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The Development Study on the Promotion of Small and Medium-sized Enterprises in the Republic of Hungary

- Manufacturing Sector -

FINAL REPORT (SUMMARY)

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ABBREVIATION

AFEOSZ	National Federation of Consumer Cooperative Societies
APEH	Bureau of Tax and Financial Control
CGC	Credit Guarantee Corporation
EBRD	European Bank for Reconstruction and Development
EDB	Enterprise Development Board
EDI	Electronic Data Interchange
EIC	Euro Info Center
EIF	European Investment Fund
ERDF	European Regional Development Fund
EU	European Union
HPC	Hungarian Productivity Center
HSBA	Hungarian Small Business Association
IFC	International Finance Corporation
IMD	Institute for Management Development
INNOSTART	Hungary National Business & Innovation Center
IPE	Industrial Park Association
IPOSZ	Hungarian Association of Craftmen's Corporation
ISDN	Integrated Service & Digital Network
ISP	Internet Service Provider
ITD-H	Hungarian Investment and Trade Development Agency
KISOSZ	National Federation of Traders and Caterers
LEA (or HVK)	Local Enterprise Agency
MEA	Ministry of Economic Affairs
MFB	Hungary Development Bank
MGYOSZ	Confederation of Hungarian Employers and Industrialists
MISZ	Hungarian Innovation Association
MKIK (or HCCI)	Hungarian Chamber of Commerce and Industry
MKVT	Hungarian Small Business Association
MTV	MAGYAR TÁVKÖZLÉSI RT.
MVA	Hungarian Foundation for Enterprise Promotion
MVF	Hungarian Enterprise Promotion Public Utility Company
OKISZ	Hungarian Industrial Association
OMFB	National Committee for Technical Development
PHARE	Poland-Hungary Assistance for Restructuring Economy
RCGF	Rural Credit Guarantee Foundation
RDHC (or RFH)	Regional Development Holding Company
RFT (or RDC)	Regional Development Company
RMKK	Regional Center for Manpower Development & Training
RSPC	Regional Sub-contracting Promotion Center
VISZ	Association of Enterprising Incubators
VOSZ	National Association of Employers and Entrepreneurs

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Proposals and Recommendation

1. Goal Setting for SME Promotion

Since 1990, the fostering of SMEs in the country has been mainly led by promotion of local microenterprises under the assistance of the PHARE funds. The efforts have contributed to regional development, job creation and correction of regional inequality, and institutions and systems for implementation of related programs have been also developed. Now that financial assistance under the PHARE program will be focused on regional development, and the country will soon join the EU, it is time to establish medium- and long-term development goals and strategies for promotion of SMEs in the new era. It is not necessarily undermining or nullifying the ongoing policy or various systems and institutions that are currently under development. In fact, the setting of clear development objectives for SEMs will help optimize allocation of resources for public support.

Major characteristics of SMEs in Hungary were analyzed on the basis of the result of the present study and comparison with those in selected EU countries, as summarized below.

(1) Low competitiveness of products

Under the pilot project No.1 (PP-1) “Subcontracting Promotion Project”, the Study Team made extensive efforts to establish subcontract relationships between buyers and suppliers for nearly six months, but no subcontract has been made yet. The major reason, as cited by most buyers or MNCs, is substandard quality of parts made by local SME suppliers. This explains low levels of local procurement by multinationals operating in the country.

On the other hand, local suppliers dominated by SMEs generally recognize that their products lack competitiveness. Under the PP-1, for instance, the Study Team presented a list of 64 parts for which potential buyers showed interest in local procurement to pre-selected 122 potential suppliers, but only 30 expressed interest in supplying them. The Study Team understands that the poor response rate indicates the lack of confidence on the part of SMEs. Also, under the PP-3 “Intensive Training Course for Young Managers,” 20 participants were asked of a question, “Do you have confidence in supplying parts to Japanese companies at

present?" No one said yes. Most respondents felt that they would not be able to achieve the goal in the next ten years.

(2) Industrial structure dominated by microenterprises

The industrial structure in Hungary is characterized by a higher percentage of microenterprises than that in the EU. Microenterprises account for 96% of the total number of enterprises, compared to 93% in the EU, and 36.4% and 33.2% of the total number of employees, respectively. Sales per microenterprise remain 19% of that in the EU and value added per employee 8%, while the labor cost as percentage of value added is over twice (2.18 times) the EU average. These data indicate a poor level of productivity. Within the country, microenterprises are outperformed by small- and medium-sized enterprises in productivity (See Table 1-2).

Table 1-2 COMPARISON OF INDUSTRIAL STRUCTURE IN HUNGARY AND EU

		Micro enterprises	Small enterprises	Medium-sized enterprises	Large enterprises	Total
No. of establishments (thousand)	EU	17,285	1,105	165	35	18,590
	Hung.	607	19	5	1	632
No. of employees (thousand)	EU	37,000	21,110	15,070	38,220	111,410
	Hung.	1,058	429	556	867	2,909
Average size (No. of employees)	EU	2	20	90	1,035	6
	Hung.	2	23	111	867	5
Sales per enterprise (million ECU)	EU	0.2	3	16	175	0.8
	Hung.	0.04	0.95	3.92	42.8	0.16
Value added per employee (thousand ECU)	EU	30	40	50	55	40
	Hung.	2.5	6.1	7.3	11	6.5
Labor cost as percentage of value added (%)	EU	38	63	60	53	53
	Hung.	83	81	80	84	82

Ratio between Hungary and EU

Average size (No. of employees)	Hung./ EU	0.87	1.13	1.23	0.84	0.77
Sales per enterprise	Hung./ EU	0.19	0.32	0.24	0.24	0.2
Value added per employee	Hung./ EU	0.08	0.15	0.15	0.2	0.16
Labor cost as percentage of value added	Hung./ EU	2.18	1.29	1.33	1.58	1.55

Source: The European Observatory for SMEs, Report 1997, Data of APEH

(Note) EU data in 1996 and Hungary in 1998

(3) Lower productivity than EU

Hungarian companies are far behind those in the EU in the area of productivity even if some revisions are necessary by the exchange rate between ECU and HUF, a real purchasing power of HUF or living standard. The value added per employee is way below (16% that in the EU). By company size, the value added by microenterprises is 8% that in the EU, SMEs 16% and large enterprises 20%. On the other hand, the labor cost accounts for more than 80% of the total value added. Clearly, manufacturing establishments in Hungary generate very small value added, i.e., profits.

On the basis of the above analysis, the medium- and long-term goal for SME promotion is established as follows:

“To boost competitiveness and productivity of SMEs to the levels where they can serve as a major driving force for the Hungarian economy.”

This target or goal implies the shift in strategic focus on SME promotion from the fostering of microenterprises in rural regions to the selected development of growing industries. Growing industries that can serve a major driving force for the Hungarian economy are mainly found among SMEs, rather than microenterprises. At the same time, resources should be allocated to microenterprises and startups in the emerging economic sector, such as IT and other high-tech industries, rather than the traditional sector.

Finally, as the fostering of local microenterprises still plays an important role from the standpoint of social development policy and a new approach is searched as the previous assistance under the PHARE program is about to end. Nevertheless, recommendations and proposals for promotion of microenterprises are out of the scope of this report as policies and programs have been in place for a number of years. Recommendations and proposals in this report, in other words, will be made for achieving the above target of SME promotion.

1.1 SME Development Strategies and Programs

The following five development strategies are established to accomplish the target of SME promotion as stated above:

“To boost competitiveness and productivity of SMEs to the levels where they can serve as a major driving force for the Hungarian economy.”

- (Strategy 1) Reinforcement of Support Measures for upper Small- and Medium-sized Enterprises
- (Strategy 2) End-to-end Deployment of Promotion Policies and Programs
- (Strategy 3) Promotion of Equipment Modernization and Technological Innovation
- (Strategy 4) Subcontracting Promotion
- (Strategy 5) Encouragement of New Entries to Growing Industries

The overall scheme of master plans for SME promotion formulated and implemented in various countries is summarized in Table 1-1. Within this framework, specific policies and programs or support measures are selected according to the order of priority set by each country.

Within the framework of the overall scheme shown in Table 1-1 and the scope of the study in Figure 1-1, the fields recommended for support measures are classified into the following six areas.

- I. SME promotion policy
- II. Policy implementation system
- III. Subcontracting promotion
- IV. Financial support
- V. Human resource development
- VI. Business environment

Note that the five strategies and the six support areas are interrelated in a matrix form. The following section summarizes major issues in the each support area corresponding to each strategy, and presents solutions in the form of policy recommendation and program proposal. The policy recommendations contain proposals concerning direction of SME promotion and wide range aspects: The proposed programs contain concrete action plans expecting concrete output.

Table 1-1 GENERAL SCHEME FOR THE MASTER PLAN FOR PROMOTION OF SMALL AND MEDIUM ENTERPRISES

<p><u>1) Policy and Development Planning; Systems</u></p> <ul style="list-style-type: none"> • Basic global directions for economic development (WTO etc.) • Basic direction at the regional level (FTZ etc.) • Basic national policy for SME promotion • Codification and modification of related laws and regulations • Improvement of government organization • Revision or reform of taxation system; provision of incentives for investment • Regional industrialization policy
<p><u>2) Technical Support Policy</u></p> <ul style="list-style-type: none"> • Strengthening of technological support organizations • Transfer and exchange of technology with other countries • Improvement of technical guidance and consultation • Modernization of equipment • Technical education (workshops etc.) • Improvement of technical information services
<p><u>3) Support for Market Development</u></p> <ul style="list-style-type: none"> • Construction of a supplier information database • Promotion of subcontracting (inter- and intra-industrial linkages) • Improvement of trade fairs etc. • Promotion of collective sales activities • Improvement of export promotion activity • Improvement of market information service
<p><u>4) Financial Support Measures</u></p> <ul style="list-style-type: none"> • SME finance • Equity participation (including venture capital) • Credit guarantee system • Interest reduction measures
<p><u>5) Human Resources Development Measures</u></p> <ul style="list-style-type: none"> • Improvement of middle and secondary (technical) education • Vocational training; employee education and training • Management education (including young managers, would-be successors and entrepreneurs) • Education of personnel of technical support organizations • Establishment of a consultant development and certification system • Support for education and training by private companies
<p><u>6) Improvement of the Business Environment</u></p> <ul style="list-style-type: none"> • Encouragement of organization of SMEs and microenterprises • Cluster development; industrial estates • Diffusion of information technology; improvement of information networks • Rationalization of physical distribution systems • Industrial standards • Testing and inspection; certification of products; ISO • Improvement Of industrial statistics

Figure 1-1 OVERALL SCHEME OF SME PROMOTION AND THE PRIORITY AREA IN THE STUDY

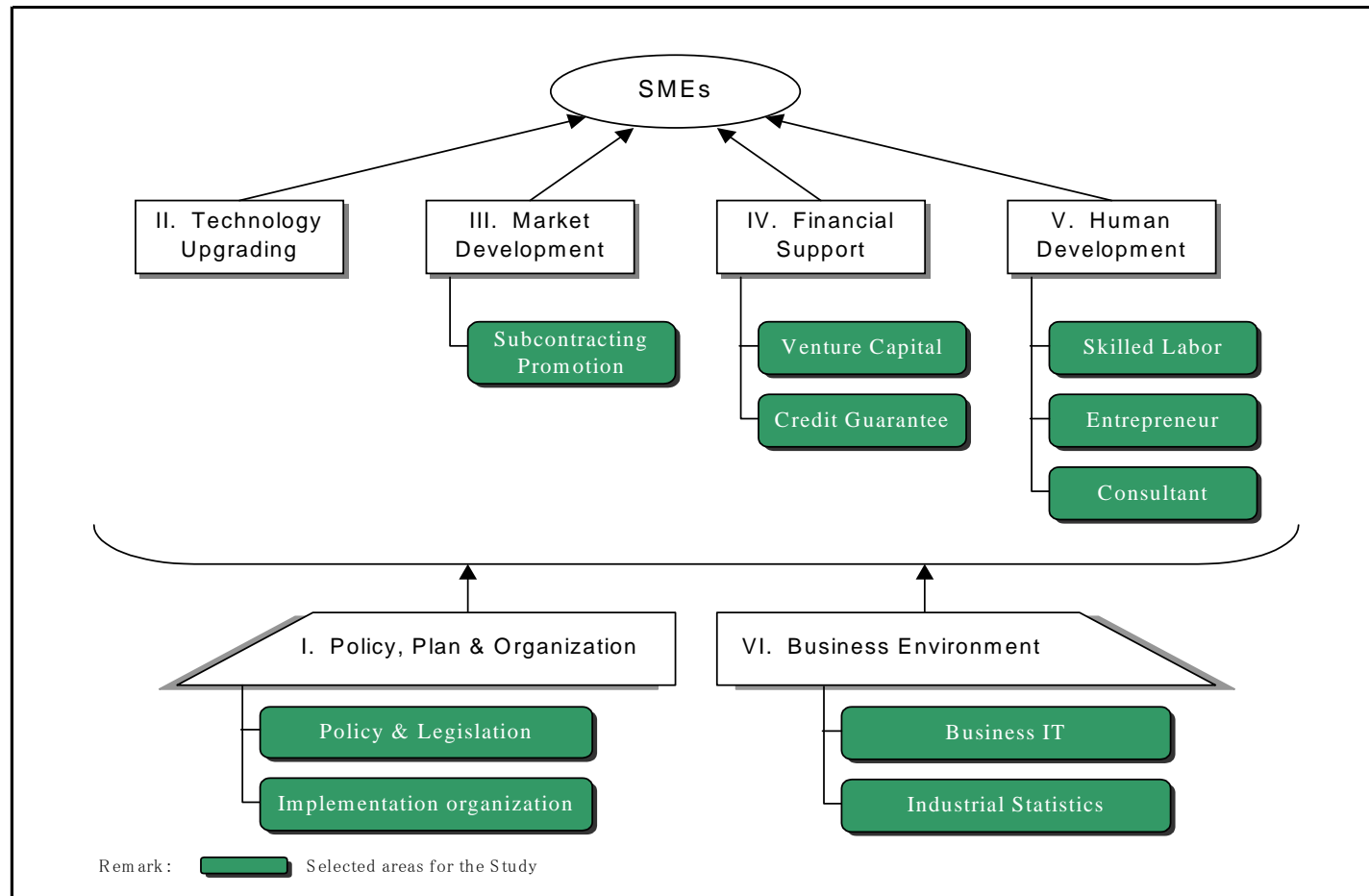
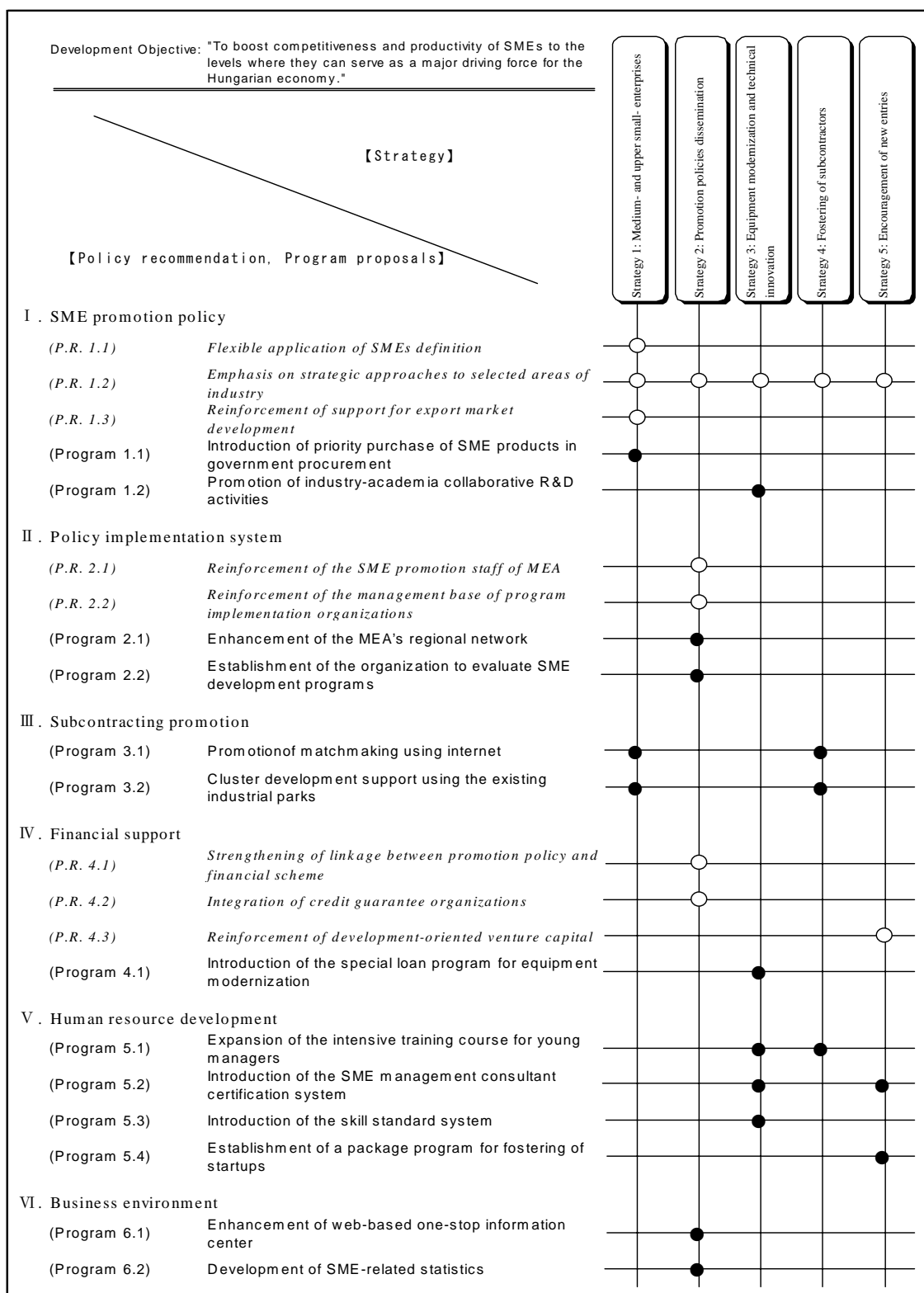


Figure 1-3 LIST OF POLICY RECOMMENDATIONS AND PROGRAM PROPOSALS, AND RELATIONSHIPS WITH DEVELOPMENT STRATEGIES



Note: P.R. = Policy recommendation

Strategy 1: Reinforcement of Support Measures for Upper Small- and Medium-sized Enterprises

(Strategic Goal and Objective)

The primary objective of this strategy is to boost international competitiveness of upper small- and medium-sized enterprises by reinforcing support measures for them. The traditional SME promotion policy in Hungary has been skewed toward the support of local microenterprises using the PHARE fund, while support for SMEs has started only recently. Local organizations of the MVA, the LEA and the RDC largely intended to support microenterprises and small enterprises. It should be emphasized, however, that industrial products that are exported from developing countries in Asia and are highly competitive in the world marketplace are not made by microenterprises. Emerging economies in Asia, including South Korea, Taiwan, ASEAN countries and China, together with Japan, have been fostering SMEs with high growth potential as a core element of industrial policy, while public support for microenterprises is rather positioned as part of social policy.

As discussed earlier, value added per employee declines with decrease in company size, both in Hungary and on the EU average. In particular, value added by microenterprises in Hungary is anomalously small. This is evident from microeconomic data in Chapter 1. Between 1994 and 1998, the country's GDP showed moderate growth with little change in contribution by company size. However, employment in MEs and SEs grew 20%, each, during the period, while that in medium-sized enterprises remained unchanged and that in large enterprises decreased 20%, indicating that the difference in value added per employee between small and large enterprises widened at least in the five-year period.

Table 1-3 VALUE ADDED PER EMPLOYEE (Microenterprises = 1.0)

	Microenterprises	Small-sized	Medium-sized	Large enterprises
1994	1.00	2.58	2.56	3.02
1998	1.00	2.40	2.88	4.33

(Note) Value added per employee by microenterprises – 672,000HUF in 1994 and 662,000HUF in 1998

Thus, the country's GDP growth has been primarily driven by productivity improvement among medium-sized and large enterprises.

The situation is same in the parts industry, where SMEs having high levels of technology should be supported to build up the firm supplier base, while microenterprises cannot grow to the core of the industry. Development of SMEs with international competitiveness holds the key to export expansion and import substitution, which are the effective ways to improve the country's trade balance.

The similar situation has been seen in Japan. According to data published by the National Association for Subcontracting Enterprise Promotion, microenterprises (10 or less employees) accounted for 23.3% of subcontracts made in 1998 for the entire manufacturing sector, 11.6% for transportation equipment, and 17.4% for electrical equipment.

Table 1-4 BREAKDOWN OF SUBCONTRACTS IN JAPAN BY COMPANY SIZE (1998)

No. of employees	Manufacturing sector as a whole (%)	Transportation equipment (%)	Electrical equipment (%)
10 or less	23.3	11.6	17.4
11 – 100	38.0	31.8	33.8
101 – 300	14.7	14.5	17.8
301 –	18.1	33.1	25.2
Unknown	5.9	9.1	5.9
	100.0	100.0	100.0

(Source) Q & A Subcontracting Enterprises, March 2000, National Association for Subcontracting Enterprise Promotion International Business Partners Information Center

The situation is recognized by the Hungarian government, as reflected in the Szechenyi Plan (October 2000) that declares support for medium-sized enterprises as a major objective of Enterprise Promotion Program.

(Policy Recommendations and Proposed Programs)

1) Flexible application of SMEs definition (Promotion Policy)

Note that SMEs in the manufacturing sector are defined with larger working capital and asset value than the commerce and service sectors in general, so as to reflect the difference in innate characteristics of SMEs among the sectors. Although it is not necessary to change the present definition of SMEs, it is therefore recommended to flexibly adopt different definitions for industries of different nature or characteristics according to applicable support measures. The

EU member countries have their own SME definition that differs from the EU guideline. For instance, Germany, France, Belgium, Portugal and Spain define SMEs by 500 or less employees and Netherland does them by 100 or less employees.

2) Reinforcement of support for market development by SMEs (Promotion Policy)

To secure the domestic market for SMEs that have small market power, many countries including Japan and the United States are implementing the program of “Priority purchase of SME products in government procurement”. It should be considered in Hungary as an effective measure to support SMEs. At the same time, exports by SMEs should be backed up by producing market information and intermediary service. The traditional export subsidy program has virtually been abandoned under the WTO agreement.

3) Implementation of the SME finance scheme (Financial Support)

While Hungary has a relatively strong microfinance program, financial support for modernization of larger-scale of SMEs remains at a poor level. As proved by the questionnaire survey to SMEs and plant visits both made by the Study Team, it is important to note that aged production equipment constitutes a major factor for poor international competitiveness of SMEs. It is proposed to implement “The special loan program for equipment modernization”. Many countries introduce a two-step loan system for SMEs under the bi- and multi-lateral arrangement or using the funds from international organizations. Such arrangement to introduce official assistance funds from abroad may be one of the possibilities for the Program.

