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*UNIDO Programme for the
Promotion of Industrial Subcontracting
and Partnership*

Report of the Programme Evaluation*

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* This document has not been edited

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List of Acronyms

<i>CESMA</i>	<i>Centro Servizi Meccanica per l'Agricoltura</i>
<i>EU</i>	<i>European Union</i>
<i>INTIB</i>	<i>Industrial and Technological Information Bank</i>
<i>IPS</i>	<i>Investment Promotion Service</i>
<i>LAN</i>	<i>Local Area Network</i>
<i>RIOST</i>	<i>International Network of Subcontracting, Industrial Co-operation and Partnership Organizations</i>
<i>SME</i>	<i>Small and Medium Enterprise</i>
<i>SPX</i>	<i>Subcontracting and Partnership Exchange</i>
<i>UNIDOSS</i>	<i>UNIDO Subcontracting System</i>

S U M M A R Y

Conclusions

1. Industrial subcontracting at national and international level plays an indisputable role in industrial development. However, minimum conditions should exist in the country to sustain viable subcontracting arrangements. Subcontracting does not occur naturally to the intensity desired. Therefore, promotion of the subcontracting concept needs to be undertaken. The establishment of an agency to undertake this promotion sometimes together with other functions is the instrument utilized by developed countries. In developing countries experience has shown and it is validated by the evaluators that the best institutional approach to promote subcontracting is the establishment of an SPX (Subcontracting and Partnership Exchange), as advocated by the UNIDO programme. The programme under evaluation is, therefore, relevant.

2. In total, approximately US\$ 6.3 million of technical co-operation funds have been spent since 1984 on the programme. As a result of the programme 41 national SPXs were established, a number of methodological documents were prepared and regional networking among SPXs was established in Latin America. However, some SPXs ceased to operate after some time (22% of cases). In spite of the number of methodological documents prepared under the programme, a consolidated manual on the methodology, operational procedures and organizational aspects has not been available so far. However, a comprehensive Guide for the Establishment and Operation of SPXs is being finalized.

3. An association with a chamber of industry/commerce seems to be the most desirable institutional setting for an SPX provided it has operational autonomy, an association with or integration in a Ministry can hardly work. In the absence of a guide, the UNIDO Subcontracting System (UNIDOSS) and software with its user's manual and the nomenclature play the central role in instituting common approaches and standards in the whole programme. All the SPXs installed the software UNIDOSS. However, only a few SPXs are using all database management potential (functions) of UNIDOSS and some SPXs are not using the software at all. All SPXs are focused on the metalworking industry; most cover also the plastic and rubber and the electric-electronic industries. In most cases the SPXs are financed wholly or to a great extent through subsidies. Only in a few cases the SPXs manage to cover a larger part of the operational costs by the income generated through membership or service fees.

4. Most of the inquiries made to SPXs are generated either through participation at fairs or through personal contacts. The participation of SMEs in public procurement programmes is relatively low in developing countries. The ultimate indicator of achieving the purpose of establishing and operating an SPX is a contract resulting from the matchmaking activities. Unfortunately the SPXs do not have a comprehensive record of contracts resulting from their matchmaking facilities. The impact of the SPXs in terms of the total value of subcontracting really undertaken, while seemingly positive, cannot be quantified exactly because the companies are often reluctant to provide this information. However, several important contracts reported by some enterprises and the SPXs show that impact exists. Isolated figures provided by the Exchanges show that business results achieved through the intervention of the SPXs are quite impressive, particularly through the participation at fairs (see boxes in text). The impact of subcontracting supported by the SPXs can also be inferred from other benefits reported by the visited companies.

5. The sustainability of the programme can be measured by the survival of the SPXs (32 SPXs are operating out of 41 established) and their capacity to generate subcontracting work. The SPXs assisted by UNIDO under the programme show all ranges of sustainability, from SPXs closed down because minimum criteria were not met, to SPXs with established business and financing. Sustainability of the SPX depends on their ability to generate subcontracting business and thus convince public authorities and the private sector to finance their operations through an appropriate formula while keeping a minimum degree of autonomy.

The programme was managed by one backstopping officer with a strong methodological support of a relatively constant group of experts. This contributed to a considerable steadiness of the concepts. On the other hand experience of some other countries (such as Japan and the USA) was not transferred through direct involvement of consultants from those countries. Within UNIDO the need to co-ordinate the programme with other programmes has been recognized but actual co-ordination/co-operation has been marginal.

UNIDO, in addition to its longest experience in the subject - over 25 years - and multilateral character with access to various sources of expertise is well-poised to provide technical assistance on this subject. The programme focus for 1996-97 as outlined by the UNIDO concept papers on the seven thematic priorities (paragraphs 23 to 29) can, in principle, be endorsed by the evaluation findings.

Recommendations

6. The UNIDO programme on subcontracting and partnership should be pursued and merits adequate funding both for headquarters support (Regular Budget) and for technical assistance activities.

7. It is recommended that the UNIDO programme distinguishes between SPXs at different levels of development. As a rule, newly established SPXs should be supported by the Programme to develop and consolidate the core subcontracting functions (promotion and matchmaking). Well established and successfully operating SPXs should be encouraged and supported to engage in more sophisticated activities to meet the challenge of the following trends:

- co-makership/partnership
- industrial districts or clusters (in a geographical area)

The programme should also observe the evolution of the information technology to exploit its potential not only for the promotional activities but also for facilitating the contractor-subcontractor communications. The SPXs should assist in developing and/or applying policies in favour of subcontracting and related subjects such as the participation of SMEs in public procurement and bidding programmes. It is recommended that other experiences, such as the Japanese approach to subcontracting should be analyzed and integrated in the UNIDO programme.

8. The SPX programme should be expanded to a number of recipient countries as indicated in the report. However, an SPX should be only established when all necessary conditions are met, that is:

- a) the existence of a potential subcontracting market in the country;

- b) the existence of potential stakeholders who share the constitutional principle of the SPX operation;
- c) a potential to create a capable and sustainable institution.

If such conditions are not met during preparatory activities, the SPX should not be established.

9. The evaluation recommends strongly that the staff of SPXs have an engineering background and business promotion approach and have a remuneration compatible with the private sector.

10. The public subsidization of the Exchanges, through general or specific taxation, obviously in different degrees in accordance to the country, should be accepted. National subcontracting needs to be given increased attention by the SPXs. The Exchanges should increase their activities with the main national contractors in order to stimulate demand. The organization of national fairs and subcontracting journeys either for large single contractors or individual sub-sectors should be encouraged to make known the demand for subcontracting services in the country and to establish contacts.

11. The role of SPX in stimulating participation of SMEs in the government procurement schemes should be enhanced. Monitoring of matchmaking, despite the difficulties it entails, should be pursued by the SPXs. On the UNIDOSS software updating it is recommended to concentrate the updating to the most used functions of the system.

12. When finalizing the Manual the comments on its contents as presented in Annex 7 should be considered. An overriding principle when establishing the Manual should be a judicious separation of what are immutable principles and practices and what should be adapted to local conditions.

13. The creation of the UNIDOSS Club should be pursued; however, a number of issues as stated in the report should be attended to.

14. Support to subcontracting and partnership at country level should be designed and implemented preferably in co-operation or, at least, with due consideration of various country programmes targeted at competitiveness of SMEs. Linkages should be established in particular with activities and supporting programmes in the field of quality management, technology information and investment and export promotion. Whenever possible, UNIDO support to subcontracting should be offered as a part of a programme consisting of a package of services available under the priority programme components Quality Management, Technological and Investment Information, Investment Promotion and Technology Promotion (besides the "Networking of SMEs").

1. INTRODUCTION

1. Industrial subcontracting at national and international level play an indisputable role in industrial development through the strengthening of the industrial fabric. Subcontracting, supply and partnership relations between industries of various types and sizes, especially between large and small enterprises, constitute a feature of every modern industrial economy. Industrial subcontracting and similar forms of linkages between small and large industries are also important for the development of the SMEs that act as subcontractors or suppliers. There is a strong correlation between the level of economic development and the size of the subcontracting and supply market in a given country.

2. UNIDO, since its inception, has promoted with various intensities and mechanisms national and international subcontracting. The concept evolved as explained in Chapter 3. In more recent years, a more structured approach to this matter was adopted by UNIDO through the launching in 1984 of a "*special programme for the promotion of industrial subcontracting and partnership*". This programme is essentially operationalized through the provision of technical assistance for the establishment and development of subcontracting and partnership exchanges (SPXs) at country level.

3. One of the large scale projects (US/RLA/89/089) of the programme foresaw an in-depth evaluation. Furthermore, the Director-General decided at the end of 1995 to launch an in-depth evaluation of the programme as a whole. It only made sense to combine both exercises.

4. An Advisory Committee to the evaluation was established with representatives of the UNIDO's Divisions/Branches/Sections which are concerned by, or have co-operated with the programme. Those units were:

Industrial Co-operation & Consultations Service (ITPD/ICC)
 Feasibility Studies (ITPD/IS/FEAS)
 Engineering & Metallurgical Industries Branch (ISED/EM)
 Technology Service (ITPD/TS)
 Institutional Support & Private Sector Development Branch (HEPD/ISP)
 Investment Service (ITPD/IS)
 Industrial Information Section (IRD/INF)
 Small & Medium Enterprises Branch (HEPD/SME) ¹

The Committee was chaired by the Managing Director of HEPD. The first task of the Committee was to clear the Terms of Reference (TOR) and be informed of the approach to be taken by the evaluation. This took place in November 1995. TOR for this exercise are included in Annex 1. It is expected that the present evaluation shall be of use to the Management of UNIDO and of the programme as well as the participating countries (donors and recipients). Its purpose is not only of accountability but also to provide methodological and operational advice for the future.

5. The evaluation covers the core programme supporting subcontracting and partnerships through SPXs. While it is recognized that projects supporting enterprise-to-enterprise co-operation and investment promotion may also result in subcontracting and partnership arrangements, their focus on international co-operation and different approaches applied (direct support instead of capability building) make these programmes different from the SPX programme. They have been exposed to their own evaluations.

¹ Some of these designations are no longer actual because of the organization adjustments effected in April 1996.

6. The evaluation team was composed of the following members:

Mr. Oscar Gonzalez-Hernandez	}	
Mr. Jaroslav Navratil	}	UNIDO Evaluation Staff
Mr. Mario Marchich	}	
Mr. Vincenzo Ziliotti (Consultant)	}	

7. After the analysis of the documentation prepared under the programme - listed under Annex 2 - and a number of project documents, the Evaluators, in consultation with the Backstopping Officer, selected the countries to be visited. It was decided to visit four regions, namely Europe, Africa, the Middle East and Latin America. The following countries were finally selected to be visited: Argentina, Chile, Jordan, Morocco, Paraguay, Slovakia, Tunisia, Turkey and Uruguay.

8. The consultant assisted subsequently in the development of interview schedules for SPXs, contractors and subcontractors and in the identification of issues to be pursued by the evaluation. A trial visit was made by the Evaluators and the consultant to the SPX in Bratislava, Slovakia, to test the questionnaire and the approach to be taken by the Evaluators when visiting other SPXs. The resulting SPX-related and enterprise-related interview schedules are attached as Annexes 3 to 5. The SPX-related questionnaires were circulated among 32 active SPXs; 22 of them have been returned, sufficiently completed to allow construction of a well quantified picture of the status quo. Some of the data are presented in the graphical form in Annex 8.

9. During the country visits, apart from interviews at the SPXs, meetings took place with public and private bodies associated with the SPXs including one IPS (Istanbul) as well as with selected enterprises (contractors and subcontractors alike). The interviews with end-users (enterprises) provided, as expected, the best information on the effectiveness and impact of the programme. They were also quite useful to build up the conclusions and recommendations of the evaluation.

10. The programme of visits suffered delays because of the non-availability of the managers of the Exchanges due to holiday periods and was prolonged into April. This led to the inability to have the draft report ready by the end of March, as planned. The report in draft was prepared by the Evaluation Staff. The draft received a technical review by a consultant to comment on and validate the technical contents. The report was then presented to the Advisory Committee for factual review in June 1996 and was finally completed by the Evaluators.

11. The filled in questionnaires and interview schedules and the country reports are deposited with the Evaluation Section.

2. TRENDS IN SUBCONTRACTING

12. The concept of subcontracting registered major changes in the last 30 years. A definition of the traditional concept was made in early 1960s, based mainly on the French experience. The subcontracting was defined as "*execution of a client order under the client specification*" where the subcontractor substitutes the contractor partially or totally while respecting completely the contractor's technical specifications. The subcontracting differs from the normal supply because the latter offers standard products, identifiable in a catalogue and available as stock.

13. From the definition of the concept of subcontracting, one could distinguish between the one driven by a lack of production capacity at the contractor's plant, with a temporary character, and the one driven by specific skills owned by the subcontracting firm and not by the contractor. It is mainly the big companies which generate subcontracting activities; the price and quality are decisive for the build-up and continuation of commercial relations.

14. Since the 1980s firms in developed economies, irrespective of their size, have tended to carry out directly only those activities which are considered critical and crucial for the pursuing of their business strategy. The assets linked with non-critical processes are often laid off or scrapped. Those non-critical activities, which are still needed for business, are given to subcontractors. In this new scenario the subcontracting lost most of its "temporary" nature and became a much more stable aspect of the modern industry. Both contracting and subcontracting sectors increase their competitiveness. Subcontracting becomes more and more based on long lasting "partnership" relations between subcontracting and contracting companies. In this context, the Japanese experience became world-wide the reference model.

15. Because of increase of competition on product quality, shortening of product life cycle and to cost pressure, several peculiar aspects could be noted, which transformed the classical relation in a more deep linkage. These are :

- an increasing amount of information and technology is exchanged between the subcontractors and the contractors and among subcontractors themselves;
- subcontractors are involved from the early stages of product design;
- delivery time is reduced;
- more services are delivered with the product;
- reduction of production defects and lead time is a must;
- cost reduction became a common task of subcontractors and main contractors.

16. The following trends could be noted in this process:

- the rate of innovation is speeded up (because of the increasing flow of information among the subcontractors and the contractors, and among the subcontractors themselves);
- an increased trend towards the formation of industrial clusters, or groups of firms, which rely on the same or complementary business;
- a reduced number of suppliers of each main contractor. The subcontracting systems, particularly in certain industries as the automotive sub-sector, seem to revolve on a pyramidal

structure where the car manufacturers rely on a small number of first tier subcontractors, who rely on a large number of second tier subcontractors, and so on.

This new type of relations could be described more effectively with the use of the word "co-makership" in place of the traditional "subcontracting". Sometimes it is also referred to as "partnership", as is the case within UNIDO.

17. The industrial districts, or the so called "industrial clusters" proved to be a successful formula in the economic development of a geographical area. Their distinctive features are:

- geographical concentration;
- specialisation of human and capital resources around a core business;
- growth of a wide variety of capabilities linked with that business.

The level of technology involved is not important. There can be a district specialized on personal computers, lady stockings, chairs or printing equipment. What is important is that, mainly thanks to informal mechanism of the information circulation, the district maintains and improves its world-wide dominance in the specific business; very often developing the full range of competence needed to sustain that business.

18. The industrial districts prove to be more resilient during the downturn of the domestic economy mainly thanks to their very high export ratio. Even if it is not clear today if an economic policy could be designed to nurture the economic districts, it is clear that the high degree of competition among the firms in the district favours the co-operation in creating complementary services, usually structured around subcontracting relations among SMEs or undertaking common projects of technical, promotional or institutional nature.

19. Specific features in subcontracting can be noted in the Central and Eastern Europe, where it has always been applied, though its role in the past was constrained by the framework of long-term production planning. The new economic environment has affected subcontracting in the Central and Eastern Europe in several ways:

- The general reduction of demand for industrial production has resulted in idle capacities in the large and medium scale industry. This has increased the pressure to offer production capacities for subcontracting activities. In view of the limited market in the country, the offers are directed primarily at potential foreign contractors.

Industrial Clusters in Italy

The municipality of Sassuolo (40,000 inhabitants) of the region Emilia Romagna is responsible for 50% of world-wide production of tiles and for 80% of the equipment needed for its manufacture. Specialized professionals in this field such as process engineers and tile designers can hardly be found outside the municipality.

The Treviso province in the Veneto region is said to be responsible for the production of 4 out of 5 of the world's motorcycle boots and 2 out of 3 of its ski boots. The district is also responsible for the production of a wide array of electrical household appliances, furniture, clothing and keys. The province with 744,000 inhabitants has a high density of small firms - 56,000. During 1995 the district was responsible for \$US 7.7 billion worth of exports, almost as much as Greece and the same as the southern regions of Sicily, Apulia, Campagna and Calabria together, which account for 16,7 million inhabitants.

Source: The Economist and CESMA

- Splitting large companies in a number of smaller companies has increased the density of inter-enterprise relations, including subcontracting.
- As a result of radical reduction of industrial production, many engineering establishments reduced not only the number of staff but they also closed some production lines and scrapped or sold the equipment. As these companies are no longer in a position to produce what they were capable of manufacturing in the past, this has become a factor supporting subcontracting.
- Given the reduced capacity utilization the companies are in a difficult financial position; there are hardly any financial resources left for technology innovation. This results in increased interest in partnership contracts with firms abroad, in particular in such forms which bring new technology to the local company.
- Newly established small private enterprises seem to be less keen on subcontracting. First, there is a mistrust particularly towards foreign contractors (or their intermediaries) stemming from bad experience of early 1990s (contracts not fulfilled, invoices not paid, etc.). Second, some small companies have their market niche well defined and are not interested in expanding too much as it may bring a risk of losing personal control over the business. However, the number of SMEs interested in subcontracting is growing.

