultant selection.

- 5.16 In this respect the listing of project 'ideas' or 'opportunities' without a clear and reasoned account of how the choice has been made and without an objective set of key data to support the conclusions, is unlikely to gain and keep the attention of a genuine investor.

Links with the private sector and institutions

- 5.17 An important element of the method of operating will be the links established with the private sector and the institutions. These will include the commercial banks, the Central Bank, the Cyprus Development Bank, the Industrial Training Authority, the Cyprus Productivity Centre, the Employers and Industrialists Federation the Cyprus Investment and Securities Corporation and the Higher Technical Institution. Important Government departments will be the Planning Bureau and the Department of Statistics. Contacts will also be made with those private consultants operating in Cyprus to maintain information on their capabilities. Arrangements will be made to use the services of these institutions to carry-out a part of the required analyses shown in the summary.

Time span

- 5.18 It is difficult to be more precise as to the work required to establish present and future comparative advantage - much will depend on the quality and coverage of data, the time available and the research element built into the exercise. Nevertheless, results cannot be

anticipated within a short time-span; although once the data base and analytical procedures are set-up, the operation will be more of a monitoring and up-dating exercise.

B. Promotion

Direct Promotion

- 5.19 Promotion is divided into direct promotion of investments, that is by actively selling the potential of investment in the sector and in individual projects both at home and overseas, and the back-up services to investment.
- 5.20 Investment advice, that is advice on the sub-sectors programmes and projects best suited to private sector investment, will be distributed by means of a regular newsletter circulated to the financial institutions and the representatives of the private sector such as the Chamber of Commerce and the Employers and Industrialists Federation. In this way, it should be possible to avoid any element of individual attention to particular investors. These investor may then request more information and advice on how best to proceed with further investigation, including identification of expertise both local and external.
- 5.21 The newsletter will simultaneously be distributed via the existing trade missions in UK, USA, West Germany, Belgium, Denmark, Czechoslovakia Greece, Kuwait and Japan with the possibility of using missions in Saudi Arabia, Libya, Egypt and France. This will be backed-up by the more general " Investors Guide" and there should be on the staff of the missions, one officer who is fully conversant with the industrial sector in Cyprus and who is capable of setting-up specialist promotions on industrial investment.

UNIDO Investment Promotion Facilities

5.22 The UNIDO promotion facilities will be utilised. These facilities are designed to facilitate the flow of industrial resources from the developed countries and are centred on Investment Promotion Service offices in New York, Brussels, Cologne, Paris, Tokyo, Vienna, Marsaw and Zurich. The Investment Promotion Information System (INPRIS) comprises five related data banks, namely;

- (i) Project file - lists some 750 current projects;
- (ii) Investor File - a directory of 3000 enterprises which have expressed interest in industrial investment outside of their own country;
- (iii) Bank File - 600 financial organisations willing to consider funding industrial projects.
- (iv) Institution File - List of institutions connected with industrial development
- (v) Sponsor File - List of plant and machinery being sold due to closures but with a useful working life remaining.

5.23 Full details of the UNIDC services are available in the Ministry library.

Back-up services

5.24 The links with the Ministry's Industrial Extension Service and the other institutions will come from the need to identify the level of technical support likely to be available for a proposed project.

The probability of the increasingly important role of technology in identification and support services indicates the need for a

specialised technological information centre & involving Ministry staff./

However,

recommendations in this area will follow the CFTC project mentioned in Section 2.

- 5.25 For those areas where the level of expertise is not available in Cyprus, a list of consultants will be maintained in order that a choice can be expressed when requesting technical assistance. Ideally access will also be gained to the World Bank and UNIDO lists of consultants.

One-stop agency

- 5.26 The one-stop agency will involve responsibility for answering all queries relating to industrial investment, providing that information on the industrial sector required to make an investment decision, advising on rules, regulations and procedures for setting-up an industrial venture, or where to gain such information and supplying the necessary forms. The completed forms will be returned by the potential investor to the same point in keeping with the concept of a single entity covering all aspects of investment in industry and will be forwarded to the appropriate part of the Ministry or other organisation such as the Central Bank.
- 5.27 Decisions as to permission to invest applications for incentives, tariffs and quotas in any other area affecting investment will be communicated from this one contact point.

Schedule of Operations

Outline - the first task of the Centre will be to establish existing and future comparative advantage of Cyprus. From this exercise will evolve those sub-sections, programmes and projects where investment should be concentrated. The next step will be to examine existing industries to see how they fit into the scenario built-up as representing the pattern of investment likely to produce the optimum results for the sector with given inputs of resources. On this basis, existing industries may be in need of re-structuring in order to fit more closely with the proposed pattern of growth.