Strategy 2: End-to-end Deployment of Promotion Policies and Programs

(Strategic Goal and Objective)

This strategy sets the primary objective of deploying policies and programs for SME promotion from the MEA as the leading agency to all the ends. “All the ends” means both the geographical extent covering all parts of the country and the vertical extent down to each enterprise. The focal point of the strategy is to enable the present system and institution for SME support, which has primarily developed to serve the purpose of fostering microenterprises, to work effectively for SMEs under strategic policies and programs.

(Policy Recommendation and Proposed Programs)

- 1) Enhancement of the MEA staff and budget for SME promotion (Implementation System)

At present, Hungary follow the small government policy and leaves policy implementation, including SME promotion, to outside organizations. As for SME promotion policy, the MEA intends to increase staffing and the present study does not made any specific proposal in this area. The budget is similarly on the increase but has uncertainties. Nevertheless, additional staffing and budgeting for the MEA as the central force of SME promotion policy will likely remain as a major issue to be solved.

- 2) Improvement of the policy dissemination channel between the central and local governments (Implementation System)

As the reinforcement of the MEA’s policy implementation channel at local levels, the program of “Enhancement of the MEA’s regional network” is proposed hereafter. At present, the MEA does not have its local organizations as its policy implementation arm. This, together with the issue raised in the next section, appears to result in poor efficiency and lack of integrity in policy implementation. The policy implementation channel should be two-way, from central to local government and vice versa, but it is not clearly established in the country. In addition, easy access from SMEs to policies and incentives shall be attained.

3) Strengthening of management base of implementation organizations
(Implementation System)

The LEA, responsible for policy implementation at local level, is a non-profit organization established under support of local governments and industries. So are the RMKK responsible for human resource development and the Incubation House which support entrepreneurs. These organizations are expected to obtain operating funds through their service revenues, while relying on the PHARE fund until now and SME Target Fund in future for capital investment. The capital investment funds have been disbursed through the competitive bidding process for individual projects, rather than the annual budget allocation. As a result, the organizations are limited in staffing and facilities and are difficult to launch new projects, especially those with broad coverage or of large scale. To mobilize these organizations for implementation of the MEA's strategic development programs, systematic budget allocation needs to be considered to ensure the stable financial base.

Strategy 3: Promotion of Equipment Modernization and Technological Innovation

(Strategic Goal and Objective)

This strategy focuses on the improvement of international competitiveness through technological innovation that is one of the most formidable challenges for SMEs. The low levels of value added by SMEs in the country are directly caused by the low efficiency at production fields. Efficiency improvement should be approached from the hardware aspects, especially modernization of production equipment, and the software aspects, including dissemination of production management techniques adaptive to “the customers’ satisfaction”, promotion of human resource development, and the enhancement of the SME support resources of technical guidance organizations.

(Policy Recommendation and Proposed Programs)

1) Implementation of the SME finance scheme (Financial Support)

As pointed out in Strategy 1, “Introduction of the special loan program for equipment modernization” should be considered to encourage hardware-related technological innovation. (See Strategy 1)

2) Reinforcement of soft-side SME support (Promotion Policy)

From the viewpoint of technological innovation that is one of the most important strategies for enabling SMEs to have competitiveness and play a core role in the economy, the strengthening of R&D capabilities is crucial. In this report, the program of “Promote of industry-academia collaborative R&D activities” is proposed to support SMEs for efforts to develop high value added products by providing management resources that cannot be afforded by the SME sector alone.

3) Establishment of the managerial education system (Human Resource Development)

Ten years have passed after the country initiated transition from the socialist economy to the market economy. Since then, a number of SMEs have emerged.

They are roughly classified into two types, those originated from state enterprises as a result of privatization and divestiture, and those newly founded by entrepreneurs in the recent years. The latter is relatively small, mostly ranging between microenterprises and small enterprises. Although the country was said to show a stronger sign of liberalism (capitalism) than other East European countries before the transition, most managers of both types of small enterprises have still to learn business management based on profitability and efficiency.

As success of SMEs is governed by the ability of their managers or an owner, managerial education is expected to play a crucial role in achieving the development target and goal. At present, specific fields of business management are taught at workshops and seminars conducted by the HPC and universities, etc. such as ISO and quality control, but no comprehensive or intensive managerial education system has not been established as a permanent course. This is the reason why “Expansion of the intensive training course for young entrepreneurs” is proposed. The program will shed spotlight on managers who will become next-generation business leaders or owners by expanding the PP-3 in scope on the basis of experience gained from the pilot project

4) Broad-based education of skilled workers and provision of incentives (Human Resource Development)

Hungary has a well-developed vocational training system and factory workers are said to have high skills. The study team confirmed that a large number of people have high levels of education and the school-based vocational training system is well designed and operated. At the same time, however, it has to be pointed out that there is the general lack of awareness of the fact that high levels of production technology at factory floor can only be achieved when skilled workers are operating modern equipment and machinery.

In fact, education of skilled workers is vigorously pursued in many Asian countries, where the school-based vocational education system may not be as complete as that in Hungary. The rapid pace of technological advancement seen today demands workers to attain higher and higher skills, which cannot always be taught in the school system. While the school system is an effective way to recognize knowledge and skill, it is time to introduce an alternative system to certify production skills that are obtained at field, which should be used as the

basis of measuring workers' performance and reflecting it in salary. Through the field surveys, the study team felt that the educational background (diploma) was considered to be superior to actual, day-to-day skills.

To supplement the role of the school system and provide incentive for workers, the program on implementation of the "Skill standard system". It has been operated in Japan for a long period of time and has produced excellent results and is well developed in the United States and other countries as well. Workers are evaluated on the basis of their work experience and performance at the certification test, rather than educational background, and are officially recognized of their skill level (typically Classes Special, 1, 2 and 3). Many companies encourage workers to obtain certification and pay a special allowance or other benefit to those who have passed the test. South Korea followed suit. Workers from those countries have been winning many gold prizes at the International Vocational Training Competition. Clearly, the certification system has been providing incentive for workers who have not achieved well in the school system.

Strategy 4: Subcontracting Promotion

(Strategic Goal and Objective)

Both the SME Promotion Act and the Szechenyi Plan give priority to the development of supporting industries for automotive and electrical/electronics industries. For this reason, the present study conducted the pilot project (PP-1 “Subcontracting Promotion Project”). Another initiative to promote subcontracts using the “Mentor” database and the computer system (PP-2 “Promotion of Matchmaking using internet”) is also proposed. Automotive and electrical/electronic manufacturers, mainly multinationals, will not buy parts unless they can compete in the international market. This strategy is therefore considered as a model case of concentrating development resources for accelerated promotion of parts industries and intends to utilize other four development strategies and program proposals contained therein.

(Policy Recommendation and Proposed Programs)

- 1) Improvement of product competitiveness of SME suppliers (Subcontracting Promotion)

Under the PP-1, several buyers visited selected suppliers and cited the following reasons why they would not purchase parts from local, small suppliers:

- Product quality does not meet the standards that buyers require.
- Production equipment is old and not capable of meeting quantitative requirements.
- Suppliers generally lack the philosophy of achieving customer satisfaction (CS) and thus fail to create the sense of confidence that they can be reliable partners.

These problems have been pointed out by buyers after the preliminary meeting, who were not willing to start actual business negotiation. These problems have to be solved through the program proposed in Strategy 3 “Promotion of Equipment Modernization and Technological Innovation.”

2) Stepping up matchmaking activities between buyers and suppliers (Subcontracting Promotion)

At present, buyers do not know much about suppliers, and vice versa. Knowing each other well is the beginning of the business relationship.

In fact, the Hungarian government created the supplier database under the “Mentor” program (using the PHARE fund), so it is to be more widely used for the purpose. The database is only the beginning of the matchmaking process.

Japan has successfully been operating a subcontracting promotion program that was started 35 years ago. Under the program, a subcontract intermediary center is established in each prefecture (there are 48 prefectures in the country) and is led by a national organization, the National Subcontractor Promotion Association in Tokyo. A total of 330 administrative staff and 100 advisers work at the association and prefectural centers, which boast vast membership of approximately 40,000 buyers and 100,000 suppliers. The percentage of successful matchmaking is reportedly around 25%. The program is now shifting to the Internet-based system.

Another successful case is seen in Thailand. This is a subcontract intermediary system managed by the Board of Investment, BOI. The system was originally created under the assistance of UNIDO, and like many other countries, only the database was created and the BOI waited in vain with expectation that something would happen. Then, four or five years ago, it initiated matchmaking activities by intermediary of staff in approaching suppliers and buyers actively, accompanied by favorable results.

Matchmaking activities in Japan and Thailand have one thing in common. Intermediary organizations visit and made inquiry to potential buyers, present the list of suppliers, and visit prospective suppliers with buyers. Providing supplier and buyer information on the computer system alone does not lead to success in subcontracting. Human involvement is essential, particularly intermediary personnel who is familiar with suppliers. For this reason, the package program of “Promotion of matchmaking using internet” is proposed. It is built on the lessons learned from the PP-1 and PP-2.

3) Promotion of the cluster development scheme (Subcontracting Promotion)

The MEA promotes the industrial cluster development scheme that uses large manufacturers (multinationals) as the core, around which concentration of related parts industries, mainly SMEs, is encouraged. Thus, it is essentially designed to develop the supplier base in specific areas. As Hungary has more than 100 industrial parks, the program of “Cluster development support using the existing industrial parks” is proposed. It is built on the lessons learned from the PP-1 and PP-2.

The envisaged program, as a function, selects an appropriate industrial park (s) in the center of the cluster projects, where a one-stop service center is constructed to serve SMEs providing information about potential buyers and investment and other incentives available for SMEs. The industrial park will also be a plant site for new investment and re-location of SMEs in the area of the cluster.

Strategy 5: Encouragement of New Entries to Growing Industries

(Strategic Goal and Objective)

This strategy aims to step up support for entrepreneurs in growth industries, thereby to foster industries capable of creating high value added. The growth industries are IT-related industries and the new economy in service industries. In the manufacturing sector, high-tech, precision equipment, new materials, and electronic equipment industries including semiconductor devices are considered to be fast growing industries.

Public support for promotion of investment in growth industries is included in the EU's SME promotion guideline. In Hungary, the Innovation Centers are established to shift the focus on growth industries, which are entitled to the ongoing Incubation House program. The Incubation Houses have a served SMEs in support and assistance for startups to reduce initial investment by lending office and factory spaces at relatively low costs, together with common service facilities including office equipment and furniture. The Houses also help entrepreneurs to go through necessary procedures for establishment of a firm and to receive a wide range of education and training. However, it is fairly small in scale and fails to provide a complete set of services in financial and technological fields.

(Policy Recommendation and Proposed Programs)

1) Enhancement of development-oriented venture capital (Financial Support)

The RDC was established throughout the country to serve as venture capital for SMEs, but it does not function yet as development-oriented venture capital and tends to make low-risk investment and shareholders' loans to established enterprises in matured industries. It is recommended to shift the strategic focus more to the development-oriented venture capital function by combining support services in the areas of management, market development, financial management and production technology, while introducing a public support program for the RDC to reduce investment risks. The RDC should study to introduce a new capital fund from the private sector.

2) Need for the integrated system to support entrepreneurs (Human Resource Development)

Entrepreneurs who are willing to enter an emerging high value added business or a niche market, usually have part of expertise in the related fields together with the high spirit of challenging a new opportunity. However, they usually lack management resources that are essential in bringing an innovative idea to reality in the form of product or service. In fact, these resources often hold the key to the success of the new business. “Establishment of a package program for fostering of startups” is proposed to provide support in such essential areas to move the new business forward, including the following:

- a. Agency or guidance for incorporation of a new company;
- b. Guidance on government incentives and application procedures (financial assistance, subsidy, taxation);
- c. Introduction of public or private venture capitalists;
- d. Support for market development and education of financial management techniques; and
- e. Partnering (technology, sales, etc.)

3) Certification of local consultants (Human Resource Development)

In Hungary, there are around 500 “self-claimed” consultants advising management of SMEs and microenterprises, and only 190 have passed the test conducted by the MVA. Management consultants are an essential element of support for entrepreneurs in growth industries and are expected to play an important role in accomplishing Strategy 3 “Promotion of Equipment Modernization and Technological Innovation.” Unfortunately, however, there are a certain number of consultants having poor skills in many countries, who provide inadequate or even wrong advice to SMEs. It creates the sense of distrust on consulting service at large, including qualified and experienced consultants.

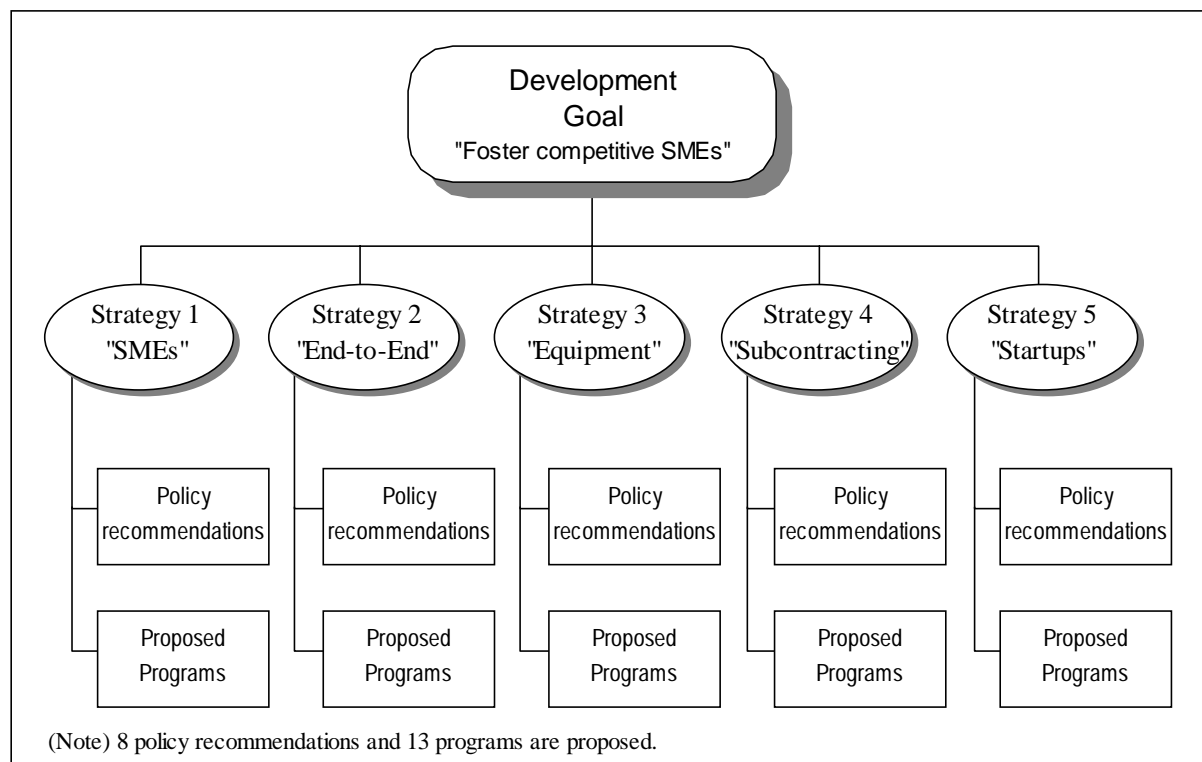
The program of “Introduction of the SME management consultant certification system” to implement the SME management consultant certification system is proposed to identify consultants according to their skill level. The similar program has successfully been operated in Japan, and certification can be obtained by completing a one-year training program offered by a technical college

and passing a final test or taking and passing a national examination, followed by internship for a specific period. Thailand has introduced the program under the assistance of the Japanese government. Mexico is going to follow.

1.2 General Framework of SME Promotion Plan

There are eight policy recommendations and thirteen program proposals, which can be classified into six sectors of the study. The figure also arranges the policy recommendations and program proposals in relation to respective strategies, which are presented in a matrix form. In other words, five strategies have been established to meet the development goal, and policy recommendations and program proposals are proposed to achieve the aim of each strategy. The relationships between the strategies and policy recommendations and program proposals are illustrated in Figure 1-3.

Figure 1-3 GENERAL FRAMEWORK OF SME PROMOTION PLAN



The above figure implies that, as proposed programs under a specific strategy are implemented, the strategy accomplishes its objective, and as all the strategies accomplish their objectives, the develop goal is achieved.

1.3 Short- and Medium-Term Action Plans

The present study is required to draft a short-term action plan (one year – 2001) and a medium-term action plan (three years up to 2003) for implementation of a set of proposal items made in the previous section. First of all, the proposal items (policy recommendations and program proposals) is classified into short-term and medium-term requirements according to the following criteria.

- (1) Short-term and medium-term requirements are expected to be met, i.e., a proposal item is expected to start or otherwise take shape within a specific period. Thus, the proposal item continues to be dealt with or processed after the lapse of the respective period
- (2) Many proposal items can be started concurrently. There is rarely the need for ordering them in a chronological order or on the basis of a time-dependent relationship (i.e., a program can only start after a preceding program completes).
- (3) Most of the proposed programs under the medium-term plan starts concurrently with those under the short-term plan, and the former ends later to indicate longer time required for implementation. In other words, the short-term plan should contain programs that are selected according to the urgency of SME promotion, the ease of implementation, and availability of government resources including budget and staffing.

1.3.1 Proposal Items to be Implemented in the Short-term Action Plan

In the following description, “P.R.” represents “Policy recommendation”.

- (1) Those recognized by the Hungarian government for their importance and partially implemented as a program

The following item related to subcontracting promotion are classified to this category:

(Program 3.2) Cluster development support using the existing industrial parks

- (2) Those implemented as pilot projects under the present study

Those projects have been implemented as the pilot projects in the present study under participation of specific execution agencies and major issues related to implementation have been identified, thus the corresponding policy items are easy to start and implement with a certain level of effectiveness. Moreover, if these proposal items are not included as part of the short-term plan, the pilot projects are terminated and fail to meet their objectives. The two pilot projects of PP-1 and PP-2 shall be integrated into the Program 3.1 and the Program 5.1 as continuation of the PP-3 is classified to this category:

(Program 3.1) Promotion of matchmaking using internet

(Program 5.1) Expansion of the intensive training course for young managers

- (3) Proposal items that constitute the foundation of SME promotion and are positioned as the prerequisite to other related programs

(P.R. 1.2) Emphasis on strategic approaches to selected areas of industry

(Program 2.1) Enhancement of the MEA's regional network

(Program 4.2) Reinforcement of development-oriented venture capital

The Szechenyi Plan that was published in October 2000 dealt with the contents of P.R. 1.2 in general aspects. It is expected that the detailed action plan will be developed with reference to this report.

Note that Program 4.2 is included in the short-term plan as it is considered to be an important tool for supporting startup of growth industries and is partially planned.

1.3.2 Proposal Items to be Implemented in the Medium-term Action Plan

- (1) Those entailing legal procedures, such as the enactment of a new law

The following programs are to be authorized by new laws, which require a relatively long period of time for enactment:

(Program 1.1) Introduction of priority purchase of SME products in government procurement

(Program 4.2) Integration of credit guarantee organizations

- (2) Those involving a large number of organizations or requiring the establishment of a new organization

The following programs cannot be implemented by the MEA alone and requires considerable time for coordination, thus resulting in the medium-term plan:

(P.R. 2.2) Reinforcement of the management base of program implementation organizations

(P.R. 4.1) Strengthening of linkage between promotion policy and financial scheme

(Program 1.2) Promotion of industry-academia collaborative R&D activities

(Program 2.1) Enhancement of the MEA's regional network

- (3) Those which need is not widely recognized

As SME promotion policy in Hungary has just started and the basic framework was just announced by the Szechenyi Plan. Under these circumstances, the following programs and their needs are not widely recognized. They are critical in the context of EU membership, but it will require some time until public awareness arises. They are included in the medium-term plan, and their commencement will be delayed by one year in consideration of the above situation. Thus, they will be implemented in two years.

(P.R. 1.1) Flexible application of SMEs definition

(Program 2.2) Establishment of the organization to evaluate SME development programs

(Program 5.3) Introduction of the skill standard system

(Program 6.2) Development of SME-related statistics

1.3.3 Proposal Items Positioned in between the Short- and Medium-term Plans

Programs classified to this category are considered to take more than one year for preparation and implementation, e.g., a program that requires a relatively long period of time for preparation (say, one year) or a program that can be implemented immediately but takes two years before it is widely adopted. These programs will be commenced in 2001 and will take two years for implementation.

- (P.R. 1.3) Reinforcement of support for export market development
- (Program 4.1) Introduction of the special loan program for equipment modernization
- (Program 5.2) Introduction of the SME management consultant certification system
- (Program 5.4) Establishment of a package program for fostering of startups
- (Program 6.1) Enhancement of web-based one-stop information

1.4 Time Schedule for Short- and Medium-term Programs












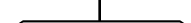






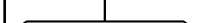


Based on the discussion in section 1.3, the time schedule for short- and medium-term programs is summarized in Figure 1-4.

1.5 Policy Recommendations and Proposed Programs

This section shows a summary of the eight Policy Recommendations in Table 1-5 and the 13 Proposed Programs in Table 1-6.

The policy recommendations contain proposals concerning direction of SME promotion and wide range aspects: The proposed programs contain concrete action plans expecting concrete output.