20. Under perfect market conditions which presuppose a perfect dissemination of information, subcontracting, both at national and international level, should occur naturally without outside intervention. However, in the real world and in particular in developing countries, it is not so. Lack of information, of trust, of capabilities hinder the natural development of subcontracting. In developed countries, SPXs often under different names promote this type of co-operation with important public subsidies.

21. The SPX is based on an information handling activity, so that the advances in information technology will have a strong impact on the SPXs future. Today there are 40 million INTERNET users, 200 to 400 million users are estimated for the end of the century. Nowadays, INTERNET is not yet a tool to implement business contracts. For business it is considered as a very up-to-date, last-fashion medium to be used for corporate image advertising. (Mostly all big companies have a home page in World Wide Web. Because of imitation effect the medium and small companies are also increasing their presence). E-mail is a cheaper alternative to fax communication.

INTERNET could become a full-fledged business tool to assist sub-contracting if the following constraints are overcome:

- data security;
- capacity of telecom companies to keep the pace of increasing traffic on the communication line;

Subcontracting to the Limit

An Italian motorcycle manufacturer, established in the Treviso province of Italy, has been able to find a number of market niches from simple scooters to sophisticated motorbikes and is now the fastest growing motorcycle company in Europe. Sales this year will approach \$US 500 million, up from US\$ 100 million in 1992. The interesting thing is that it does not manufacture a single component. It works together with some 150 outside subcontractors of the region. Efforts at the company are concentrated on design, market research and assembly instead on manufacturing.

Source: Business Week

- risk of ignorance because of over-supply of information.

22. If these constraints are overcome and INTERNET becomes a full-fledged business tool, the advances in information technology may result in a declining relevance of some activities performed by the SPX. The SPX activities will have to be adapted to remain relevant. However, information can hardly replace knowledge. Detailed and comprehensive knowledge of the industrial companies, their capabilities and constraints, and of the environment they operate in, will always represent a marketable value.

3. THE UNIDO PROGRAMME

3.1 The Concept

23. In 1968 UNIDO started an international subcontracting programme. UNIDO headquarters was used as a clearing house for requests emanating from contractors in developed countries which were directed to focal points in selected developing countries, which in turn sent them to prospective subcontractors. The programme acquired a certain success but was practically abandoned in 1975 because of UNIDO re-orientations. The programme was revived in 1984 having a wider scope: national and international subcontracting and using as clearing-houses SPXs to be established in the recipient countries. These SPXs act as centers for technical information, match-making and promotion as well as clearing-houses for industrial subcontracting and partnership inquiries and opportunities.

24. To support the programme, UNIDO has developed or is in the process of developing a series of instruments:

- Standard questionnaires/forms for collection of enterprise data;
- Computer programme for database management (UNIDOSS);
- Handbooks and manuals for SPXs operations;
- Subcontracting nomenclature and terminologies;
- Standard statutes for autonomous SPX;
- Legal guidelines and model contracts for establishing subcontracting agreements;
- Guidelines for the organization of subcontracting fairs/exhibits;
- Brochures and videotapes on the subject.

The list of methodological documents developed is in Annex 2.

25. UNIDO subcontracting methodology has been computerized as described in the Note on UNIDOSS - UNIDO Subcontracting System (Document No.15). The database management software now called UNIDOSS (UNIDO Subcontracting System) started to be developed during 1987/88. It was designed to store data on the enterprises (contractors/buyers and subcontractors/suppliers) and to serve the SPXs to facilitate matchmaking. The first design was called UNIS and had several shortages. The first version of the UNIDOSS software was issued in 1991, and included nomenclatures for three sub-sectors (metalworking, plastic, electric and electronic industries). In 1992, the version 1.2 was issued, it adjusted some informative defects. Between 1992 and 1994, the versions 1.2.1 and 1.2.2 were released incorporating new nomenclatures (textiles) and correcting some other minor defects. The last version, presently used, is coded 1.2.3, was issued in 1994 and, besides other small technical improvements, included a revised enterprise questionnaire, a coding for the raw materials according to the new combined nomenclature and a different procedure for the inquiries. All the versions of this first generation of UNIDOSS were able to work only on DOS system and could be accessed only by one user at a time.

26. Since a number of improvements have been proposed in the operations, a more user-friendly version is now being finalized. This version called UNIDOSS V-2.0 has to be considered a new version, because not only it eliminates the defects of the previous version, but also it presents some completely new features, such as the possibility to work in a different operating system (i.e. Windows) and to be used by more than one operator at a time, thanks to its capacity to work on LAN (Local Area Network).

27. Already since the expert group meeting in May 1991, the concept of subcontracting was enlarged to include partnership. Partnership was defined as follows:

"Specialized subcontracting and supply relationships that are supplemented by other forms of co-operation (technical, technological, financial, commercial, management, equipment supply, assistance and training), designed to increase the chances of success and to guarantee stable and lasting relations between the partners, to their mutual benefit. This is often the case of international speciality subcontracting agreements, particularly to provide access to new markets or to new technologies, that are difficult of access in isolation."²

A broader role for the SPXs was recommended to include:

- Technical support (product design, technologies, equipment, innovation);
- Quality management, standardization and certification;
- Commercial promotion (including organization of and/or participation in international subcontracting and partnership exhibitions, as well as market surveys);
- Legal advice (contracts, codes of conduct, reconciliation and arbitration);
- Sectoral/regional analyses;
- Access to funding;
- Advice on fiscal and customs matters;
- Management (rehabilitation, financial management, stock control, etc.);
- Human resource management (training, etc.);
- Certification of subcontractor status (for possible fiscal and customs reliefs).

These functions may be provided directly by the SPXs (in the form of advice, training, awareness seminars, industrial fairs, etc.) or by specialized institutions with which the SPXs co-operate.

28. The expert group meeting of June 1994 had also recommended that "the commercialization of the new UNIDOSS software should be studied (or envisaged) with institutions and enterprises in industrialized countries and, at a preferential rate, with SPXs in developing countries. This would require a targeted market survey". This was conducted in 1995 through questionnaires sent to 60 industrial promotion institutions. Twenty positive responses were received from various European countries and Canada.

29. At the expert group meeting on UNIDOSS in November 1995 the following recommendations were made to UNIDO:

- a To establish a *UNIDOSS Club* - The purpose of this club is (i) to allow all members to network with UNIDO and to have access to a series of UNIDO support services and, (ii) to encourage networking and international industrial co-operation between them and with other industrial promotion institutions world-wide, using common technical terminologies. Thus the Club would become a global sourcing network.
- b To open the membership of the UNIDOSS Club to industrial promotion organizations in *industrialized countries*, besides the SPXs established by UNIDO in developing countries.

²Report on Expert Group Meeting on UNIDO Industrial Subcontracting System (UNIDOSS) and Partnership, HEDI(SPEC) UNIDO of 7 July 1994.

- c. To charge an annual fee for club members of US\$ 300 for developing countries and of US\$ 2000-3000 for industrialized countries.
- d. To charge in addition a membership fee for the first year, equivalent to the amount of the annual fee.
- e. Against payment of these fees and upon signature of a UNIDO license agreement, the new UNIDOSS software and its operating manual would be provided free of charge.

3.2 Project Documents

30. The programme has been implemented through several technical co-operation projects for which separate project documents were prepared and approved (Table 1). Most of the project documents have a strong institution-building component but some others were targeted at direct support to subcontractors in selected countries to develop business linkages with contractors abroad. The institution-building projects at national level had a rather transparent design with well defined outputs to be produced by UNIDO support. However, in some cases the responsibility for establishing the register of industrial companies was not clearly spelled out; the document allowed for visits of industrial companies by the international or national experts instead of assigning this activity primarily to regular SPX staff.

31. The regional institution-building projects were more complex. Some of them included support to the establishment of national SPXs. However, the design of the project did not distinguish between outputs to be produced by the country (example: an SPX) and outputs to be produced by UNIDO (example: methodological tools). As a result, the UNIDO project was responsible also for the establishment of the national SPX, for the establishment of the Co-ordinating Committee, etc.

32. To disseminate the concept of the subcontracting exchange the programme has had strong promotional traits. Promotion of the idea was supported by study tours and participation at international trade fairs. These activities were contained in most project documents but their conduct was not explicitly bound to a positive assessment of a country's readiness to establish an SPX.

33. The direct support projects (such as US/RAB/90/018) indicated quantitative indicators in terms of the number of contracts concluded; in relation to the allocated budget the targeted numbers were rather modest.

3.3 Scope of the Programme

34. While some UNIDO subcontracting activities can be traced back to the late 1960s, the evaluation covers only the period after 1984 when a new concept began to be applied up to the cutoff date of March 1996. In that period 28 projects (see Table 1) were carried out under the programme. (Projects directly supporting enterprise-to-enterprise co-operation and/or investment promotion projects are not included.) In total, almost US\$ 6.3 million were spent on the programme, of which approx. US\$ 2.8 million were financed from contributions to the Industrial Development Fund by Belgium, France, Italy and Switzerland.

35. The financial resources were used primarily to finance consulting services. Study tours including participation at foreign fairs were the second largest input. Because of a large number of study tours and steering committee meetings on the regional projects, a considerable amount of resources was spent on meetings and seminars. Equipment did not represent a significant expenditure item.

**Table 1: List of Projects Implemented under the
Subcontracting and Partnership Exchange Programme**

	<i>Project Number</i>	<i>Status</i>	<i>Expenditure (US\$)*</i>
1	DP/RAB/84/008	C	61,112
2	SI/PER/85/801	C	43,668
3	DP/RAB/86/001	C	632,788
4	DP/TUN/86/008	C	357,298
5	UC/EGY/86/042	C	39,261
6	US/INT/86/299	G	476,766
7	DP/JOR/87/011	G	76,246
8	DP/MOR/87/017	G	428,182
9	UC/IRQ/87/172	C	51,548
10	SI/COL/87/804	C	44,739
11	DP/RAB/89/013	C	401,271
12	US/RLA/89/089	O	1,239,633
13	UC/TUR/89/198	G	115,002
14	DP/KEN/90/014	C	611,555
15	US/RAB/90/018	O	742,925
16	DP/ALG/90/019	C	137,888
17	US/RLA/90/204	O	417,921
18	DP/POL/91/001	O	58,603
19	NT/MOR/92/018	O	14,750
20	SI/TUN/93/801	G	39,897
21	EU/SLO/94/001	O	55,109
22	NC/IND/94/01D	O	66,979
23	XP/GLO/94/129	C	74,869
24	SI/JOR/94/801	O	53,767
25	NC/RAF/95/01D	O	0
26	UC/GLO/95/184	O	18,060
27	XP/GLO/96/129	O	19,016
28	SI/COL/96/802	O	0
TOTAL :			6,278,853

C = Operationally completed project

G = Closed project

O = Ongoing project

* Expenditures are indicated up to

36. Regional and international/global projects used approximately 65% of all financial resources. They included four main components: preparation of methodological documents, promotion of the subcontracting concept in the countries of the region, supporting the establishment of national SPXs (in addition or prior to national projects) and networking of national SPXs in the region. Support to national SPXs under the regional projects might have given the UNIDO programme manager more flexibility in allocating resources to activities supporting individual countries but the top-down strategy might have resulted in spending money on activities for which there was insufficient feeling of national ownership. Under both the regional and national projects, approximately US\$ 3 million were targeted at the Arab countries and US\$ 1.75 million at the Latin American countries.

37. While policy advice to governments is mentioned in some promotional materials and programming documents as one of the services offered by UNIDO, actual implementation of this service was quite limited.

3.4 Linkages with Other Services

38. The Backstopping Officer of the Programme has very conveniently prepared a table under the title "SME partnership network" attached in Annex 6 which relates the SPX programme to other SME's programmes of UNIDO and UNCTAD. This table shows complementarity and *possible* (our underlining) linkages with other UNIDO programmes aimed at SMEs. In fact, such linkages are more possible than factual as observed during the country visits. For instance, linkages to the National Industrial Statistics Service of UNIDO seem to be rather weak. (The only exception: 10 SPXs declared readiness to act as INTIB focal points.) Furthermore, UNIDO does not necessarily have activities in certain fields (investment, enterprise management, to give two examples) in countries where it has assisted in the establishment of SPXs. The opposite is also true. In some cases the services indicated in the table may exist in the country but are not provided with the assistance of UNIDO.

39. The co-operation of the SPXs with other related programmes (either UNIDO-supported or not) is particularly important for:

- enterprise management
- quality management
- technology information
- investment promotion

4. OUTPUTS PRODUCED UNDER THE PROGRAMME

40. In principle, three main (categories of) outputs have been produced:

- a set of methodological documents and standard tools
- national SPXs established and operational
- regional networks of SPXs

4.1 Methodologies and Tools

41. A number of methodological documents (see Annex No. 2) were produced either by individual experts during their assignments (mainly in regional projects) or as a result of expert group meetings. They cover various aspects of subcontracting and have different potential to be used as guidelines: some of them are detailed practical guides on selected activities (such as the standard questionnaire for collection of company data, industrial subcontracting nomenclature, legal guide for subcontracting agreements, organization of subcontracting fairs, etc.), others record deliberations and recommendations of expert group meetings. A model legal statute for autonomous SPX was also prepared and disseminated.

42. While the individual documents contain a lot of valuable information and advice, a consolidated manual on the methodology, operational procedures and organizational aspects has not been available so far. However, a comprehensive Guide for the Establishment and Operation of SPXs has been recently prepared in draft. In the absence of the Guide it seems that the software UNIDOSS and "*The Standard Questionnaire*" have played the central role in instituting common approaches and standards in the whole programme. The model legal statute is far less followed.

43. The methodological documents were prepared with the support of a fairly constant group of consultants. This contributed to a considerable steadiness of the concepts, based primarily on the French, Italian and Spanish experiences. (The SPX is basically a European approach.) On the other hand, experience of some countries (such as Japan and the USA) was not directly used through the involvement of consultants from those countries.

44. Several representatives of international organizations involved in subcontracting (UNCTAD, EU, International Network of Subcontracting, Industrial Co-operation and Partnership Organizations - RIOST) participated at the UNIDO expert group meeting in 1991; this allowed for a highly desirable exchange of information about on-going programmes and activities in the organizations concerned. There is, however, hardly any evidence about follow-up contacts with those organizations.

45. UNIDOSS is the most important tool developed under the programme. It embodies the methodology of conducting SPX activities: the methodology implies collection of company information according to a structured questionnaire, storing of the information in the database and its management which allows for searching of companies, printing of targeted mailing, monitoring of the follow up of inquiries and interventions, etc. The technical information about the manufacturing capabilities of the companies is organized in compliance with standard nomenclatures of products and operations in selected industrial sub-sectors (metalworking, electrical and electronic, rubber and plastic, textile, and industrial services).

Thus, its major benefits are:

- facilitates data collection;
- allows data collection using an internationally proved terminology and set of nomenclatures;

- collects the data using a proved and widely used scheme;
- enforces UNIDO methodology at SPXs operators level;
- reduces the time of database build up, allowing to experience some matchmaking in the early stage of SPX life;
- increases the value of the database because it is recognized according to international standards.
- allows INTERNET exchange of information using the same methods and codes.

It is clear that these benefits are more valuable in the take-off phase of SPXs, which in many cases is the most sensitive moment of the whole SPX life.

46. Though UNIDOSS was initially installed in all national SPXs, as explained below, it is not used by all of them. Some of them use only some functions, 7 out of 22 SPXs (which submitted the questionnaire or were visited by the Evaluators) are not using it at all. Apart from installation problems faced by some SPXs the most common reservations expressed by the SPXs related to insufficient user-friendliness of the software, its inability to be interfaced with commercial software (such as Word, or Excel, etc.) used by many SPXs and its inability to be accessed by more than one user at a time. Furthermore, it has to be noted that UNIDOSS underwent several modifications, generating a number of successive releases. This complicated furthermore the situation generating problems due to the use of old releases.

47. A new version of the software is expected to be finalized within a short time. It is reported to be organized in a more user-friendly manner (easier search, etc.) and the nomenclature will include industrial services. This improvement will probably meet the needs of the SPXs. However, the feedback from the SPXs suggests that most SPXs consider the software as a supporting tool particularly for the matchmaking which should be reliable, easy to operate by any staff of the SPX (not only by an information specialist) and, therefore, not too complex. In the light of the actual UNIDOSS use it is, therefore, questionable to make any efforts to entrust the software with additional functions, such as some of those mentioned in the report on the second expert group meeting (to detect enterprise deficiencies and to propose remedies, to perform technological and quality assessments and to formulate marketing and investment strategies). Some of these tasks are not feasible to be solved by a software, for some of them there will be hardly any demand in the SPXs and the application of a new UNIDOSS version may suffer as a consequence. However, what is contained in the database can be used to undertake, separately, those functions.

Delayed finalisation of the new version has already caused some uncertainty among the SPXs; in fact, a few SPXs have already adapted the current UNIDOSS version or are considering to purchase and customize a commercial data management software such as Microsoft Access.

