

**SMALL BUSINESSES, JOB CREATION AND GROWTH:
FACTS, OBSTACLES AND BEST PRACTICES**

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EXECUTIVE SUMMARY

The importance of SMEs

SMEs (small and medium-sized enterprises) account for 60 to 70 per cent of jobs in most OECD countries, with a particularly large share in Italy and Japan, and a relatively smaller share in the United States. Throughout they also account for a *disproportionately large share of new jobs*, especially in those countries which have displayed a strong employment record, including the United States and the Netherlands. Some evidence points also to the importance of age, rather than size, in job creation: young firms generate more than their share of employment. However, less than one-half of start-ups survive for more than five years and only a fraction develop into the high-growth firms which make important contributions to job creation. *High job turnover* poses problems for employment security; and small establishments are often exempt from giving notice to their employees. Small firms also tend to invest less in training and rely relatively more on external recruitment for raising competence.

The demand for reliable, relevant and internationally *comparable data* on SMEs is on the rise, and statistical offices have started to expand their collection and publication of data. International comparability is still weak, however, due to divergent size-class definitions and sector classifications. To enable useful policy analysis, OECD governments need to improve their build-up of data, without creating additional obstacles for firms through the burden of excessive paper work.

Problems confronted by SMEs

The greater variance in profitability, survival and growth of SMEs compared to larger firms accounts for special problems in *financing*. SMEs generally tend to be confronted with *higher interest rates*, as well as credit rationing due to shortage of collateral. The issues that arise in financing differ considerably between existing and new firms, as well as between those which grow slowly and those that grow rapidly. The expansion of *private equity markets*, including informal markets, has greatly improved the access to venture capital for start-ups and SMEs, but considerable differences remain among countries.

Regulatory burdens remain a major obstacle for SMEs as these firms tend to be poorly equipped to deal with the problems arising from regulations. Access to information about regulations should be made available to SMEs at minimum cost. Policy makers must ensure that the compliance procedures associated with, e.g. R&D and new technologies, are not unnecessarily costly, complex or lengthy. *Transparency* is of particular importance to SMEs, and *information technology* has great potential to narrow the information gap. It would be of great help to set up a “one-stop-shop system”, where all the necessary information which affects firm strategies and decisions is made available in one place, as exists already in some countries.

Support for SMEs

Most OECD countries have *programmes which support SMEs*. One-quarter of all public support programmes reported to the OECD primarily target SMEs. Germany, Iceland, Japan and New Zealand dedicated more than 50 per cent of their entire public support programmes to SMEs. In 1993, a total of US\$3.75 billion of public money was paid to help start-ups, the acquisition of equipment, R&D, training and consultancy services, in the form of direct grants, tax concessions, low interest rate loans or loan guarantees. More than 50 per cent of SME programmes are *administered locally*, making *co-ordination* between authorities critical. There is potential for integrating programmes into fewer schemes but with a wider scope, making it easier for SMEs to understand them, and lowering administrative costs. Almost 70 per cent of SME programmes last for more than five years. *Stable and predictable* programme management is in the interest of users; however, a constant review process is vital to ensure *quality and flexibility*. Governments need to intensify their efforts to disseminate information, eliminate unnecessary red tape, and make programmes more responsive to the changing needs of SMEs.

Between 30 and 60 per cent of SMEs can be characterised as *innovative*, of which some 10 per cent are *technology-based*. Innovative SMEs tend to be *market-driven* rather than research-driven, and quicker in responding to new opportunities than large firms. They play a key role in pioneering and developing new markets. Programmes for improving the diffusion of technology have shifted from a supply focus to raising the *capacity of SMEs to absorb technology*. However, governments need to: reduce uncertainties in the tax, regulatory and macroeconomic environment; make sure that business framework conditions do not impact unfavourably on the risk/reward ratio; and encourage the mobility of human resources and the markets for specialised services. Although these are important for the entire economy, such actions will produce benefits of particular value to SMEs.