Figure 1-4 IMPLEMENTATION SCHEDULE FOR PROPOSED PROGRAMS

Policy recommendaitons and proposed programs		2001	2002	2003
(P.R. 1.2)	<i>Emphasis on strategic approaches to selected areas of industry</i>			
(P.R. 2.1)	<i>Reinforcement of the SME promotion staff of MEA</i>			
(Program 3.1)	Promotion of matchmaking using internet			
(Program 3.2)	Cluster development support using the existing industrial parks			
(P.R. 4.2)	<i>Integration of credit guarantee organizations</i>			
(P.R. 4.3)	<i>Reinforcement of development-oriented venture capital</i>			
(Program 5.1)	Expansion of the intensive training course for young managers			
(P.R. 1.3)	<i>Reinforcement of support for export market development</i>			
(Program 4.1)	Introduction of the special loan program for equipment modernization			
(Program 5.2)	Introduction of the SME management consultant certification system			
(Program 5.4)	Establishment of a package program for fostering of startups			
(Program 6.1)	Enhancement of web-based one-stop information center			
(Program 1.1)	Introduction of priority purchase of SME products in government procurement			
(Program 1.2)	Promotion of industry-academia collaborative R&D activities			
(P.R. 2.2)	<i>Reinforcement of the management base of program implementation organizations</i>			
(Program 2.1)	Enhancement of the MEA's regional network			
(P.R. 4.1)	<i>Strengthening of linkage between promotion policy and financial scheme</i>			
(P.R. 1.1)	<i>Flexible application of SMEs definition</i>			
(Program 2.2)	Establishment of the organization to evaluate SME development programs			
(Program 5.3)	Introduction of the skill standard system			
(Program 6.2)	Development of SME-related statistics			

Note: P.R. = Policy recommendation

Table 1-5 POLICY RECOMMENDATIONS (1/2)

P. R. 1.1 Flexible application of SMEs definition

Objectives/ Benefit: To apply different definitions according to SME promotion policy and programs, thereby to ensure policy and programs more effective reflecting the actual situation in each sector. However, this does not mean to change the definition that is generally used.	Present Issues/ Rationale: The present definition of SMEs in Hungary has been set on the basis of the EU guideline. However, in the process of securing fair allocation of government resources and efficiency in policy and program implementation, potential problems caused by single definition of SMEs might surface. For example, the definition of manufacturing sector and service sector should be flexibly applied by nature of a program.	
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P. R. 1.2 Emphasis on strategic approaches to selected areas of industry

Objectives/ Benefit: To raise competitiveness and productivity of SMEs in selected areas to the international levels by setting priority sectors and allocating resources accordingly.	Present Issues/ Rationale: Analyzing the Hungarian industrial structure, some issues are pointed out as follows: (1) lack of competitiveness of SMEs products, (2) industrial structure dominated by micro enterprises and (3) low levels of productivity in the entire industry. To improve the issues, more strategic approaches to priority areas of industry might be necessary in view of effective allocation of resources of the Government.	
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P. R. 1.3 Reinforcement of support for export market development

Objectives/ Benefit: To expand the export market development support program, which is led by the ITD-H, to reach out SMEs and promote export market exploration by SMEs.	Present Issues/ Rationale: Various programs to promote export are being implemented by ITD-H. However, the current programs are limited and not necessarily meet the needs of small and medium sized manufacturers. While the ITD-H has not excluded SMEs from the scope of their services, it has virtually provided preferential treatment for foreign companies and large local companies.	
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P. R. 2.1 Reinforcement of the SME promotion staff of MEA

Objectives/ Benefit: To strengthen the organization for SME promotion in MEA especially in manpower.	Present Issues/ Rationale: At present, two departments lead SME promotion policymaking: the SME promotion Department and the National Subcontracting Program Office. At the end of September 2000, the former has eleven staff and the latter only two out of 550 staffs in MEA. The insufficient number of staff for SME promotion will actually cause a delay and a lack for implementation of the promotion measures.	
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Table 1-5 POLICY RECOMMEANDATIONS (2/2)

P. R. 2.2 Reinforcement of the management base of program implementation organizations

Objectives/ Benefit: To strengthen financial base of external organizations, such as LEA and RDCs, responsible for implementing SME promotion policy and programs.	Present Issues/ Rationale: SME promotion policy and programs are mainly implemented MEA's external organizations, which are mostly dominated by regional governments. The LEA and RDCs are examples of these organizations. Tendering by project is mostly adopted as a method to distribute MEA's budget to these external organizations. This method should face some difficulties in implementing SME promotion policy and programs in the long-term, large-scale and motivated perspectives. The methods in distributing budget should be improved.	
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P. R. 4.1 Strengthening of linkage between promotion policy and financial scheme

Objectives/ Benefit: To establish a mechanism for the MEA to use the SME finance scheme in a flexible manner for the purpose of ensuring efficient implementation of SME promotion policy.	Present Issues/ Rationale: The finance system to SMEs is primarily a role of commercial banks, except for micro finance. As commercial banks are owned by foreign capital (more than 60% in total), it will not be easy for the Government to extend loans in line with government policy. Major credit guarantee organizations like the CGC and the RCGF are supervised by ministries than MEA. Including RDCs that are responsible for providing venture capital for SMEs, SME promotion policy has to be more harmonized with financial support facilities.	
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P. R. 4.2 Integration of credit guarantee organizations

Objectives/ Benefit: To integrate the existing credit guarantee schemes to strengthen their role as a policy implementation tool.	Present Issues/ Rationale: The current credit guarantee organizations are under the control of other ministries; the CGC under the Ministry of Finance and the RCGF under the Ministry of Agriculture and Rural Development. And they have similar functions. Since the credit guarantee system shall work for SME support, the system should have close link to the SME promotion policy that is mainly managed by MEA.	
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P. R. 4.3 Reinforcement of development-oriented venture capital

Objectives/ Benefit: To provide eight RDCs in the country with the function of development-oriented venture capital, thereby to use them as a powerful tool for promotion of SMEs in priority sectors.	Present Issues/ Rationale: In Hungary, the RDCs mainly owned by the RDHC are supposed to function as development-type venture capital. At present, however, the RDCs primarily invest in or extend loans to stable-operating companies. Since the RDCs are profit organizations, it is required to provide RDCs with government support for increasing venture capital to startups.	
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Table 1-6 PROPOSED PROGRAMS (1/4)

Program 1.1 Introduction of priority purchase of SME products in government procurement

Objective/Expected benefit: To secure SMEs market in the field of public sector by priority procurement from SMEs.	Description: Official organizations make a plan for preferential procurement of SMEs' goods and services and report results in each fiscal year.	Weakness/Consideration: Difficulty in ensuring equitable treatment of all companies, and in justifying preferential treatment for SMEs.	Implementation body: MEA, State Monetary and Capital Market Inspectorate, Public Procurement Council
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Program 1.2 Promotion of industry-academia collaborative R&D activities

Objective/Expected benefit: To develop the public technical support system for SMEs so as to improve production technology of SMEs.	Description: When SMEs require technical supports from academic institute for technological innovation, part of costs and expenditure is subsidized by the Government.	Weakness/Consideration: Relation between SMEs and academic institutes has not been so close by tradition.	Implementation body: MEA as the organizer, Chamber of Commerce, Subcontracting Agency, MVA consultants
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Program 2.1 Enhancement of the MEA's regional network

Objective/Expected benefit: To develop the MEA's own network to regions for monitoring industry, formulate policy and implement plans and programs.	Description: A new council for regional industry development shall be formulated in each of seven regions with permanent MEA officials for coordinating LEAs, RDCs, RDHC, Subcontracting Agencies, etc	Weakness/Consideration: It is necessary to clarify division of roles and cooperation procedures with the existing Regional Development Council.	Implementation body: MEA, RDHC, RDCs, LEA, Local Governments, Trade associations
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Program 2.2 Establishment of the organization to evaluate SME development Programs

Objective/Expected benefit: To monitor the performance of SME-related programs and provide feedback for efficient and effective materialization of SME policy.	Description: The EU Fourth Enterprise Program calls for the monitoring of policy and program performance. Hungary shall also establish a monitoring organization expectedly in the Institute for Small Business Development (ISBD) of MEA.	Weakness/Consideration: MVA might be a responsible organization but it is still young. Cooperation among related organizations will be necessary.	Implementation body: ISBD as main body, MVA, MEA
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Table 1-6 PROPOSED PROGRAMS (2/4)

Program 3.1 Promotion of matchmaking using internet

Objective/Expected benefit: To promote matchmaking between buyers and suppliers in combination of two tools, that is a computer system and matchmaking activities made by personnel.	Description: A computer system has been developed and matchmaking activities were tried under PP-2. Function of technical guidance for SME-suppliers, which was experimented by PP-1 shall, be attached to the proposed program.	Weakness/Consideration: An Implementation body of the program shall be determined soon, otherwise valuable output and experiences of PP-1 and PP-2 will not be utilized.	Implementation body: Candidates are ITDH, HPC, MEA, etc. The body should have capability for regional evolution of the program.
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Program 3.2 Cluster development support using the existing industrial parks

Objective/Expected benefit: To utilize industrial parks located in the vicinity of project sites as a center of the cluster development projects.	Description: The MEA designates an industrial park for a cluster project as " the cluster support industrial park" giving functions of one-stop service center that assists in new investment, matchmaking, technical guidance, consultation, etc.	Weakness/Consideration: Needs of private sector for the cluster projects are still uncertain.	Implementation body: MEA, Cluster Development Agencies, Industrial parks
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Program 4.1 Introduction of the special loan program for equipment modernization

Objective/Expected benefit: To accelerate modernization of equipment and machinery of SMEs providing a special loan program.	Description: The program finances SMEs for investment to equipment and machinery and incorporating initial working capital with the investment. The credit facility provides a long-term loan with concessionary terms and conditions.	Weakness/Consideration: There might be argument that the credit with concessionary terms and conditions will disturb the market of financing.	Implementation body: Hungarian Development Bank as a wholesaler, Commercial banks as retailers
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Program 5.1 Expansion of the intensive training course for young managers

Objective/Expected benefit: To train young managers including successors of SMEs about fundamentals of modern management techniques and philosophy.	Description: This program is a modification of PP-3. A cycle of the course shall consist of a one-week class room in a lodge and one-month application as homework. Four cycles makes a course. Opening four courses a year is proposed.	Weakness/Consideration: Availability of qualified lecturers and consultants especially in the field of production technology.	Implementation body: HPC as the coordinator, LEAs, Regional Training Centers, etc.
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Table 1-6 PROPOSED PROGRAMS (3/4)

Program 5.2 Introduction of the SME management consultant certification system

Objective/Expected benefit: To conduct a certification test of SME management consultants and recognize competent consultants officially.	Description: An overall system shall be first designed, and then the subjects and questions for an exam shall be prepared. Training courses shall be also provided for examinee. An exam will be carried out once a year.	Weakness/Consideration: Incentives for certified consultants shall be considered.	Implementation body: MVA/LEA or MVF under authorization of MEA
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Program 5.3 Introduction of the skill standard system

Objective/Expected benefit: To introduce a skill standard certification system in order to qualify skilled labors and technicians based on their skills.	Description: Similar procedures as the above Program 5.2. An exam will be made by practice and a paper test without schooling so that skilled labor will be duly rewarded by the qualification.	Weakness/Consideration: It is uncertain if the qualified labors are duly rewarded by the academic-career- oriented society	Implementation body: Regional Center for Manpower Development and Training, Certification Board shall be organized.
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Program 5.4 Establishment of a package program for fostering of startups

Objective/Expected benefit: To increase the rate of success of SMEs that were established within one year or are about startup. Emphasis will be placed on growing industry.	Description: An assistant package consists of a guaranteed loan, a development-oriented venture capital (development capital) and consulting support.	Weakness/Consideration: It might face difficulties in cooperation among various agencies for packaging supporting measures into a program.	Implementation body: RDCs for development capital, MVF for a guaranteed loan, MVA/LEA and Incubation Houses for consultation.
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Program 6.1 Enhancement of web-based one-stop information center

Objective/Expected benefit: To fully prepare information necessary for SMEs in the web-site of MEA linking to relating organization.	Description: SMEs can get any information they soon need including incentives provided for SMEs, financial assistance, training courses, etc. only by accessing to MEA's web-site. Various applications of SMEs shall be acceptable to MEA on the web-site.	Weakness/Consideration: It requires cooperation of various organizations in establishment and maintenance of their web-site for easy use of SMEs.	Implementation body: MEA as the center, Related organizations in preparing their web-sits to link MEA's.
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Table 1-6 PROPOSED PROGRAMS (4/4)

Program 6.2 Development of SME-related statistics

Objective/Expected benefit: To prepare SME statistics for the benefit of analyzing present situation of SMEs, planning SME promotion policy and supporting business activities.	Description: The program consists of the following three components: (1) Statistics of business establishments, (2) Development of the institutional framework and methodology, and (3) Execution of SME statistics development.	Weakness/Consideration: It is indispensable to persuade SMEs that they submit accurate and honest information to the government.	Implementation body: MEA as the organizer, Statistical Bureau and Tax Bureau as agencies for data collection
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Chapter 1

Objectives and Scope of the Study

Chapter 1 Objectives and Scope of the Study

1.1 Objectives of the Study

The objectives of the Study is to formulate a set of concrete policies and measures to promote small and medium-sized enterprises in Hungary, including action plans for the year 2001. The Study also aims to make some pertinent suggestions as to the management of the executing agencies through the implementation of the pilot projects.

1.2 Scope of the Study

The present study is designed to address the following areas in the manufacturing sector, which the Hungarian government set forth as major policy agenda, by analyzing the current state and making recommendations. Note that specific objectives are shown in parentheses.

- 1) SME promotion policies and institutions (policy, legislation, implementing agency, industrial statistics)
- 2) Subcontracting promotion (Mainly for automotive and electric/electronic industries)
- 3) Financial policy (venture capital, credit guarantees)
- 4) Human resources development (engineers and technicians; entrepreneurs; consultants)
- 5) Business information technology (promotion of IT pervasiveness among SMEs)

As state earlier, this study is intended to undertake evaluations and analyses, and to make recommendations on high-priority areas within the framework of Master Plan.

1.3 Schedule of the Study

Overall schedule of the field survey

- First Field Survey June 15, 2000 to July 30, 2000
(Presentation and discussion on Inception Report, and initiation of full scale development study)
- Second Field Survey September 3, 2000 to October 4, 2000
(Presentation and discussion on Interim Report and implementation of full-scale development study)

- Third Field Survey October 24, 2000 to December 1, 2000
(Presentation and discussion on Draft Final Report and additional study, Seminar)

Schedule of Submission of the Reports

June, 2000	Inception Report
September, 2000	Interim Report
October, 2000	Draft Final Report
December, 2000	Final Report

(1) Number of Companies and Organizations Visited

During the first and second field surveys, the Study Team visited and conducted interview surveys for the Ministry of Economic Affairs, its related agencies and institutions including HPC、ITD-H、MVA and regional agencies such as RDCs and LEAs. At the same time, more than 100 private companies were visited to obtain their views and opinions.

(2) Questionnaire Survey in IT Area

A questionnaire survey was carried out to gain an understanding of the overall level of information technology used by SMEs with 20 - 300 employees. The questionnaire survey contained a question about the problems facing SMEs, and responses were obtained from 120 of the 322 companies.

Chapter 2

Current State of SMEs and SME Promotion Policies

Chapter 2 Current State of SMEs and SME Promotion Policies

2.1 Present Conditions of SMEs

The share of the number of enterprises by size of employment in Hungary is shown in Table 2-1. The share of enterprises with less than 11 employments was 93.3%. All of the categorized number of enterprises was concentrated on Budapest. With the exception of concentration of Budapest, both enterprises with employment of 21 – 50 and 51 – 300, share of number of enterprises is the following five county as in Pest in Central Hungary, Bacs-Kislum in Southern Great Plain, Gyor-Moson-Sopron in Western Transdanubia and Borsod-Abauj-Zemlem in Northern Hungary. On the other hand, less accumulated counties are Kamaron-Esztergon in Central Transdanubia, Nograd in Northern Hungary, Vas in Western Transdanubia, Somogy and Tolna in Southern Trandanubia. These counties are less concentrated without any relation to size of enterprises.

Table 2-1 Share of Size of Enterprises by County (1998)

Country, Capital, Region	Less than 11 persons	11-20 persons	21-50 persons	51-300 persons	More than 300persons
Budapest	42.4%	34.7%	29.5%	25.1%	31.2%
Pest	9.2%	8.6%	8.0%	7.0%	5.5%
Fejér	3.2%	3.4%	3.7%	3.8%	5.4%
Komárom-Esztergom	2.5%	2.9%	2.7%	2.8%	3.5%
Veszprém	2.5%	2.9%	3.2%	3.3%	3.9%
Gyor-Moson-Sopron	3.5%	4.2%	4.5%	5.1%	5.4%
Vas	1.6%	2.2%	2.7%	3.4%	3.9%
Zala	2.4%	2.3%	3.0%	3.1%	2.6%
Baranya	3.9%	3.5%	3.4%	4.4%	3.4%
Somogy	2.3%	2.8%	2.6%	2.9%	2.7%
Tolna	1.5%	2.2%	2.1%	2.9%	1.8%
Borsod-Abauj-Zemplén	4.3%	4.5%	5.3%	4.8%	6.6%
Heves	1.6%	2.7%	2.7%	2.7%	1.9%
Nógrád	1.0%	1.7%	1.8%	1.7%	1.5%
Hajdú-Bihar	3.7%	3.6%	4.3%	5.0%	4.6%
Jász-Nagykun-Szolnok	2.2%	2.9%	3.4%	4.5%	3.5%
Szabolcs-Szatmár-Bereg	3.0%	3.5%	4.2%	3.8%	2.4%
Bács-Kiskun	3.7%	4.9%	5.3%	5.8%	3.6%
Békés	1.8%	2.8%	3.5%	3.9%	2.5%
Csongrád	3.7%	3.8%	3.9%	4.0%	4.3%

(Source) Central Statistical Office.

Country, Capital, Region	Less than 11 persons	11-20 persons	21-50 persons	51-300 persons	More than 300persons
Share to Total	93.3%	2.8%	2.1%	1.5%	0.3%

(Share in Total was calculated as follows: Categorized number of enterprises divided by total number of enterprises)

(Source) Central Statistical Office

Table 2-2 shows the rate of contribution of GDP by size of enterprises. As shown in the table, value-added in large enterprises are above 50% in last five years. This means that value-added from large enterprises becomes pulling force in Hungarian national economy. At the same time, there are not large changes in share of value-added in micro, small and medium enterprises.

Table 2-2 Rate of Contribution in GDP by Size of Enterprises

	1994	1995	1996	1997	1998
Micro Enterprise	13.4%	12.8%	14.7%	14.2%	14.2%
Small Enterprise	14.1%	14.1%	13.4%	13.0%	13.8%
Medium Enterprise	21.9%	22.5%	21.7%	21.2%	21.5%
Large Enterprise	50.5%	50.7%	50.3%	51.7%	50.4%
	100.0%	100.0%	100.0%	100.0%	100.0%

(Source) Institute for Small Business Development (Computation based on tax Returns)

(Note) The number of employment is as follows: Micro Enterprise in less than 10; 10 – 49 in Small Enterprise; 50 – 249 in Medium Enterprise; above 250 in Large Enterprise.

Table 2-3 shows the total number of employments by size of enterprises. The distinctive characteristics is that total number of employment in micro enterprises are increased gradually, while total number of employment in large enterprises are decreased at the same time. The shares are also same tendency and there are no specific changes in small and medium enterprises. Therefore, the decrease of number of employment in large enterprises is covered by the increase of employment in micro enterprises.

Table 2-3 Number of Employments by Size of Enterprises (Unit; 1,000)

	1994		1995		1996		1997		1998	
		Share		Share		share		Share		Share
Micro Enterprise	871	30.4%	957	34.6%	989	34.7%	1,009	35.5%	1,058	36.4%
Small Enterprise	355	12.4%	363	13.1%	372	13.1%	403	14.2%	429	14.7%
Medium Enterprise	555	19.4%	525	19.0%	528	18.5%	536	18.9%	556	19.1%
Large Enterprise	1,086	37.9%	918	33.2%	959	33.7%	893	31.4%	867	29.8%
	2,867	100.0%	2,764	100.0%	2,848	100.0%	2,841	100.0%	2,909	100.0%

(Source) Institute for Small Business Development (Computation based on tax Returns)

(Note) The number of employment is as follows: Micro Enterprise in less than 10; 10 – 49 in Small Enterprise; 50 – 249 in Medium Enterprise; above 250 in Large Enterprise.

It can be referred from the rate of contribution in GDP and change of total number of employment that the number of employment in large enterprises is gradually decreased, while there is no large difference in contribution rate of GDP. On the other hand, although

total number of employment in micro enterprises is gradually increased, while the rate of increase in contribution rate of GDP is not harmonized of the increase. This means that large enterprises improve their productivity steadily, while micro enterprises show reverse tendency.

2.2 SME Promotion Policy and Institutional Framework

2.2.1 Historical Background of the target SMEs

Before 1988, internal industrial activities were led by large state enterprises and the government's industrial promotion policy was directed to this sector. Meanwhile, New Economic Policy brought authorization of private (small) enterprises, mainly those manufacturing and supplying consumer goods. This was the birth of SMEs in the country under the socialist administration. These small enterprises were mainly micro industries and small retailers up to the late 1980s. They were required to obtain manufacturing license or private trade license, which was issued to applicants who satisfied specific requirements. In this sense, the license system contained a certain element of free economy under the socialist government. Nevertheless, small enterprises remained small enterprises characterized as individual or family operation and it is not so easy to grow. They were recognized as private enterprises, but their activities were hampered by a lot of restriction and were not able to form the nuclei of autonomous development.

In the late 1980s, as the economy stagnated and the needs for economic liberalization rose significantly, the government decided to launch drastic reforms in May 1988 by stepping up the ongoing initiative to move toward a market economy and transform the entire economic structure. The legal system was established to support the reforms, including the taxation system, the introduction of a new pricing mechanism, the amendment of the Foreign Investment Act, followed by the enactment of the Company Act in 1989 to liberalize the foundation of private firms and the privatization of the state enterprises. Then, the new administration, which was born out of the 1990 general election (the first free election held after the war), embarked on extensive economic reforms toward a full market economy. As a result, SMEs of varying size and nature emerged. In addition to small enterprises that came out of the moderate economic reforms that started in 1968, they consist of solo proprietorships that emerged in the late 1980s and small- and medium-sized enterprises that spun off from privatization of large state enterprises in the 1990s.

Table 2-4 shows recent trends in the number of enterprises between 1989 and 1999 on a registration basis and by type of enterprise. The total number grew from approximately 410,000 to 1,050,000 (2.6 times) over the decade (most of the 1990s). Strong growth is seen among all types of enterprises, except for cooperatives. Solo proprietorships represent the largest registration category, accounting for 63% of total in 1999, although the growth rate of 70% is below the overall average. This means, around 300,000 solo proprietorships were established during the period. On the other hand, limited companies and stock companies experienced very high growth. They appear to have emerged as a result of increased foreign investment and privatization/split-up of former state enterprises. And major portions of them are SMEs.

Table 2-4 NUMBER OF REGISTERED ENTERPRISES BY LEGAL FORM (1990-99)

Period	LLC	CLS	Co-op	GP	LP	SP	Total *
1990	12,159	519	7,134	n.a.	n.a.	387,340	407,152
1991	41,206	1,072	7,232	n.a.	n.a.	510,459	559,969
1992	57,262	1,712	7,694	n.a.	n.a.	606,207	672,875
1993	72,897	2,375	8,175	2,492	67,301	688,843	842,083
1994	87,957	2,896	8,252	3,287	89,001	778,036	969,429
1995	102,697	3,186	8,321	3,685	102,560	791,496	1,011,945
1996	122,044	3,536	8,362	4,394	127,725	745,247	1,049,590
1997	143,109	3,929	8,330	4,509	140,043	659,690	998,264
1998	157,990	4,251	8,230	5,006	161,857	648,701	1,026,642
1999	160,647	4,350	8,191	5,217	170,762	660,139	1,049,410

LLC = limited liability company, CLS = company limited by shares, Co-op = co-operative,

GP = general partnership, LP = limited partnership, SP = sole proprietorship

*: Since columns include other forms of enterprise also, line totals are not necessarily equivalent to the figure under "Total".

Source: CSO Monthly Bulletins

At present, SMEs in the country are roughly classified to two types according to their historical background.

Type A: These SMEs originated in the split-up of large state enterprises or grew from small enterprises by capitalizing on the economic reforms after 1988. Most of them employ more than 20 people. They are owned by former managers of state enterprises and have expertise in manufacturing technology and business administration in some areas. However, most of their knowledge cannot be directly applied to market economy; as with production equipment they have inherited from state enterprises, their technical and management expertise is often obsolete and is not

adaptive to the changing market needs. Type A enterprises are currently receiving government support as part of its subcontracting promotion program.

Type B: Private enterprises founded before 1990, and sole proprietorships and microenterprises that was started after 1990, mainly consisting of entrepreneurs who newly started business without previous business management experience. These enterprises employ mainly relatives and friends and employ 10 or less people in most cases. They are willing to develop business on their own, but most of them feel difficulty in market development and fund raising. Type B enterprises make up the most part of micro and SMEs in Hungary.