4.2 National SPXs

48. In total 41 SPXs have been established under the UNIDO programme, 32 of them are operational. SPXs in three more countries (Madagascar, Mauritius, Lebanon) are expected to be established by the end of the year. However, in several countries the inputs provided and the activities conducted either did not result in the establishment of an SPX (Syria) or an SPX was established but its operations were discontinued after some time (see Table 2). In one case (Egypt) the inputs used and the activities carried out to establish the SPX were quite extensive but in spite of that the SPX ceased to operate primarily due to inadequate institutional framework.

49. The level of capabilities developed in each SPX varies, depending primarily on the institutional framework, number of staff and their qualifications, and on application of standard methodologies and tools. These components were critical for the production of the institutional output

(SPX) and its capability. Endowment of an SPX with its own equipment (a car, PCs, etc.) seems to be a less important factor of the SPX capabilities because alternative arrangements can be made to meet minimum hardware requirements (authorization to use personal pool cars; sharing office equipment).

50. As the national SPXs are institution-building outputs of the programme, the description of their quality follows as far as feasible the standard description of institution-building outputs:

i) Institutional framework

51. While there is no generic model for institutional setting of the SPXs established under the programme, some typical features can be noted. In four out of 20 cases the SPXs were established directly or indirectly by a Ministry; however, in the course of time the institutional setting of these four SPXs changed so that only one SPX is at present time still hosted by a Ministry. In most cases the SPXs are integrated in or associated with a non-governmental institution (chamber/association of industry/commerce, an investment or trade promotion agency, etc). In a few cases, they are sort of public or semi-public development agencies.

52. An association with a chamber of industry/commerce seems to be the most desirable institutional setting for an SPX; the SPX activities can benefit from the direct access to representatives of different industrial sub-sectors and groupings who can support the SPX both in organizing promotional activities and in searching for suitable subcontractors. However, in some countries this solution did not prove suitable or could not be implemented due to constraints beyond the control of the SPX.

Japan: Associations for Subcontracting Enterprises Promotion

Subcontracting in Japan is distinguished by the following features:

- *low in-house production rate (in the Japanese car manufacturing industry the rate is 30%, in the USA 50%);*
- *limited number of subcontractors working for one contractor;*
- *long-term basis;*
- *formation of co-operative societies;*
- *participation of subcontractors (part makers) in product development.*

Subcontracting is regulated by the "Law on the Prevention of Delay in Payment of Subcontracting Charges and Related Matters" the implementation of which is monitored by the Fair Trade Commission.

In each of the 47 prefectures there is an "Association for Subcontracting Enterprises Promotion". Their main functions are:

- *doing good offices for subcontracting transactions;*
- *counselling about complaints or disputes or arbitrating;*
- *conducting surveys for the promotion of subcontracting.*

Within each Association there is a Claims and Disputes Settlement Committee. Almost 30% of subcontracting SMEs are registered with the Associations (free of charge).

The Associations are financed by subsidies of the Japanese Government and the Prefectural Government. On average, an Association has 9 staff members and advisors and records more than 500 mediations and 130 contracts annually.

The National Association for Subcontracting Enterprises Promotion has worked out a prototype of a basic dealing contract. It is also heavily engaged in training contractors on subcontracting practices.

Source: Q & A on Subcontracting Enterprises, National Association for Subcontracting Enterprises Promotion, March 1993

**Table 2 : List of Countries Covered by
the Subcontracting and Partnership Exchange Programme**

	<i>Countries Benefiting from the Programme</i>	<i>Number of SPX(s) Established</i>	<i>SPX(s) Currently Operating</i>	<i>Questionnaire(s) Available</i>
1.	Algeria	2	2	-
2.	Argentina	3	3	Yes (2)
3.	Bolivia	2	2	Yes (2)
4.	Brazil	2	2	Yes (1)
5.	Chile	1	1	Yes (1)
6.	Colombia	4	2	Yes (2)
7.	Costa Rica	1	1	-
8.	Cuba	1	1	Yes (1)
9.	Ecuador	1	1	Yes (1)
10.	Egypt	1	-	-
11.	Guatemala	1	1	Yes (1)
12.	Iraq	1	-	-
13.	Jordan	1	1	Yes (1)
14.	Kenya	1	-	-
15.	Lebanon	-	-	-
16.	Madagascar	-	-	-
17.	Mexico	7	5	Yes (2)
18.	Morocco	1	1	Yes (1)
19.	Paraguay	1	1	Yes (1)
20.	Peru	3	2	Yes (1)
21.	Poland	1	1	-
22.	Slovakia	1	1	Yes (1)
23.	Syria	-	-	-
24.	Tunisia	1	1	Yes (1)
25.	Turkey	1	1	Yes (1)
26.	Uruguay	1	1	Yes (1)
27.	Venezuela	2	1	Yes (1)
	Total:	41	32	22

53. Most SPXs are under the guidance of a Governing Committee. However, the composition of the Committees and the ways in which the Committees operate differ from the model legal statutes. The Bureau and the General Assembly, indicated in the model statutes, have not been constituted in the majority of countries supported by the programme.
54. The operational autonomy seems to be more important than the legal status of the SPXs. Most of the SPXs visited by the evaluation missions considered their operational autonomy as satisfactory.
55. The support of the host agency for the SPX was sometimes enhanced by a study tour or participation of the agency's director(s) at a foreign fair.

ii) Staffing

56. Staffing of the SPXs varies considerably, from one to eleven professionals. This difference reflects not only the difference in the scope of activities but also the policy and support of the funding bodies. However, SPXs with only one staff could hardly perform satisfactorily their functions. In this context it is worth mentioning the experience of Japan: the Associations for Subcontracting Enterprises Promotion in 47 prefectures (in each prefecture there is one association) employ altogether 433 staff (1993) which amounts to approximately 9 staff per association on average. However, the Associations are entrusted not only with promotion of subcontracting and with matchmaking but they also provide extensive advisory and arbitration services in case of complaints and disputes.
57. Qualification of staff also varies but background in engineering prevails, which is a positive feature. It was noted that staff qualifications affect the type and scope of the SPX activities: lack of qualified engineers can be sometimes correlated with fewer visits of the enterprises and with focus on administration of selected promotional activities such as trade fairs.
58. With a few exceptions, there is sufficient stability of the staff. However, as the personal knowledge of companies and the accumulated experience are the key assets of the SPX, any staff turnover is detrimental to its operations. Salary levels close to those of the private sector and participation at study tours and foreign fairs are important motivational tools. In some cases the SPX management expects UNIDO to continuously support the motivation of the SPX staff through study tours and similar activities attractive for the SPX staff even after the completion of the project. In some cases of SPXs with reduced staff, they also expect UNIDO to pay for specialists to survey/update company information.

iii) Equipment

59. All SPXs are equipped with PC; all excluding one case, of IBM-compatible type. Only 3 SPXs have modern Pentium PCs; most are equipped with 486 machines; 4 SPXs rely only on obsolete 386 powered PCs. In one case it was reported that technical problems in installing a software were encountered due to the procurement of a PC-clone by UNIDO. Ways and means of upgrading the hardware will have to be evaluated when a new version of UNIDOSS is introduced. All SPXs own standard commercial software employed in the day-by-day operations. The most popular ones are: Excel among the spreadsheets, Microsoft Word among the word processor, DB III and Microsoft Access among the databases.
60. In most cases the transportation is not a constraint for the SPX operations. Even when an SPX does not have its own car, arrangements are made to have access to a car. Only in a few cases the difficulties to access the means of transportation and communication have affected the operations of the SPX.

61. Some SPXs have already established a connection to INTERNET, some of them are planning to establish the connection soon.

iv) Application of standard methodologies and tools

62. All the SPXs use the standard UNIDO nomenclatures for the registration of companies and their manufacturing capabilities.
63. All the SPXs installed the software UNIDOSS; in a number of cases the installation and initial operations were accompanied by running-in problems which required expert services to alleviate the problems. Out of 22 SPXs, 15 users exploit the programme as a data storage, only 10 use it for matchmaking. The other functions such as mailing, inquiries circulation, monitoring of the activities, preparation of analytical reports are used only by very few SPXs (from 2 to 4 depending on the specific function). Some SPXs are not using UNIDOSS at all. Thus, the current version of UNIDOSS failed to find full and general acceptance and use.
64. Except for the User's Manual on UNIDOSS software hardly any other manuals or guidelines have been applied by the SPXs. "Model contracts" provided by UNIDO have not been much used because there has been hardly any demand by the SPX clients for such supporting services. Some of the methodological documents listed in Annex 2 are not available in the SPXs' libraries. On the other hand, a number of standard forms and specimen letters have been prepared and are used by most SPXs. Some SPXs have individual guidelines/procedures for some processes prepared by the consultants.

v) Databases

65. All SPXs created UNIDOSS databases of potential subcontractors and contractors. In some cases the creation of the UNIDOSS databases proved to be a time-consuming undertaking involving considerable input of SPX staff resources.
66. All SPXs cover metalworking, 18 SPXs cover also plastic & rubber products together with the electric-electronic sub-sectors; only half of the surveyed SPXs have recorded information on woodworking, textile sub-sectors and industrial services.
67. Only a part of the companies registered in the UNIDOSS database provided all the information required by the standard UNIDOSS questionnaire. This, however, has not affected significantly the use of the database by the SPXs. In fact in a number of cases the SPXs have created their own simple databases, using however UNIDOSS as a basis.
68. The number of companies registered with SPXs varies considerably. Some of the databases contain as many as 4000 entries, some of them just a few hundred, the database of the SPX in one Latin American country has less than 100 registered companies. The registered companies represent usually not more than 50% of the SMEs in the sub-sectors concerned. In a few cases, however, the coverage is high (more than 80%). These figures are not far from the corresponding figures for Japan (on average 2265 entries per Association, with a 28% rate of SME registration).
69. However, in a number of cases only a segment of the registered companies is actually used for matchmaking (some SPXs estimate it at 20-40%).

vi) Financing

70. In most cases the SPXs are financed wholly or to a great extent through subsidies from one source (the Government, a Chamber of Industry/Commerce or other entity). Only in a few cases (in Latin America) the SPX manage to cover a larger part of the operational costs by the income generated through membership or service fees. Thus the pattern recommended by UNIDO (financing from 3-4 complementary sources) is usually not followed.
71. The introduction of a success fee, no matter how desirable it is, remains a difficult proposition, since firms are not always willing to disclose the business achieved, or may exaggerate upwards or downwards the figures. The success fee can lead the SPX to pursue in priority big prospective contracts and leave aside smaller operations. Furthermore, the degree of intervention of the SPX can also be limited to the supply of an address or be more involved in getting a group of subcontractors together for complex subcontract operations and in the provision of assistance in costing and mediating in communications and negotiations. As a consequence, a certain amount of subsidy is needed and inevitable.

4.3 Regional Networks of SPXs

72. Networking among SPXs is functioning in Latin America, particularly among the Mercosur countries. The networking includes submission of inquiries to other SPXs in the region if local subcontractors can not be found. It also includes exchange of other information and sharing of experience through the mechanism of regular regional meetings and continuous personal contacts over telephone or fax.
73. Networking in the Arab region does not function well. The Arab regional projects failed to establish and sustain national SPXs in a number of Arab countries originally targeted at by the programme. However, networking does not function properly even among those countries in which SPXs have been established and are operating. Thus the resources spent on this objective have not produced the planned output.

4.4 Efficiency of Programme Implementation

74. The programme was managed by one backstopping officer only with a strong methodological support of a relatively constant group of experts. Within UNIDO the need to co-ordinate the programme with other programmes has been recognized and linkages among programmes and organizational units identified but actual co-ordination/co-operation has been marginal.
75. The financial resources spent on the technical co-operation projects (approximately US\$ 6.3 million) have been used primarily to finance consulting services. Study tours, training seminars including participation at foreign fairs were the second largest input. Because of a large number of study tours and steering committee meetings on the regional projects, a noteworthy amount of resources was spent on travel. Equipment did not represent a significant expenditure item.
76. From the viewpoint of individual operational SPXs the efficiency of national projects seems adequate in most cases (the SPXs are operating, the developed capabilities are satisfactory, etc.) Taken as a programme the relation between the technical co-operation resources used and the outputs actually produced is less favourable. On the other hand, the Regular Budget resources used to develop, promote and manage the Programme have been rather modest.

77. Under both the regional and national projects, approximately US\$ 3 million have been targeted at the Arab countries and US\$ 1.75 million at the Latin American countries. Given the number of SPXs operating in the two regions the implementation of the programme in Latin America has been significantly more efficient.

5. ACTIVITIES OF SPXS AND THEIR RESULTS

5.1 Promotional Activities

78. The SPXs undertake activities which are by definition promotional in nature. Such activities can be classified as indicated below. Obviously not all SPXs undertake all those activities.

Organization of local subcontracting fairs - either directly by the SPX itself or other organizations: Chambers, development agencies etc. Such fairs have the objective to show the subcontracting capabilities in the country. Firms of other countries - usually neighbouring - also participate but they are in a minority. Individual firms and the SPXs have their own stands. These fairs are targeted at potential local and foreign contractors who are also invited to participate as visitors.

In Jordan a successful fair with reversed roles was organized by the SPX in co-operation with the Chamber of Industry: large local contractors displayed their requirements for manufacturing of parts.

Participation in foreign fairs - this can take the form of participation in fairs of other developing countries or, what is more frequently pursued is the participation in reputed fairs in developed countries, such as MIDEAST in Paris and the Hannover fair. In these cases the SPX normally has its own stand where subcontracting firms can present their offer, having in mind the limitations of space. Furthermore, the SPX may prepare a booklet presenting the country as a whole and the offer of individual firms. Representatives of these firms may be present in the fair and if not, the SPX will represent them and provide eventual additional information to inquiring contractors. During such fairs, the SPX may operate a matchmaking service either for subcontracting or other forms of partnership.

Personal contacts - as a consequence of plant visits or other promotional events, the SPX personnel develops a knowledge, normally transcribed into the database, which allows them to put enterprises in contact (contractors, national and international, and subcontractors)

Institutional channels - the SPXs are normally in contact with (or integrated into) a number of institutions (investment promotion agencies, chambers, development agencies and their branches in the respective countries and abroad) through which they can receive or transmit inquiries.

Advertising in local publications (specialized and newspapers) to request for supplies, bids, subcontracts. The channelling of responses can be done by the interested firms either directly or through the SPXs.

Linkages to foreign databases like the EU-BC-NET and Euro Info Center from which they receive a wide variety of offers for partnership.

Subcontracting "journeys" organized for large contractors or groups of contractors in a specific sub-sector where their needs are presented and contacts and negotiations established with perspective subcontractors who are invited to such meetings.

Business meetings ("ruedas de negocios"), which are bilateral talks (between contractors mostly foreign and subcontractors) organized mainly during fairs and exhibitions. In some cases it is reported that over 1,800 bilateral talks took place during the few days of the fair. The Exchange organizes these meetings, averaging 15 minutes with subcontractors which have been screened on the basis of the requirements of the contractors.

Training seminars for subcontractors in fields where problems were identified in order to analyze and solve such problems.

5.2 Matchmaking

79. The ultimate purpose of the above promotional activities is to generate subcontracting work. Between the promotional activity and the actual work there is a lot of "casualties". Promotional activities generate interest which leads to an inquiry (from a contractor or a subcontractor). This inquiry is processed by the SPX which puts into contact the inquirer with selected possible partners. Contacts and negotiations are established between the two parties and these may lead to the actual subcontract.

80. From the information received from SPXs the highest number of inquiries are received in the fairs. Percentages of 75 to 90 are reported by some of them. Some Exchanges report a much lower figure but this is because their participation in or organization of fairs is small or non-existent. "Subcontracting journeys" are in most cases too recent to report much success albeit this approach seems promising. Inquiries are recorded by the SPXs in various ways - a telephone call asking for any kind of information may be enough to register an inquiry, in other cases only inquiries aiming at matchmaking are registered. As a consequence SPXs report inquiries received per year ranging from 53 to 6,000 per Exchange. Because of the above reasons a comparison of levels of activities cannot be made. Even less comparable are contracts actually awarded because of the inherent difficulties in obtaining the information.

81. A rough estimation which seems to apply to some Exchanges is that 100 inquiries lead to 10 or 20 matchmaking (contacts established) and these to 1 or 2 actual contracts. These figures can be argued but they are indicative of the volume of inquiries processed to reach actual subcontracting work.

82. From the questionnaire review it could be estimated that on average 10-15% of the inquires came from the same companies, with a trend of a modest increase of these figures.

83. New forms of industrial subcontracting (partnership) are based on long-term relationship between the big contractor enterprises and the various specialized subcontractors and also on the need to involve the latter from the initial stages of the production cycle. From the questionnaires received from the SPXs, it appears that less than 100 inquires for industrial partnerships per SPX were made in 1995; 80% of them were of international character. Unfortunately, always for the same reason of mistrust of the companies in releasing this information, the evaluation team cannot report any precise figure on the effective results of these long-term industrial relationships.

5.3 Advisory Activities

84. While the bulk of the activities of the SPXs is indicated above, the Exchanges are sometimes involved in activities upstream and downstream from subcontracting, sometimes with good financial returns. These activities range from: sub-sectoral studies, analysis of impediments to subcontracting, market analyses, to extension services to enterprises on management, quality control etc. They may also involve assistance to enterprises to find suitable subcontractors in order to meet mandatory local contents.

5.4. Satisfaction of End-users

85. The main approach taken by this evaluation, as it us the norm for similar exercises, is the checking of results at the level of end-users. End-users in this case are the enterprises - contractors and subcontractors - who are put in contact by the SPXs and eventually enter into subcontracting arrangements. Most of the conclusions and recommendations originate in the views of such end-users. (Such views are not repeated here to avoid duplication of what is contained in the conclusions and recommendations).