The successes

A limited number of so-called high-growth SMEs make important contributions to job creation and productivity growth in the OECD area. At the earlier stages, *management capabilities* are crucial to survival. As the firm matures, human resource and innovation strategies increase in importance. By the time the firm has become established, *innovation* is crucial for growth. The fastest growing entrants are those that translate strategy into action in the form of R&D, innovation and training, put great emphasis on hiring skilled employees and motivating employees, and *balance* the enhancement of their capabilities in different areas -- the last being particularly important in high-knowledge sectors. The main barriers to the development of high-growth SMEs are *market failures in capital markets*, *government regulations*, *indirect labour costs*, *access to foreign markets*, and *difficulties in recruiting qualified staff and skilled workers*.

Women-owned SMEs are growing at a faster rate than the economy as a whole in several OECD countries, allowing capitalisation of the skills of educated and trained women who might otherwise be blocked in corporate advancement because of the “glass ceiling”. The increased flexibility inherent in owning one’s business allows women to contribute to the income of their families while balancing work and family responsibilities. However, the economic potential of women entrepreneurs remains partly untapped; measures are required to improve information and statistics in this field, as well as to strengthen the preconditions for financing, networks and technology.

Entrepreneurship tends to vary markedly across *regions*. An increasing number of regions are known for generating *clusters* of dynamic firms which benefit from “information spill-over” and other intangible factors. Regional development policies have been introduced to assist regions suffering from declining

industries. The primary policy tools for attracting firms to disadvantaged regions are investment in infrastructure, social assistance, training and other forms of public assistance. The regional dimension of entrepreneurship is not limited to clusters of enterprises but also includes micro enterprises. Programmes to assist the creation and development of micro enterprises in *inner cities* and *remote rural areas* have become widespread policy tools. Governments wishing to adopt policies used successfully in other regions or countries should take the regional context into account.

Best practice policies

The report ends with lessons from policies undertaken in *five areas*:

-- ***Financing***

The primary role of the public sector in supporting *venture capital* is to reduce the risk and cost of private equity finance, complementing and encouraging the development of the private capital industry. There is major variation across OECD countries in the use of funding methods for SMEs, but the provision of *equity financing to start-up companies* is more advanced in the United States and Canada than elsewhere. Taxation should not impose a disproportionately heavy burden on SMEs.

-- ***The business environment***

This can be improved by systematic and careful scrutiny of new regulations and by implementation of a business impact system to ensure the audit and monitoring of new legislation. Canada, the United Kingdom and the Netherlands have successfully introduced procedures to that end. The use of information technologies provides opportunities for reducing bureaucratic burdens on all companies, including SMEs.

-- ***Technology***

Technology diffusion programmes should: ensure quality control; promote customer-orientation; upgrade the innovative capacity of firms -- including the promotion of general awareness of the value of innovation among management -- and stimulate demand for technical and organisational change; build on existing inter-relationships in national innovation systems and provide greater coherence between programme design (e.g. targets, objectives, modes of support) and service delivery; build on evaluation and assessment. Technology diffusion programmes should in particular have mechanisms for assessment which can guide and improve their operation and management on a continuing basis. The United States has programmes effectively stimulating quality in diffusion processes, while Germany has sophisticated institutional set-up catalysing interactions between existing actors in the national innovation system.

-- ***Management capabilities***

Several G7 governments have sought to enhance the “quality” of owner/managers of SMEs either by encouraging *training* and/or by providing access to *advisory and consultancy services*. The most extensive assistance is provided by Japan which has both a highly developed system of advisory services and SME colleges. The United Kingdom and Italy have also implemented interesting schemes. Subsidy-schemes aimed at enhancing the skill base of SMEs should take

the following into consideration: specification of objectives; situation after the removal of the subsidy; collecting information from SMEs themselves. Measures to encourage information networks must seek to customise databases and avoid information overload. Four approaches have been developed to address these issues: know your customer; access; explicitly avoid interference with market mechanisms; and subsidisation of information.

-- ***Access to markets***

Measures to ease *access to markets* have focused on *international markets*, on the one hand, and *public procurement*, on the other. Japan has the most developed policy and institutional set-up for the former, based upon the use of non-discriminatory measures which seek to support efforts made by SMEs themselves. Policy in this area seeks to tackle the disadvantages experienced by SMEs due to their lack of access to human resources, to external markets and to technology. Regarding public procurement, the United States, and other OECD countries such as Australia, have made comprehensive efforts to increase the “share” which small firms obtain of government contracts.