2.2.2 History of SME Promotion Policies and Programs

The Hungarian government had implemented a few policies and programs related to promotion of SMEs until 1990, reflecting the history of SMEs in the country, which did not give rise to such policy requirements. In the 1990s, the need for promotion of SMEs arose to absorb the unemployed due to the structural reform of industry and various laws and programs were introduced to lay the foundation for fostering SMEs. Nevertheless, they are not considered as full-fledged SME promotion policy and program. SME policies and programs implemented in the early 1990s and organizations established are summarized below. It should be noted that the Company Act and the Solo Proprietorship Act are considered to play a critical role in development of SMEs by facilitating business startups by individuals and providing proper legal protection

1989 Enactment of the Company Act

1990 Enactment of the Solo Proprietorship Act

1990 Establishment of the Institute for Small Business Development (ISBD)

1990 Establishment of the Hungarian Small Business Association (HSBA)

1990 Establishment of the Hungarian Foundation for Enterprise Promotion (MVA)

1994 Issuance of Government Decree 2040/1994. (V.3) on the Government Conception of the Development of Small and Medium-Sized Enterprises

1995 Establishment of the Enterprise Development Council (EDC)

Also, throughout the 1990s, SME promotion policy was changed to address the need arising from accelerated transformation of domestic industry to the process and assembly oriented structure, where foreign corporations play a leading role. Especially, the need for developing SMEs into internationally competitive suppliers was announced. Thus, the policy passively following the EU model and implanting it in the country was turned into a more objective-focused policy. In any case, the government has been announcing the series of policy guidelines and enacting various laws and regulations since the end of 1997, which are summarized as follows.

- **The establishment of the Small Enterprise Department in the Ministry of Industry, Trade and Tourism in 1997.**

It was later reorganized to the SME Promotion Department, the Ministry of Economic Affairs. It was the first administrative body responsible for SME policy.

- **Formulation of the Hungarian Government's Strategy for Supporting Small and Medium-sized Enterprises in 1998.**

The strategy summarizes the issues facing SMEs and proposes possible solutions in the form of development guidelines. In fact, SME promotion programs contained in the Szechenyi Plan, which will be rolled out in January 2001, are based on the strategies discussed here.

- **Formulation of the Subcontracting Program in 1998**

This is one of the programs formulated by the Ministry of Economic Affairs. It is designed to foster small- and medium-sized domestic parts suppliers, promote their productivity improvement and foster growth of the supplier base. Also called the Supplier Target Program, the program has been continuing since the announcement in 1998 through various stages.

- **Enactment of the Act on the Development of Small- and Medium-sized Enterprises and the Support of Their Development in 1999 (promulgated in January 2000)**

The SME promotion act has been drafted and discussed by the Enterprise Development Council (EDC), which was established by the then Ministry of Industry

and Trade in 1995. The bill was submitted to the parliament in October 1997, but it was not passed until November 1999, partly due to the change of government. The act primarily sets forth basic principles on SME promotion and consists of 4 chapter and 19 articles, including the definition of SMEs, budgetary allocation, the fields and forms of support, and the establishment of the Enterprise Development Board (EDB) to replace the EDC.

While the basic policy and strategy was established in the late 1990s, structured policies and programs covering the SMEs have still to be developed and a more decisive step is expected in the near future. At present, the subcontracting promotion program is one step ahead of SME promotion, but the Szechenyi Plan will drive the structured planning of the SME promotion program.

Major characteristics of SME promotion policies and programs in Hungary are summarized as follows.

- 1) They are strongly affected by the EU industrial policy guideline. As a result, promotion of specific areas (such as subsectors) is not addressed, while incentives are mainly comprised of financial assistance such as interest payment.
- 2) Many policies and programs cover MEs with 10 or less employees.
- 3) While the concept of policymaking has become market-oriented to reflect the change in the economic system, the organization and mindset of many people are still lingering on the shadow of the centrally planned economy to prevent effective implementation of actual programs.

2.2.3 The Implementation System and Organization for SME Promotion Policies and Programs

Figure2-1 shows a new organization of the MEA which became effective in April 2000. The MEA covers broad areas including tourism, labor and housing, in addition to industrial development. The SME Promotion Department originated in the former Small Enterprise Department, which was established in 1997, and directly reports to the Assistant Secretary instead of the Parliamentary State Secretary. As a result, it is now positioned as an administrative within the MEA. Meanwhile, the National Subcontracting Program Office, previously under supervision of the Parliamentary State Secretary, was transferred to the industrial development section of the MEA. As of the end of September 2000, the SME Promotion Department has

11 staff and the National Subcontracting Program Office two staff. To step up SME policies and programs, five staff were added to the former in September, with a further increase in the near future, including the National Subcontracting Program Office.

The government has announced its policy for ministerial reorganization at the end of 1998, including the strengthening of the policymaking function of each ministry, while moving toward the outsourcing of program implementation and operation. As result, SME promotion programs under jurisdiction of the MEA are implemented by organizations shown in Figure2-2. The MEA will be primarily responsible for policy development and decision, and budget decision. While some organizations are still at the preparation stage in September 2000, programs will be implemented within the organizational framework, starting in January 2001.

Figure 2-1 ORGANIZATIONAL CHART OF THE MINISTRY OF ECONOMIC AFFAIRS, May 2000

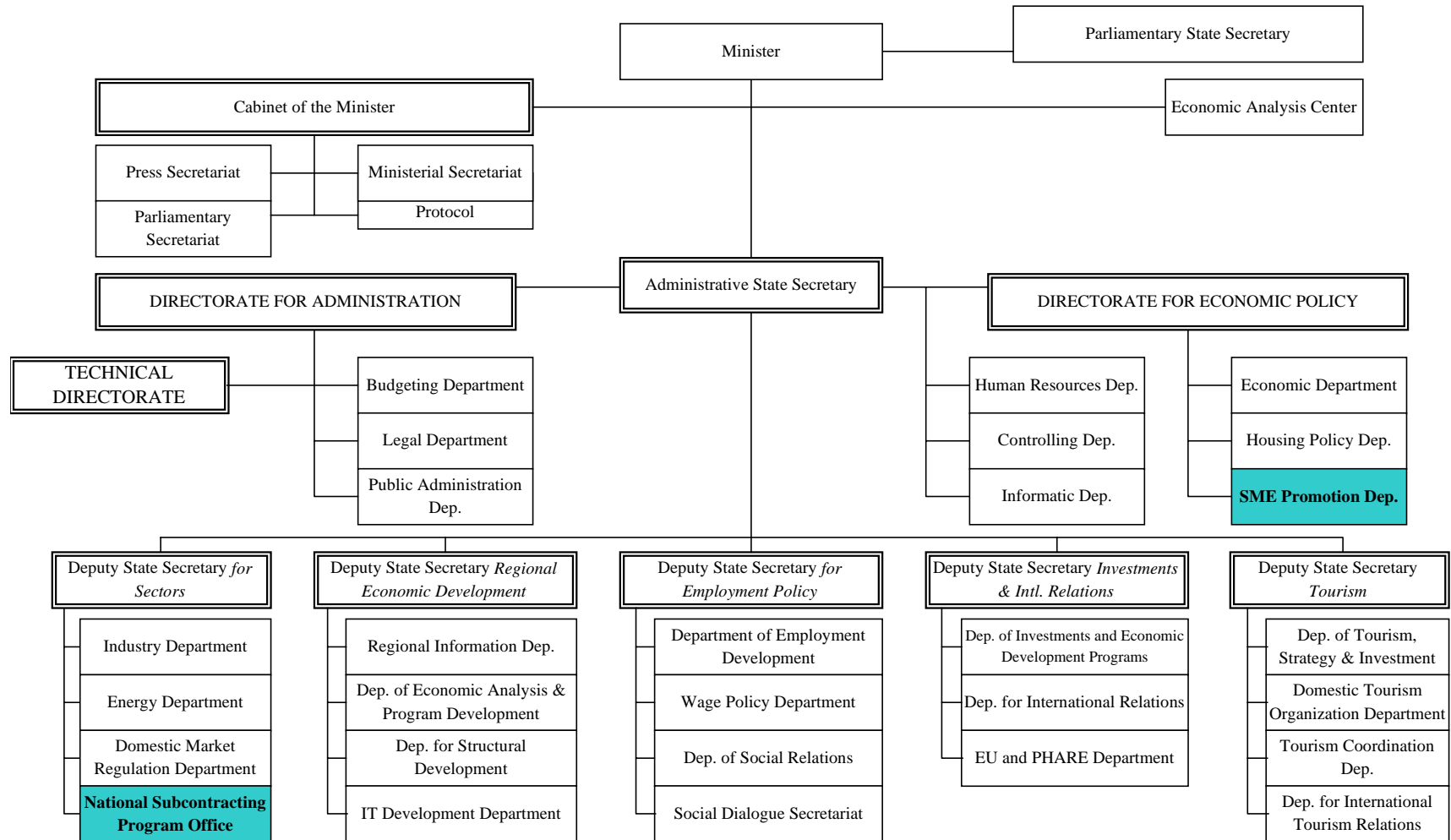
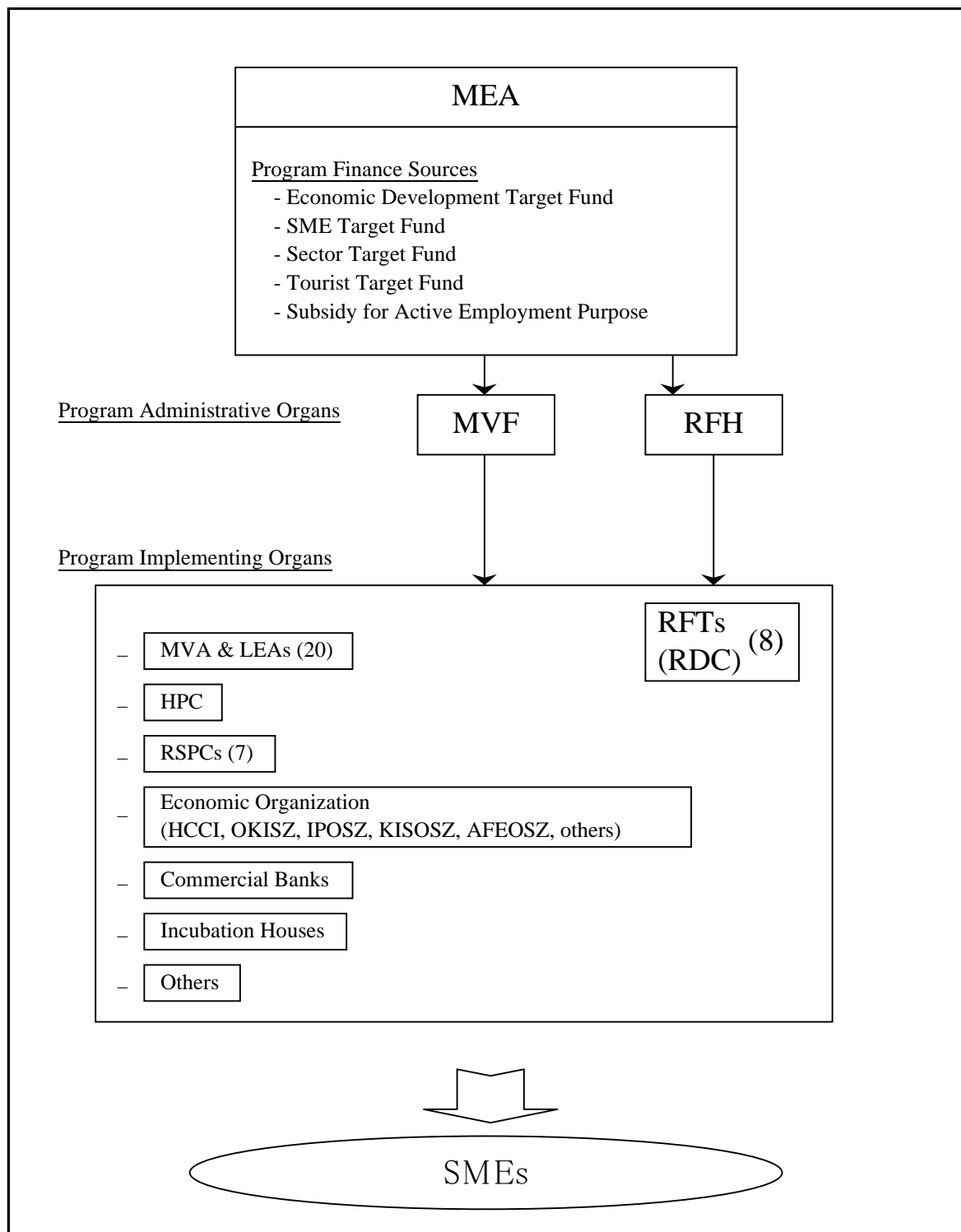


Figure 2-2 IMPLEMENTING ORGANS FOR SMEs DEVELOPMENT UNDER MEA



2.3 EU's SME Policies and Hungary

2.3.1 Situations of EU's SME Policies and Future Direction

(1) EU's SME policies and program

EU highly recognizes the importance of SMEs in the promotion of economic growth and in the security of employment, and created action programs for supporting SMEs at three occasions up to the at the present time. Particularly the Third Multiannual Programme for SMEs in the European Union (1997-2000) created in 1996 is what was adopted with the objective to harmonize SME policies among member nations and to provide more efficient SME support. It has binding force over EU member nations, and it provides the meaning of a guideline to Hungary, which signed Association Agreement with EU, aiming at affiliation in EU.

This program lays emphasis in the improvement of business environment of SMEs and in the strengthening of competitive power and technological capabilities based on the rule of intraregional indiscrimination between inside and outside. The essential features of this program are six points indicated below.

- 1) To simplify and improve the administrative and regulatory business environment ('BEST')
- 2) To improve the financial environment for enterprises (improvement of access to financing and risk capital finance, reduction of the issue of delay in payment, development of capital market, etc.)
- 3) To help SMEs to Europeanise and internationalise their strategies, in particular through better information services (Euro-Info-Centres, business search network BC-NET/BRE, partnership program Europartnariat/Interprise, development of subcontracting partnership, etc.)
- 4) To enhance SME competitiveness and improve access to research, innovation and research.
- 5) To promote entrepreneurship and support special target groups (crafts and micro enterprises, commerce and physical distribution enterprises, supporting of females, youths and minority races in the creation of business)
- 6) To improve SME policy instruments (provision of consultation to SME groups, improvement of SME statistics, etc.)

Based on the results of the third program stated above, European Commission made deliberation with EU member nations, business groups, etc. and created a program for the Fourth Multinational Program (2001 - 2005).

This program strikes a number of new notes, and the following can be indicated as what are worthy of special mention.

◆ Deregulation

This applies major regulation, which is for reducing the burden to SMEs, to enterprises of all scale levels. European Commission makes it a duty of its own to surely execute "business impact evaluation" before introduction of a new bill, and it also requests EU member nations to do the same, together with deregulation indicated below. Furthermore, all the existing laws (*aquis*) of EU are evaluated based on the experience of actual enforcement during this program period.

◆ Benchmarking

This is to bench mark the performance of policies of EU member nations for improving business environment such as business activities, innovation and market access. Besides comparison of policy performance of each nation, what are the reasons for occurrence of differences in the performance and what are processes and environment for creating good performance are examined.

Bench marking was positioned at a meeting of the board of directors held in Lisbon as an important technique for adjusting new policies of each nation. It was determined to activate it no later than June 2000 and to submit its first result by December of the same year.

(2) Orientation of SME policies in Hungary taking affiliation in EU into account

Regarding affiliation in EU, the framework of SME policies of Hungary and contents of actions are almost of no problems, at least at the level of legal compatibility to EU guideline.

What should rather be examined in the future in consideration of affiliation in EU are orientation of EU's fourth program, that is, Multiannual Programme for

Enterprise and Entrepreneurship (2001-2005) as well as competitive power of Hungary in the EU market.

EU's fourth enterprise program directs the maximum interest to adaptation of enterprises to e-business and new economy. Furthermore, to increase effectiveness of policies, EU is paying attention to monitoring such as benchmarking of policy performance and acquisition of success cases. Program participating nations are requested to take these actions exhaustively to an extent that is higher than before.

Furthermore, if Hungary intends to fully enjoy institutional merits acquired by affiliation in EU, advancement of SMEs should be promoted in a set with regional development, and EU's Structural Fund and Cohesion Fund should be used. The upper limit of national aid to SMEs located at aid target areas is set at a level higher than that at other places. It becomes possible to implement regional development and hospitable SME aid at the same time.

2.4 Major Issues on SMEs and SME Promotion Policies and Programs

2.4.1 Major Issues on SMEs in Hungarian Economy

1) Distortion of Macro Economic Performance

Experiencing conversion recession, the Hungarian economy forms the keynote of economic growth after market liberalization. Especially after participation of OECD, both economic growth rate and mining and manufacturing production are stable in even comparison with other central- and eastern-European countries and consumer price index is on stage of gradual decrease. As these economic conditions, high level of the official bank rate, which has been a long-standing question, became decreasing gradually. On the other hand, the problems to be solved are unemployment rate with approximately 10% and everlasting deficit in trade balance. Especially in trade, both export and import are expanding rapidly and there is no sign to be improved.

2) Low Productivity in Micro Enterprises

Based on small improvement of unemployment rate, the number of employment is on gradual increase. However, there are large differentials in the number of employment by size of enterprises. This means that the large

enterprises are decreasing the number of employment, while share of value-added is increasing in the category. On the contrary, the number of employment in micro enterprises is increasing, while share of value-added is decreasing. The number of employment in small and medium enterprises is stable. Therefore, the micro enterprises absorb the number of employment left from large enterprises, while productivity of the micro enterprises is still low.

3) Problems in Regional Economic Differentials

As shown in gross regional product and unemployment rate by county, economic expansion by market liberalization is not permeated to nation but, rather, leads to regional economic differentials. As divided roughly, economic performance in mid- and western part of Hungary is improved, while it is stagnant in eastern part. The regional differentials of GDP per capita become more than three times and this tendency will continue.

4) Weakness of SMEs statistics

The survey for Hungarian industrial statistics is conducted monthly, quarterly and annually and its contents include not only for present situations but also for static situations as well as investment trends. Therefore, although there is such some shortage as salary in employment, operation rate of machinery and equipment or volume of production, the contents of survey should be sufficiently appropriate. However, in the process of market liberalization, there are some immature in enterprise statistics, institutional framework and methodology of collection and utilization of data and SMEs statistics.

5) Lack of Benchmark in SMEs management

Most of the Hungarian enterprises were established after market liberalization and there is not a majority to introduce international accounting standards. Therefore, it is not too much to say that the base of management is still not established. In terms of SMEs management, such benchmarks as profitability, efficiency, safety, productivity and ability of growth are required. In Hungary, there is no national benchmark based on survey.

2.4.2 Major Issues Facing SMEs in Hungary

(1) Vulnerable management base

In Hungary, SMEs have a relatively short history. Most of them were established after 1989 and approximately 80% are microenterprises or solo proprietorships including self-employed contractors and one-man concerns. Dominated by very small enterprises, the key word to describe the major (common) issue faced by SMEs is the “vulnerable management base.” This is observed in very management resource, including manpower, equipment, fund and information.

(2) Difficulty in market development and financing

When the issue of the “vulnerable management base” is analyzed, it can be boiled down to difficulty in two areas, “market development” and “financing (difficulty of fund raising),” as revealed in the result of the questionnaire survey. The first problem comes from the small domestic market, the changes in target market due to the collapse of the old system, the lack of information on new markets, and the inability to adapt themselves to the new business environment. Also, most SMEs cannot afford to employ personnel familiar with market development – a major issue inherent in small enterprises. On the other hand, the difficulty in financing is attributable to poor credit standing (lack of assets for collateral) that hinders access to commercial loans, the undeveloped legal infrastructure for the collateral loan system, effective exclusion of SMEs from financial service due to cash flow-oriented evaluation of loan application, and the poor institutional lending program.

(3) Obsolete production equipment and system

In the questionnaire survey mentioned earlier, the highest percentage of responses cited the need for modernization of machinery and equipment. Also many enterprises feel the need for upgrading of production technology and quality control. At present, modernization of equipment and production technology has been progressed to some degree in industries where foreign investment increases, whereas obsolete equipment and old-fashioned production techniques are still used by SMEs that spun off from the former state enterprises or those started by

managers and engineers of the old enterprises. Note that the issue of equipment modernization is interrelated with the difficulty in market development and financing.

(4) Heavy burden of public charges including social insurance

One of the common issues for SMEs, as pointed out in the interview survey of trade associations, is the heavy burden of public charges. This comes from the fact that flat rates of social security and other charges are applied regardless of enterprise size, and SME managers feel that they are treated unfairly. In fact, the flat rate system exerts a heavy burden on SMEs by unduly reducing the already limited operating fund. The government is now considering reduction of tax and social insurance burdens on SMEs and quick action is desirable as it constitutes an integral part of preparation for the EU participation.

2.4.3 Major Issues Related to the SME Promotion Law, Policies and Measures

(1) Definition of SMEs

Recipients of SME promotion programs are selected according to the definition given in the applicable law. More precisely, SME promotion programs are designed (tailored) according to the type of SMEs classified under the legal definition. To design a program customized to the diverse needs of SMEs, therefore, it is important to classify SMEs precisely to reflect their nature and characteristics accurately. When considering two small enterprises that employ the same number of people but belong to different sectors (e.g., manufacturing and commerce), for instance, their relative positions rank and influence in the sector are different, and so are their needs for public support. This is analogous to the situation where the present subcontracting promotion program cannot be directly applied to the commercial sector. In other words, the definition of SMEs must reflect major characteristics of each sector: at least, different definitions should be given to the manufacturing, commerce and service sectors.

(2) Need for strategic focus in the present SME policies and programs

As the Hungarian government has launched structured SME policies and

programs only recently (in the late 1990s), which are now in the full implementation process. Those are basically formulated after the model of EU's guideline. It is perhaps too early to evaluate it in terms of strategic focus. Nevertheless, the concept of cluster development, which is considered as part of the subcontracting promotion program, appears to have a strategic element, although not materialized. In any case, what is required for industrial development in the country is the transformation and reinforcement of the domestic industrial structure that enables local manufacturers to maintain competitive position after the EU participation. In other words, they have to upgrade production technology constantly to meet the needs of the times, which in turn requires the development of the balanced industrial structure as well as human resource development. Even though EU member countries, they have own development strategy within EU's policy framework. This is quite logical way. To accomplish the goal, a more systematic and strategic approach should be taken to devise comprehensive promotion programs and an implementation organization, such as the provision of incentives targeted to specific groups of enterprises or purposes. Today, the country's SME policies and programs are characterized by their efforts to follow the EU's industrial policy guideline. It is a logical choice for the country which is about to join the single market. At the same time, it is time for the country to formulate industrial policy that addresses the needs and reflect local conditions peculiar to the country. In this sense, SME policies and programs should focus on specific areas and resource allocation accordingly.