86. During the evaluation, the evaluation team interviewed 47 enterprises in 9 countries. In order to compare the results of such interviews the team used interview schedules prepared for contractors and subcontractors (Annexes 4 and 5).

87. In general terms, the enterprises view the UNIDO programme and the SPXs established in a positive manner. This view is particularly shared by subcontractors, who remain the main target group of the SPXs assisted. The promotional role of the SPXs is well acknowledged by them. The companies appreciate in particular the advice on and support in the organization of their participation at fairs. The SMEs themselves would hardly dare to engage alone in such activities. They also feel they are more visible if exhibiting under the umbrella of the SPX. Specialized initiatives such as the subcontracting journeys described in 4.1 aimed at contractors have only recently started to be undertaken by some SPXs and therefore results have not yet materialized.

88. Some of the companies visited stated their satisfaction with the services provided by the SPXs and declared their readiness to pay an annual membership fee and/or a fee for the services obtained by the Exchange in those cases where it is not so. In the countries where the exchanges are already charging fees for an annual membership or for the services rendered, all the entrepreneurs interviewed were satisfied with the co-operation received and expressed agreement that the fee paid was low in relation to the services received. However, the majority of the companies interviewed do not agree that SPXs should be totally financed by sales of services.

6. CONCLUSIONS

89. The conclusions are summarized under the headings of *relevance* (whether the programme met important and real needs), *efficiency* (whether the inputs were provided in an adequate and timely manner and activities conducted efficiently and outputs were produced), *effectiveness* (whether the outputs were used and the purpose achieved), *impact* (whether economic and other development changes occurred) and *sustainability* (whether the developed capabilities were maintained or upgraded and continued to be utilized).

6.1 Relevance

90. Industrial subcontracting at national and international levels plays an indisputable role in industrial development through the strengthening of the industrial fabric and increasing competitiveness. Subcontracting and partnership relations between industries of various types and sizes, especially between large and small enterprises, are a feature of every modern industrial economy. Industrial subcontracting and similar forms of linkages between small and large industries are also important for the development of the SMEs that act as subcontractors or suppliers. There is a strong correlation between the level of economic development and the size of the subcontracting and supply market in a given country. However, minimum conditions should exist in the country to sustain viable subcontracting arrangements. The potential subcontractor should have minimum capabilities in terms of technology, production flexibility, available production capacity and quality. These minima become more important for international subcontracting.

91. Given the market failures and reticences, subcontracting does not occur naturally to the intensity desired. Therefore, promotion of the subcontracting concept needs to be undertaken and aimed at various levels: policy, contractors, subcontractors, and development banking. This is even the case of developed economies where substantial resources are allocated to the promotion of the concept.

92. The establishment of an agency to undertake this promotion sometimes together with other functions is again the instrument utilized by developed countries: Small Business Administration in the United States, Associations for Subcontracting Enterprises Promotion in Japan, Center for Metalworking Services for Emilia Romagna in Italy to provide some examples. In developing countries experience has shown and it is validated by the evaluators that the best institutional approach to promote subcontracting is the establishment of an SPX, as advocated by the UNIDO programme.

93. The programme under evaluation is, therefore, relevant. However, the broadening of the contractors/subcontractors relationships and the growing importance of the relation among

The U.S. Small Business Administration

The Small Business Administration is a vital partner in the small business success of the United States. [In fiscal year 1994, it approved about US\$ 8 billion in loan guarantees to 36,000 firms.] Of particular interest is the office of government contracting which increases opportunities for small businesses in the federal acquisition process. It initiates small business set-asides, identifies new small business sources and counsels small firms on how to do business with the federal government.

In fiscal year 1994, it facilitated federal prime and subcontract awards exceeding US\$ 50 billion to small and disadvantaged business. By breaking out historically sole-sourced contracts for open competition, it generated savings to the government of more than US\$ 150 million.

Source: SBA

subcontractors offer some emerging opportunities for SPXs. It is possible to view those in terms of training & consultancy services focused on:

- improvement on logistic chains (through i.e.: transparency of the production planning, order scheduling, the just-in-time delivery etc.);
- improvement of the product overall features and design without increasing costs;
- quality management.

94. It is also possible for the SPXs to implement at local level some "co-makership" experiments. This would involve the identification of the opportunities to realise a complete or a more complete product in the local economy through the consolidation of a supplier network. The record of industrial successes registered by the so called industrial cluster concept could invite the SPXs to watch their local economy under this approach, trying to identify "seeds of clusters" and organise around them activities that require circulation of information. This would promote a significant increase of SPXs activities.

95. The long-term future of the programme could be outlined as follows:

Major trends scenario:

- from subcontracting to "co-makership"/partnership;
- industrial cluster as successful formula of economic development;
- information technology evolution;

Extension of the concept of subcontracting to include partnership arrangements has been extensively and adequately highlighted in the methodological documents of UNIDO. In practice, however, as the evaluation verified, most SPXs have been engaged primarily in elementary subcontracting operations and partnership arrangements have been less supported by the SPXs.

96. Having shown the relevance of subcontracting and the need to subsidize the promotion of such operations, UNIDO's comparative advantages in providing technical assistance in this field come into question. In the course of this evaluation, the evaluators have validated the need to adapt the operation of an SPX to the conditions prevailing in the particular country. Furthermore, the development of subcontracting into more sophisticated stages requires access to different and proven methodologies. It has been mentioned in this report as well that the French, Italian, Spanish, Japanese and American experiences have all useful lessons to offer. UNIDO, in addition to its longest experience in the subject - over 25 years - and multilateral character with access to various sources of expertise is well poised to provide technical assistance on this subject. In opposition, a bilateral project on the same subject would be locked only into a single source of know-how. Furthermore, the experience of UNIDO in networking is another element in its advantage.

97. The programme focus for 1996-97 as outlined by the UNIDO concept papers on the seven thematic priorities (paragraphs 23 to 29) can, in principle, be endorsed by the evaluation findings. However, the envisaged numbers of SPXs to be newly established seem to be rather high and hardly realistic to achieve within the given time frame.

98. The evaluation findings reconfirm the need of close co-operation between the promotion of subcontracting and partnership and several other components of the seven priorities. Close linkage with the promotion of sub-sectoral clusters is ensured in the UNIDO concept papers through integration of these two sub-programmes under one component programme ("Networking of SMEs"). Close co-

operation is also required in particular with the programme components: Quality Management, Technological and Investment Information and Investment Promotion.

6.2 Efficiency

99. National SPXs were established and became operational in most countries as planned under the programme. However, in several cases (22%) the inputs provided and the activities conducted either did not result in the establishment of an SPX or an SPX was established but its operations were discontinued after some time.

100. In most cases the SPXs are integrated in or associated with a non-governmental institution (chamber/association of industry/commerce, an investment or trade promotion agency, etc). An association with a chamber of industry/commerce seems to be the most desirable institutional setting for an SPX provided it has operational autonomy; the SPX activities can benefit from the direct access to representatives of different industrial sub-sectors and groupings who can support the SPX both in organizing promotional activities and in searching for suitable subcontractors.

101. The operational autonomy is more important than the legal status of the SPXs. Most of the SPXs visited by the evaluation missions considered their operational autonomy as satisfactory, but administrative constraints to operational and financial decision making exist in a number of SPXs.

102. Staffing of the SPXs varies considerably, from one to eleven professionals. This difference reflects not only the difference in the scope of activities but also the policy and support of the funding bodies. However, SPXs with only one staff could hardly perform satisfactorily their functions. Qualification of staff also varies but background in engineering prevails, which is a positive feature. With a few exceptions there has been sufficient stability of the staff.

103. A number of methodological documents were prepared under the programme. While the individual documents contain a lot of valuable information and advice, a consolidated manual on the methodology, operational procedures and organizational aspects has not been available so far. However, a comprehensive Guide for the Establishment and Operation of SPXs is currently under preparation.

104. In the absence of the guide, the UNIDOSS system and software with its user's manual and the nomenclature play the central role in instituting common approaches and standards in the whole programme. All the SPXs use the standard questionnaire for the registration of companies and their capabilities as recommended by UNIDO. The model legal statute is far less followed.

105. All the SPXs installed the software UNIDOSS. Only a few SPXs are using all database management potential (functions) of UNIDOSS. Some of them are not using it at all. Thus, the current version (1.2.3) of UNIDOSS does not seem to have found full and general acceptance and use.

106. All SPXs are focused on the metalworking industry; most cover also the plastic and rubber and the electric-electronic industries. Less than half are engaged in other industries such as woodworking, textile and industrial services.

107. The number of companies registered with SPXs varies considerably. However, in a number of cases only a segment of the registered companies is actually used for matchmaking.

108. It is questionable to make at this stage any efforts to entrust the software with additional functions, such as those mentioned in some of the UNIDO documents (to detect enterprise deficiencies and to propose remedies, to perform technological and quality assessments and to formulate marketing

and investment strategies). Some of these tasks are not feasible to be solved by a software, for some of them there will be hardly any demand in the SPXs. However, the information contained in the database may be of use as inputs to those entrusted with those functions.

109. In most cases the SPXs are financed wholly or to a great extent through subsidies from one source. Only in a few cases (mostly in Latin America) the SPXs manage to cover a larger part of the operational costs by the income generated through membership or service fees. Thus the pattern recommended by UNIDO (financing from 3-4 complementary sources) is not followed.

110. Networking among SPXs is functioning in Latin America, particularly among the Mercosur countries. Networking in the Arab region does not function well. Thus the resources spent on this objective have not produced the planned output.

111. The programme was managed by one backstopping officer with a strong methodological support of a relatively constant group of experts. This contributed to a considerable steadiness of the concepts. On the other hand experience of some other countries (such as Japan and the USA) was not transferred through direct involvement of consultants from those countries. Within UNIDO the need to co-ordinate the programme with other programmes has been recognized but actual co-ordination/co-operation has been marginal.

112. In total, approximately US\$ 6.3 million, were spent since 1984 on the programme. The financial resources were used primarily to finance consulting services. Study tours including participation at foreign fairs were the second largest input.

113. From the viewpoint of individual operational SPXs the efficiency of national projects seems adequate in most cases. Taken as a programme the relation between the technical co-operation resources used and the outputs actually produced is less favourable. The implementation of the programme in Latin America has been more efficient than the implementation of the programme in the Arab region.

On the other hand, the Regular Budget resources to develop, promote and manage the Programme have been rather modest.

6.3 Effectiveness

114. The use of the SPX services expressed in terms of the number of inquiries differs considerably among the operational SPXs but only in a few cases the number of inquiries is rather low and indicates that these SPXs are not frequently used by the industry. However, the perception of an inquiry differs from SPX to SPX so that the figures are not fully comparable.

115. Most of the inquiries are generated either through participation at fairs or through personal contacts at plant level. Institutional channels are also important. The most cost-effective mechanism seems to be promotion through local fairs. The number of companies using SPX support to participate at foreign fairs is more limited and frequently the same companies benefit from this support on a repetitive basis.

116. The participation of SMEs in public procurement programmes is relatively low in developing countries. However, most of the SPXs visited do not pursue this matter although they find it a good idea with good prospects.

117. National subcontracting strengthens the industrial fabric because of increased specialization and capacity utilization, as well, intra-firm linkages. International subcontracting does this only

partially, since only one of the benefitting parties located in the country, but it exposes SMEs to an international environment normally with more stringent requirements. Both types of subcontracting are desirable and have been promoted by the SPXs analyzed.

118. The type of services offered and provided by the SPXs has been influenced not only by the demand for services but also by the professional structure of the SPX staff and their motivation. Emphasis has been often given by the SPXs to international subcontracting. This type of subcontracting is considered by the Exchanges as a point of reference, a model to be followed by national subcontracting. However, the Evaluators believe that this orientation is also affected by a certain amount of attraction of international subcontracting caused by the travel and participation at foreign fairs.

119. Effectiveness of an SPX depends very much on developing profound knowledge of industrial enterprises and sectors covered by the SPX which goes beyond the information collected in the databases. Building up a reputation of reliability and confidence for both contractors and subcontractors on the basis of such a knowledge is the critical factor of effectiveness and sustainability. Engineering background and promotional abilities of the staff and their stability are the decisive factors of developing and sustaining such a knowledge. Not all SPXs meet this requirement.

120. The ultimate indicator of achieving the purpose of establishing and operating an SPX is a contract resulting from the matchmaking activities. Unfortunately the SPXs do not have a comprehensive record of contracts resulting from their matchmaking facilities. Where available and known, the estimates indicate a few dozens of contracts per year on average. An estimation made on the impact of the contacts promoted through the Exchanges leads to the following general conclusion: 100 inquiries may generate around 15-20 direct negotiations and these normally lead to one or two contracts concluded.

6.4 Impact

121. The impact of the SPXs in terms of the total value of subcontracting really undertaken while seemingly positive cannot be quantified exactly because the companies are often reluctant to provide this information. Despite the fact that in most Exchanges, the service of match-making is free of charge for both the contractor and the subcontractor, they may be afraid to have to pay a commission to the Exchange on the value of the business concluded or that this information will be used for other purposes. The Exchanges themselves do not want to spend time on the follow up of the matchmaking because they consider that in any case the figures obtained are not reliable. In several cases it happens that the first contact is known, but it is impossible for the Exchange to make a follow up of all relations between the companies leading to the eventual subcontracting. Apart from that, participation at fairs or other promotional activities of the Exchanges can develop contacts between entrepreneurs that materialise only at a later date.

How to Discover the Truth!

At an international fair the Exchange put in contact a national subcontractor with a European automotive firm. The contractor was looking for the production of moulds for plastic parts. Some months later the manager of the Exchange called the potential subcontractor to enquire about developments. The subcontractor answered that the contacts had not brought in any concrete results.

A few weeks later, the manager of the Exchange, walking in town met by chance the Chief of the Purchasing Department of the European contractor, who thanked him for his assistance and informed that the subcontracting co-operation had been already going on for several months!

122. However, several important contracts reported by some enterprises and the SPXs show that impact exists. Isolated figures provided by the Exchanges show that business results achieved through the intervention of the SPXs are quite impressive, particularly through the participation at fairs. Numbers of actual contracts achieved per Exchange are reported between 10 and 85 a year. Value of these contracts is also difficult to establish but can be very roughly estimated between US\$ 10,000 and US\$ 200,000 per contract.

123. The impact of subcontracting supported by the SPXs can also be inferred from benefits reported by the visited companies, such as

- increased utilization of the installed capacities, thanks to a higher volume of orders and continuity achieved through collecting also small orders with zero commercial costs;
- transfer of technology;
- reduced production costs;
- compliance with regulations on mandatory local contents;
- reduced financial risk;
- increased flexibility.

124. Sometimes impact can be deduced from indirect indicators. One indicator of the positive impact of the activities of the Exchanges is that the number of the participating companies is increasing also in countries where a membership fee is requested. In addition to the benefits of subcontracting operations themselves, the interest of the companies in co-operation with SPXs is motivated by supplementary economic and commercial benefits (such as reduction of the cost of company promotion, increased company visibility through the collective participation at international fairs, etc.)

6.5 Sustainability

125. A paper was prepared in November 1995 by the Backstopping Officer on this subject. The sustainability of SPXs is linked to four principles:

- Competence, dynamism and dedication of the SPXs staff;
- Adequate institutional set-up: autonomy in its operations and different set-up according to the conditions prevailing in the country - such as strength of the private sector and degree of economic liberalization;
- Modality of financing (variety of sources), no dependence on one single source, adequate public/private mix;
- Flexibility and adaptability of the SPX - an overriding consideration to the other above principles;

These principles are in line with what the evaluation found as far as sustainability of the programme is concerned.

126. The sustainability of the programme can be measured by the survival of the SPXs established and their capacity to generate subcontracting work. The SPXs assisted by UNIDO under the programme show all ranges of sustainability, from SPXs closed down because minimum criteria were not met to SPXs with established business and financing (Table 2).

127. The survival of the SPX is directly linked to its financing. Ideally, an SPX should be self-sustained but in most of the countries visited this is not possible. They may generate a certain amount of income through the provision of tailor-made services and data, and the organization of fairs but this will not suffice to finance totally the SPX. The introduction of a success fee, no matter how desirable it is, remains a difficult proposition. The enterprises also consider that this is a public service which should be financed from the taxes they already paid. In some countries companies finance either directly or through taxation Chambers or Development Agencies where SPXs are located. The enterprises do not want in addition to finance the Exchanges. They consider it as a double taxation and/or fees. As a consequence, a certain amount of subsidy is needed and inevitable. However, a word of caution for the publicly subsidized SPXs is needed. Even when such a subsidy is assured, the governments want to see an increasing self-financing of the Exchange. The institutional setting and financing should be kept under review by the SPXs themselves in order to adapt to changing conditions and to ensure long-term sustainability.

128. The complete integration of the SPX in a body (Ministry, Association or Chamber) may reduce its visibility and freedom of action. Chambers are also not necessarily a guarantee for confidence by the private sector. Because of mandatory financing of associations, enterprises, particularly small scale, may view such bodies as yet another bureaucracy. Still Chambers remain the best alternative to locate the SPX provided sufficient autonomy is given to its operations.

129. As a conclusion, sustainability of the SPX depends on their ability to generate subcontracting business and thus convince public authorities and the private sector to finance their operations through an appropriate formula while keeping minimum autonomy.