SECTION 1

JOB CREATION, OUTPUT AND PRODUCTIVITY GROWTH

The term “SME” -- small and medium-sized enterprises -- covers a variety of definitions and measures. In OECD Member countries, employment is the most widely used criterion for determining firm size. SMEs are usually defined as firms with fewer than 500 employees, although a number of countries -- including those in the European Union -- use a lower cut-off point of 250.

Employment and job creation

It is apparent that SMEs play an important role in all OECD economies: they make up over 95 per cent of enterprises and account for 60 to 70 per cent of jobs in most OECD countries. The share tends to be somewhat lower in manufacturing, although it varies between 40 to 80 per cent of employment in manufacturing (Table 1.1). The overall share of small firms in employment and output may be even higher given that establishments or firms in the service sector are normally of smaller average size than in manufacturing. Table 1.2 illustrates the variability across sectors: for example, wholesale and retail trade and hotels and restaurants are dominated by SMEs. In construction SMEs account for 80 to 90 per cent of all employment. The fact that these industries loom large in overall employment underscores the importance of SMEs as sources of employment.

Furthermore, the share of large firms in employment and output has tended to show a certain decline. The average establishment size in manufacturing has fallen since the early 1980s in Canada, the United Kingdom and the United States, has remained constant in Germany, and has risen in Japan (Table 1.3a and 1.3b). The importance of smaller establishments in job dynamics is often assessed on the basis of net employment changes. From the mid-1980s to the early 1990s, in all countries, small establishments (fewer than 100 employees) displayed more rapid net employment growth than larger ones (*OECD Employment Outlook* 1994, Chapter 3). However, there are at least four ways in which this should be put into perspective:

First, it is not surprising that small enterprises/establishments play an important role in the job creation process since they account for between 40 and 80 per cent of total manufacturing employment. To see whether their role is disproportionately high, net job creation has to be expressed in relation to the initial employment in small and large establishments. As shown in Table 1.4, net job creation rates are in fact often higher for smaller size classes. However, for a number of countries it was found that the highest net job creation rates were among very small firms whereas small to medium-sized firms (between 20 and 50 employees) did not perform better than large firms.

Second, methodology matters. An important technical issue in studies on net job creation rates is how firms are allocated to size classes: for example, a firm can be considered “small” if it corresponds to the criterion “small” in some *base year*. Any subsequent job creation is then attributed to the size class “small”, irrespective of whether the firm has moved to a different size class by the end of the observation period. Alternatively, a firm can be considered “small” if it corresponds to the criterion “small” *on average*, over the entire period. It has been shown that net job creation rates of small and large firms are highly sensitive to such changes in the size class allocation of firms.

Third, the customary estimation of *net* employment growth conceals the separate processes of job creation and destruction. Plants of all sizes incur both job gains and job losses. Some idea of these dynamics is given in Table 1.5. The data paint a picture of the concentration of gross job gains and losses in very small and small establishments. Establishments employing fewer than 20 workers seem to account for between 45 and 65 per cent of new job gains and 36 and 56 per cent of annual job losses (the data for the United States are much lower, partly because firms employing fewer than five workers are excluded and partly because they refer only to manufacturing and exclude services).

Fourth, recent research in the United States has pointed to age-related patterns in job creation: one is that net job creation rates decline with plant age; the other is that employment volatility declines with plant age. These patterns should not come unexpected, given that young firms are nearly always small. However, small firms are not necessarily young. The distinction is important because, if age rather than size was the criterion, policy should focus less on small firms and more on young firms. Put differently, a policy in favour of SMEs would be replaced by a policy to promote entrepreneurship, for example, through the removal of regulatory barriers to firm creation. Yet, more empirical evidence on the significance of age as opposed to size is needed before clear policy conclusions can be put forward.

Information on job creation and destruction reveals a considerable amount of churning in all labour markets. Annual job turnover rates -- the sum of newly created jobs and jobs that have disappeared -- are of the order of 20 per cent per year in countries as diverse as France, Sweden and the United States. Job turnover is a critical part of the competitive process, contributing to economic growth, productivity and structural change. Excessive turnover, on the other hand, can deter businesses and workers from investing optimally in training. A relative lack of skills can affect the ability of firms to adapt to change via internal flexibility as opposed to external adjustment. Permanent job losses can lead to substantial cuts in income for those affected as their accumulated firm-specific skills lose their value. Finally, when turnover is associated with large-scale lay-offs or plant closures, substantial costs may be borne by regions and communities.