Study 1 - analyses of the reasons for "revealed" comparative advantage as shown by exports 1974-1986.

<u>Data</u> - For Cyprus and major competitors 1974-1986.	<u>Responsibility</u>
Demand & supply of labour by grade	ITA/CPC/IC
Inventory of skills	ITA
Wage levels	ML/DOS
Productivity levels	CPC
Value added	DOS/IC
Levels of Investment	DOS/IC
Natural Resources of economic value	DG/IC
Proximity of markets & transport costs	IC
Levels of technology	IC/HTI
Quality & Standards	MCI
Diversification of manufactures	IC

ITA - Industrial Training Authority

CPC - Cyprus Productivity Centre

MCI - Ministry of Commerce & Industry

ML - Ministry of Labour

DOS - Department of Statistics

IC - Investment Centre

DG - Department of Geology

HTI - Higher Technical Institute

Study 2 - Present and future comparative advantage of Cyprus

Data - a model which represents the movements in comparative advantage in the NICs and the developed countries needs to be constructed.

This model will indicate movements of these countries away from the production of labour intensive products towards more capital and technologically intensive products. It will place Cyprus within the context of these movements and will construct scenarios of the most likely position of Cyprus on this comparative advantage scale given the evidence of 'revealed' comparative advantage. From this exercise it should be possible to gain indication of likely gaps in the product structure into which Cyprus could make a supply available. The data required will include:

Demand for manufactured goods divided into labour intensive and capital intensive.

Supply of these goods by country.

Identification of gaps which are suitable for Cyprus

Resources required to meet this demand

Study 3 - Concentration on those sub-sectors, programmes and projects flowing from the analyses of Study 2 and the development of these identified areas into pre-feasibility studies wherever practical and possible.

Study 4 - On the evidence of Studies 2 & 3, examine existing industries to see how far they fit into the pattern of investment shown as being that most likely to achieve the objectives for the industrial sector set by Government. According to the results of this analyses, the existing industries may require to be re-structured to fit more closely with the proposed pattern of industrial development.

Study 5 - Place identified investments and plans for re-structuring in priority order and the new investment into categories such as;

Strategic

Developmental

High risk commercial

Normal commercial

Private sector - local and/or overseas

Public sector/private sector

Public sector

Study 6 - Level and focus of

Incentives

Protection

Subsidies

which will give the necessary support and encouragement to investors to undertake the projects identified by the Centre. Also a study on the effects of exchange control on exports.

Study 7 - a study tour of 2 to 3 newly industrialised countries (e.g. Republic of Korea, Taiwan, Singapore, Hong Kong) to ;

- (a) establish the efficacy of institutional arrangements and measures to identify and promote industrial investment in those areas considered of priority;
- (b) examine the effects of incentives, protection and subsidies on promoting growth in the industrial sector;
- (c) prepare a report relating these findings to the present position of Cyprus

The Advisory Board will have the responsibility of overseeing the work of the Investment Centre and will receive regular reports of the work being undertaken. Initially these reports and therefore meetings of the Board will take place once a month but as the Centre becomes operationally effective, the timing may be once every quarter. The Board will ensure that work that is to be undertaken by institutions other than the Investment Centre is effectively co-ordinated.

The composition of the Board will be that of senior officials from:

Ministry of Finance
Planning Bureau
Ministry of Commerce & Industry
Ministry of Labour
Industrial Training Authority
Cyprus Productivity Centre
Central Bank
Cyprus Chamber of Commerce & Industry
Employers & Industrialists Federation
Cyprus Development Bank
Bank of Cyprus

The Chairman of the Advisory Board should be the Minister of Commerce and Industry.

SECTION 6

Recommendations

6.0 From an examination of the present system of identification and promotion of industrial investment in the context of the future development of the industrial sector, and taking into account the views expressed at meetings with representatives of the sector, the following recommendations are made. They are divided into A. Identification and B. Promotion.

A. Identification

- 6.1 A permanent system should be established to identify sub-sectors, programmes and projects where investment should take place. Distinction will be made as to type of investment e.g. commercial, developmental, strategic, source of investment and control e.g. local/foreign, private/public sector; and priority listing of investment.
- 6.2 The methods and procedures for identification will be those outlined in Section 5.
- 6.3 The identification of investments will be a reflection of Government industrial policy and, mainly for this reason, the process should form part of the functions of the Ministry of Commerce and Industry but with the full involvement of, and liaison with, the private sector and institutions.