(3) Acceleration of support for market development

The difficulty in financing, one of the two major obstacles to SME development, has been addressed, albeit partially, since the early 1990s, including the program to secure a required amount of loan, the loan guarantee system, and the emergence of venture capital. On the other hand, a variety of public programs have been limited in the area of overcoming the "difficulty in export market development" partly because of the constraints related to the WTO agreement. While ITD-H, responsible for trade promotion, work hard toward the goal, its resources are limited if it is to address the needs of small manufacturers in the country. For most suppliers, the domestic market is too small to maintain profitability, including automotive and electrical/electronics industries to which the subcontracting promotion program is targeted. To reach the critical mass in

production that allows economies of scale, development of export markets should be given of highest priority in Hungary's industrial development policy. For this purpose, the government needs to establish public support policy for SMEs within the framework of the EU Competition Policy in order to assist them in overcoming the shortage of management resources, and plan and implement a variety of market development support programs optimized to the policy objectives.

(4) Issues related to direct support projects

In the recent few years, construction of physical infrastructure for SME development has significantly progressed. Over 100 industrial estates have been developed and 52 incubation houses are in operation. The focal point of SME support should therefore be shifted from hardware to software, the effective use of these facilities. At present, a key element of SME promotion programs that are in the operational stage is financial assistance, although its effectiveness needs to be verified. On the other hand, direct support projects are not sufficient, in size or variety, to meet the needs of SMEs, despite the fact that they should form a major pillar of SME promotion policy (See the result of the questionnaire survey.). In particular, there are not enough consultants and facilities to implement direct support projects, as well as financial resources. It is recommended to add and upgrade the functions related to corporate evaluation, technical consultation and information service in the following areas:

- a) Upgrading of management techniques, knowledge on EU regulation, development of entrepreneurship;
- b) Support for SEM's day-to-day operation and long-term management;
- c) Information service related to technology, market and EU regulation;
- d) Building and strengthening of subcontracting relations;
- e) Upgrading of innovation capabilities;
- f) Support for development of domestic and export markets; and
- g) Promotion of joint R&D activities.

2.4.4 Issues Related to the SME Promotion Organization and Institution

(1) Limited manpower and budget

At present, the government's SME development policy making is led by two departments of the MEA, the SME Promotion Department and the National Subcontracting Program Office. The number of full-time staffs is 11 and 2 respectively. While it is explained that the highly qualified staff is assigned and the MEA is responsible for very broad fields with 550 employees, it is clearly understaffed. Meanwhile, the SME budget has been on the steady rise since 1998 and the SME Target Fund for FY2000 will represent 11.3% of the MEA budget, totaling 5.2 billion HUF. However, it is far below what is required for SME promotion programs. As of September when the field survey was conducted, the MEA expressed its intent to add manpower and budget, where possible, in consideration of the importance of SME promotion. It is therefore important to maximize the effect of the limited resources by utilizing external resources including foreign investment.

(2) Reassessment of the MVA's role

In the 1990s, the PHARE program played an outstanding role in Hungary where SME policies and programs were largely undeveloped. Also, the MVA network provided effective support for microenterprises and small enterprises by implementing the PHARE program. Yet, the MVA's role has been largely limited to coordination required for implementation of the ad-hoc program which has become the *raison d'être* for the MVA in the country. Meanwhile, the government has started to build the formal institution for implementation of its own SEM promotion programs. As shown in Figure 2.2-2, Chapter 2, the MVA is positioned as a coordinating body in program implementation, clearly reflecting the intent of the government to separate supervision and implementation into mutually independent functions. This demands the reassessment of the MVA's dual role that has been assumed in implementation and coordination of the PHARE program. The MVA is required to find the ways to use its expertise and experience within the new institutional framework.

(3) Vulnerable management base of program implementation organizations

Most organizations implementing SME promotion programs are established and operated as foundations or public companies. Their initial funds are usually provided by the government or public organizations but they are mandated to finance operating costs and expenses on their own. They have to earn revenues from program implementation in the form of a contract with the government, a foreign organization or a private enterprise, and they do not have steady financial sources. While they need to put priority to public interest they serve, rather than profit making, they have to have their own revenue source to maintain their organizations and activities.. It is important for them to strengthening the self-financing capabilities and stay viable in the new competitive environment, while the government should consider the way to maintain a continuous stream of works for implementation organizations on a program basis, which should be used in combination with the tender system.

(4) Use of trade organizations as a useful program implementation channel

One of the ways to achieve an systematic approach to SME promotion is to organize individual enterprises in a specific industry. The trade organization can serve as an effective channel master to support the government's programs by optimizing resource allocation and maximizing efficiency. In this response, Hungary is in an advantageous position as enterprises have been historically organized according to the trade or field of specialization. For instance, there are various trade organizations that have become active under the new political and economic system, such as HCCI and four key organizations of KISOSZ, IPOSZ, OKISZ and AFEOSE. Nevertheless, they have to reorient themselves further to become truly independent organizations representing the interest of the members, rather than those protected by the socialist government. Also, they have to incorporate a growing number of foreign enterprises. Meanwhile, the government should devise the ways to use trade associations as the effective channel of communication with industries and enterprises in the program implementation process.

(5) Structured regional development support by the MEA

The MEA's regional industrial development efforts have been carried out through external organizations, such as Regional Development Corporation (RDC), Local Enterprise Agencies (LEAs) and Incubation Houses that are operated in various parts of the country. Also, the ITD-H and financial institutions are considered to provide support for regional industrial development. What is needed to maximum effectiveness of these efforts is the coordinating function of the MEA. The MEA should serve as a regional development center to supervise SME policies and programs on a regional basis and make strategic decisions. Furthermore, the MEA's local organizations should be responsible for management of current data on local business establishments and their activities and analysis of regional economic conditions. It is desirable MEA's SME development fund has a close connection with regional development policies and strategies, and to implement a program through MEA's regional network. The MEA is reportedly developing Regional Development Holding Company, established to supervise the RDC, to a key organization in the regional industrial development system. It is therefore important for the MEA to transfer its theoretical (desirable) functions to the RDHC as far as possible.

Chapter 3

Present Situation and Issues of Selected Sectors

Chapter 3 Present Situation and Issues of Selected Sectors

3.1 Subcontracting Promotion

3.1.1 Current State of Subcontracted Promotion

3.1.1.1 Automotive industry

Three passenger car manufacturers (AUDI Hungarian Kft, OPEL Hungary Jarmugyarto Kft, MAGYAR SUZUKI Szemelygepkocsi Gyato es Ertesito Tr.), two bus manufacturers (IKARUS Egyedi Autobusz Gyar Kft, NABI Eszak-Amerikai Jarmuipari Tr.) and one bus/truck manufacturer (RABA Magyar Vagon es Gepgyar Rt.), six manufacturers in total, are producing automotive vehicles in Hungary at the present time. The production scale in 1999 was 130,000 passenger cars, 3,500 buses and 300 trucks.

Upon reference to a number of enterprise directories and databases in Hungary, 169 companies can be listed up as enterprises that are supplying parts to these automotive vehicles manufacturers. These 169 companies can be considered to be subcontracting enterprises in the automotive industry of Hungary. When destinations of delivery of products of these companies are observed, the majority of these destinations are automotive vehicles manufacturers stated above or automotive vehicles manufacturers outside of the nation. However, some of these companies are delivering their products to parts manufacturers inside and outside of the nation, and these 169 companies include principal secondary supplier besides primary suppliers.

These suppliers are divided into two groups. One is composed of enterprises which have been existing since the days of socialist system and another is composed of enterprises established after transition to market economy. The latter group occupies 74% of all. The majority of companies of the latter group were established in the three-year period of 1991 through 1993. When the configuration of proprietorship is observed, 75% are local private enterprises, 20% are joint ventures with foreign capital, and 5% are government owned enterprises and others. When the employees scale is observed, 90% of enterprises of up to 19 employees and 80% of enterprises of 20 to 249 employees are local private enterprises. On the other hand, nearly one half of enterprises of 250 or more employees are joint ventures with foreign capital. As to the business

configuration, 71% of these enterprises are limited liability companies (Kft.) and the share of stock companies (Rt.) is 14%. There is such a trend that as the employees scale becomes large, the ratio of limited liability companies decreases and the ratio of stock companies increases. Among enterprises of 250 or more employees, the ratio of limited liability companies is 59% and the ratio of stock companies is 38%.

Six companies (three for passenger cars, two for buses, one for trucks) are engaged in the production (assembly) of automotive vehicles in Hungary at the present time as stated earlier. All of three passenger cars manufacturers are joint ventures with foreign capital. These enterprises are procuring parts, which are needed for production of passenger cars, from Hungary and outside of Hungary and are performing production. When the parts procurement ratio (amount base) of these companies is observed, MAGYAR SUZUKI is procuring 30% in Hungary and 27% from EU. AUDI Hungarian Motor is procuring over 70% from Germany and 20% from other EU nations, and the ratio of procurement in Hungary is less than 10%. With OPEL Hungary Jarmugyarto, the ratios of procurement from Germany and other EU nations are even higher. With OPEL Hungary Jarmugyarto, the ratio of procurement of parts from EU nations other than Germany is high compared to AUDI Hungarian Motor. The ratio of procurement in Hungary is around 5%. Therefore, when these three companies are compared from the parts procurement ratio, MAGYAR SUZUKI is of the structure to use subcontracting enterprises in Hungary, but other two companies of German capital are of such a production structure that parts are procured from outside of Hungary and assembly is made in Hungary.

Contrary to passenger cars manufacturers, the parts procurement ratios (including subsidiaries) of two bus manufacturers and one truck manufacturer exceed 80%. It is considered to be because of the fact that, in the fields of buses and trucks, parts enterprises in Hungary were brought up under the socialist system. Under the former system, government owned IKARUS and RABA were producing buses trucks respectively, and were supplying buses and trucks to Eastern European nations besides Hungary. There were 15 parts enterprises underneath their control. These parts enterprises were exporting automotive vehicles parts (including passenger cars bearings) to Eastern European nations and they possessed high production technology. These parts enterprises were split in the process of transition to market economy, and were completely absorbed in privatized

IKARUS, RABA and NABI or were incorporated in the subcontracting production structure of these three companies as affiliates. Today 10 affiliates are supplying parts to the parent company at IKARUS, 6 affiliates at RABA and 6 affiliates at NABI.

The number of primary suppliers, which are directly supplying parts to passenger cars manufacturers, is 52 for MAGYAR SUZUKI (according to the above material), 35 to 40 for AUDI Hungarian Motor and 20 for OPEL Hungary Jarmugyarto. At MAGYAR SUZUKI, about 30 suppliers out of 52 are continuously supplying parts and other suppliers are supplying parts on the spot basis.

Regarding secondary suppliers, MAGYAR SUZUKI estimated that each one of their 52 primary suppliers has four secondary suppliers at average and calculated the number of secondary suppliers on the trial basis. With AUDI Hungarian Motor and OPEL Hungary Jarmugyarto, it is assumed that each primary supplier has two secondary suppliers at average because these primary suppliers supply simple parts compared to primary suppliers of MAGYAR SUZUKI. In the field of buses and trucks, on the other hand, the scale of affiliates, which are primary suppliers, is large and many of them are performing processing of raw materials through manufacturing of parts, and they do not need constant secondary suppliers. Therefore, it is possible to consider that secondary suppliers of a small number that supply parts on the spot basis to bus and truck manufacturers are included in secondary suppliers for passenger cars manufacturers. Based on the considerations indicated above, the production structure of the automotive industry in Hungary can be estimated as indicated below.

Assemblers:	6 companies
Primary suppliers:	123 companies
Secondary suppliers:	328 companies

It can be estimated that numerous sub-suppliers of micro scale are located underneath secondary suppliers and the intermediate section of the pyramid is largely pinched-in. To strengthen the subcontracting production structure, it is necessary (1) to increase the number of primary suppliers and secondary suppliers, and (2) to uplift the production levels of primary suppliers and secondary suppliers.

3.1.1.2 Electric and electronic industry

Upon reference to a number of enterprise directories and databases available in Hungary, 376 companies can be extracted as enterprises that are supplying parts to manufacturers of electric and electronic equipment executing responsible person in Hungary, like the automotive industry. These 376 enterprises include enterprises executing manufacturing of parts and assembly of products, enterprises executing sales of parts made by other companies besides manufacturing and assembly and enterprises engaged in OEM, besides parts manufacturing enterprises. These 376 companies can be considered to be subcontracting enterprises for the electric and electronic industry of Hungary. In this field of industry, however, products of a broad range including home electric appliances, AV equipment, data processing equipment and telecommunications equipment are included, and the transaction relation among these diversified business categories is intricate, very complicated subcontracting relation is constituted.

Big businesses of European nations such as GE, Phillips, Electrolux, IBM and Siemens made entry to Hungary and are producing illumination equipment, home electric appliances, AV equipment, hard disk drives, medical care equipment, etc.

Among Japanese enterprises, Sony, Sanyo Electric, TDK, Clarion, Alpine, Aikawa Press, Hitachi Wire, Hayakawa Wire, etc. made entry to Hungary. All of them commenced production in the middle of 1995 and subsequent.

Among local-capital enterprises, Videoton is growing in such a form to act as OEM for these European foreign-capital enterprises. This company has been producing radio sets, TV sets, speakers, data processing equipment and telecommunications equipment since it was established as a government owned enterprise in 1938. But it went bankrupt in 1991 due to collapse of the former system, and it was restarted as a private enterprise in the following year.

It is estimated that the production structure of the electric and electronic industry of Hungary is such that the group of enterprises stated above constitute the primary suppliers, 376 SME's constitute the secondary suppliers as subcontracting enterprises for these enterprises and many micro-size enterprise are located in the tertiary layer.

The degree of use of subcontracting enterprises is high at European enterprises that have been executing production since the first half of 1990's. GE and Electrolux established bases for production in Hungary by acquisition of leading local-capital enterprises. At the time of acquisition of these enterprises, they selected primary suppliers, which were supplying parts to these acquired enterprises, and incorporated enterprises of high technological capacities under their control. GE Tungsrum is directly purchasing parts from about 120 enterprises, and 70 enterprises out of them are of local-capital. The local procurement ratio of plastic parts of GE Tungsrum has reached the level of 80 to 85%. GE Tungsrum is of the policy to increase domestic procurement to reduce the parts shipping cost accompanying increase of production, and they are implementing precise survey of 300 local-capital parts enterprises with a 3-year plan. Ten enterprises were newly selected as subcontracting enterprises as a result.

On the other hand, Vedeoton, that is executing OEM production of leading brand products of foreign-capital enterprises, is of such a structure to execute production of parts at their ten affiliates (100% affiliates). Sheet metal working of raw materials and members, injection molding, cutting, wiring, surface treatment, etc. are executed at these affiliates and their products are supplied to the OEM department. Vedeoton has about 30 outside subcontracting enterprises to supplement parts supply from these affiliates.

The length of time since Japanese capita enterprises commenced production in Hungary is rather short. Since prominent manufacturers of pressed parts such as Aikawa Press, Shinwa and Sanshin recently made entry to Hungary, the degree of use of local-capital enterprises by Japanese-capital enterprises is low. Procurement of parts produced by local-capital enterprises is limited to some of plastic parts, packaging materials, printed matters, etc.

3.1.2 Subjects for Promotion of Subcontracting

(1) Weakness of the Structure of Subcontract Production

In the fields of passenger cars and electric and electronic equipment, Japanese-capital and European/US-capital enterprises are acting as primary suppliers, and local-capital enterprises are supplying parts of large and simple shape that do not require high accuracy in the fields of plastic injection molding, steel pressing and

cutting, aluminum stamping and die-cast. In the field of buses and trucks, local-capital enterprises having the basis of parts manufacturing technology since the days of former system are supplying the domestic assemblers with the majority of parts including key components such as engines.

The number of local-capital secondary suppliers can be estimated at 330 in the automobile industry, and 380 (including the primary suppliers) in the electric/electronics industry, as stated before. Therefore, the number of subcontracting enterprises in these industries is some 800 including 120 primary suppliers of automobile parts

Each of the multinational assemblers of automobiles or electronics equipment has hundreds of subcontractors in its own country. In the light of this, the subcontracting enterprises in Hungary are small in number, suggesting that Hungary has a weak structure for subcontracting production. Moreover, as stated above, Hungary's imports of automobile parts and electronics parts tends to increase in proportion as its export of automobiles and electronics equipment increases. This foreign trade statistics of Hungary indicate its structural weakness of subcontracting production.

(2) Subjects for Subcontracting Enterprises

The following points can be raised as issues of these local-capital primary and secondary suppliers, from the viewpoint of promotion of subcontracting enterprises.

1) Lack of mold manufacturing technology

Among automotive vehicles parts suppliers, either molds are leased by buyers or mold manufacturing enterprise are caused to manufacture molds on the consignment basis under the cost of buyers. No enterprise having the technology to manufacture molds by themselves was observed. Among suppliers supplying parts to Japanese-capital and European-capital audio set and car audio set manufacturers, there is one having their own mold manufacturing department, and they are exporting molds to Germany, Austria, etc.

2) Lack of mass production systems for parts required high accuracy

The mass-production structure (production equipment, production management) for parts requiring high accuracy has not been consolidated at

local-capital suppliers. Among suppliers engaged in injection molding of plastic parts for automotive vehicles parts, there were many suppliers to which simple measuring instruments such as surface plate and height gauge were not introduced. These measuring instruments are indispensable for mass-production of parts for car audio sets. Even in the same field of plastic parts, there are a few primary suppliers of parts for information equipment and audio sets, which already established the structure to permit mass-production of parts of high accuracy that satisfy needs of Japanese and European buyers. It is estimated that primary suppliers of electric and electronic equipment are ahead of primary suppliers of automotive vehicles parts also in the point of correspondence to needs for high accuracy.

3) Limitation of used raw materials and working technology

The point that working technology and used raw materials are limited at each supplier also constitutes a bottleneck for promotion of subcontracting enterprises. In case parts using aluminum as a raw material are subcontracted, the ordering efficiency is good if working of multiple types can be consigned to a few suppliers. But many of local-capital enterprises are not capable of performing multiple working. This point was also indicated by buyers of both of automotive vehicles parts and electric and electronic parts.

4) Lack of information related to buyer needs

Information related to parts the buyers want to procure is short on the supplier's side. For instance, a supplier supplying screws to manufacturers of automotive vehicles and electric and electronic equipment in the nation is not capable of manufacturing products of JIS standard requested by Japanese buyers. It is mainly because this supplier does not have machinery and equipment for producing products of JIS standard. Due to shortage of information related to standard, specification, etc. wanted by buyers, it is not possible for the supplier to take measures for new subcontracting transactions such as equipment investment and introduction of technology.

5) Lack of mass production systems of parts (mainly for the secondary suppliers)

Since they have not established the production systems to manufacture the same products in a large quantity yet at the present time, mechanization has delayed, productivity remained low, and the production cost got high as a result.

To establish the structure for subcontracted production of a large quantity, it is first necessary to fundamentally change the line of thought of the management.

3.2 Financial Support for SMEs

3.2.1 Current State of SME Finance

Table 3-1 indicates the market share of gross assets of financial institutions in 1998 and 1999, Hungary. It is learnt that the share of commercial banks in 1999 was 90.2%, which is overwhelmingly large although it remained unchanged from the figure of 1998. Furthermore, the figure of savings and credit cooperatives grew by 20.3% over the previous year and their share also increased to 5.8% from 5.4% of 1998, and it is necessary to pay attention also to their good showing.

Table 3-1 MARKET SHARE OF GROSS ASSETS OF CREDIT INSTITUTIONS BY GROUP

	1998 1999 Number of banks		1998 1999 Gross assets		Change	1998 1999 Component ratio	
	Number		Number / Billion HUF		%	%	
Commercial Banks	37	35	6,260	7,047	112.6	90.3	90.2
Others	7	8	300	309	103.0	4.3	4.0
Banking system Total	44	43	6,560	7,356	112.1	94.6	94.2
Savings and Credit cooperatives	243	217	375	451	120.3	5.4	5.8
Credit Institution Total	287	260	6,935	7,807	112.6	100.0	100.0

Source: Central Bank

Privatization of banks was substantially completed in 1997, and large changes did not occur in 1998. When all commercial banks are observed by capital, it is conspicuous that the market share of foreign-capital banks rose to 60.3%.

The credit stock of commercial banks is growing in both of long-term and short-term in parallel. The main contributing factor of long-term credits is foreign-currency credits, but forint credits are larger than foreign-currency credits in short-term credits. Although credits to SME's grew in 1998 in long-term credits and grew continuously in 1998 and 1999 in short-term credits, the growth rate is as minor as 11.4% compared to the growth of entire credits (up 19.7% in 1999 over the previous year), and the amount itself is still small. (See Table 3-2.)

Table 3-2 ENTERPRISE CREDIT STOCK BREAKDOWN

Unit: Billion HUF

	1996	1997	1998	1999	2000
	December	December	December	December	March
Long-term forint credits	339	517	618	663	663
of which: small enterprises	40	40	45	47	47
Long-term forex credit	121	241	360	522	573
Total long-term credit	460	759	976	1,187	1,235
Short-term forint credit	549	699	726	878	932
of which: small enterprises	13	12	16	21	23
Short-term forex credit	230	274	264	289	324
Total short-term credit	779	974	990	1,167	1,257
Other claims (bonds, shares)	0	0	143	147	151
CREDIT STOCK TOTAL	1,238	1,732	2,110	2,500	2,642

Source: Central Bank

(1) Interest rate

The progress of the lending interest rate and deposit interest rate applicable to the corporate sector is as shown in Table 3-3. Although the levels of both of lending interest rate and deposit interest rate are high, they dropped to about 1/3 (12.6% in March 2000) of those during the recent peak period (32.2% in 1995). The gap in the interest rate between lending and deposit was reduced to one half or less of that during the peak period, and the state in which enterprises can easily acquire credit is about to be consolidated in the aspect of interest rate.

Table 3-3 DIFFERENCE BETWEEN MEAN DEPOSIT INTEREST RATE AND LENDING INTEREST RATE FOR TERM LESS THAN ONE YEAR FOR THE CORPORATE SECTOR

Unit: % per annum

	1994	1995	1996	1997	1998		1999		2000
					June	Dec.	June	Dec.	Mar.
Lending interest rate	29.7	32.2	24.0	20.8	18.8	18.8	16.2	15.4	12.6
Deposit interest rate	22.9	24.4	18.6	16.9	15.3	14.4	12.5	12.0	9.4
Difference	6.8	7.8	5.4	3.9	3.5	4.4	3.7	3.4	3.2

Source: NBH

(2) Balance of credits to SME's

There has been no clear definition of SME's in Hungary, and the Central Bank has been taking statistics on small-size enterprises only. The progress of balance of credits to SE's shown in the monthly statistics of the Central Bank indicates that the balance began to increase again in 1997 and the growth is higher than that of CPI since 1998. It is conspicuous that savings cooperatives are positively

increasing their market share since 1997, although the amount is small. (See Table 3-4.)

Table 3-4 PROGRESS OF BALANCE OF CREDITS TO SMALL-SIZE ENTERPRISES

Unit : 10 Million HUF

Year	Banks	Savings Cooperatives		Total (B)	Growth rate over the previous year	
		(A)	A/B %		Credit increase rate	CPI (for reference)
1991	536	78	12.7	614	39.5	
1992	590	96	14.0	686	11.7	
1993	743	114	13.3	857	24.9	22.5
1994	844	100	10.6	944	10.2	18.8
1995	614	94	13.3	708	△ 25.0	28.2
1996	547	99	15.3	646	△ 8.8	23.6
1997	577	135	18.9	712	10.2	18.3
1998	723	215	22.9	938	31.7	14.3
1999	808	307	27.5	1,115	18.9	10.0
31/5/2000	865	354	29.1	1,219	9.3	9.1 ^{a)}

Source: Central Bank

Note: Small-size enterprises are enterprises of the configurations indicated below.