The costs of churning have to be weighed against the positive effects of turbulence, such as entrepreneurship and the search for new processes and products. As reported in OECD (1996), *Technology, Productivity and Job Creation*, less than one-half of SME start-ups survive for five years; only a small percentage of surviving SMEs turn into high-growth firms; and these high-growth firms make important contributions to job creation and productivity growth. At the firm level, turnover could be the result of a process of trial and error, with some enterprises failing almost from the start, some being limited to the life span of a single innovation, and others enjoying sustained success.

Export, production and productivity

Overall, SMEs account for between 30 and 70 per cent of value added (Table 1.6) with variations between countries and industries. Also, as would be expected, the likelihood that output is exported is smaller for SMEs than for large enterprises: in very general terms and depending on the country, SMEs contribute between 15 and 50 per cent of exports, while between 20 and 80 per cent of SMEs are active exporters. Overall, it is estimated that SMEs contribute between 25 and 35 per cent of world manufactured direct exports (OECD, 1997, *Globalisation and Small and Medium Enterprises*). Where information exists, it points to these exports being concentrated around relatively few larger SMEs. However, most of the growth of exports seems to be taking place in smaller SMEs.

The employment share of SMEs exceeds their share in value added, implying that value added per employed person (a measure of labour productivity) is lower in smaller firms than in larger ones. Yet it would be misleading to conclude from this observation that small firms necessarily contribute less than

large firms to economy-wide productivity *growth*. A more dynamic view should be taken. The static observation of higher productivity levels linked to larger size ignores the *process* of productivity growth: overall productivity changes occur because individual firms raise their productivity levels *and* because they expand and displace low-productivity firms. Similarly, new entrants replace exits because they have a higher level of productivity. As SMEs account for most of the entrants, exits, growth and decline, they form an integral part of a competitive process that contributes significantly to aggregate productivity growth -- even if at any particular time, their *level* of productivity is below that of larger firms. This view has been substantiated by several studies, which showed sizeable effects on aggregate productivity growth from shifting market and employment shares and the entry and exit process. This is yet another positive, dynamic effect associated with the turbulence of small firms.

Policy issues

Concerns about high employment turnover rates lead to two policy issues: i) the role of governments and/or collective bargaining arrangements in providing some degree of employment security (e.g. advance notice or consultation) as a way of dealing with some of the costs identified above and in providing incentives for internal flexibility/training; and ii) the role of active labour market policies in assisting the matching of workers and businesses. The first of these can be particularly controversial *vis-à-vis* smaller establishments which are often exempt from notice requirements. Smaller firms also tend to carry out less internal training and rely more on the external market, which can be problematic if a supply of requisite skills is not available. There are numerous country experiences with programmes/policies to “assist” smaller firms, sometimes allowing a pooling of resources (e.g. a French training levy can be pooled, although evidence suggests that larger firms tend to make more use of this option).

There are several schools of thought on policies to help new and small firms mature. Some argue that the role of government should only be to make it easier for firms to start up, while others focus on helping those firms most likely to grow. The track record of special policies to encourage new firms has not been particularly encouraging, although reforms to regulations and practices that hinder start-ups and frustrate the operations of new small firms are desirable. Overall empirical knowledge of the issues remains limited and governments may do well to invest more in evaluating what does, and does not, work in terms of fostering an environment where new firms can grow successfully and create jobs.

Improving SME statistics

Demand for reliable, relevant and internationally comparable data on SMEs has been rising. Statistical offices have started to collect and publish relevant data but serious shortcomings persist. International comparability has remained weak, due to divergence of definitions for size-class and treatment of underlying units (firms, establishments) and variation in industry classification and time periods used for data collection. Many interesting issues in conjunction with SMEs can only be addressed with sets of micro-level data that allow the tracing of individual firms or establishments over time. In addition to problems of comparability, the sheer volume of the data sets involved, as well as questions of confidentiality, have prevented rapid progress of international studies.