- 6.4 The identification procedures will be integrated with that of direct promotion of industrial investments in the sense of disseminating the investment information to as wide a number of potential investors as is possible, both at home and overseas.
- 6.5 In order to help create the necessary degree of confidence in such a new system, to emphasise the importance of the links with the private sector and the institutions and to present an image of a new approach to vital aspects connected to the future development of the sector, the service should be in a central position with facilities offering an atmosphere conducive to an investment centre.
- 6.6 The centre will incorporate the 'one-step agency' the activities of which were outlined in Section 5.
- 6.7 It is hoped that as a result of a recent examination of ways to attract additional foreign investment to Cyprus, the procedures will be simplified inasmuch as the degree and areas of foreign participation. The centre will then be able to process such applications more quickly.
- 6.8 For the initial stages of operations of the centre, enquiries should be made of the main aid-agencies to see if assistance with funding is possible. This will give the centre time to establish a service to the industrial investor by providing information required for investment, identifying areas for investment at project level wherever possible and attracting foreign investment and partners in investment.

At a later stage, it should be possible to base a system of funding partially upon contributions from payment for services rendered and partially from Government by means of budgetary allocation. If a levy is to be introduced, it should be linked to the productivity of the Centre.

- 6.9 For dissemination of proposals for investment the Centre will issue at intervals to all institutions a newsletter highlighting the sub-sector, and projects considered as suitable for further investigation but wherever possible and practicable the information on specific projects will contain detail sufficient to allow an investor to reach a first-level decision whether to proceed with further study; that is the aim will be to produce pre-feasibility level detail. Further investigative work will be carried out by the investor using whatever resources are considered most appropriate. The centre will offer advice on these resources.
- 6.10 For overseas coverage the permanent missions, trade missions and fairs, Export Promotion Council and any organisation with connections with overseas investors will be used. One officer at each permanent mission will specialise in industrial promotion. The UNIDO Investment Promotion Facilities will also be utilised.
- 6.11 The staffing of the centre should be a minimum of two Senior Officers, two research officers and a secretary/receptionist. The two Senior Officers will be at a level appropriate to the work and responsibilities set-out in Section 5. Suitable candidates should first be sought from within the service but emphasis will be placed on the necessary combination of the ability to energetically promote the work of the Centre

with the basic requirement of experience of, and a capacity for, the type of research-oriented work involved. If Officers of the right calibre are not available, given the importance of the work and the inherent job interest and satisfaction, it should be possible to recruit from outside the service at salary levels applicable to the grade, especially if Cypriots, currently working overseas, are approached. The specialities of the existing institutions should be utilised whenever possible in the work of the Centre. The Centre will be the responsibility of the Ministry and overall policy directions will be given by an Advisory Board, comprised of senior officials from Government, the institutions and the private sector.

- 6.12 The gaps in the sources of finance for higher-risk ventures and investments with developmental connections should be filled. The proposal by CISCO to effect wider participation in the scheme to provide venture capital should be encouraged even to the extent of Government involvement. This will serve the purpose of increasing the funds available and spreading the risk over more institutions, allowing a freer policy towards industrial ventures requiring this type of capital. Ways and means will need to be found to allow higher rates of interest to be levied for such ventures, and of increasing individual involvement e.g. by allowing venture capital investments to qualify for tax relief in the same way as investment in public companies.
- 6.13 For development capital, the present operation of the Cyprus Development Bank should be reviewed to ascertain whether the present organisation and structure is capable of supporting development in the manner of a typical development bank.

B. Promotion

- 6.14 The other areas of promotion, that is other than direct promotion are widely spread and may benefit from a greater degree of liaison

and co-operation. As an initial step, the control of external consultants should be exercised by a formal link between the Extension Service of the Ministry, and the Industrial Training Authority, whereby the need and required level of expertise of external consultants is established before application is made to the Planning Bureau. Where it is evident the aid-agencies are unlikely to be able to provide the level of expertise needed, most usually due to budgetary constraints, and especially where the expertise is urgently required, the ITA should be sympathetic in helping to recruit and pay for the expertise in the overall interests of obtaining the very best available.

6.15 As noted, improvement to the promotion system as regards attraction of foreign investment, investors guide, export promotion and the greater involvement of technology are on-going or are planned. Nevertheless, the desirability of a positive link between technology and the identification process should be recognised and a more attractive package of incentives offered for exports and the introduction of new technology - the examples of Israel and Singapore should be examined.

6.16 The proposal for "incubator units" as part of the system of industrial estates should be examined further, ideally by a visit to established units in Israel.