7. RECOMMENDATIONS

130. The UNIDO programme on subcontracting and partnership should be pursued and merits adequate funding both for headquarters support (Regular Budget) and for technical assistance activities. More detailed recommendations for the pursuing of the programme are given below. It is recognized that some of those recommendations are simply endorsements of activities or approaches which have already been initiated by the backstopping office.

7.1 Concept

131. While it is recognized that it is difficult to draw a clear dividing line between the concept of subcontracting and co-makership/partnership, it is recommended that the UNIDO programme distinguishes between SPXs at different levels of development. As a rule, newly established SPXs should be supported by the Programme to develop and consolidate the core subcontracting functions (promotion and matchmaking). Well established and successfully operating SPXs should be encouraged and supported to engage in more sophisticated activities to meet the challenge of the following trends:

- co-makership/partnership
- industrial districts or clusters (in a geographical area)

Both categories of SPXs will have to follow and benefit from the advances in information technology.

132. The Programme should develop methodological support for the SPXs to follow the anticipated path of action:

- reposition of training and consultancy services taking into consideration the subcontracting evolution within an increasing global competitiveness;
- identification of local "baby clusters" and focusing the SPX activities on them. In other words: targeting promotional events, training activities and consultancy services at groups of firms having the same or complementary skills;

133. The programme should also observe the evolution of the information technology to exploit its potential not only for the promotional activities but also for facilitating the contractor-subcontractor communications. The range of the foreseeable applications is very large from very simple measures (such as replacing of the fax with cheaper e-mail), to the possibility of video-conferencing at low cost and to the realisation of 3-D shapes with 3-D printers.

134. Few developing countries have a stated policy in favour of subcontracting and related subjects such as the participation of SMEs in public procurement and bidding programmes. Those who have such a policy do not seem to apply it in a comprehensive manner. As stated in the Conclusions, UNIDO and the assisted SPXs have not been active in this field. Therefore, it is recommended that UNIDO analyzes such policies in developed countries where they are normally applied - Japan, the United States, France, to name a few countries - and determine its applicability in developing countries. The SPXs should then be used to promote the drafting and application of such policies which obviously cannot follow a unique recipe and have to be adapted to the conditions of the particular country.

135. The approach to subcontracting, adopted by UNIDO, uses essentially the European experience. It is recommended that other experiences, such as the Japanese approach to subcontracting - of a much more co-operative nature - should be analyzed and integrated in the UNIDO programme.

136. The projects on subcontracting, leading to the establishment of an SPX should be considered as primarily pursuing capacity building at a national level. This approach seems preferable to the regional one (among countries), as applied sometimes by UNDP and UNIDO, which led to higher costs. The regional approach is useful for preparatory activities and later on to achieve networking.

137. Within the institutional building approach, the SPX should be only established when all necessary conditions are met, that is:

- a) the existence of a potential subcontracting market in the country;
- b) the existence of potential stakeholders who share the constitutional principle of the SPX operation and are prepared to absorb at least part of the costs connected with the start-up phase;
- c) a potential to create a capable and sustainable institution with all personnel, financing and other elements it implies.

If such conditions are not met during preparatory activities, the SPX should not be established.

138. The heart of an SPX, no matter the financial resources and software available, remains a motivated and knowledgeable staff which is capable to create a reputation of reliability and confidence. The evaluation recommends strongly that such staff should have an engineering background and business promotion approach and have a remuneration compatible with the private sector.

139. The public subsidization of the Exchanges, through general or specific taxation, obviously in different degrees in accordance to the country, should be accepted. While accepting the principle of subsidization, the SPX should be constituted as an entity of a private nature and should be managed in an independent manner. Its overseeing bodies should have a majority representation of the private sector. Establishment of an SPX as a department of a ministry should be discouraged.

140. To avoid dormant companies in the SPX database, the SPX should develop and update the database simultaneously with responding to inquiries. This requires that from early stages of their operations the SPXs should undertake efforts to generate inquiries. Organization of subcontracting fairs in the recipient countries and the participation in international fairs remain possibly the best approaches to generate inquiries and achieve results and should be pursued by the Exchanges.

141. National subcontracting needs to be given increased attention by the SPXs. The offer for subcontracting is usually larger than the demand in the country. Therefore, the Exchanges should increase their activities with the main national contractors in order to stimulate demand. The organization of national fairs and subcontracting journeys either for large single contractors or individual sub-sectors should be encouraged to make known the demand for subcontracting services in the country and to establish contacts.

142. The role of SPX in stimulating participation of SMEs in the government procurement schemes should be enhanced. The United States Small Business Administration model, among others, could be used as a reference.

143. Sub-regional subcontracting, that is between the neighbouring countries of the same region, has been given special attention under the regional projects of technical assistance. Results achieved, apart from among Latin American countries, seem modest. It would seem that for some countries, like in North Africa, there is not much room for complementarity since the subcontracting offer is similar. This would preclude speciality subcontracting. It is therefore recommended that this aspect

is de-emphasized in the related technical assistance, apart from those cases where an obvious market exists.

144. Monitoring of matchmaking, despite the difficulties it entails, should be pursued by the SPXs. It is considered important for two reasons: One, to demonstrate to the sponsors the impact of the SPX and thus ensure financial sustainability, be it from subsidies or from payment for services rendered. The other is its use as a management tool so that the best practices leading to successful contracts can be identified and emphasized in the SPX work.

7.2 Tools

145. Subcontracting is based on the knowledge of industry and on trust between the participants. Tools can facilitate but cannot substitute for this knowledge and trust.

The UNIDOSS Software

146. Considering the limited number of SPXs (the only institutions to be able to use the software), the potential market for a product like UNIDOSS will be small. In such a case, only two approaches are advisable:

- a) either provide a highly sophisticated software, together with a strong customer service support, selling the package at a high price;
- b) or review the existing software, make it as simple and basic as possible, especially in view of minimising customer service cost and selling it at a competitive price.

The latter alternative seems to be more in line with UNIDO capabilities and approach.

147. The information technology evolution offers every day improved software and hardware, enabling faster, more user friendly, safer database operation. For these reasons a continuous attention to the software has to be paid. Particularly on the software updating it is recommended:

- a) to concentrate the updating to the most used functions of the system: data-storage, nomenclatures and matchmaking;
- b) to enable the exchange of data with standard commercial software such as Excel, Word, Access;
- c) to enable the operation in a Microsoft Windows environment;
- d) to allow work on a Local Area Network;
- e) to expand the nomenclature to include others sub-sectors (i.e. industrial services).

All points excluding a) were recommended by the second expert group meeting (Vienna 8-10 November 1995) and seem to be implemented by the new version UNIDOSS V-2.0.

148. From the point of view of database capabilities, the following issues should be addressed:

- a) the limit to 999 entries for company description is a hindrance for some SPXs who run a larger database; we understand that the optimal number of active companies dealt with by

an SPX should be smaller than this but the need to accommodate a higher number of companies was expressed by some SPXs.

- b) the availability of additional fields for notes to incorporate the SPXs personnel observation could be useful;
- c) it has to be clearly explained to the users where it is possible to trace the information concerning the main contractor, when it is not inserted in company data files;

149. In order to minimise the installation problems, it should be considered:

- a) to advise the SPXs on the hardware type and configurations needed to run properly the UNIDOSS new versions;
- b) instead of supplying the programme diskettes, supply a working station with PC + printer + fax modem preloaded with UNIDOSS (together with other standard software such as WIN95, MS-OFFICE, NETSCAPE). In this case all installation problems will be avoided.

Manual

150. When finalizing the Manual the comments on its contents as presented in Annex 7 should be considered. An overriding principle when establishing the Manual should be a judicious separation of what are immutable principles and practices and what should be adapted to local conditions. In the latter case different alternatives should be provided in the Manual. An illustration on this point can be given by the proposed statutes for SPXs prepared by UNIDO. They are considered as too ambitious and elaborate in the overseeing function for the SPXs and do not offer options for many of its precepts. Therefore, its application remains limited. Such guidelines, to have wider application would have to offer options on many of its components.

7.3 UNIDOSS Club

151. The creation of the UNIDOSS Club should be pursued; however, the following issues should be considered:

- *The name:* the actual denomination identifies the club with what is perceived as a specific piece of software. It is inevitable that the club will benefit or suffer because of the software good or bad name among the users. Today not all SPXs are UNIDOSS fans, so the name appeal is not as high as one can wish. The use of a more neutral denomination seems more recommendable.
- *The scope:* from the report of the second Expert Group Meeting (Vienna, 8-10 November 1995) it seems that the final goal is the constitution of a global sourcing network. In the opinion of the evaluators, the purposes are relevant enough to justify the initiative:
 - * to allow all members to network with UNIDO and to have access to a series of support services and,
 - * to encourage networking and international industrial co-operation between them and with other industrial promotion institutions world-wide, using a common technical terminology

- *The services offered:* to the list of the services described in the related documents, the following fields should be added by the training seminars:
 - * Subcontracting evolution: how big buyers are changing their procurement policy (broadening the linkages with the subcontractors, reducing their number, involving them in the design stage etc.);
 - * Diffusion of "best practise" on SPX and subcontracting management;
 - * Japanese experience on subcontracting;
 - * experience of the U.S. Small Business Administration.

This would require adequate budgetary resources.

In the future, the programme could take the form of distance learning involving the SPXs at their premises by using electronic media.

7.4 Expansion of the Programme

152. Among the many countries eligible for the constitution of SPXs the following ones could be singled out:

South Africa: This country is characterised by a considerable production capacity in many industrial sectors. The manpower qualification level is generally high and production costs competitive. Some large European firms are currently buying from that country qualified components.

India: Actually the economy of this region is booming, up-to-date technology is in demand because of the modernisation of many industrial sub-sectors. At the same time most of the Indian firms want to increase their exports. The dimension of its economy suggests a regional network approach, which could be combined with a sub-sectorial specialisation able to support the development of industrial districts or clusters. Promotional activities could be balanced with training and consultancy with the aim of a continuous improvement of the level of local industry.

China: Most of what was said about India is valid also for China. Two remarks could be added:

- a) the former state owned companies are being privatised and restructured, mainly through the subdivision in smaller units. The real degree of autonomy of each unit in defining its business strategy has to be assessed;
- b) the deep roots of the trading spirit and their recognised manufacturing capacity could prove that subcontracting mechanisms are already in place in some regions of the country.

Other Far-Eastern countries: the attractiveness of this region is out of doubt. For many of these countries the cluster approach could be more relevant.

Central and Eastern Europe: There are various mechanisms supporting the subcontracting processes in the Central and Eastern Europe:

- a) Industrial trade fairs
- b) Chambers of Commerce and Industry

- c) Round-table exchanges of information among interested companies
- d) Commercial intermediaries

Within the above framework and with consideration of the trends in subcontracting in this region, as explained in paragraph 17, the concept of SPX may be relevant under the following conditions:

- a) The SPX concentrates on promotion of subcontracting with foreign contractors.
- b) The SPX identifies local companies which are interested and capable to meet contractors' requirements; under the present conditions it will be primarily the medium scale privatized companies, including those emerged from restructuring spin-offs.

153. The relevance of an SPX may vary from country to country. The situation has to be evaluated in light of the progress made in the specific country in the restructuring of its economy. Special aspects to be considered are:

- a) privatisation of the former state owned enterprises;
- b) restructuring of the former state-owned enterprises, mainly through the creation of smaller business units with a significant degree of strategical autonomy;
- c) social, cultural and legislative environment favourable to the growth of new private small and medium enterprises.

Most of the Eastern European countries have made significant progress in the restructuring of their economies; that is the case of Poland, Czech republic, Slovakia, Hungary, Baltic states, Slovenia and probably in the next years of some of the other countries of former Yugoslavia. The domestic market in those countries is rather small, the technological improvement is demanded, so that it is not difficult to imagine SPXs operating in these countries with a strong promotional attitude towards Western Europe. Conditions in the other countries are more difficult to assess.

7.5 Relation with Other Programmes (in the countries and in UNIDO)

154. Support to subcontracting and partnerships at country level should be designed and implemented preferably in co-operation or, at least, with due consideration of various country programmes targeted at competitiveness of SMEs and their export promotion. Linkages should be established in particular with activities and supporting programmes in the field of quality management, technology information and investment and export promotion. Whenever possible, UNIDO support to subcontracting should be offered as a part of a programme consisting of a package of services available under the priority programme components Quality Management, Technological and Investment Information, Investment Promotion and Technology Promotion (besides the "Networking of SMEs").

155. In particular, relationship should be undertaken with programmes (UNIDO sponsored or not) dealing with quality management and technology information. Such programmes support the subcontracting process. It is understood that SPXs need not run such programmes but they should be involved in their design and implementation. Good knowledge of plants should make it possible for the SPX staff to contribute to a better understanding and formulation of company's needs when designing and managing the support programmes. On the other hand, the SPX staff should be acquainted in detail with such programmes in order to be able to advise companies on how to make use of the available sources of information, training courses, advisory services etc.

156. The same applies to investment promotion. As there will always be spills from one programme into the other, co-operation between the two types of agencies at national level is encouraged. At UNIDO level, increased co-operation between units dealing with subcontracting and investment (in two different departments) should take place. In particular SPXs should be able to access IPS in developed countries for any help such offices can provide in their country of coverage. On a trial basis delegates in some selected IPSs could become focal points for their home SPXs.

157. It is recommended that the SPXs under the programme be apprised of the investment promotion programme of UNIDO and of the role of the IPSs therein. It is also recommended to inform the IPSs of the existence of the SPXs supported by this programme and solicit their help for questions SPXs may have as related to their countries of coverage.

158. Each Component Co-ordinator is expected to establish a component group. It is recommended that the component group on Subcontracting and Partnerships includes Component Co-ordinators or members of related component groups specified above.

8. LESSONS LEARNED

All the Conclusions on the relevance of the programme and Recommendations related to the concept of the programme can be considered as lessons learned for application under the programme. The following lessons learned can be highlighted as they have validity also for other programmes:

159. Regional technical co-operation projects, that is projects covering several countries of one region with similar problems to be solved, present some economies of scale in relation to national projects at the preparatory phase as well as to support networking. However, for the operational phase of institution-building or capacity-building projects, national projects are preferable since they are able to concentrate on the particularities of the countries concerned and to eliminate countries which may be only marginally interested in the subject of the project.

160. Effectiveness and impact of projects increase if they are planned and implemented as elements of an integrated programme or at least in co-ordination with projects of related UNIDO programmes. The principle is well recognized and even promulgated in programming documents of the Organization. However, its practical implementation is a complex task which requires introduction of motivational and monitoring mechanisms backed by higher-level management.

161. In these days of globalization and liberalization, the conduct of industrial business by the private sector is sometimes extended beyond its rational limits. While it is today accepted that industrial assets are better managed by the private sector, many supporting services even in developed countries cannot survive on a self-financing basis requiring public subsidies, if not full financing.

162. There is a need to distinguish between information as contained in various databases and knowledge. While in some cases information alone may meet the needs of the target beneficiaries, in many cases it is the knowledge what is needed. Knowledge of industrial companies by the SPX staff must go beyond the collected company information and be able to interpret it in the context of the purpose for which the information is sought. In case of service centres this has implications for the qualifications of the staff. While database management and information technology are of paramount importance for the efficiency of the service, its relevance and effectiveness depend on good understanding of the purpose for which the information is required and, hence, on the capability to interpret it in this context.

163. Software development: In this evaluation as well as in others which analyze software developed for specific aims, it has been found that softwares have been often disseminated before sufficient and accurate field testing. Potential users may be discouraged of using the software if it presents too many bugs or is not sufficiently user-friendly. We are aware this is often the case in commercial software development. However, UNIDO with its world-wide array of end-users and their business orientation cannot afford to disseminate software which does not meet entirely the requirements of end-users. In these cases where this is not possible the software distributed should be clearly identified as experimental or under development.

Terms of Reference

**UNIDO PROGRAMME ON INDUSTRIAL
SUBCONTRACTING AND PARTNERSHIP**

I. Background

The Programme

Industrial subcontracting at national and international level play an indisputable role in industrial development through the strengthening of the industrial fabric. Subcontracting, supply and partnership relations between industries of various types and sizes, especially between large and small enterprises, is a feature of every modern industrial economy. Industrial subcontracting and similar forms of linkages between small and large industries are also important for the development of the SMEs that act as subcontractors or suppliers. There is a strong correlation between the level of economic development and the size of the subcontracting and supply market in a given country.

UNIDO, since its inception, has promoted with various intensities and mechanisms national and international subcontracting.

In more recent years, a structured approach to this matter was adopted by UNIDO through the launching of a "**special programme for the promotion of industrial subcontracting and partnership**". The objective of this UNIDO programme is to assist the development of the SME sector in developing countries. This is accomplished by

- increasing their production and employment and helping to upgrade their manufacturing processes and products;
- improving their productivity and competitiveness;
- encouraging import substitution and promoting the export of manufactured products and semi-products from the SME sector.

It contributes as well to the optimal allocation of industrial resources and thus to national industrial growth and integration. At the same time, the programme contributes to the international redeployment of manufacturing facilities and the transfer of industrial technology and know-how to the SME sector in developing countries.

This programme is operationalized through the provision of technical assistance for the establishment and development of subcontracting and partnership exchanges (SPXs) at country level. These SPXs act as centers for technical information, match-making and promotion as well as clearing-houses for industrial sub-contracting and partnership inquiries and opportunities.