Entrepreneurs without legal entity as well as sole proprietors (associations without legal entity, civil-law associations, communities without legal entity, unlimited partnerships, limited partnerships, individuals engaged in agricultural activity, self-employed craftsmen, private tradesmen etc.).

note:

a): same month of previous year

In addition to the statistics on the credits to small-size enterprises indicated above, the Central Bank began to disclose the balance of credits to SME's in the regular quarterly supervisory data-provision in September 1999. (See Table 3-5.) Although this is based on a comparison of recent three quarters only, the share of the balance of credits to SME's to the whole credits decreased, and the credits to micro enterprises were reduced in the balance itself in the term of March 2000. These figures suggest the state that is severe in the credits to SME's.

Table 3-5 BALANCE OF CREDITS TO SME'S

Unit: 100 million HUF

	30/9/1999	31/12/1999	31/3/2000
Medium-sized	3,588	3,684	3,773
Small-sized	1,823	1,881	1,929
Micro	1,788	1,877	1,707
Total	7,199	7,443	7,409
Total credit ratio (credits to SE's are included in the denominator)	31.2%	30.0%	28.3%

Source: Central Bank

(3) Major SME financial institutions

Figure 3-1 indicates an image of SME finance by the flow of funds. The flow of finance to SME's mainly occurs from commercial banks, Hungary Development Bank (MFB) and Hungarian Foundation for Enterprise Promotion (MVA).

3.2.2 Current State of Venture Capital (VC) and Public Equity Participation Scheme

(1) Overview of the Venture Capital Act

The Venture Capital Act in Hungary was approved by Parliament on March 16, 1998 and enacted on June 16, followed by partial amendments made to this date. The organization and gist of the act are as follows. However, there is only one real venture capital enterprise that fits the definition of this act, and therefore the act is virtually inoperative at present.

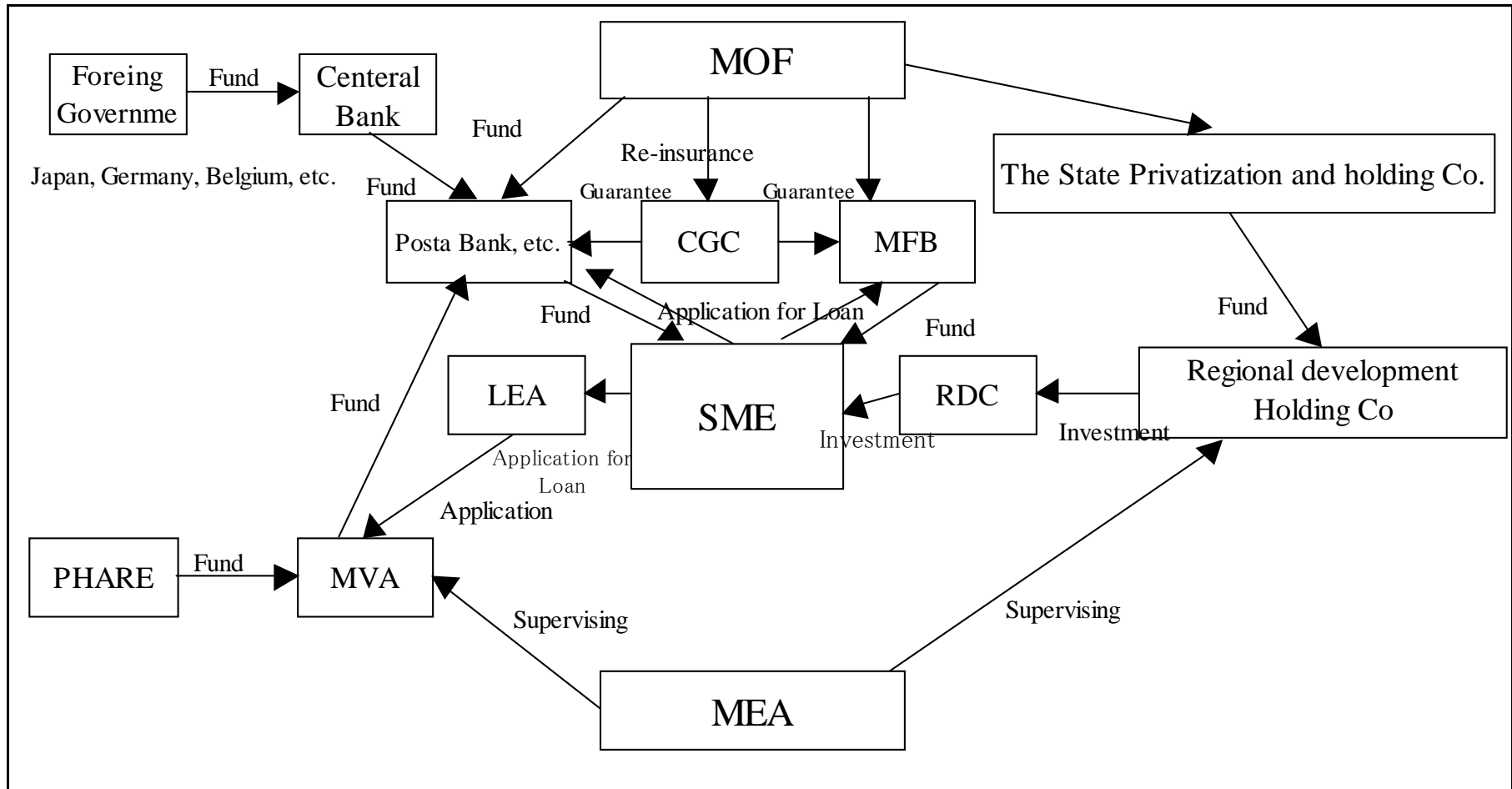
(2) Hungarian Venture Capital Association

The association, which was started with five members, grew to such a level that the number of members reached 55. However, the actual number of investors is only 20, and the majority of these investors are performing investment using the offshore market. The reason why they use the offshore market is that activities of venture capitals are severely restricted by the Venture Capital Act. The venture capital that is based on this act is one only. Therefore, others are regarded as capital investment companies or funds.

1) Object field of investment

The object field of investment is basically the high technology industry (Internet, biotechnology, etc.) Hungarian Innovative Technologies Fund targets SME's and states that they can execute capital subscription in the stage of seeds or in the early activation stage. But they narrowed down fields to high-technology such as IT, software development, telecommunications, pharmaceuticals and medical care.

Figure 3-1 IMAGE OF FLOW OF FUNDS



2) Investment scale and amount per case

The current gross amount of investment is estimated as about one billion US dollars. The investment amount per case is one million US dollars at minimum, 2 to 2.5 million US dollars at average. However, there is a case where the minimum is 0.1 million US dollars. Although the gross amount of investment is large because cases of investment of huge amounts are included, it is estimated that the number of enterprises in which investment was made is not larger than 200 in the whole trade.

3) Time of investment

The timing of investment of venture capitals as viewed in the process of growth of investment object enterprises is basically from the growth stage (early stage), and investment beginning in the stage of seeds is exceptional. Investment in enterprises in the start-up stage is not done except for special high-tech relevant enterprises.

4) Investment period

The investment period is three to five years in general. The number of investment object enterprises per venture capital is five to ten enterprises.

5) Recovery of investment

Since the stock market has not been well consolidated, recovery of the majority of investment is made by selling shares to foreign-capital companies, although there are rare cases where investment funds are recovered by listing the stock in the stock market.

6) Others

Although there are cases where judgment for investment is made in one to two months at newly entering venture capitals, it normally takes around six months at leading venture capitals.

(3) Actual Situations of Regional Development Companies (RDC's)

Regional Development Companies (RDC's), which are affiliates of Regional Development Holding Co. (RDHC), are executing direct investment to SME's besides venture capitals in the private sector. There are eight RDC's in the whole nation, and each one of them is an independent business entity of strong local color.

Although each one of them has unique investment policies and conditions, the differences among them are not large. Minority of 25 to 50% is the rule as the share of capital subscription. The investment amount is 50 million HUF at maximum and 2 million HUF at minimum. Lending (shareholder lending) is executed to a company in which RDC invests as required. (General lending cannot be executed by entities other than banks.)

3.2.3 Current State of Credit Guarantee Scheme

Credit Guarantee Corporation, Rural Credit Guarantee Foundation and Start Guarantee Foundation were established at the beginning of 1990 as credit guarantee institutions in Hungary. In addition, establishment of Credit Guarantee Cooperative was agreed in November 1999. Each one of them is of different purport of establishment and of different capital subscription parent organization.

(1) Credit Guarantee Corporation (CGC)

Established:	1992 (non-profit corporation)
Character:	Guarantee related to SME finance
Invested by:	51% by government, 49% by 24 banks
Contents of operations:	The operations and the frame of re-insurance of CGC are determined in the Budget Act.
Lineup:	52 persons in all; 10 persons out of them are in charge of examination.
Government support:	There is no direct support from the government, but indirect support in re-insurance is provided. The scope of guarantee and others are specified in Government Budget Act and others.

Table 3-6 indicates the overview of guarantee.

Table 3-6 OVERVIEW OF CGC's GUARANTEE

Object of guarantee	Enterprises of up to 250 employees	Separate provisions in ESOP	
Guarantee	Coverage (average is 60%)	Up to 10 million HUF	90% max.
		Over 10 million HUF	80% max.
	Amount (limit per company)	Up to 400 million HUF	
	Term	Loans of up to 15 years	
	Outside of scope of guarantee (principal items)	Obligations guaranteed by other credit guarantee institutions	
		Borrower having arrears of 6 months or longer in borrowing or the like	
		Liabilities without security other than this guarantee	
	Guarantee contract	Individual contract for each case	
	Guarantee coverage	Negotiations basis	
Examination (simplification of examination depending on the amount)	$A < 20$ million HUF	No examination if certain requirements are satisfied.	
	$20 \text{ million HUF} \leq A < 50 \text{ million HUF}$	CGC executes precise examination.	
	$50 \text{ million HUF} \leq A$	CGC executes usual examination.	
		For 100 million HUF and up, examination is executed upon on-the-spot visits together with bank's in-charge staff.	
Claiming for compensation by re-insurance		6 months after due date	
Obligation for recovery	Decided at the time of signing of guarantee contract with the bank.	Collection is normally entrusted to the bank.	
Others		Individual contract of conditions that are different from terms and conditions for general guarantee is also feasible.	
Re-insurance	70% of guaranteed amount	The upper limit frame (gross amount) of the government is 65 Billion HUF.	

Source: CGC

Table 3-7 RESULTS OF CGC's GUARANTEE

Unit: Cases, million HUF

	1996			1997			1998			1999			2000.06.30.		
	Cases	Gross amount	Per case	Cases	Gross amount	Per case	Cases	Gross amount	Per case	Cases	Gross amount	Per case	Cases	Gross amount	Per case
Micro-size enterprises of 0 - 9 employees	156	2,228	14	504	4,638	9	660	6,091	9	757	7,838	10	956	10,343	11
Small-size enterprises of 10 - 49 employees	112	2,088	19	372	6,910	19	340	7,522	22	317	7,842	25	401	9,815	24
Medium-size enterprises of 50 or more employees	86	2,994	35	244	8,464	35	247	10,660	43	236	10,264	43	257	10,609	41
	354	7,310	21	1,120	20,012	18	1,247	24,273	19	1,310	25,944	20	1,614	30,767	19

Source: CGC

Both of number of cases and amount of guarantee have been increasing since 1996. The cause for such an increase is increase of loans to micro-size enterprises of 0 - 9 employees. The market share of CGC for micro-size enterprises of 0 - 9 employees is increasing in both of number of cases and amount. (Number of cases/amount: 52.9%/25.1% in 1998, 57.8%/30.2% in 1999, 59.2%/33.6% in June 2000)

Table 3-8 RESULTS OF CGC's GUARANTEE BY INDUSTRY

Unit: 100 million HUF

Year	Agriculture	Mining	Food	Light industry	Chemical	Metal-lurgy	Engineering	Construction	Commerce	Service	Total
1996	3	0	25	6	3	1	4	3	18	10	73
1997	78	0	32	11	4	4	5	12	31	23	200
1998	74	4	36	17	9	4	6	12	51	30	243
1999	80	0	22	25	4	6	7	20	57	39	260
00/6/30	60	2	19	38	12	9	7	28	80	53	308

Source: CGC material

Concerning results of guarantee by industry, a trend of increase is observed in agriculture, commerce and service. The share of manufacturing businesses from food to engineering in total was about 25% in 1999, and was about 28% even in June 2000.

(2) Rural Credit Guarantee Foundation (RCGF)

Established:	1991 (Hungary's first credit guarantee institution; foundation in civil law)
Character:	Non-profit organization established with the prime objective to provide guarantee to small-size agriculture entrepreneurs.
Objective:	① Regional development (regardless of industry), ② supporting of agriculture entrepreneurs
Funds:	<p>Originally established with 10 million EURO (about one Billion HUF) based on PHARE funds. The current funds are 11 Billion HUF.</p> <p>Invested by the Ministry of Agriculture and Rural Development by 90% and by 5 commercial banks (15 banks at the present time) by 10%.</p> <p>Tokarekbank and Savings Bank of Dunakanyar made participation, and 127 Saving Co-Operatives are also members of RCGF today.</p>
Employees:	8 persons; 2 persons of them check the performance of banks in the recovery after subrogation.
Directors:	13 persons in total (2 persons out of them are representatives of the Ministry of Agriculture and Rural Development.)

Both of number of cases and amount are standing still. The mean guaranteed amount of RCGF tends to decrease for entrepreneurs without employees, but it is becoming large for enterprises of 2-10 and of 11-50 employees. Increase in the guaranteed amount is conspicuous for enterprises of 201 or more employees. With enterprise groups of 51-100, 101-150 and 151-200 employees, on the other hand, both of number of cases of guarantee and amount per case tend to decrease. It appears from results of interview that individual contracts tend to increase from umbrella contacts due to intensification of competition. (See Table 3-9.)

Table 3-9 NUMBER OF RCGC's GUARANTEE AND AMOUNT BY ENTERPRISE SCALE

Unit: Cases, million HUF

	1997			1998			1999		
Number of employees (persons)	Cases of guarantee	Guaranteed lending amount	Amount per case	Cases of guarantee	Guaranteed lending amount	Amount per case	Cases of guarantee	Guaranteed lending amount	Amount per case
1	362	1,600	4	809	2,925	4	877	2,929	3
2 – 10	361	3,352	9	505	4,750	9	392	4,546	12
11 – 50	368	7,372	20	402	8,522	21	207	4,786	23
51 – 100	199	5,426	27	130	3,999	31	68	1,460	21
101 – 150	83	2,744	33	49	1,721	35	25	729	29
151 – 200	36	1,233	34	30	1,126	38	23	511	22
201 – 250	28	1,017	36	23	884	38	14	733	52
Total	1,437	22,744	16	1948	23,927	12	1606	15,694	10

Source: RCGF material

Differences from CGC

- ① Legal character of the business: CGC is a corporation specified in the Company Act, and RCGF is a foundation specified in the Civil Law.
- ② Supervising government agency: Ministry of Finance for CGC. Ministry of Agriculture and Rural Development for RCGF.
- ③ Re-insurance by the government: Conventionally possible for CGC. Became available 2 years ago for RCGF.
- ④ Differences in method for examination and others: CGC uniquely conducts secondary examination after primary examination by credit institution. Examination (primary examination) by bank only with RCGF.
- ⑤ Contracting: Contracting for each case for CGC. Umbrella contracting with the bank for RCGF.

(3) Credit Guarantee Cooperative Scheme

The traditional credit guarantee system, which is operated through commercial banks, is not accessible to small enterprises. To address the needs of small enterprises, the Credit Guarantee Cooperative was established to improve accessibility to guarantee service. The framework of the cooperative was determined under the government resolution No.1161/1998 in 1998, covering SME promotion policy. It is basically a non-profit organization established under the Cooperative Act of 1992. It is specified in the SME Act enacted in December 1999 as a loan condition. However, it has still to carry out full-scale activities as of October 2000 and its general outline is described in Figure 3-2 and Table 3-10.

Figure 3-2 INSURANCE SCHEME

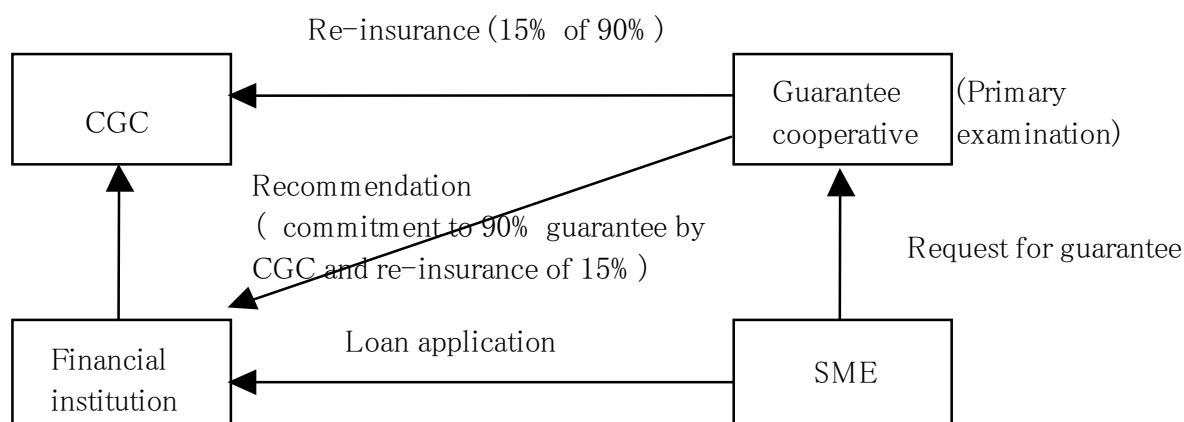


Table 3-10 OVERVIEW OF CREDIT GUARANTEE COOPERATIVE

Members	General	Capital subscription by one unit (10,000 HUF) at minimum. Up to 3,000 units per member.
	Voting right	One vote per member, regardless of amount of capital subscription.
	Qualification	Enterprise, personal entrepreneur or the like of up to 250 employees, proceeds up to 4 Billion HUF, gross assets up to 2.7 Billion HUF. Details vary by the cooperative.
Guarantee	Guarantee limit of CGC	90% of loan amount
	Guarantee charge	Only guarantee charge to CGC.
		The cooperative does not charge commissions to SME's.
Examination	Primary examination	Conducted by the cooperative. Saving Co-Operatives provides guidance for examination.
Loan	Amount	5 million forint at maximum
	Term	5 years at maximum

Source: MEA

Note: Already established guarantee cooperative

The first establishment was March 2000. Established one guarantee cooperative in each of Hungary's North-Eastern district (North Plain Regional SME Guarantee Co-operative) and South district (West Plain Regional SME Guarantee Co-operative). Scheduled to establish guarantee cooperatives in remaining five regions by the end of 2000.

3.2.4 Re-insurance by the government and total line of credit

For loans guaranteed by the CGC and the RCGF, the government is expected to provide re-insurance for 70% of the total value (through the SME Guarantee Fund). For instance, when the CGC or the RCGF guarantees 80% of a loan made by a financial institution and the borrower becomes insolvent, the guarantee organization repays the loan for the borrower, and 80% of which is indemnified by the SME Guarantee Fund. As a result, burden sharing by the related parties is summarized as follows:

Financial institution:	$100\% - 80\% = 20\%$
SME Guarantee Fund (Government):	$80\% \times 70\% = 56\%$
Credit guarantee organization:	$80\% \times 30\% = 24\%$

According to the Ministry of Finance and the CGC, the value that can be indemnified by the credit guarantee organization has been limited to an annual total of 65 billion yen. While the actual amount of guarantee has never exceeded the total ceiling, recent growth of financial demand will likely increase it to 85 billion HUF by the end of 2000. The new ceiling is expected to cover as much as 2,000 enterprises. The government does not intend to raise the present re-insurance rate of 70% and will instead raise the total ceiling as required.

3.2.5 Issues related to SME finance and direction of improvement

(1) Close collaboration between SME promotion and finance programs

The SME finance scheme should work together with SME promotion programs to serve as a key policy implementation tool. However, there remain various issues to be resolved.

- 1) As approximately 60% of commercial banks are owned by foreign capital, it is difficult to provide SME finance through them.
- 2) The MVA and the LEA act independently to lack consistency in the policy implementation process, although the establishment of the MVF will help improve it.
- 3) While the CGC and the RCGF perform functions as major credit guarantee companies, most of which are duplicated in many respects, they operate under different ministries.

Further reforms should be made to ensure that SME policy, budget and finance are planned and implemented in a simplified process.

(2) Reinforcement of financial support for SMEs

Traditionally, financial support for SMEs in Hungary has centered on support for local microenterprises using the Fahre Fund. The microfinance program of this type is considered to be an effective tool for regional development,

employment promotion and social policy. Also, the Hungarian government has been making progress in improvement of the microfinance program, including the MVA issue, so that it is not further discussed in this report.

On the other hand, SME promotion policy as part of industrial policy should be viewed from the effective use of small- and medium-sized enterprises and their growth potential as a driving force for economic development. Clearly, the present SME finance scheme in the country lacks this important viewpoint. The result of the questionnaire survey of SMEs and corporate visits by the study team indicate that SEM finance should be strengthened for modernization of production equipment that is deteriorated due to aging.

Table 3-11 compares net sales of SMEs as the percentage of total sales and outstanding loans to SMEs. The former is slightly over 60% and the latter less than 30%, suggesting that SMEs receive much smaller loans compared to their sales.

Table 3-11 NET SALES RATIO BY BUSINESS SCALE

	1995	1996	1997	1998
Personal Entrepreneur (no employee)	6.3	6.5	5.5	4.6
Micro Enterprise	20.4	19.6	19.2	19.1
Small Enterprise	17.4	18.0	17.8	18.5
Medium-sized Enterprise	19.5	19.8	19.5	19.7
Sub total	63.6	63.9	62.0	61.9
Large Enterprise	36.4	36.2	38.0	38.2
Total	100.0	100.0	100.0	100.0
			SME credit ratio A/B	30.0% (end of '99)

Source: 1992-1998 tax returns

	December 1998	June 1999	December 1999	March 2000
Total loans	2,069.8	2,213.4	2,478.6	2,622.5
Of, SME's	NA	NA	744.3 (30.0%)	740.9 (28.3%)

Source: Central Bank material

(3) Qualitative improvement of the credit guarantee scheme

As mentioned earlier, the line of credit guarantee will be increased from 65 billion HUF to 85 billion HUF by the end of 2000, reportedly covering credit guarantee for 2,000 enterprises. Together with the imminent establishment of credit guarantee cooperatives, the move indicates that importance of the credit guarantee system is fully realized in the country and the result of the ongoing reforms should be carefully watched. In addition, three major issues should be pointed out for future improvement.

1) Consolidation of credit guarantee organizations

In Hungary, a new scheme related to SME promotion has been introduced quickly in response to the changing needs. However, it is desirable to consider consolidation or integration of existing organizations when a new organization is established. In this connection, a high level of policy decision is required to design and manage the credit guarantee system over the boundaries of ministries. Consolidation of the credit guarantee organizations is essential in improving efficiency of credit guarantee service by achieving scale of economy and ensuring consistency between policy and program.