6.17 Although it has not been possible to present analysis of how selected countries have approached investment identification and promotion, there is in any case no way of judging from the bare outlines the efficacy of these systems. Two officers, one from the Planning

Bureau and one from the Ministry, should undertake a study tour of, say, three selected countries to see at first hand how their systems operate in practice, the difficulties encountered and how these have been overcome on the basis of learning from the mistakes and successes of others. This study tour should be of great value to the eventual success of the proposed system in Cyprus. The attention of UNDP/UNIDO is drawn to this recommendation. The "incubator" system operating in Israel should be included in this study tour as should a first-hand analysis of the efficacy of incentives offered to exports and to technology development.

- 6.18 UNDP/UNIDO should consider the possibility of providing short-term specialized consultancies to help in the establishment of the Centre (the likely areas are detailed in the Summary to Section 5).
- 6.19 Where the senior officers appointed to undertake the work of the centre are not fully conversant with the type of work involved in establishing comparative advantage, a short course should be arranged at an institution where specific assistance can be given to inform the officers of the latest practice and theory.
- 6.20 This report offers a framework of proposals for improving the present system of identifying and promoting industrial investment. Within this framework and given the acceptance of the main proposals, the fine detail relating to an Advisory Board, staffing, and other operational matters may be best determined by convening a seminar comprising a similar cross-section of the industrial sector as used in the project. If necessary a small working committee can be set-up to finalise detail.

Table 1
Annex I

Growth rate of selected manufactures

	<u>1963 - 1973</u>	<u>1973 - 1981</u>
Textiles (321)		
Cyprus	13.4	7.2
Singapore	20.0	0.4
Israel	9.0	2.5
Rep. of Korea	26.8	15.3
Wearing Apparel (322)		
Cyprus	10.4	13.2
Singapore	19.4	1.3
Israel	15.8	4.1
Rep. of Korea	23.1	18.7
Footwear		
Cyprus	6.4	20.1
Israel	0.9	4.3
Spain	9.0	8.0
Rep. of Korea	16.0	19.3

Source: Year book of
Industrial Statistics
1984 - UNIDO

Table 2.0

ANNEX I

Domestic Exports
Percentages of value

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Agricultural products	22.8	21.9	26.2	22.7	25.5	22.3
Minerals	4.9	4.7	3.1	2.4	1.5	2.2
Industrial products	72.1	73.2	70.5	74.7	72.8	75.2
of which: Agricultural	11.4	10.0	12.3	12.4	11.1	11.4
Mineral	0.5	0.6	0.6	1.0	1.0	1.1
Manufactured	60.2	62.6	57.6	61.3	60.7	62.7
Other n.e.s.	0.2	0.2	0.2	0.2	0.2	0.3
TOTAL	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
	=====	=====	=====	=====	=====	=====
	<u>1973</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>		
Total exports of % of GNP	17.8	22.7	28.1	20.0		

Source: Statistics of
Imports & Exports
Department of Statistics

Table 2.1

ANNEX I

Domestic exports					
Value index 1979=100					
	1981	1982	1983	1984	1985
Agricultural products	117.1	137.9	112.2	168.9	143.3
Minerals	152.6	154.9	160.3	144.6	129.4
Industrial products					
agriculture base	115.4	115.7	120.0	129.5	126.8
mineral base	175.4	198.8	147.8	142.5	93.0
manufactured base	131.2	128.3	135.7	138.6	123.0
TOTAL	133.0	130.0	127.9	142.3	136.4
Terms of trade (1973=100)	91.2	88.1	85.2	87.3	84.0

Source: Statistics of
Imports & Exports
Department of Statistics

Table 2.2

ANNEX I

Domestic Exports

Industrial products making-up
more than 1% in value of total
exports

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Clothing	20.4	16.1	21.3	26.3	24.9
Footwear	8.4	8.1	8.8	7.5	8.4
Paper products	5.1	4.6	3.0	3.0	3.7
Electrical access	0.3	1.3	1.6	1.4	2.7
Travel goods	2.4	1.6	1.7	1.8	2.5
Water pumps	2.1	1.5	1.9	1.5	2.4
Cigarettes	4.6	4.6	3.3	2.0	2.4
Metal manufactures	1.6	0.9	1.5	1.1	1.4
Total above	44.9	38.7	43.1	44.6	48.4
Other exports	<u>55.1</u>	<u>61.3</u>	<u>56.9</u>	<u>55.4</u>	<u>51.6</u>
TOTAL	100.0	100.0	100.0	100.0	100.0
	=====	=====	=====	=====	=====