To support the programme, UNIDO has developed a series of instruments as follows

- Policy advice and related legislation;

- Computer programme for database management (UNIDOSS);
- Handbooks and manuals for SPXs operations;
- Subcontracting nomenclatures and terminologies;
- Legal guidelines and model contracts for establishing subcontracting agreements;
- Guidelines for the organization of subcontracting fairs/exhibits;
- Brochures and videotapes on the subject;
- Establishment of a UNIDOSS Club (network and support services);
- Preferential access for selected international subcontracting fairs/exhibits.

Detailed information on the above will be provided to the evaluation team.

The components of the programme can be summarized as follows:

- Various up-stream and/or in-house activities, including Expert Group Meetings and an XP global project, which have taken care of the development of the methodology, approach, softwares, etc.;
- A Latin American Programme financed by the Swiss and Italian Governments under IDF which aims at establishing/developing a network of standard SPXs in 14 countries;
- An Arab Programme which was to establish SPXs in Algeria, Morocco, Tunisia and Jordan and involved as well Egypt and Iraq in some of the programme's activities. The initial programme was financed by UNDP and a French contribution to IDF is now financing a programme for the promotion of international subcontracting and partnership. The DP project underwent an in-depth evaluation in 1990 which covered Egypt, Iraq, Morocco and Tunisia and by and large was positive.
- Around six national projects to establish/develop SPXs in selected countries financed under a variety of sources, mostly UNDP, IDF and (for the first time) the E.U. PHARE programme.

As part of the above-mentioned XP project an "Awareness Seminar" was to be organized in Vienna by the Small and Medium Enterprises Branch to exchange experiences between the country participants, experts and UNIDO staff members involved, to propose a regional network for Central/Eastern Europe and to present the programme to selected donors through their Vienna missions.

Project documents and reports on the above will be provided to the evaluation team.

The Evaluation

An in-depth evaluation of the RLA project mentioned above is foreseen in the related project document. Furthermore the Director-General has decided to launch an in-depth evaluation of the programme as a whole. It only makes sense to combine both exercises.

The users of this evaluation will be multiple: the management of UNIDO and of the Programme and the participating countries (donor and recipient). Its purpose will be not only of accountability but to provide methodological and operational directions for the future.

II. Scope, purpose and methods of the evaluation

In accordance with the UNIDO provisions regarding Monitoring and Evaluation, the primary purposes of an in-depth evaluation are as follows:

- a. To assess the achievements of the programme against the objectives and outputs stated in the respective project documents as well as re-examination of the design of these projects;
- b. To identify and assess the factors that have facilitated the achievements of the programme's objectives as well as those factors which have hampered or impeded the fulfilment of those objectives;
- c. To examine the extent to which the results of the programme have contributed towards increasing national capabilities in developing Industrial Subcontracting and Partnership and operating Exchanges.

The evaluation will include:

- Examination of the concepts and tools (including software) utilized in the programme (conceptual analysis);
- Visits to selected recipient countries. At least in one of those countries the assistance should have been already completed in order to examine ex-post impact;
- Preparation of an evaluation report which should have findings at two levels:
 - * Programme (concepts, tools, etc)
 - * Country level
 and recommendations for the future.

The evaluation will take into consideration the objectives of this programme as defined under the seven priority themes of UNIDO activities.

As specific issues to be analyzed, the following may be identified, although the list is not exhaustive:

- Functions performed by SPX (by type of "interventions");
- Applicability of the exchange not only to manufacturing operations but also to related services;
- Methods for collecting information from prospective partners (questionnaires);
- Combination of national, regional and international exchanges (advantages and problems);
- Relation of the UNIDO Programme in Latin America with the European Union AI Investment Programme 1996-2000;
- Achievements/impact of the project not envisaged by the project documents, such as changes of the attitude on the part of the industrialists and policy makers regarding subcontracting;
- Factors of sustainability, such as:
 - * commitment of the Government and industrial associations to support the SPX as reflected in a medium term operational budget;

- * adequacy of the institutional framework within which the SPX is set;
- * cost recovery of services;
- Adequacy of geographical location;
- Organization of work at SPX, including the division of responsibility between the partners and availability of job descriptions;
- Effects of the staff turnover;
- External factors influencing the demand for subcontracting and its promotion, such as
 - * economic/industrial development of the country/regions;
 - * economic policy;
 - * trade policy;
 - * role of state in supporting institutional infrastructure;
 - * role and strength of industrial/trade associations.

The mission should also review to what extent the exchanges cooperate between themselves and with UNIDO Headquarters.

While a thorough revision of the past is itself important, the in-depth evaluation is expected to lead as well to detailed suggestions for further assistance under the programme.

III. Composition of the evaluation team

The team will be composed of the following:

- One staff member of the evaluation section;
- One expert with experience in the operation of subcontracting exchanges and related tools.

Due to the fact that this Programme has been financed by various sources (UNDP, Italy, France, Switzerland, EU/PHARE Programme, etc.) it is not practical to include as members of the evaluation team, representatives of these countries but they will be kept informed as well as the recipient countries of the results of this evaluation.

These participants should not have been directly involved in the design, appraisal or implementation of any component of the programme.

IV. Consultations in UNIDO and the field

An advisory committee to the evaluation has been established with representatives of UNIDO's Divisions/Branches/Sections which are concerned by, or have cooperated with the programme. Those units are:

ITPD/ICC
ITPD/IS/FEAS
ISED/EM
ITPD/TS
HEPD/ISP

ITPD/IS
IRD/INF
HEPD/SME

The evaluation team will spend two weeks in Headquarters to carry out the conceptual analysis described under II and identify specific issues for the country visits. It will then break down to visit selected countries covered by the programme to analyze the exchanges and other organizations relevant to the programme and interview end-users of the exchanges.

Although the evaluation team should feel free to discuss with the authorities concerned all matters relevant to its assignment it is not authorized to make any commitment on behalf of the donors and UNIDO.

V. Timetable

The team should assemble in Vienna in December 1995 for briefing by the advisory committee, records consultations and preparation of the conceptual analysis.

The field trips will take place in January/February 1996.

The mission will complete the evaluation in draft, in time for the Regional Coordinating Committee for Subcontracting in Latin America to take place from 25 to 29 March 1996, which will serve as a Tripartite Review Meeting, on which occasion the mission will present its findings, conclusions and recommendations and be ready to discuss these.

The final version of the report will be completed subsequently and presented officially by UNIDO to all the major donor and recipient countries and institutions of the Programme. Upon this occasion an Awareness Seminar on the Programme will be organized, at which the mission will present its initial findings, conclusions and be ready to discuss these.

*UNIDO Programme for the Promotion of Industrial
Subcontracting and Partnership*

LIST OF METHODOLOGICAL DOCUMENTS

- 1) Leaflet on Promotion of Industrial Subcontracting and Partnership (E, F, S)
- 2) Report on Expert Group Meeting on Industrial Subcontracting Exchanges and Policies, Vienna 22- 24 May 1991 (E, F, S)
- 3) Report on Expert Group Meeting on Chambers of Commerce and Industry (report), Vienna, 5 - 7 July 1993 (E, F, S)
- 4) Report on Expert Group Meeting on the UNIDO Industrial Subcontracting System (UNIDOSS) and Partnership, Vienna 20-24 June 1994 (E, F, S)
- 5) Report on the 2nd. Expert Group Meeting on UNIDO Industrial Subcontracting System (UNIDOSS), Vienna, 8-10 November 1995 (E, F, S)
- 6) Industrial Partnerships (with a view to more lasting, equitable and modern industrial subcontracting relations) by C. Altersohn, 1993, (E, F, S)
- 7) "To Make or to Buy? - To Manufacture or to Subcontract?" (V.87 90987) (E, F, S)
- 8) Proposed Legal Statutes for an Industrial Subcontracting and Partnership Exchange (V.90 8045 774e) (E, F, S)
- 9) Notebook for the Practical Use of Appropriate Terminologies/ Nomenclatures for Industrial Subcontracting by C. de Mars (E, F, S)
- 10) The Standard Questionnaire for Collecting Information from Main-Contractors and Subcontracting Enterprises (E, F, S)
- 11) Practical Guide for Subcontracting Agreements (E, F, S) with model contracts by J.A. Boon and M. Souhaite
- 12) Practical Guide on the Organization of Subcontracting Fairs (J.M. Dethoubet) (E, F)
- 13) Practical Guide on how to participate in Industrial Subcontracting and Partnership Fairs (F. Theux) (E, F)
- 14) International Directory of Industrial Subcontracting and Partnership Exchanges (1993, 1994, 1995 issues)
- 15) Note describing UNIDO's computerized Subcontracting System (UNIDOSS) (E, F, S)
- 16) The User's Manual on UNIDOSS software version 1.2.3
- 17) The UNIDOSS Club (E, F, S)
- 18) Note on the Sustainability of SPXs (E, F) (May 1996)
- 19) + Video-cassette (18 minutes) on UNIDO experience in establishing Subcontracting and Partnership Exchanges (COL, PER, TUN) (E, F, S)

Under Preparation:

- 20) UNIDO Guide on the Establishment and Management of SPX (by May/June 1996)
- 21) Analysis of case studies on Industrial Subcontracting (July 1996) (criteria of success)
- 22) User's Guide on the UNIDO Subcontracting System UNIDOSS V-2 (July 1996) (E, F, S)
- 23) Demo disquette on UNIDO Programme for the Promotion of Industrial Subcontracting and Partnership (June 1996) (E, F, S)

A. de Crombrughe
03/05/96

SUBCONTRACTING PARTNERSHIP EXCHANGE (SPX)

evaluation questionnaire

compiled/...../199..

Name of the SPX (in English)

by

1. Institutional status

1.1. The SPX has been established in the year : 19.....

1.2. At that moment the founding bodies were :

ministries NO YES name

institutions/banks NO YES name

private enterprises NO YES how many

1.3. Today the SPX is :

an office or a department or a branch of the ministry NO YES

an office or a department or a branch of the institution NO YES

independent company NO YES

1.4. Today, the institutions represented at the committee supervising the SPX are :

1 - 4 -

2 - 5 -

3 - 6 -

2. Financing

2.1. The start-up capital and/or funding has been supplied by :

UNIDO government associations,banks

International donors Private enterprises Others

2.2. The 1995 activities were financed by (please indicate the percentage) :

Total :	100%		
Funding bodies contribution :	%		
Income Generating services :	%	Registration fee :	%
	of which :	Annual membership fee :	%
		Match-making :	%
		Promotional activities	%
		Training activities	%
		Consultancy	%
		Others	%

3. Personnel

3.1. Please indicate the number of persons employed in the SPX :

full time ... Persons (including secretarial staff) part timePersons

3.2. For the key persons, indicate the function, the age and the background :

	Function	age	sex M/F	background
1				
2				
3				

3.3 Regional Branches of the SPX, if any (Location, staffing, functions):

4. Equipment, assets

4.1. Does the SPX have cars ?

- NO YES, not owned YES, SPX owned

4.2. Does the SPX own personal computers ?

- NO YES, not owned YES, SPX owned

Mac

IBM compatible 386 486 Pentium

4.3. Does the SPX own a fax-modem ?

- NO YES, not owned YES, SPX owned

4.4. Is the SPX connected with INTERNET or other computer network ?

- NO YES, not owned YES, SPX owned

please indicate your E.mail adress.....

4.5. Has the SPX a library with technical and economic publications ?

- NO YES, not owned YES, SPX owned

4.6. Does the SPX use software others than UNIDOSS for data management ?

- NO YES *which type :*

4.7. Please indicate the commercial software packages available in the SPX :

<i>name</i>	<i>version</i>

5. Database

5.1. Please indicate the industrial sectors covered by your SPX :

- Metal-working (including capital goods) Electrical-electronics
 Plastic & Rubber Textile-Leather
 Industrial services wood-working
 others

5.2. Please indicate the number of suppliers/subcontractors registered in your files :companies

5.3. Please indicate the number of suppliers/subcontractors registered in UNIDOSS:.....companies

5.4. Please indicate the number of buyers/main contractors registered in your database :
.....companies

5.5. Estimate the approx. ratio (%) of registered suppliers/subcontractors compared with the total number of companies active in the sectors covered by the SPX :

- less than 10%
- from 10 to 25%
- from 25 to 50%
- from 50 to 80%
- more than 80%

5.6. How often the database is up-dated :

- 6 months
- 12 months
- 18 months
- 24 months
- more than 24 months

5.7. Estimated average % of the incompleted enterprise questionnaires :

- less than 10%
- from 10 to 25%
- from 25 to 50%
- from 50 to 80%
- more than 80%

6. Procedures, rules, operations

6.1. Could you indicate which procedures and rules the SPX applies in its operations:

- Industrial plant visits and company evaluation : NO YES in preparation
- Match-making and follow-up procedure : NO YES in preparation
- Database updating procedure : NO YES in preparation
- Protection of data, confidentiality and selected access to the information :
 NO YES in preparation
- Guidelines for contractors NO YES in preparation
- Guidelines for subcontractors/suppliers groupings :
 NO YES in preparation
- Rules for service fee to be charged to the companies :
 NO YES in preparation

6.2.1. Is SPX using the UNIDOSS software for data management : NO YES

6.2.2. If the SPX is not using the UNIDOSS, could you explain the reasons why ?

.....

.....

.....

.....

6.2.3. If the SPX use the UNIDOSS software, could you indicate which capabilities are utilised?

- Company information storage: NO YES
- Selection of potential suppliers/sub contractors: NO YES
- Mailings to the companies: NO YES
- Circulation of the inquiries among selected company: NO YES
- Monitoring the match-making activities: NO YES
- Monitoring inquiries: NO YES
- Prepare analytical reports: NO YES

6.2.4. Being a UNIDOSS software user, could indicate its majors advantages and its major defects?

Advantages:.....

.....

.....

Defects:.....

7. Indicators of the level of the SPX activity

7.1. Match-making

7.1.1. Indicate the number of inquiries received in the last year :
 of which international%

7.1.2. For the same period, indicate the number of successful match-making resulting in a contract :
 of which international%

7.1.3. Estimate the total value generated by those contracts :
 '000 US\$ of which international%

7.2. Partnership/Joint Ventures

7.2.1. Indicate the number of inquiries received in the last year :
 of which international%

7.2.2. For the same period, indicate the number of inquiries which resulted in a contract :
 of which international%

7.3. Promotion

7.3.1. In the last two years, did the SPX organise the participation of local subcontractors/ suppliers at foreign fairs and exhibitions :

NO YES how many companies have participated :

7.3.2. Is the SPX organising or sponsoring local exhibitions or other promotional events :

NO YES could you indicate :

	activities	number of events	number of local participants	number of foreign participants
1				
2				
3				

7.3.3. Did the SPX prepare publications, such as leaflets, brochures, directories to be used in the promotional activities of the centre :

NO YES Which ones?

7.3.4. Is the SPX present on local business press :

NO YES sometimes YES regularly

7.3.5. Has SPX prepared tailor-made programs targeted at specific buyers or markets?

NO YES Could you shortly describe those programs :

1	
2	
3	
4	

7.3.6. Is the SPX promoting the participation of SMEs in Government procurement programs and bids :

NO YES

Trends (Tendencias de volumen)

7.4. In the last two years, the SPX carried out some training activities dedicated to the local industry as :

- seminars/ workshops* NO YES in preparation
- business tours* NO YES in preparation
- educational publications* NO YES in preparation

on which subjects?

7.5. In the last two years, the SPX provided or mediated consultancy services to the local companies or to third parties as :

- market studies, market surveys* NO YES in preparation
- regular market monitoring* NO YES in preparation
- pre-investment and feasibility studies* NO YES in preparation
- advise on certification procedures* NO YES in preparation
- financing* NO YES in preparation
- privatisation* NO YES in preparation
- intellectual property rights* NO YES in preparation
- others* NO YES in preparation

8. Gathering of the inquiries

8.1. Please list the channel through which the SPX is mainly receiving the inquiries :

<i>Foreign exhibitions</i> %
<i>Local exhibitions</i> %
<i>Advertising</i> %
<i>Target mailing</i> %
<i>Personal contacts</i> %
<i>Professional associations</i> %
<i>Institutional channels</i> %
<i>Others</i> %
<i>Total</i>	100 %

8.2. In the last two years, out of the total number of inquiries received by the SPX, what has been the percentage of the inquiries made by the same buyer or main contractor ?..... %

8.3. During the last 3 years, the number of inquiries made by same buyer/main contractor is:

- increasing constant decreasing

9. SPX connections

9.1. Is your SPX in connection with other SPXs ?

- NO YES, with SPX operating in your country YES, with foreign SPX

9.2. Which are the main purposes of this connection :

- circulation of inquiries not matched by your database* NO YES
- preparation of training packages* NO YES
- preparation of promotional activities* NO YES
- exchange of consultancy services* NO YES
- others* NO YES

- 9.3. In which way the communication among the connected SPX is realised :
- occasional meetings* *regular meetings* *others*
- 9.4. Are you in contact with any UNIDO Investment Promotion Services Offices (IPSOs)?
- NO* *YES, not regularly* *YES, regularly*
for which purpose
- 9.5. Are you in contact with any other investment promotion agency ?
- NO* *YES, not regularly* *YES, regularly*
please indicate the name

10. Reference companies (for SPXs not visited)

10.1. Please indicate the name of 5 national buyers/main contractors, with contact person, telephone and fax number, that could be contacted by UNIDO during the evaluation process :

<i>Company name</i>	<i>Contact person</i>	<i>Tel. num.</i>	<i>Fax num.</i>
.....
.....
.....
.....
.....