2) Expansion of unsecured guarantee

In Hungary, primary examination of loan applications, including examination and acceptance of collateral, is carried out by financial institutions, and credit guarantee organizations are not directly concerned with collateral. As SME promotion policy is expected to shift its focus on emerging industries (to follow the EU guideline), however, credit guarantee organizations are expected to consider expansion of unsecured guarantee with the anticipated changes in loan policy and practice of financial institutions and the government's re-insurance scheme.

3) The credit guarantee scheme for development-oriented venture capital

It is recommended to consider the introduction/modification of the credit guarantee scheme for development-oriented venture capital. While the present credit guarantee scheme is capable of covering investment by venture capital, it is rarely used for the purpose. It is important to direct the credit guarantee scheme toward the coverage of high-risk investment, including startups.

(4) Reinforcement of development-oriented venture capital

Venture capital is roughly classified into two types, the traditional venture capital that pursues short-term capital gains while assuming a relatively high risk, and the development-oriented venture capital that primarily aims to foster new ventures from the medium- or long-term perspectives. The former is largely funded by risk-taking, profit-oriented investors in the private sector and the latter is driven by investors who are willing to support entrepreneurs, partly serving the public interest of developing new business and industry.

As discussed earlier, Hungary has the Venture Capital Act but there is only one venture capital enterprise approved under the act, with no record of activity. This report does not comment on the act itself because of the scope of the study, and instead, major issues related to the development-oriented venture capital, mainly covering SMEs, are identified and analyzed, together with recommendations on improvement of its operational environment.

In Hungary, there are eight venture capital enterprises of public nature throughout the country, called RDCs. The RDCs were established to provide venture capital for SMEs and have produced some results. Nevertheless, they are highly safety- and profit-oriented and are not willing to assume high risks. They do not function as venture capital and do not fulfill the role of fostering new ventures.

The Hungarian government has recognized the shortcoming and is reportedly considering the establishment of a development-oriented venture capital organization. Prior to the new initiative, however, it is recommended to use the existing infrastructure (RDCs) to provide the function of such venture capital.

To maximize effectiveness of development-oriented venture capital, the government should provide support in the following areas.

1) Development of a mechanism for broad-based funding and growth-oriented investment

Venture capital should be gathered from a variety of sources, including individuals, business enterprises and financial institutions, regardless of amount, and the fund so established should be invested widely in SMEs having high growth potential.

2) The development of the support system for venture capital

As SMEs including startups generally have weaknesses in marketing and financial management, the government should provide support by assigning consultants and providing focused support on selected SMEs in terms of growth potential to ensure the rate of success for venture capital investment.

3) Special financial support

A direct financing scheme and a credit guarantee scheme for high risk investment should be created to supplement the effect of venture capital.

3.3 Human Resources Development

This section analyzes the present conditions and problems of the three key subjects that have been identified in the field of human resources development (HRD): training of engineers and technicians, education of entrepreneurs and managers, and a corporate diagnostic service system. This then is an inquiry into post-graduate HRD other than public education and training activities. As training in Hungary is included in the school system, however, some mention is made of that subject.

In keeping with the restructuring of the central government that was begun in 1989, with the elimination of the Ministry of Labor the vocational training function was transferred to the Ministry of Economic Affairs. The Ministry of Social and Family Affairs had been in charge of vocational training for unemployed Hungarians but as of July 1, 2000 this too was transferred to the Ministry of Economic Affairs. As a result, the Ministry of Economic Affairs and the Ministry of Education are the administrative bodies responsible for HRD and their functions are divided as follows.

Ministry of Education: Technical education and vocational training in the school system

Ministry of Economic Affairs: Vocational training and education and training on behalf of the unemployed, all outside the school system

3.3.1 The School System and National Certificates or Licensing

(1) Reform of the School System

The school system was reformed in 1999. Compulsory education is now eight years comprising four years each of basic first stage and basic second stages in

primary school. In the new system there are three major routes, shown as i, ii, and iii in Figure 3-3. Route i is a fast-track course to the job market, route ii is a technical route, and route iii is the academic or college route. Transfers en route to the other routes are permitted. The school year starts in September, and the age indicated in Figure 3-3 is age at graduation.

The advancement rate to secondary school under the old system was as shown in Table 3-12. Comparable data under the new system are not available yet. As shown in this table, the data for 1998/99 (estimates) are that there will be 33,700 graduates from academic secondary school (gimnazium) and 44,000 graduates from technical secondary school, making a total of 77,700 persons who will finish the eighth year of education. Of them, an estimated 67,100 (86.4%) will continue their education. They will go to either of three types of school: high school, professional school, or vocational training school. Of the remaining 10,600 (13.6%), 9,310 (87.8%) will register with the government as seeking employment and 1,290 (12.2%) will neither register nor continue studies. The advancement rate from academic secondary school and technical secondary school is rising year by year, for example it was 68.4% in 1995/96 and 86.4% in 1998/99.

(2) The System of National Certification of Technical Qualification

Hungary has the National System for Certification of Technical Qualifications; it encompasses 950 categories, classified as follows.

- a) Basic capabilities in each field
- b) Qualifications needed for working in a given field
- c) Qualifications necessary to work as a specialist
- d) Qualifications needed to transfer to another field
- e) Qualifications for starting up a business

Certification as having qualifications can be done either within the school system as mentioned above or outside it. In the former case either middle school or secondary school completion is required. For the latter, qualifications need not necessarily be based on education careers. Further subcategories are made according to the duration of study for each.

There are levels of qualification. These are determined by years of education completed, years of experience, and job category and position.

Low level: Education not taken into account

Intermediate: Graduated from middle school, passed liberal arts qualifying exam

Advanced: Secondary school graduate, completed preparatory course for vocational training

Job categories for college graduates include engineering and natural sciences, medicine, social and human relations, trainer specialist, economics, law, sociology and others.

As mentioned above as of 1999 Hungary had 950 job categories for which there is a national certification arrangement. The number of these is increasingly changing annually. They are divided into the following 14 groups.

1. Education	5	8. Architecture	18
2. Arts	49	9. Agriculture, forestry	102
3. Accounting; administration	77	10. Domestic science	2
4. Computer	11	11. Transportation, communication	10
5. Hygiene	32	12. Tourism, travel	69
6. Industry	381	13. Culture, information	23
7. Specialized trades	123	14. Others	48
		Total	950

A tendency for the number in the agriculture and forestry group to decline while the number in the services group increase is in evidence. Although the Ministry of Education is of the opinion that there are too many categories and that they should be kept at about 300-400, it is expected the number will still increase over time owing to diversification in industry. It is not uncommon for a person to have certificates in three categories and the number who have five is increasing.

3.3.2 Present Status of Training of Technicians and Engineers

Outside of the school system the largest public vocational training institution that has a national network is the Regional Center for Manpower Development and Training (RMKK). The LEA also does some training but usually lacks its own facilities and primarily gives lecture programs or provides consultation. Other than these, various public and private entities operate training centers.

Figure 3-3 NEW EDUCATION SYSTEM

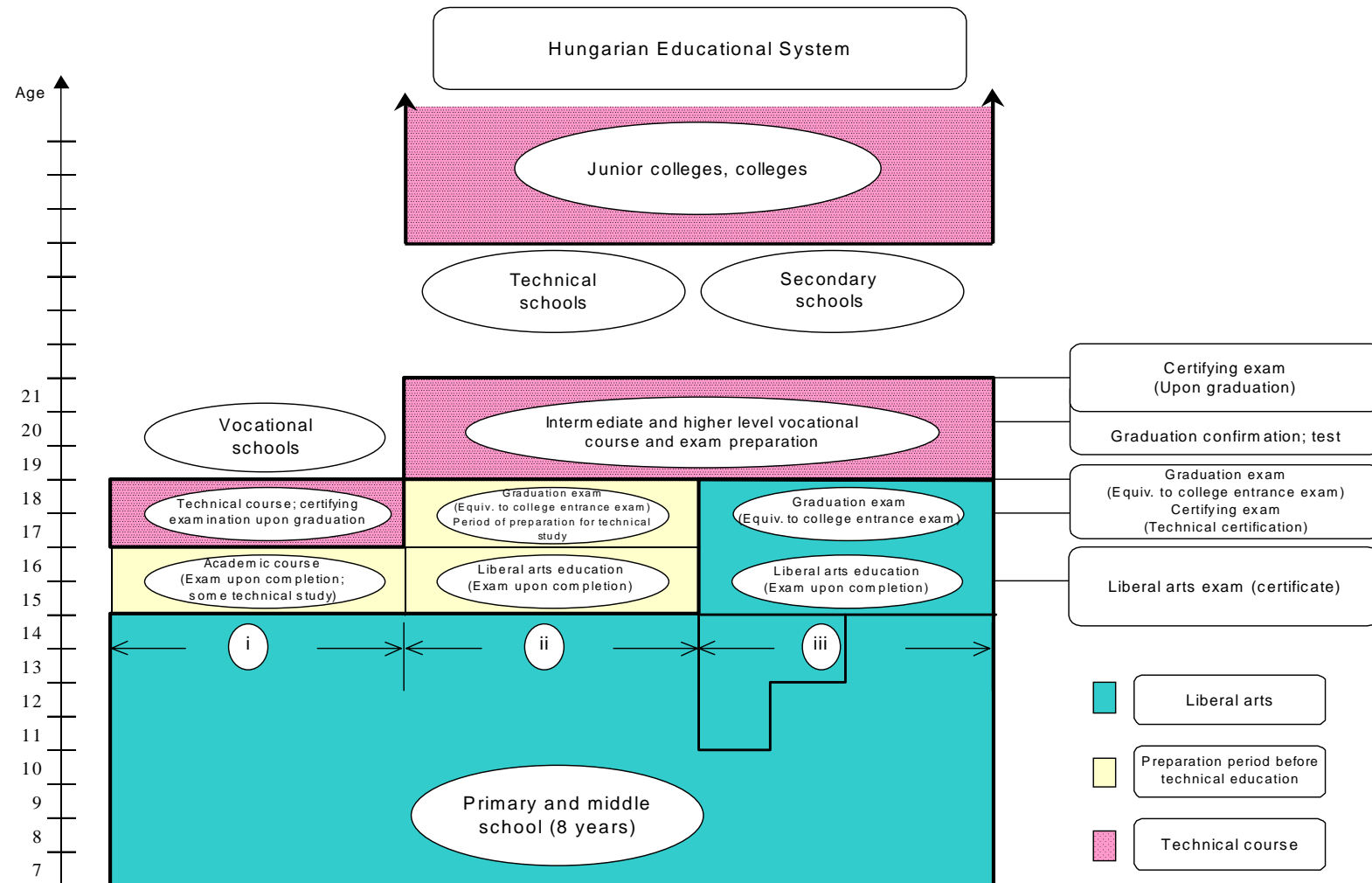


Table 3-12 FURTHER STUDIES IN THE YEAR OF GCE, IN EDUCATIONAL INSTITUTIONS, OF FULL-TIME COURSES, 1995-1998

Year of graduation	Successfully graduated in		Academic year of continuing studies	Of them, those continuing studies in educational institutions, of full-time courses, in the year of graduation					Those not continuing their studies of full-time courses of educational institutions, or not in the year of graduation		Average number of career-starting unemployed persons registered for the first time, (average of July-September of the given year)	Average number of career-starting unemployed persons registered for the first time, in the percentage of those not continuing their studies in educational institutions	Number of those not continuing their studies and not registered
	sec. grammar school	sec. technical school		in higher educational institutions		in the 13th year of technical schools ³⁾	in sec. voc. Schools ⁴⁾	Total	Number	in the percentage of those obtaining GCE			
				from sec. grammar school	from sec. technical school ²⁾								
1995	31,025	38,113	1995/96	13,965	6,480	22,307	4,514	47,266	21,872	31.6	17,127	78.3	4,745
1996	31,859	40,305	1996/97	15,608	7,957	28,536	3,293	55,394	16,770	23.2	11,196	66.8	5,574
1997	32,651	42,913	1997/98	15,876	7,607	32,509	3,374	59,366	16,198	21.4	10,353	63.9	5,845
1998 ¹⁾	33,700	44,000	1998/99	16,000	7,600	40,000	3,500	67,100	10,600	13.6	9,310	87.8	1,290

1) Estimated value

2) Including post-secondary technical school

3) Including the 760 secondary grammar school students attending 13th grade

4) Including the 1st grade of the supplementary training offered by trade schools

GCE: General Certificate of Education

(Source) Ministry of Education

Incubator Houses are used on a nationwide scale as a vehicle for providing comprehensive support for start-up companies as a means of supporting entrepreneurship. Incubator Houses provide office or factory space at low rates as the key part of a scheme for supporting entrepreneurs. In addition, there is an instance of provision of the same services to young businesspersons by Polytechnic Foundation School for Business Studies.

For people already of owners and managers of SMEs, consulting services and training programs are offered by LEA and Incubator Houses, various kinds of schools, educational centers operated by industrial organizations, and the like. No organization was found that offers comprehensive educational services for owners, managers and second-generation of owner-managers.

3.3.3 Present Conditions Regarding Development of Local Consultants and the Certification System

Both the central government and county governments of Hungary are oriented in the direction of "small government" and the work force for direct services to private sector is not large. Accordingly, the importance of consultants will inevitable increase as the government expands its support for the SME sector. The quality of consultants, however, is uneven. Some SMEs, for example, have complained about consultants, saying that they do not trust them too much.

(1) Professional Certification and Licensing

Hungary has 12 categories of professions:

- | | | | |
|--------------------|----------------------------|---------------|---------------|
| 1) Architect | 2) Engineer | 3) Lawyer | 4) Physician |
| 5) Veterinarian | 6) Pharmacist | 7) Accountant | 8) Notary |
| 9) Patent Attorney | 10) Agricultural Protector | 11) Hunter | 12) Detective |

Membership in professional organizations includes about 7,000 architects, and 15,000 engineers. With regard to physicians, lawyers and the like of course there is a national licensing arrangement but this does not exist for architects, engineers and other categories of management consultant.

There is an association of consultants named the Association of Hungarian Consulting Engineers and Architects (AHCEA). The Association is a member of the International Federation of Consulting Engineers (FIDIC) and the European Federation of Consultancy Associations (EFCA). The AHCEA is only for

membership of “company” and there is no association for “individual” membership in the country.

(2) Hungarian Chamber of Engineers

About one half of the 15,000 members of the Hungarian Chamber of Engineers are individuals. Enrollment in the Chamber entitles the members to all themselves "Engineer" for purposes of work. The requirements for membership are (1) graduation from secondary school and college, and (2) experience of two to 10 years, depending on the category. No examination is given and membership is recognized solely on the basis of the application and accompanying documents.

(3) Management Consultants for SMEs

Consultants who are active in assisting SMEs are those persons capable of giving advice regarding on-site production management, production management techniques, and management techniques. These are called "SME management consultants." The place where SME management consultants are in greatest need and can be used to the greatest extent is the 130-office network of the LEA. It is expected that there also will be increased demand for consulting services accompanying the increase in the number of RDCs and calls for assistance at Incubator Houses and innovation centers. At present, however, there is no licensing scheme, no qualifying examination, and no educational program to train SME management consultants. Anyone is free to use that designation.

In Hungary at this time there are between 500 to 750 persons who are active as so-called consultants for SMEs. The Ministry of Economic Affairs with the support of MVA gave an examination in September 1999 to qualify consultants who are to be capable of giving subsidies and 190 passed. Those who passed were then registered in the LEA office network. This is the first instance of giving an examination to consultants specializing in helping SMEs and by itself cannot be said to be equivalent to the firm establishment of a system.

3.3.4 Conclusion and Issues Regarding the Human Resources Development Field

(1) The National System for Certification of Technical Specialists, and Academic Achievement in Society

The government recognizes 950 job categories for which certificates or licenses

are issued; these certificates or licenses are needed to find employment or change jobs. To acquire the qualification requires from six months to two years of study and the passing of an examination. This tends to form a weakness in the continuity between the school and business or industry. It also tends to limit freedom in selecting a job. It is necessary to decrease the number of categories that can be subjectively defined by anyone, broaden the definition of the remaining categories, and thereby expand the range of choice open to those using the system. It maybe said that the present system is a lingering trace of the former socialist scheme that is in need of urgent reform in keeping with the shift to a market economy.

From the viewpoint of promotion of SMEs, ad hoc or spot training in the standardized training curriculum using outside training centers is not an effective way to develop the skilled workers actually needed by industrySMEs. On-the-job training (OJT) and acquisition of skills through self-study are more important. Therefore it is necessary to introduce a system whereby one can obtain an advanced qualification only by means of an examination and accumulation of years of experience, and to provide incentives for workers in SMEs to acquire advanced technical skills. Realistic, practical skills are more important than study at an outside center.

(2) Entrepreneurship Support with Venture Capital

The Hungarian Government has opened Incubator Houses at many locations throughout the nation and will further increase their number. This is encouraging for the development of businesses, and especially innovative ones. It also conforms with EU policy for SMEs. Nevertheless, it is necessary to inquire as to whether the LEA, while being dedicated to promoting the development of regional economies, is the suitable agency with regard to what the EU calls the new economy industries. Venture capital investment by the RDCs, further, tends to be reluctant towards startup businesses and seems to be weak with regard to stimulating efforts at developing new businesses by themselves. It would be necessary to study the introduction of a comprehensive scheme for assistance of startups including an guarantee system for risky investment and technical and managerial assistance.

(3) Developing the Next Generation of Owner-Managers

The systems for education business managers need to be more developed in Hungary. It is essential to recognize the next generation of managers, and successors, especially in growth or core industries. It can be confidently anticipated that these core companies will have a central role in the growth and development of industry and the economy. Efforts are therefore needed for the provision of retraining for modern managers who function in a critical role in the market economy of tomorrow.

This theme will be picked up in the Pilot Project (PP-3) stage of the present JICA-supported undertaking. It will be necessary to build a sustainable, effective system on the basis of the experience gained through the Pilot Project.

(4) Improvement of the Quality of Consultants, and the Professional Certification Scheme

Consultants serving the SME sector, as noted above, need uniform and publicly recognized authentication of their qualifications. As a group, there is a wide spread in the quality of their services provided, and they are not always favored with the trust and confidence of SMEs themselves. But the demand can only increase for consultants that can support the efforts of venture-capital-backed, innovative, entrepreneurs, and small or medium scale businesses with high growth potential. The Ministry of Economic Affairs made a start by setting an examination for consultants in 1999. It is recommendable to institutionalize this as a practice, to further develop the consultant education being provided by the LEA, and to create a scheme for the education and training of SME consultants that is linked to the certification scheme and educational system.

3.4 Business Information Technology

3.4.1 Present Status and Problems of the Telecommunication Infrastructure

(1) Present Status of Construction of Telephone Lines

Telecommunication in Hungary are supplied by the national telephone company MATAV, that provides services through general-use public lines, leased lines, cellular telephones, ISDN lines, cable TV and Internet access.

Within the public telephone lines category, both residential and business lines

have shown reasonably strong growth. In particular the annual growth rate between 1996 and 1999 for residential lines reached at 10.3%. It is expected that the installation rate will now increase in the non-urban areas to a higher extent than before. Public telephone lines have started to decrease, however, reflecting the greater use of cellular phones. The well-developed nature of the telecommunications infrastructure in Hungary means that there are no major factors that could serve as a restraint to increased use of information technology. The high rate of digital lines as a proportion of the total of all lines, being 80% as of 1999, is a strong sign of the strong potential of information technology. The supply-demand balance is relatively good. Residential phones are provided within two weeks after receipt of an application; for business phones the waiting period is only up to a week.

(2) Structure of Telephone Charges

User charges paid to MATAV, which is a monopoly, are high. For example, installation of a residential phone costs HUF 11-13,000 and monthly rates are a minimum of HUF 7-8,000 including Internet access.

(3) Privatization Issues of MATAV

Among the central European states, where telecommunications has tended to be retained as a government monopoly, Hungary was relatively fast in moving to privatize its telecom sector. MATAV was privatized in 1999. Foreign telecommunication companies have already made significant investments in MATAV, notably a Deutsche Telecom and Ameritech consortium that has 60% of the shares while 40% are held by general investors. Investment from other countries is thought to be making a contribution to the improvement of telecommunications infrastructure.

(4) Use of the internet

As of 1999 Hungary had 500,000 Internet subscribers but by early 2000 the number had risen to 750,000 and the users will reach up to one million some time in 2001. The latter number would be about a tenth of the national population and about 5% of the households. These rates are similar to those for other Central European countries. According to a private-sector research firm, the rates are 5% in Slovakia, 4.9% in Czech, and 23% in Slovenia.

About 45% of Hungary's Internet subscribers have signed up with the four major Internet Service Providers (ISPs) including MATAVNet. The other ISPs than MATAVNet do not disclose the number of customers they have but the overall situation may be estimated by using data from MATAVNet. The number of the company's customers during the past four years are shown in Figure 3.4-1, from which it may be seen that the number of subscribers has increased 20-fold since 1996, and from this and general circumstances it is expected that similar growth will continue in the future.

3.4.2 Present Conditions of Acquisition of Information Technology by SMEs

3.4.2.1 Result and Analysis of the Questionnaire Survey

A questionnaire survey was carried out to gain an understanding of the overall level of information technology among the SMEs, and the extent to which they possess computers. About 20 of the companies that replied were from the subsectors this study is particularly concerned with, namely automobile parts and electric and electronic parts, and were visited for interviews. The questionnaires were mailed to 122 companies listed in the Hungarian Subcontracting Directory 2000 (compiled by ITDH) and 210 companies in "Major Companies in Hungary, The Book on the CD-ROM 2000," published by the Hungarian Chamber of Commerce and Industry, for a total of 332 companies. All the companies are small or medium enterprises having from 10 to 299 employees. The questionnaires were sent by mail, fax and e-mail and these same methods were used for the return of completed questionnaires. Responses were obtained from 120 of the 332 companies (a rate of return of about 36%).

The number of companies in each sector, as well as an analysis of responses, and comments on the results by the study team are shown below.

(a) Classification of Responding Companies by Subsector

The response classified by subsector was as follows. In the "No answer" category were two companies that were determined to be in the printing and commercial business hence were excluded from the analysis.

Number by Industrial Category

(1) Plastics, rubber	(2) Metal processing	(3) Auto parts	(4) Electric/ Electronic parts	(5) Machine Processing	(6) Wood (incl. Furniture)	(7) Food processing	(8) Textile products	(9) Others	(10) Total response
11 (9.2%)	43 (35.8%)	7 (5.8%)	11 (9.2%)	19 (15.8%)	6 (5.0%)	11 (9.2%)	10 (8.3%)	2 (1.7%)	120 (100%)

(b) Number of Computers in Use

The number of computers now in place were checked. Only 2% of the responding companies stated that they had not acquired a computer; thus for practical purposes all companies may be considered to have at least one computer. A high proportion had 10 or less.