Source: Statistics of
Imports & Exports
Department of Statistics

Table 2.3

ANNEX I

Exports as a percentage of gross output

Selected manufactures

ISIC CODE		1980	1981	1982	1983
55	Essential oils & perfumes materials	31.5	33.3	29.8	33.0
63	Wood & cork products	12.7	16.9	19.7	6.0
64	Paper & paper products	59.8	70.5	64.0	42.7
65	Textiles	25.6	22.2	24.1	18.2
66	Non-metallic mineral products	36.0	34.5	33.2	26.6
69	Metal products	9.3	20.0	9.0	13.3
83	Travel goods	76.1	93.8	67.3	57.6
84	Clothing	52.9	60.9	47.4	49.7
85	Footwear	65.0	68.2	68.7	63.4
	Gross output represented above as % total manufacturing goods output	51.1	49.9	49.4	48.5
	Exports represented above as % of total industrial exports of manufactured origin	80.6	81.2	79.4	65.3

Note: 1. The comparison of gross output values with exports values is useful as a guide to trends only due to differences in prices of export goods from prices making-up gross output

2. Rough estimates indicate that about 27% of manufactures gross output was exported in 1984 (Gross output=£623.8:

Exports of
manufactur. =£169m)

Source: Industrial Production
Survey of 1983:
Statistics of Imports
& exports 1981-1983
Department of Statistics

Table 2.4

ANNEX I

Export diversification

	No. commodities ^{1/} exported		Diversification ^{2/}	
	1970	1981	1970	1981
Cyprus	49	91	0.805	0.719
Singapore	159	174	0.606	0.529
Rep. of Korea	122	153	0.736	0.650
Hong Kong	108	123	0.781	0.762
Japan	166	163	0.431	0.520

1/ Number of commodities at the 3-digit SITC level with value more than \$50.000 in 1970 and \$100.000 in 1982

2/ A measure of the deviation from world export structure of each country's share on a scale 0 to 1.0; the lower the number the higher the diversification

Source: UNCTAD Handbook 1984

EXPORTS

Percentage of world exports
made up by selected products

CYPRUS - 1982

<u>SITC</u>	<u>Product</u>	<u>% of world exports</u>
841	Clothing	0.22
851	Footwear	0.29
642	Paper products	0.36
661	Cement & building products	0.61
122	Tobacco Manuf.	0.51
632	Wood manf.	0.32

Source : UNCTAD Handbook 1985

MANUFACTURES

Labour costs as a proportion of Gross Output
and Value added 1976-1983

(£m) -	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Gross output	160.6	207.9	245.3	308.8	389.9	473.9	516.6	558.3
Value added (ton)	55.0	73.0	90.6	109.3	132.7	154.8	174.6	188.0
Labour costs	23.0	31.1	41.4	54.3	70.2	86.6	100.8	112.0
<hr/>								
(percentages)								
Labour cost/gross output	14.3	15.0	16.9	17.6	18.0	18.3	19.5	20.1
Labour cost/value added	41.8	42.6	45.7	50.0	52.9	55.9	57.7	59.5

Source: Industrial Production Survey 1983
Department of Statistics

Table 4.0

ANNEX I

	Value added per employee	Wages per employee
	(000 US\$)	(000 US\$)
<u>Wearing apparel</u>		
(ISIC 322)		
Cyprus	7.5	2.9
Italy	19.0	8.1
Israel	10.5	4.9
Singapore	5.3	3.1
Hong Kong	6.5	2.9
S. Korea	5.5	2.2
Philippines	1.7	0.7
Indonesia	0.9	0.5

Date mainly for 1980

otherwise 1979

Source: Year book of
Industrial
Statistics -1984
UNIDO

Table 4.1

ANNEX I

	Value added per employee	Wages per employee
	(000 US\$)	(000 US\$)
<u>Footwear</u> (ISIC 324)		
Cyprus	8.2	4.2
Italy	18.5	7.8
Israel	15.7	7.1
Singapore	6.6	3.5
Hong Kong	6.8	4.3
S.Korea	5.8	2.7
Philippines	1.6	0.7
Indonesia	3.5	0.7

Data Mainly for 1980
otherwise 1979

Source: Year book of
Industrial
Statistics
1984 - UNIDO

Table 4.2

ANNEX I

	<u>Value added per employee</u>	<u>Wages per employee</u>
	(000 US\$)	(000 US\$)
<u>Paper & paper products</u>		
(341)		
Cyprus	15.2	5.2
Italy	34.3	11.8
Israel	24.0	9.7
Singapore	11.1	4.7
Hong Kong	9.2	4.6
Rep.of Korea	11.3	3.9
Philippines	10.7	1.5
Indonesia	4.3	1.0

Source: Year book of
Industrial statistics
1984 - UNIDO

Table 4.3

ANNEX I

	<u>Value added per employee</u> (000 US\$)	<u>Wagers per employee</u> (000 US\$)
<u>Textiles (ISIC 321)</u>		
Cyprus	8.4	3.4
Israel	15.7	8.0
Italy	23.1	9.2
Janpan	20.5	8.5
Singapore	8.1	4.1
Hong Kong	8.0	4.1
S.Korea	7.7	2.7
Philipinnes	3.1	1.0
Indonesia	1.8	0.5