10.2. Please indicate the name of 5 international buyers/main contractors, with contact person, telephone and fax number, that could be contacted by UNIDO during the evaluation process :

<i>Company name</i>	<i>Contact person</i>	<i>Tel. num.</i>	<i>Fax num.</i>

10.3. Please indicate the name of 5 suppliers/sub contractors, with contact person, telephone and fax number, that could be contacted by UNIDO during the evaluation process :

<i>Company name</i>	<i>Contact person</i>	<i>Tel. num.</i>	<i>Fax num.</i>

11. SPX opportunities and threats/risks

Looking at the future of your SPX in a medium term perspective, in your opinion, which are the major opportunities and the majors threats for your Exchange :

Opportunities.....

.....
.....
.....
.....

Threats/Risks.....

.....
.....
.....
.....
.....

12. Suggestions to UNIDO

12.1. Based on your experience could you indicate the strengths and the weaknesses of the UNIDO SPX programme ?

Strengths.....

.....
.....
.....
.....
.....

Weaknesses.....

.....
.....
.....
.....
.....

12.2. Based on your experience of managing the SPX, which advise you will give to UNIDO to improve the effectiveness of the SPX programme ?

.....
.....
.....
.....

**Main contractor/Buyer
Interview questionnaire**

Annex 4
compiled/1996
by

Ask SPX to supply the main contractor/buyer profile as it's stored in the database, if available.

1. Company data

- 1.1. Company name.....
1.2. Activity/activities.....
1.3. Turn-over value ('000US\$) in 1995..... Number of employees.....
1.4. Export as % of the total turnover in 1995:.....
1.5. Person interviewed..... Position

2. Relevance of subcontracting in the company activity

- 2.1. Relevance of subcontracting in the company activity as % of the total purchasing.....%
in 1995. Forecast for 1996 %
2.1. In the last 3 years the amount of subcontracting is :
 increasing constant decreasing
2.2. Could you kindly explain the reasons of this trend ?
.....
.....
.....

3. First contact with the SPX

- 3.1. How have you become aware of the existence of the SPX of? Through:
-Fairs and exhibitions: Which one?
-Institutions as chambers of commerce, industry associations etc.
-Advertising: Which kind?
-Other companies that experienced the SPX recommended it to you
-Others

4. Evaluation of the services supplied by the SPX

- 4.1. Having used the SPX services, how much you value the services listed here below:
match-making (finding sub-contractors)
 very good good fair unsatisfactory very unsatisfactory not applicable
match-making follow-up
 very good good fair unsatisfactory very unsatisfactory not applicable
assistance on offer costing
 very good good fair unsatisfactory very unsatisfactory not applicable
assistance on offer technical contents
 very good good fair unsatisfactory very unsatisfactory not applicable
finding of local suppliers
 very good good fair unsatisfactory very unsatisfactory not applicable
finding of foreign suppliers
 very good good fair unsatisfactory very unsatisfactory not applicable

5. Suggestions and recommendations

5.1. Are you informed of the existence of other SPX's, beside the one located in.....?

no yes

5.2. In your opinion which are the major challenges for your enterprise in the future :

Cost competitiveness

Production management

Rise of quality standard

Cost competitiveness of your suppliers

Quality level of your actual suppliers

5.3. How the SPX could help your company to face those challenges?

.....
.....
.....

5.4. Which additional services could be provided by the SPX ?

.....
.....
.....

5.5. As you may know, the SPX are partially funded by donors, governments, associations or more brutally by tax-payers money. Being a manager, do you think that money is well spent ?

.....
.....
.....

5.6. Could you explain your view ?

.....
.....
.....

5.7. Do you have better proposals ?

.....
.....
.....

5.8 Any other views on the SPX of and its work methods?

.....
.....
.....

5. General opinion on SPX

5.1. Do you think that the services provided by SPX are beneficial for your company?

.....
.....
.....

5.2. Could you explain more broadly ?

.....
.....
.....

6. Evaluation of the services supplied by the SPX

6.1. If you have used the SPX services, how much you value the services listed here below:

match-making with contractors

very good good fair unsatisfactory very unsatisfactory not applicable

match-making follow-up

very good good fair unsatisfactory very unsatisfactory not applicable

assistance on offer costing

very good good fair unsatisfactory very unsatisfactory not applicable

assistance on offer technical contents

very good good fair unsatisfactory very unsatisfactory not applicable

promotion of local suppliers in the domestic market

very good good fair unsatisfactory very unsatisfactory not applicable

promotion in the foreign markets

very good good fair unsatisfactory very unsatisfactory not applicable

training on SME management issues

very good good fair unsatisfactory very unsatisfactory not applicable

consultancy on financing

very good good fair unsatisfactory very unsatisfactory not applicable

other consultancy services, please specify

very good good fair unsatisfactory very unsatisfactory not applicable

6.2. How do you judge the price of the services provided by the SPX :

very convenient convenient fair expensive very expensive

6.3. If you consider the SPX expensive could explain why ?

comparison with price of the same services provided by other parties

quality is poor for the money paid

your financial resources are very limited

other reasons

6.4. If you consider the price charged fair or convenient, under which conditions are you prepared to pay more ?

.....
.....
.....
.....
.....

7. Suggestions and recommendations

7.1. In your opinion which are the major future challenges for your enterprise :

Cost competitiveness

Financing

- [] Production management*
- [] Rise of quality standard*
- [] Improve your marketing skills toward the export market*
- [] Improve your marketing skills toward the domestic market*
- [] Competition in the domestic market*
- [] International competition*

7.2. How the SPX, could help your company to face those challenges?

.....

.....

.....

.....

7.3. Which additional services could be provided by the SPX to help solving the above challenges?

.....

.....

.....

.....

7.4. As you may know, the SPX are partially funded by donors, governments, associations money or more brutally by tax-payers money. As an entrepreneur, do you think that money is well spent?

.....

.....

.....

.....

7.5. Could you explain your view ?

.....

.....

.....

.....

7.6. Do you have a better proposal ?

.....

.....

.....

.....

7.7 Any other suggestions?

.....

.....

.....

.....

SME PARTNERSHIP NETWORK

Annex 6

UNIDO SERVICES AVAILABLE

UNIDO Resources/ Services	Target Beneficiaries (SME coverage)	Institutional Set-up	Match- making meetings	Data Base	Data Questionnaire	DB Software	Network	Access (Confidential)	Support Services
1. Industrial Subcontracting and Partnership (SME)	90% SME	SPX (Subcontracting and Partnership Exchanges)	Partnership Fairs	UNIDOSS	Yes	UNIDOSS	Yes (Ring)	No (Confid.)	SMIDOs
2. Investment Service	Both large and SMEs	IPS (Investment Promotion Services)	Investment Promotion Fors	DIPP	Yes	1. WINS 2. PROSPIN 3. COMFAR	Yes (WINS) No No	Yes	1. project Completion Facility 2. Feasibility studies (COMFAR)
3. Technology Service	Mostly SMEs	Counterparts	1. TECHMART 2. Strategic Business Alliances (SBS)	1. TECHMART Compendiums 2. TIES	No (leaflet)	No	No	No (Confid.)	1. Seminar on T. of T. NEGO 2. SBS
4. Industrial Information	Mostly SMEs	Focal Points	No	INTIB 1. IDA 2. Int. refer- ence System	Yes	(Yes)	No (Star)	Yes (UNIDO Directory)	T.A. Nat. Info System
5. Enterprise Management (EDR)	Both Large and SMEs	Counterparts	No	(No)	Yes	1. BEST 2. FIT 3. BUS PLAN	No	No	Yes
6. Marketing 1. (1 + 2 above) 2. (UNCTAD TRADE POINTS) (ETP)	Both	1. SPX/IPS 2. Trade Points	1. Yes 2. No	1. Yes 2. Yes	1. Yes 2.	1. Yes 2.	1. Yes 2. Yes	1. 2. Yes	1. Yes 2. (No)
7. National Industrial Statistics (ISB)	Macro	Nat. Stat. Offices	No	3 dig ISIC 4 dig ISIC	Yes	same	No (?)	(Yes)	(Yes)

***Manual on the Establishment and Operation of SPXs
Comments on the List of Contents***

On the proposed structure of the manual, the following observations could be made:

1st part, Cap.1 Background, a - The industry and the subcontracting

The illustration of the different experience, mainly European, North American and Japanese in different industrial sectors could be useful in order to illustrate the relation among economic efficiency and subcontracting.

Furthermore the subcontracting has to be interpreted in the framework of co-operation among enterprises, competing in the market.

At this point the concept of subcontracting could lead to the introduction on industrial districts or cluster, were it achieve it's maximum development.

1st part, Cap.2 Background, b - The subcontracting

All the content of these paragraphs has to be consider the historical evolution of the subcontracting practise in the industry in the last 30 years and the differences due to the different nature of the business sectors. A good example of the historical evolution could be the automotive sectors or the agricultural tractor production, were the firm evolved from the vertical integrated structure of the '50 from the foundry to the assembly line, to the today lean manufacturing, concentrated on the critical processes, in case of ag tractors assembly and testing.

The differences on the subcontracting practises due to the different nature of the business has to be illustrate as well. The differences among the subcontracting requirements vary according the production volume, the complexity of the product, the volume and the specialisation who characterised each phase of the production process.

4th part The UNIDO-SPXs, Cap.2 The institutional aspects

This chapter has to illustrate the relevance of the identification of stockholders in the process of the SPXs foundation; based on UNIDO experience how the success of SPX depends on the selection of the right stakeholders.

Beside the financial aspects, their vision of the SPX mission will determine for a large extent the SPX focus of activities. For example: it will be depend mainly on the stakeholder vision if the SPX will focus on incentive the subcontracting in the domestic market or try to increase the export business.

4th part The UNIDO-SPXs, Cap.3 The structural aspects, h- Financial disposition

The local taxation system has to be considered as far as company concerns. In some country the firms compulsory pays for supporting the Chamber of Commerce or similar institutions. In that case the entrepreneurs expect to receive services from those institution free of charge, among those the SPXs services, if it's located in the frame of such institution. In other countries the taxation is lower, so entrepreneurs are more prepared to pay for receive SPXs services.

4th part The UNIDO-SPXs, Cap.4 The operational aspects, 9 type of intervention

Beside the type of activities also the possible mix have to be considered. The activities of the SPX could be grouped in two broad categories as promotional and training and consultancy activities. The mix among the two is derived from the SPX strategy which depends on the stakeholder vision and on the careful assessment of the local subcontractors and economic environment needs.

4th part The UNIDO-SPXs, Cap.5 The SPX duration, d- SPX flexibility and adaptability.

Some hints on the most likely impact of the information technology on SPXs activities could be offered, mainly as an invitation of a continuous monitoring of the area in order to exploit their possible benefits.

Fig. 1: Number of SPXs established per year

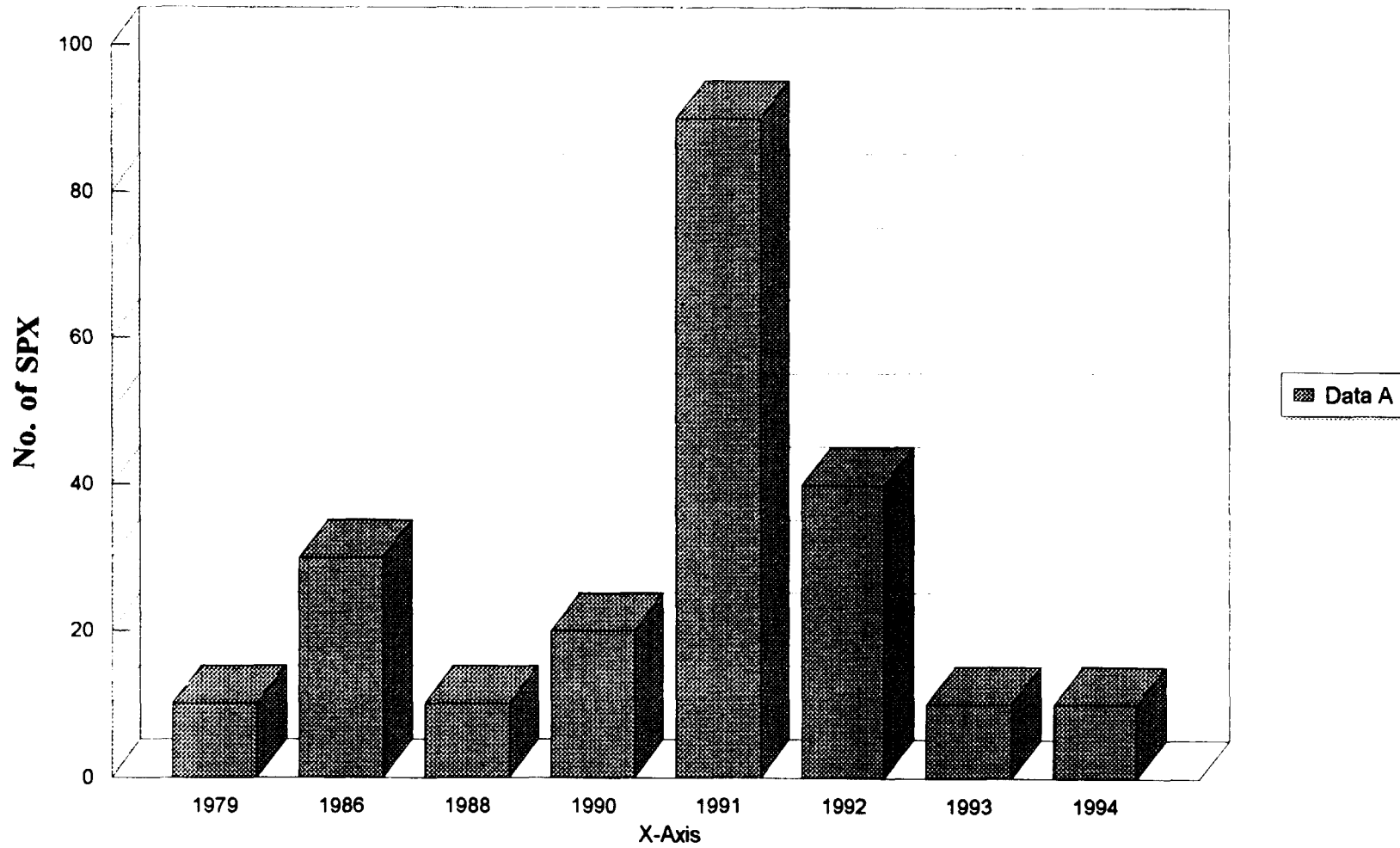
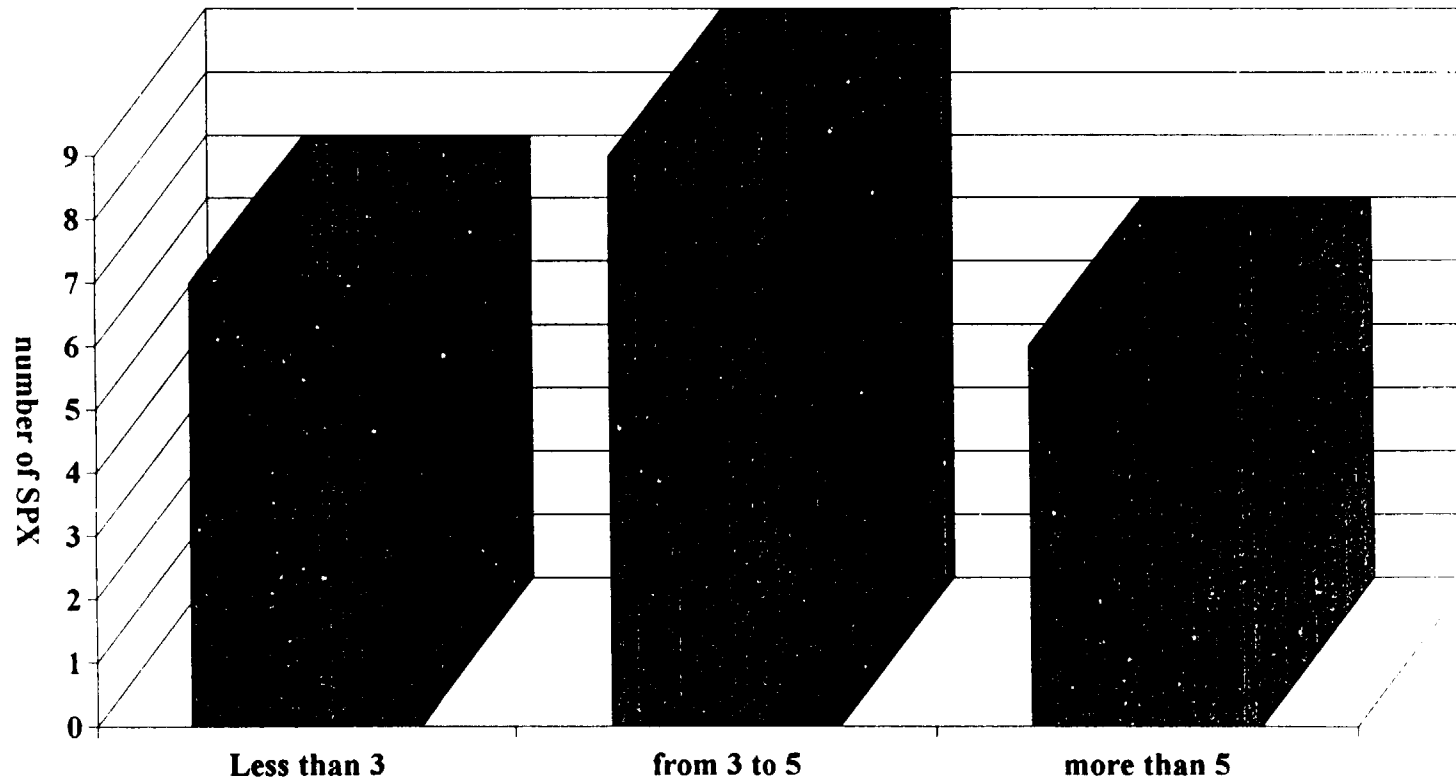