Number of Computers Installed

(1) None	(2) 1~10	(3) 11~20	(4) 21 or more	Total response
2 (1.7%)	74 (62.2%)	18 (15.1%)	25 (21.0%)	119 (100%)

(c) Major Applications

Inquiry was made as to the major computer applications in use (using a multiple-answer question). 2 companies with no answer were those that had no computers installed the above question. "Office automation" was the most frequently cited application, and it is thought that this represents use of computers as word processors and for simple mathematical calculations. In the uses recorded as "others" are included desktop publishing, general business management functions, CAD, software development, customs duties recording, chart making, production control and others. These applications may be considered as linked to OA, personnel management, and process control choices.

Major Applications (No. of answers)

(1) OA	(2) Personnel management	(3) Order booking; inventory control	(4) Process control	(5) E-mail; information search	(6) Others	No answer	Total response
114	77	61	25	82	21	2 (1.7%)	118 (100%)

(d) Computer Use and Work Load

The number of computers and work loads were checked. Among the companies who responded to this question, 64.4% stated that the computers now in use were adequate for company needs(work load). Some of those responses, however, can be interpreted as an indication of their lack of ability to make the most of their computers.

Evaluation of Number per Employee

(1) Enough	(2) Not enough	No answer	Total response
74 (62.2%)	41 (34.5%)	4 (3.3%)	119 (100%)

(e) Reasons for Not Increasing the Number of Computer Installations

To those 41 companies responding that their present computer capability was sufficient for their needs, an additional question was posed as to why they were not planning to buy an additional computer (using a multiple-answer question).

Lack of available funds was cited by 82.9%, and included in the "others" tabulation were the reasons that making better use of existing computers was more important, that study of an additional purchase was postponed, that executives were not disposed toward making the purchase, and that there was no software that could be used for process control. Since the question is a multiple-answer some companies responded (1) and (2) simultaneously. So that the response rate in this answer is not shown in (3).

Reasons for "Not enough", or "Want to add"

(1) Short of funds	(2) Short of specialists	(3) Other	No answer	Total response
34 (82.9%)	4 (9.8%)	8 (2.4%)	2 (4.9%)	41 (100%)

(f) Problems in Computer Operation

A question was asked to ascertain the problems being encountered in the use of computers using a multiple-answer question and response rate in (3) is not shown. Overall, 32 companies replied that there was a lack of suitable software. It is presumed that this also reflects weak ability to convert off-the-shelf software to specific needs. Among the reasons included here as "others" are high software purchase price or software license fee, occurrence of operation errors, short life cycle of the hardware relative to its price, and lack of a network function. Further, 53 companies (45.0%) responded with no answer and it seemed that those companies had no problems with operation at the present time.

Problems in Computer Operation				
(1) Short of specialists	(2) Suitable software not available	(3) Other	No answer	Total response
21	32	20	53 (45.0%)	65 (100%)

(g) Impediments to Computer Acquisition

One multiple-answer question inquired as to impediments encountered when acquiring a computer. 67 companies responded that expensive software came first, expensive hardware came the second, and the high cost of transmission came the third. These three responses are shown as a primary factor of cost.

Constraints to Acquiring Computers (Multiple answers)

(1) Hardware expensive	(2) Software expensive	(3) High VAT	(4) Shortage of specialists	(5) Attitude of executives	(6) High cost of telecommunication	(7) Other	No answer	Total response
35	67	18	21	7	26	5	30 (25.4%)	88 (100%)

(h) Purposes for Accessing to the Internet

Inquiry was made as to the purpose of accessing to the Internet and using it as a multiple answer question. A large majority (77%) of the companies were accessing the Internet, and a major reason for doing so was for e-mail purposes. E-commerce and e-strategy were relatively minor, indicating that such use had not become established in the SME sector. Included in "others" are personal use; information transfer, stock transactions, and others.

Reasons for Accessing the Internet

(1) Access Internet	(2) E-mail	(3) Information search	(4) E-commerce	(5) E-strategy	(6) Other	(7) No wish to access	No answer	Total response
91 (76.5%)	83	81	9	1	5	25 (21.0%)	3 (2.5%)	120 (100%)

(i) Contents of Information Search Activities on the Internet

Responding companies that said the Internet was being accessed for information search were asked an additional question. This inquired about the contents of the information sought (multiple-answer questions). Searches for market information were the most important (81 companies), followed by searches for business information and financial information. Companies giving answers tabulated as "Others" made reference to downloading anti-virus, and to electronic commerce.

Information Search Using the Internet

(1) Market information	(2) Financial information	(3) Technical information	(4) Employment information	(5) Business environment	(6) Others	No answer	Total responses
75	34	43	4	46	3	28	81 companies

(j) Extent of Homepage Possession, and Homepage Contents

Among 118 companies, almost half (55 companies) have their own homepage. In addition, the contents of their home page are asked by choosing multiple answers. The 61 companies with no answer considered as those with no homepages. The most common information they displayed on their homepages were basic corporation data and information about company products. Given the penetration of Internet use in the SME sector and judging from these homepages, it may be concluded that the four ISPs have extended their marketing to include the SME sector.

Contents of Homepages

(1) About the company	(2) Product information	(3) Work for us	(4) Technological affiliations	(5) Buying/selling products	(6) Others	No answer
55	44	2	6	5	3	61

3.4.3 Problems in the Diffusion of IT in the SME Sector, and Directions for Promotion of Diffusion

The telecommunications infrastructure in Hungary is in good condition and it has few evident constraints in the promotion of IT. In particular, the rate of digitalization of all phone lines as of 1999 approached 80% and this is seen as a major factor in facilitating the greater use of IT. The rate of diffusion of computers in the small and medium sized enterprises surveyed (i.e. 120 companies each having more than ten employees) is over 98%. From these indications it is observed that the groundwork for promotion of IT usage by SMEs is in place. The problems that expect to be encountered in proceeding with the promotion of more advanced and widespread use of IT are as follows.

(1) Enhancement of a National System for Promotion of IT

In the EU's Fourth Corporate Program, high importance is assigned to adaptation of corporations to e-business and New Economy conditions. In Hungary, the Szechenyi Plan provides a medium-term strategy for a national IT program. At present, the inter-governmental committee functions as an implementation body for the national IT promotion project by taking into account

the perspective of EU member countries. It is expected that the committee will enhance its functions to include the followings;

- Implementation of a master plan for the promotion of IT
- Enhancement of a national project for the promotion of IT
- Enhancement of its function as a coordination body between the public and private sector on behalf of IT promotion

(2) Promotion of a System Providing Incentives for IT Investment by SMEs

The questionnaire results clearly show that the IT investment needed by SMEs is high which limits the diffusion and expansion of IT use. Of the 120 responding companies, 67 stated that software was expensive, and 35 stated that hardware was expensive. What is essential for promotion of the IT industry and new business is, together with improvement of the telecommunications system, the diffusion of computer-related hardware in the SME sector and among general households. Alternatives for promotion of IT investment include subsidies, reduced credit costs, and reduced VAT on such equipment. These all fall within EU guidelines. What is clear is that a comprehensive strategy for the promotion of incentives is required.

(3) High Telecommunication Costs

The cost of installing a telephone in a residence is HUF 11-13,000 and charges including installation of the Internet come to HUF 10,000. The same service for a business use costs about 10% more. The high cost is confirmed by the responding companies, 26 of which stated that telecommunications services are expensive. It is certain that SMEs will make increasing use of the Internet in the future. This will include greater use of images as opposed to plain-vanilla text, and this combined with increased times being spent online mean that the burden on SMEs will increase. Informed persons say that the cost for use of telecommunications lines will change dramatically following the privatization of MATAV in 1999. In any event, a major reduction of costs deserves to be made a matter of high national priority.

Chapter 4

Pilot Projects

Chapter 4 Pilot Projects

In the present study, the following three pilot projects were carried out.

- 1) Pilot project No.1 (PP-1) – Subcontract promotion project
- 2) Pilot project No.2 (PP-2) – Internet-based matchmaking promotion project
- 3) Pilot project No.3 (PP-3) – Young manager intensive training project

All these projects implemented the selected portions of various programs proposed in this report within a limited period, in an attempt to reflect their results and lessons learned in the master plan to be developed.

This chapter reports the results of the pilot projects and lessons learned there from.

4.1 Subcontracting Promotion Project (PP-1)

4.1.1 Objective of the Pilot Project

The pilot project is designed to promote local procurement of automotive and electrical/electronic parts by large manufacturers (buyers), mainly multinationals operating in the country, by actively introducing local suppliers who are capable of supplying products satisfactory to potential buyers.

Note that the primary purpose of the PP-1 is to find suppliers who have potential to supply products acceptable to large manufacturers, subject to some improvements in production technology or other areas, and provide them with support and assistance in cooperation of buyers and supporting organizations. Thus, suppliers who are already capable of supplying acceptable products, if found in the pilot project, will only be referred to potential buyers. Preferably, the PP-1 should be made to a permanent program by proving its effectiveness through successful consummation of subcontracts.

4.1.2 Methodology Used

The PP-1 was conducted in two phases, (1) 1.5 months started in mid-June during the first field survey; and (2) 3 months started in early September during the second field survey. An original implementation plan for each phase was made as follows.

But as stated later, the project was forced to make several changes due to various factors.

(1) First phase (first field survey)

To collect from potential buyers information on parts and components they wish to purchase, notify it to potential suppliers, and invite the notice of interest. Then, potential buyers will visit suppliers who have expressed interest in supplying specified parts and preliminary evaluate their prospect for contract award.

(2) Second phase (second field survey)

To propose an improvement plan to a supplier who will likely meet purchase requirements with some efforts to improve product quality or aspects, as judged by the buyer and the support organization, while enlisting a financial institution, a technical support organization and other experts, including the buyer, who will provide systematic support for the supplier to become a qualified supplier for the buyer.

Detailed working items are summarized as follows.

- (1) Selection of suppliers
- (2) Selection of buyers
- (3) Listing of parts and components requested by buyers
- (4) Interview of purchase requirements of buyers
- (5) Mailing of Buyer Information to Suppliers and Response
- (6) Preliminary Diagnosis of Their Suppliers
- (7) Buyers' Diagnosis of Suppliers
- (8) Matchmaking between buyers and suppliers

4.1.3 Implementation Results

As this pilot project is designed to promote subcontracting between buyers and suppliers, the result of the project should be measured by an actual increase in the number of subcontracts that occurs as a consequence of the project. However, it is very difficult, if not impossible, to produce the result (i.e., a supplier and a buyer reach an agreement on parts supply), partly because the project period is relatively short (four months and a half) and the actual deal is finalized between the supplier

and the buyer, outside the control of the study team. Instead, the project focuses on augmentation of business opportunity for suppliers and buyers, rather than actual deals, and the following criteria should be used to measure the result:

- (1) The number of buyers visited and the number of parts listed by buyers for local procurement
- (2) Number of suppliers who receive buyers for factor examination and evaluation
- (3) Number of matchmaking cases (mutual visits by suppliers and buyers)
- (4) Number of cases when the supplier provides the buyer with a product sample
- (5) Number of requests for quotation issued by the buyer to the supplier
- (6) Number of contacts with supporting organizations, and nature and scope

The study team set the targets for the above criteria. Table 4-1 shows these targets and actual results.

Table 4-1 EVALUATION OF RESULTS

Item
(1) Number of buyers visited and procurement list No.of buyers visited No.of buyers visited
(2) Number of suppliers who performed supplier visit and evaluation
(3) Matchmaking through mutual visits between suppliers and buyers Total number of matchmaking Suppliers selected for detailed evaluation Suppliers not selected
(4) Number of cases where product samples were provided by supplier to buyer
(5) Number of requests for quotation by buyer to supplier
(6) Number of contacts with the supporting organization

4.1.4 Future Direction of the Pilot Project

It is expected that the PP-1, together with the PP-2 will evolve to a new project of in a more refined form and on a continuous basis. Note that the new project will build on the results of the PP-2 and the PP-1.

To ensure continuous development of the PP-1, the implementation body should conduct the following activities in the future project.

- Intermediary service, including consultation, planning and sponsoring of trade shows and field tours (factories), and provision of additional information
- Coordination of corporate diagnosis to serve the interest of effective

matchmaking

- Management guidance conducive to matchmaking, including seminars, workshops, individual guidance, focusing on the change in management mindset and CS
- Public relations related to matchmaking activities
- Recommendations to the government and industrial circles from the viewpoint of effective matchmaking promotion, including the fostering of supporting industries (e., metal mold) and equipment modernization
- Coordination among buyers, suppliers and support organizations

To conduct the above activities, the implementation body should hire 2-3 full-time staff. As the scope of service expands, part-time staff will be hired and independent consultants will be used for corporate diagnosis of suppliers, as done in the PP-1.

4.2 Establishment of Matchmaking Using Computers (PP-2)

4.2.1 Objective of the Pilot Project

The primary purpose of the pilot project was to obtain information on parts that buyers wish to purchase (to be published on the MEA's Web site in the future) and enable the HPC to retrieve and send it as buyer information to suppliers by e-mail, automated facsimile transfer or mail and to set up matchmaking for both parties..

The critical element of the project is to carry out the final phase of matchmaking between buyers and processors (arrangement for factory visit or business negotiation) under human intervention.

4.2.2 Methodology Used

4.2.2.1 Matchmaking Activities

The implementation of the project carried out the following activities along with a local consultant;

- (1) Collection of buyer information and creation of database for matchmaking

The buyer database has been created, using information available from the HPC by selecting major local manufacturers and multinationals with more than 200 employees. All these buyers selected from the HPC's database and their classification by subsector are summarized as follows;

• Plastics, Rubber, Chemical products	: 77
• Metal processing, Metal products	: 68
• Automobile and parts	: 65
• Electric/Electronics products and parts	: 84
• Machinery	: 68
• Paper and woods, Furniture, Printings	: 38
• Foods	: 61
• Textile, Shoes	: 98
• Metal parts (precision, optical, glass, sports, music instruments)	: 23
• Construction, Transportation, Communication	: 58
<hr/> Total	<hr/> : 640

- (2) Letter to request cooperation of suppliers
- (3) Web publishing

4.2.2.2 Development of the Computer System

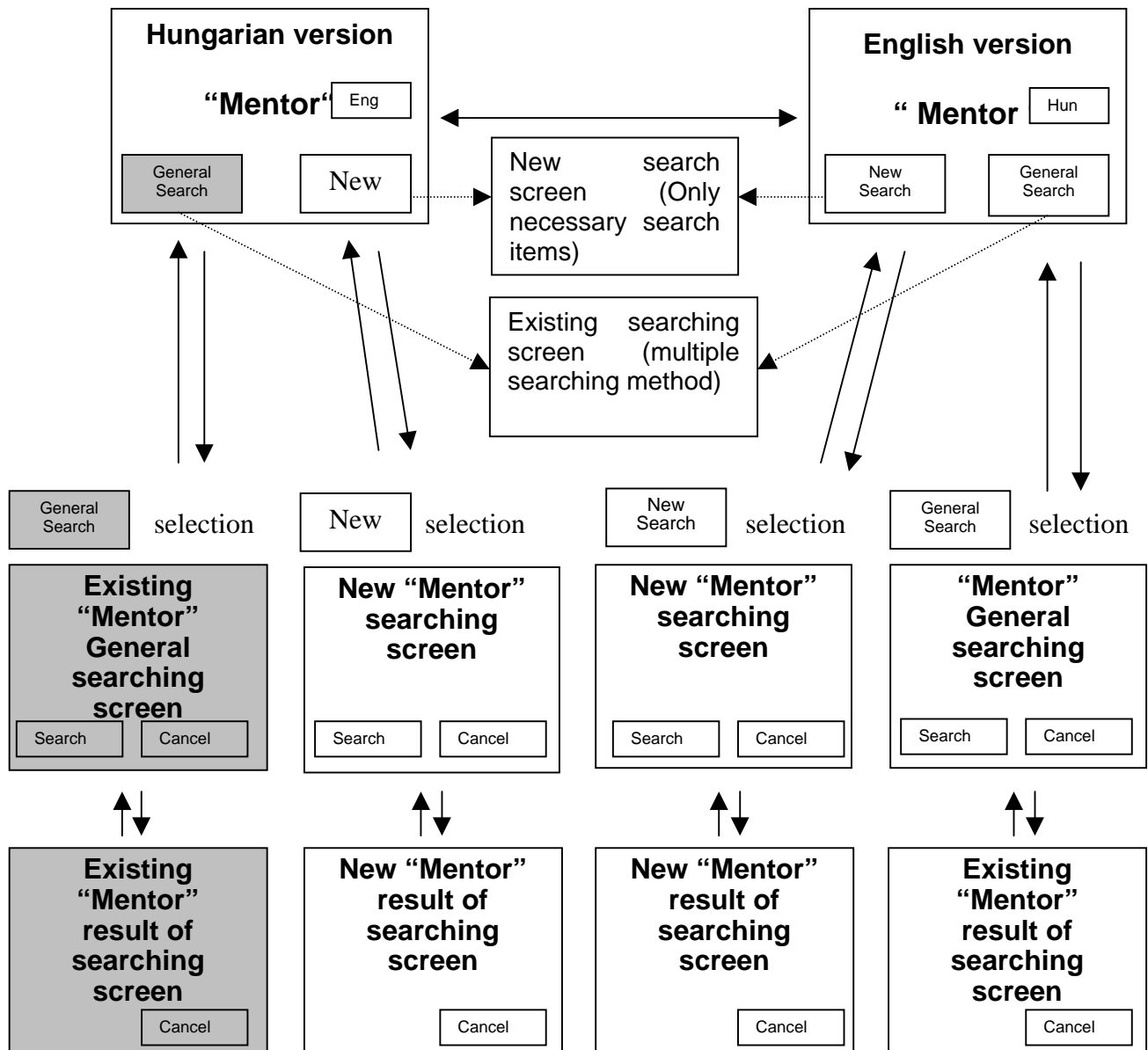
To build the supplier database, various system development tasks were carried out, including the analysis of existing data, the study on the machine environment for system development, the provision of the development environment, and system design.

- (1) Consultation with the PP-2 coordinator
- (2) Analysis of the existing data and database
- (3) Study on the machine environment and provision of the development environment
- (4) System design
 - 1) Database analysis
 - 2) Database design
 - 3) Development of display flow
 - 4) Detailed screen design
- (5) Results of the development work

A supplier database was created according to the screen flow (see Figure.4-1).

Figure 4-1 SCREEN IMAGE OF “METOR”

1 . Initial Screen



1 . Contents of initial screen

- Introduction and objectives of “Mentor”
- Logo of JICA
- Emblem of Hungary
- Hungary national flag
- Design of initial screen, for attraction of users

4.2.3 Implementation Results

(1) Reaction of buyers

The pilot project received approximately 70 responses from buyers (among 640 on the database) by telephone, facsimile or letter, which are roughly classified as follows.

- 17 buyers provided their shopping lists.
- 20 expressed that the project was a good idea and they were willing to participate by providing their shopping lists, although there were not parts they wished to purchase.
- 15 expressed the need for continuous efforts in the long term.
- 5 did not feel the need for a new purchase channel because they already had supply sources.
- 2 expressed that their head offices made procurement decisions.
- 11 were not interested in the project.

By type of product, machinery parts, plastic molding parts, and automotive parts are most wanted by buyers, followed by packaging products (corrugated cardboard boxes, plastic containers and carriages for electronic parts and products).

(2) Reaction of suppliers

The shopping lists provided by buyers were transferred to selected suppliers who were retrieved from “Mentor” and had 20 – 200 employees and approximately 260 e-mails were sent.

(3) Results obtained from matchmaking activities

- Buyer selection from all manufacturing sectors is proven to be effective.
- Buyers are not limited to manufacturers. Many users of large production and other industrial equipment, for instance, maintain it by themselves and purchase repair parts from outside sources. The situation is similar in production equipment used by suppliers.
- Ease of database management in the buyer selection process.

4.2.4 Future Direction of the Pilot Project

This pilot project should be promoted to one of the permanent projects of the implementation organization. In fact, it is critical to give a permanent status to the

project if it is to produce the maximum result. For this purpose, buyer and supplier databases should be created and updated on a periodical basis. Database management may be outsourced to a private company (system development and maintenance) which has experience in similar projects. In addition, the buyer database may be expanded in the future to include potential buyers in neighboring countries. Future directions and development are described hereunder.

It is desirable to appoint the MVA/LEA (Local Enterprise Agency) as the implementation body for the permanent version of the pilot project.

4.3 Progress and Evaluation of Intensive Education for Young Entrepreneurs (PP-3)

4.3.1 Objective of the Pilot Project

The PP-3 is designed to teach managers of small- and medium-sized enterprises, on an experimental basis, modern management methods and entrepreneurship required to survive in the highly competitive business environment.

In addition, the following indirect, long-term effects are expected.

- (1) To foster long-lasting friendship among participants who will help each other in business activities after the training program.
- (2) To develop business leaders from participants, provided that the program is conducted continuously

4.3.2 Methodology Used

Preparation for the pilot project was carried out by a Japanese coordinator (study team) and a HPC coordinator between September 3 through October 2, 2000 (opening), consisting of the following activities:

The training course was attended by 20 persons, the planned capacity. The youngest participant was 21 years old and the oldest 35 years old, with the average age of 26.5. Most of them worked for manufacturers, but some represented service industries in consideration of various factors. There were three presidents and five female participants. Would-be successors of their fathers seem to account for nearly one half.

First week (Mon – Fri)

Daytime: Lectures (financial management, SME promotion policy, business management)

Night: Group discussion and project

Participants stayed at the hotel.

Friday: Field tour on Sony's Hungary factory

Second week (Mon – Fri)

Daytime: Lectures (automation, production management, quality control)

Night: Group discussion and project

Participants stayed at the hotel.

Friday: Field tour on Majar Suzuki's Hungary plant

Third week (Mon – Sun)

- Home work at the participant's own factory, field application of management theory
- Consultants visited participants' factories for advice and guidance.

Fourth week (Tue – Fri) (Monday was a national holiday)

- Reports by participants on improvement plans for their own factories
- Productivity improvement techniques (lecture by HPC staff)
- Special lectures by representatives of Sony Hungary and Majar Suzuki
- Comment and evaluation by Japanese consultants
- Closing ceremony (issuance of certificate) and luncheon

On the final day, participants commented on the course. Most frequently heard comments are as follows:

Good points

- 1) Lecture is based on field-proven theory and is practical to allow application to my own factory.
- 2) Instructors possess admirably broad knowledge and experience.
- 3) Thankful to consultant visit of my factory

Future improvements

- 1) The home work period (one week) is short.
- 2) Follow-up study and evaluation is desirable (around three months later)

- 3) The schedule was very tight and busy.

4.3.3 Future Direction of the Pilot Project

The PP-3 was highly evaluated by participants, the study team, the HPC staff, instructors, and participants in the seminar where a report was made on the project. Many want the training course to be offered continuously, and the study team proposes it as Program Proposal 5.1. In summary, the permanent course should be modified in the following respects to reflect comments and lessons learned from the pilot project, which were limited in scope.

- 1) The new course should consist of one-week intensive training course and a one-month home work project, which form one cycle and should be repeated four times to complete the course.
- 2) The course should also be held in other regions. Two courses will be held in Budapest and two in other regions, which will be changed every year.
- 3) Instructors and consultants will be mainly Hungarian, with Japanese instructors to be called in as required.
- 4) Participants will pay the accommodation cost and the course fee (at discount rates).
- 5) The HPC will act as a coordinator to enlist cooperation of local organizations.