Date mainly for 1980
otherwise 1979

Source: Year Book of
Industrial Statistics
1984 - UNIDO

Table 5

ANNEX 1

Domestic Exports

By main destination

(Percentages of value)

Industrial products of manufacturing origin

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>Jan. 1985</u>	<u>Jan. 1986</u>
Arab countries	65.9	75.2	69.2	71.5	55.2
EEC	25.6	18.2	20.9	20.7	36.6
EFA	5.7	4.0	5.6	3.7	4.3
EFTA	-	0.3	0.4	0.2	0.7
Other	2.8	2.3	3.8	3.9	3.2
TOTAL	<u>100.0</u> =====	<u>100.00</u> =====	<u>100.0</u> =====	<u>100.0</u> =====	<u>100.0</u> =====
Value (£ m)	110.3	141.8	125.0	9.4	7.5

Source: Statistics of
Imports & Exports
Department of Statistics

Table 6

ANNEX I

Number of employees
per establishment

1980

	<u>Wearing Apparel</u>	<u>Footwear</u>
Cyprus	5.7	17.7
1. Japan	19.0	19.5
2. Singapore	72.6	27.6
3. Hong Kong	28.7	14.0
Average of 1-3	22.4	18.8

Source: Year book of Industrial
Statistics UNIDO 1984

List of representatives from the Industrial Sector

Ministry of Commerce and Industry

Mr. M. Michaelides - Minister

Mr. P. Koutourousis - Director Industry

Mr. C. Hadjiconstantinou - Senior Industrial Officer

Mr. I. Papadopoulos - Senior Industrial Officer

Mr. A. Petrondas - Director Commerce

Planning Bureau

Mr. I. Aristidou - Director General

Mr. A. Malaos - Director of Planning

Mr. Ch. Karletides - Senior Planning Officer

Financial Institutions

Mr. A. Patsalides - Governor, Bank of Cyprus

Mr. C. Mylonas - Director, the Cyprus Popular Bank Ltd

Mr. A.P. Aloneftis - General Manager, CISCO

Mr. Y. Iacovou - Assistant Manager, Central Bank

Mr. A. Hadjichristodoulou - Manager, Bank of Cyprus

Mr. J. Ioannides - General Manager, CDB

Mr. A.I. Stematis - Analyst, CDB

Mr. D.E. Costa - Analyst, CDB

Other Institutions

Mr. P.G. Karis, Cyprus Chamber of Commerce

Mr. A. Pierides - Director General, Employers and Industrialist Federation
Mr. H. Constantinou - Director, Cyprus Productivity Centre
Mr. C.A. Constantinides - Industrial Training Authority
Mr. G. Christodoulides - Director, Higher Technical Institute

Private consultants

• Mr. N. Vassiliou - Managing Director, Project Consultant
Mr. S. Constantinou - Director, Proplan
Mr. Y.P. Fessas - Director, Proplan
Mr. M. Zampelas - Managing Partner Coopers and Lybrand/Ioannou Zampelas & Co.

Industrialists

Mr. A. Christodoulides - Managing Director, Trikosa Knitwear Ltd
Mr. E. Georgiades - Managing Director, Synek Ltd
Mr. A. Vouranis - Managing Director Sunny Face Ltd
Dr. L.E. Aristodemou - General Manager, Metalco Heaters Ltd
Mr. C. Partassides - General Manager, Alfa Shoes Ltd

External representatives

Mr. Robert Friel, Commercial Attache, American Embassy
Mr. Karl Schiage, Commercial Attache, Embassy of FRWG
Mr. Peter Fischer, Regional Representative, GTZ

Loans and Advances to Manufacturers
(outstanding at year-end)

(a) Commercial Banks						
(£m)	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Total	389.0	446.9	526.1	593.0	672.1	776.1
of which:						
Manufacturing	<u>108.6</u>	<u>129.1</u>	<u>152.4</u>	<u>168.2</u>	<u>197.6</u>	<u>214.6</u>
% Manufacturing	27.9	28.9	29.0	28.4	29.4	27.7
(b) Other Financial Institutions ^{1/}						
Total	63.5	67.8	72.2	72.8	81.0	90.5
of which:						
Manufacturing	<u>9.5</u>	<u>10.2</u>	<u>10.8</u>	<u>9.5</u>	<u>9.4</u>	<u>10.6</u>
% Manufacturing	14.9	15.0	15.0	13.0	11.6	11.7
(c) Commercial Banks and OFI's						
Total	452.8	514.7	598.3	665.8	753.1	866.6
of which:						
Manufacturing	<u>118.1</u>	<u>139.3</u>	<u>163.2</u>	<u>177.7</u>	<u>207.0</u>	<u>225.2</u>
% Manufacturing	26.1	27.1	27.3	26.7	27.5	26.0
(d) Cyprus Development Bank						
Manufacturing	<u>8.4</u>	<u>9.0</u>	<u>9.5</u>	<u>8.5</u>	<u>8.4</u>	<u>9.6</u>
% of all L & A						
to Manufacturing	7.1	7.2	5.8	4.8	4.1	4.3