Fig. 2 : SPX persons employed



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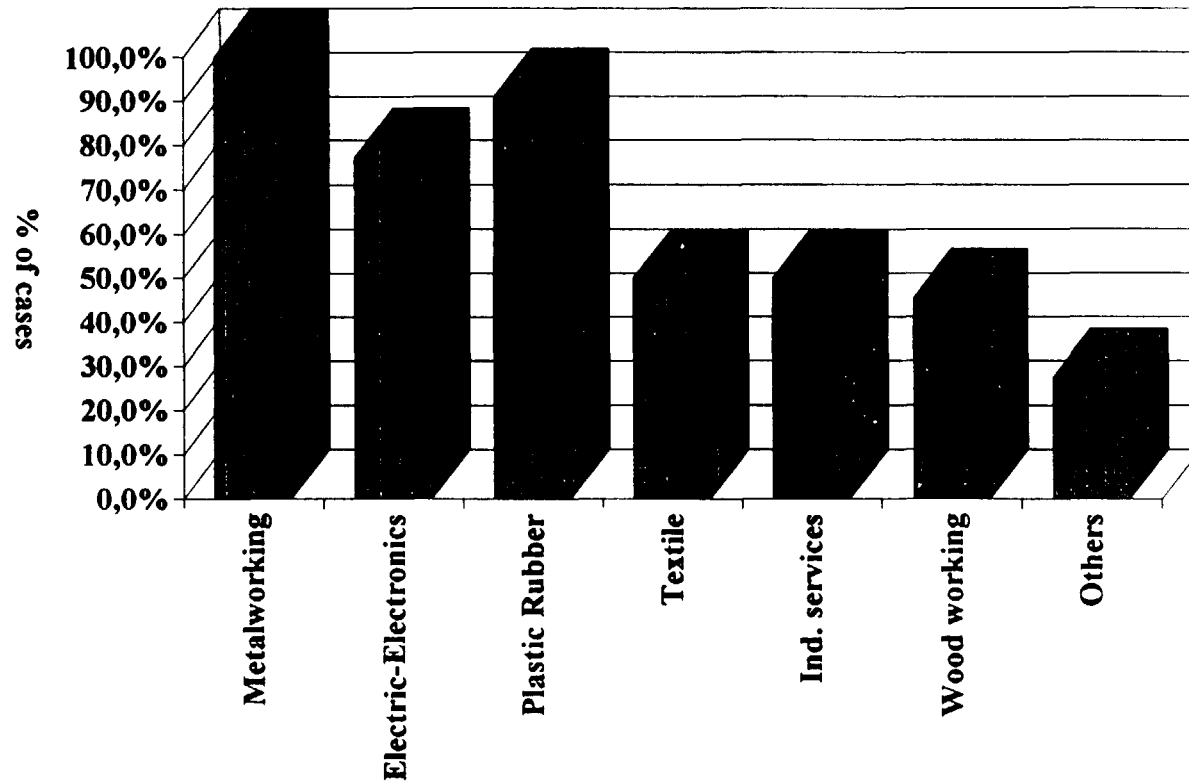
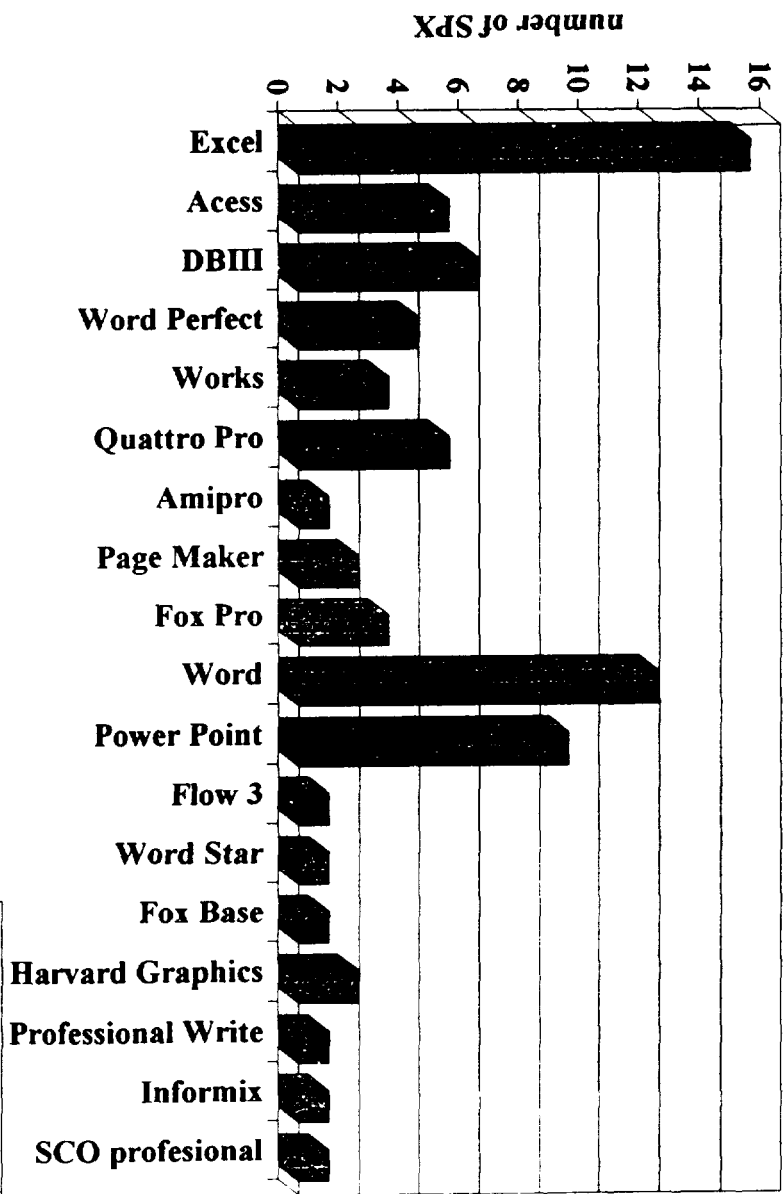
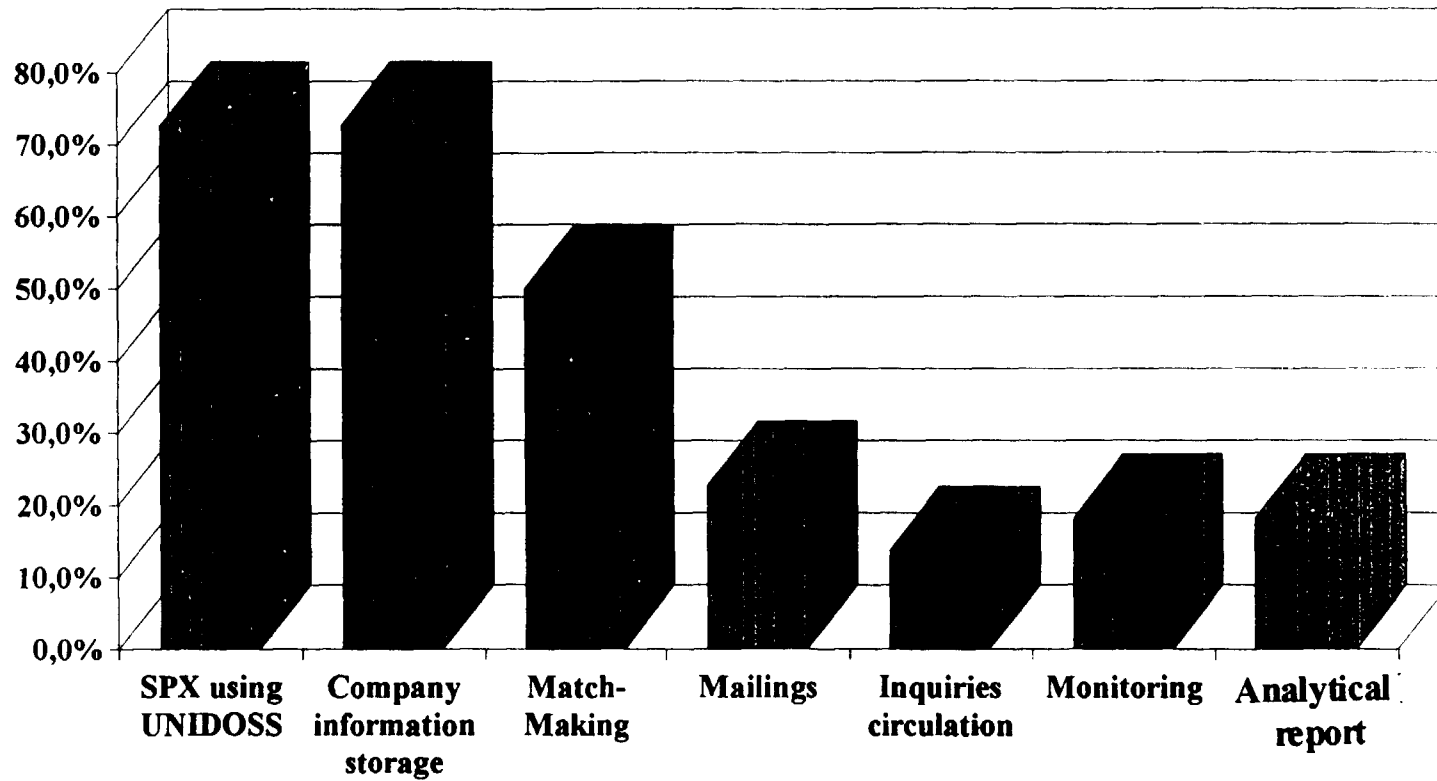
Fig. 3 : Industrial sectors covered by the SPXs

Fig. 4 : Type of commercial software available in the SPXs



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Fig. 5 : Uses of UNIDOSS in the SPXs

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Fig. 6 : Number of Companies Registered in the SPXs Databases

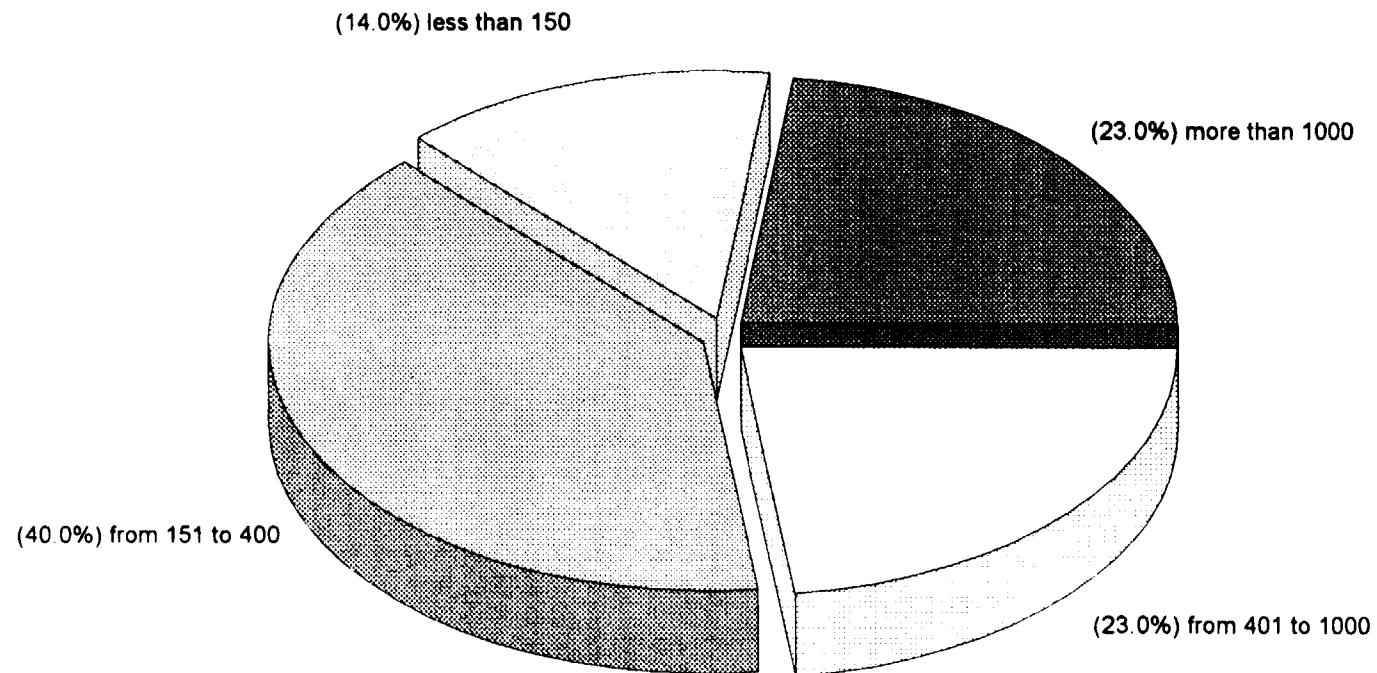


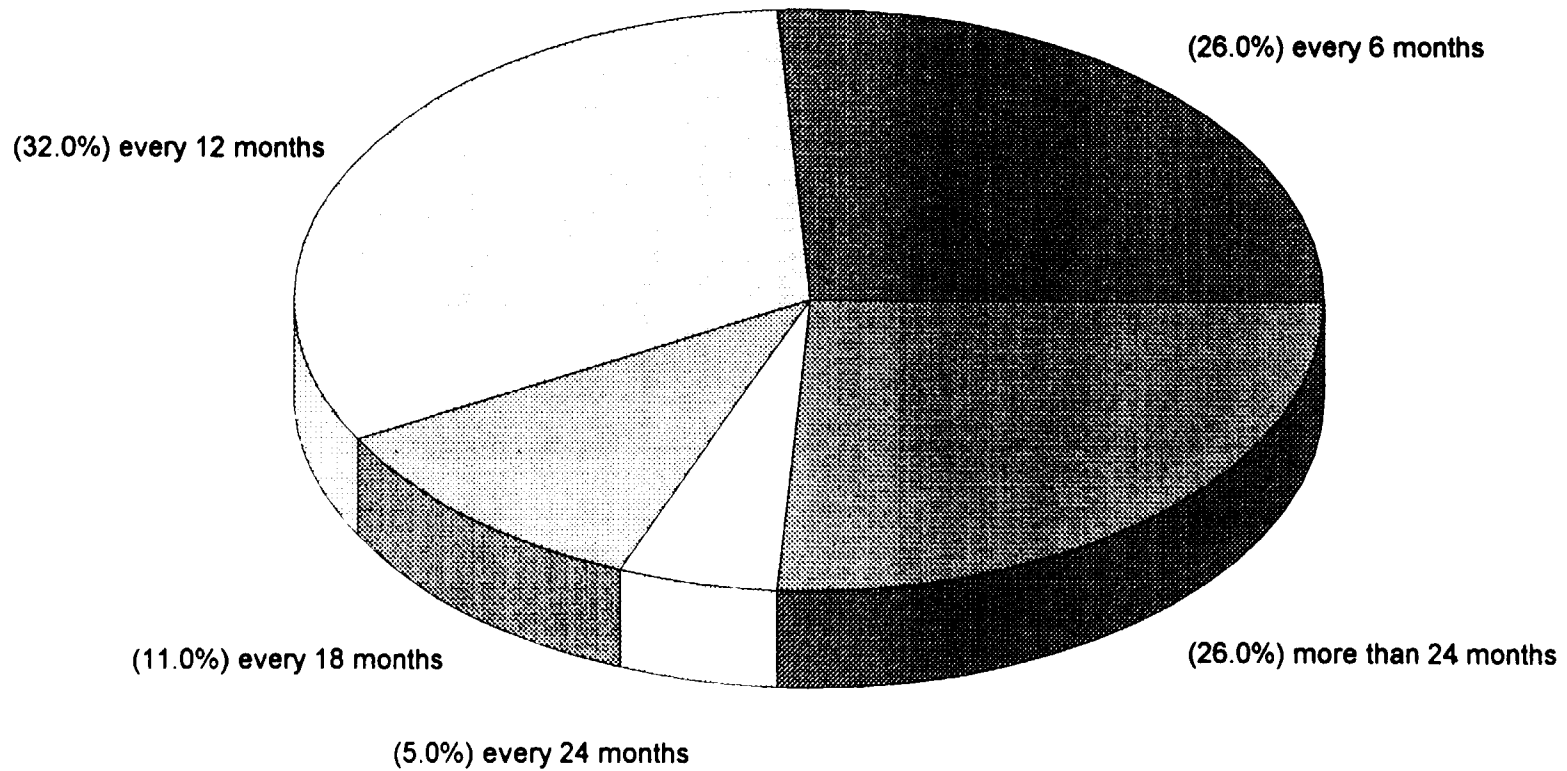
Fig. 7 : Updating of the SPXs Databases

Fig. 8: Sources of Inquires