N.B. This is only one indication of the impact of the CDB on the manufacturing sector and between 1974-1982 the CDB disbursed some £12.0 m for investment in manufacturing, equivalent to 7% of total fixed investment.

Source: Central Bank Bulletin and
Cyprus Development Bank

^{1/} Cyprus Development Bank
Mortgage Bank of Cyprus
Lombard Banking (Cyprus) Ltd
Housing Finance Corporation

List of projects eligible for finance through the Fund for
Financing Priority Projects

1. Manufacturing:
 - i) Construction, completion or improvement of factories and other industrial buildings for productive purposes.
 - ii) Purchase of industrial machinery and capital equipment for productive purposes.

2. Tourism:
 - i) The erection, extension or renovation of any type of hotel or hotel apartment on hill resorts.
 - ii) The renovation, improvement and/or upgrading of existing hotels and hotel apartments in all areas.
 - iii) The set up of supplementary activities that would provide opportunities for entertainment and other activities to tourists.
 - iv) The creation of camping places.
 - v) Hotels/hotel apartments; in cases where partial extension accompanied by improvement and/or upgrading will enable a loss-making tourist unit to become profitable.

3. Agriculture: All agricultural projects, including the purchase of livestock for animal husbandry but excluding the purchase of land

4. Construction and Housing:
 - i) Purchase of a flat/house or erection of a house for self-residence upto a maximum of £18,000, provided that the actual cost per unit does not exceed £30,000. Such loans should be available only to first-time owners and must be considered on the basis of family units.
 - ii) Investments leading to mechanization in the construction sector.

5. Transport and Communications: Investments in public transport.

6. Energy Saving Projects: Such as installation of solar heaters, home insulation etc.

7. Studies on energy projects

8. Drilling of a borehole in house yards

9. Acquisition of new technology equipment for phototypesetting and offset printing for the erection of the necessary printing installations

10. Acquisition of computers

11. Educational ventures to attract foreign students

Terms of Reference for
Industrial Opportunity Study

Status - The study was begun in September 1985 by the Industrial Development Unit (IDU) of the Commonwealth Fund for Technical Cooperation (CFTC) with a part sub-contracted to the Cyprus Development Bank (CDB). Phase I has been completed and discussions between IDU and the Ministry are ongoing.

Main Purpose

- (a) Study and report on the existing industrial structure and suggest remedial measures leading to new investment, product improvements, diversification into new products, horizontal or vertical integration etc.;
- (b) Examine available natural resources and identify particularly export oriented industries, which may be technologically feasible to be established in Cyprus;
- (c) assess local and export demand on the basis of market surveys or otherwise for specific manufactured goods, which present export potential for Cyprus;
- (d) identify, on the basis of (a), (b) and (c) above, those projects which may be taken-up by Cyprus for immediate implementation.

Methodology Suggested

Phase I

- (a) Examination of the characteristics of Cyprus industry, including structure, technology markets (2 man-weeks);
- (b) Evaluation of the resources available on the island, including materials energy, water and woman (3 man-weeks);
- (c) Evaluation of the capabilities and conditions relevant to industry in Cyprus, including existing industry, available capacities, infrastructure, services and incentives (4 man-weeks);
- (d) Evaluation of trade in relevant export markets, primarily Europe, and secondarily the Middle East. This component should include a product dimension and a country dimension (4 man-weeks).

Phase II

All the information collected from the investigation in Phase I should lead to the determination of the criteria on the comparative advantage in Cyprus on which project ideas can be based. Such ideas can be separated into 3 broad categories;

- (a) new types of projects;
- (b) integration (horizontal and vertical) and re-cycling/use of waste and by-products;
- (c) up-grading processes and products in existing industries.

The following would be considered:

- trends in world markets
- location
- consumer/industrial goods
- finished/semi-finished
- energy requirements
- raw material availability and cost
- labour requirements (availability, productivity, lost)
- minimum scale of production
- local demand/exports
- level of technology
- capital/labour intensity
- level of standardization of production
- research and development requirements
- degree of integration with other production
- economic planning priorities

(2 man-weeks)

Phase III

Application of the criteria of Phase II should lead to a list of potentially viable projects. For each of these projects, a profile would be prepared including: market analysis, technology analysis, financial analysis and economic analysis.

The next step would be to select the most promising projects and determine the requirements for full feasibility studies.

(8 man-weeks)

Full feasibility studies will be covered under the next stage which can follow immediately on completion of Phase III.

Source: Letter from
Planning Bureau
dated 9 April 1985

Industrial Incentives in
selected countries ^{1/}

Grants

Tax incentives
& allowances

- | | |
|----------------------|---|
| Republic of
Korea | <ul style="list-style-type: none">- 5 year tax holiday- 50% tax yrs 6-8 |
| Singapore | <ul style="list-style-type: none">- 5 to 10 yr tax holiday- Accelerated depreciation
for R + D- Export profits 90% free- 50% of investment in
approved projects deductible- Double deduction from tax-
able income for R + D |
| Taiwan | <ul style="list-style-type: none">- 5-year tax holiday- exports exempt from turn-
over tax- Accelerated depreciation
as alternative to tax holiday- Max. tax of 22% for high
technology industries- Duty free import of machinery
for gratifying industries |

1/ The full list of incentives available in Cyprus is shown in the
Guide to Investors

Industrial Incentives in
selected countries^{1/}

Grants

Israel	<ul style="list-style-type: none">- 5 year tax holiday- Twice normal depreciation rates	<ul style="list-style-type: none">- cash grants from 3-10%- Export grants upto 24% sales- 50% R + D expenses- loans for development projects
Greece	<ul style="list-style-type: none">- capital allowance upto 150%- corporation tax 43½% instead of 48½%	<ul style="list-style-type: none">- 50% (regional)- 50% of interest payments- export allowance of 2%-3%
Ireland	<ul style="list-style-type: none">- tax holiday for exports 1981-1990- accelerated depreciation- manufacturing pays 10% until year 2000	<ul style="list-style-type: none">- for fixed assets- training- energy conservation- R + D- employment subsidies

CFTC/44

JOB DESCRIPTION

Post Title: Consultant on Institutional Development for
the Transfer of Technology

Duration: 3 months

Date Required: August 1986

Duty Station: Nicosia, Cyprus

Responsible to: Permanent Secretary, Ministry of Commerce
and Industry

Background Inform-
ation:

One of the objectives of the Fourth Emergency Economic Action Plan is the restructuring of the economy with emphasis on the modernisation of industry, both technologically and structurally, in order to overcome increasing international competition. The development strategy of the Plan depends largely on capital intensive, high technology industries that will manufacture products to meet export market requirements both in terms of quality and price.

In view of this, it is expected that during the implementation period of the plan, industry will have a vital role to play in the development effort. Consequently, the technological needs of the economy will be intensified and more effort will be required for (i) the modernisation of existing industries, (ii) the automation of production stages, (iii) establishment of industries that are sophisticated and automated and (iv) rational organization of the production processes.

For these reasons, the need arises to establish/strengthen certain industrial services designed to cater to and expedite the industrialisation process and in particular those related to technology development and the identification and promotion of industrial opportunities. More specifically it would be necessary to:

- (1) identify areas where industrial projects of high capital and technological intensity may be undertaken and prepare relevant technical studies on such projects;
- (2) have access to current information regarding technological improvements and advances and create a basic data bank on such sources;
- (3) provide extension services to Cypriot industrialists on such matters as the size of projects, technological alternatives available etc; and
- (4) engage in some sort of applied research on how technology can be adapted to meet the specific needs of Cyprus.

Duties:

The consultant will be attached to the Ministry of Commerce and Industry but will be expected to work closely with the Planning Bureau, the Higher Technical Institute and the Cyprus Development Bank. The main objective of the assignment is to advise on the relevant institutional arrangements for the promotion of research and development work on local technology and on the selection, adaptation and introduction of imported technology appropriate to the needs of Cyprus.

The consultant will more specifically be required to:

- (1) review and assess the present technological level of manufacturing industry in Cyprus in order to identify gaps, limitations and deficiencies;
- (2) review existing methods of technological transfer, the appropriateness of technology and the effectiveness of the transfer with a view to increasing capabilities for adapting imported technologies, creating contacts with foreign firms, promoting Cyprus joint ventures, exploring the availability of licensing, technical know-how agreements and marketing arrangements;
- (3) disseminating among Cypriot entrepreneurs technical information to upgrade existing units and set up new ones; and
- (4) suggest appropriate policy measures for the development of technology in Cyprus.

Qualifications:

Appropriate academic qualifications and wide field experience.