More generally, there is a conflict of interests between obtaining comprehensive and timely information about SMEs and limiting the administrative burden associated with responding to statistical questionnaires. As a result statisticians must increasingly endeavour to exploit creatively the existing statistical or administrative sources to obtain better information on SMEs and to minimise future response burdens.

Table 1.1 Size distributions in manufacturing industry

	Year	Number of enterprises/establishments of which in employment size class				Employment of which in employment size class			
		1-19	20-99	100-499	500+	1-19	20-99	100-499	500+
		Percentages				Percentages			
United States	1993	73.7	19.8	5.1	1.4	7.4	14.6	16.5	61.5
Canada	1994	50.6	37.8	10.2	1.4	7.6	27.8	39.4	25.2
Mexico	1994	80.3	15.1	2.7	2.0	12.2	21.2	15.6	51
Japan	1994	74.3	21.6	3.6	0.5	22.4	30.9	25.0	21.6
Korea	1994	69.5	26.1	3.0	1.3	20.5	32.0	14.2	33.3
Australia	1994	82.0	14.1	3.4	0.4	22.3	27.5	32.7	17.5
New Zealand	1994	90.6	7.7	1.5	0.3	27.3	24.7	24.0	24.0
Austria	1993	43.2	41.5	10.0	5.2	4.3	26.9	23.4	45.5
Belgium	1993	80.4	15.3	3.7	0.6	..	..	..	..
Denmark	1993	82.0	14.6	3.1	0.3	..	..	..	..
Finland	1992	50.8	36.1	11.6	1.5	..	..	..	..
Germany	1993	71.5	19.4	4.1	5.0	19.9	22.1	10.8	47.2
Greece	1992	59.0	34.3	6.0	0.7	20.4	35.0	27.5	17.2
Hungary	1994	76.8	18.3	3.9	1.1	..	..	..	..
Iceland	1992	90.8	6.7	2.5		35.1	26.6	38.2	
Italy	1992	89.7	9.0	1.2	0.2	38.7	25.0	17.3	19.0
Luxembourg	1992	79.4	15.0	4.7	0.9	13.0	22.1	35.0	29.9
Netherlands	1993	78.0	17.2	4.3	0.6	15.7	24.8	27.8	31.7
Norway	1994	40.2	47.4	7.5	4.9	9.3	34.9	18.2	37.6
Portugal	1994	85.8	11.8	2.2	0.2	23.5	32.3	27.8	16.5
Sweden	1993	44.4	40.8	12.4	2.4	6.9	23.1	35.3	34.7
Switzerland	1991	84.2	12.3	3.1	0.4	20.2	26.9	31.3	21.5
Czech Republic	1995	94.9	2.9	1.6	0.5	18.0	10.3	24.6	47.1
Turkey	1992	36.6	47.1	13.3	3.0	5.5	22.2	32.2	40.1
United Kingdom	1994	82.7	12.9	3.7	0.8	13.2	21.6	28.9	36.3

Note: Statistical unit: establishment except for the United States, New Zealand, Czech Republic, Hungary, Italy, Luxembourg, Portugal (enterprises). Size classes differ: Canada, New Zealand: 0-19; Mexico: 1-15; 16-100; 101-250; 251+; Japan, Korea: 4-19; Finland: 10-19; Hungary: 0-9; 10-99; Iceland: 0-19; 20-60; 60+; Norway: 1-19; 20-99; 100-199; 200+; Czech Republic: 0-24; 25-99.

Source: OECD, Database on SME statistics; Eurostat (1996), *Enterprises in Europe*.

Table 1.2 Distribution of employment by firm size and sector

	Year	Employment size class					Total
		1-9	10-19	20-99	100-499	500+	
		Percentages					
United States							
Manufacturing	1993	3.5	3.9	14.6	16.5	61.5	100.0
	1988	3.1	3.7	14.5	16.1	62.6	100.0
Construction	1993	28.6	17.0	30.7	12.5	11.1	100.0
	1988	25.5	16.5	31.7	14.8	11.5	100.0
Wholesale and retail trade, hotels and restaurants	1993	13.1	9.9	22.2	11.8	43.0	100.0
	1988	13.6	10.4	23.2	11.9	40.8	100.0
Finance, insurance and real estate	1993	12.5	5.5	13.8	12.2	56.1	100.0
	1988	12.3	5.7	14.3	12.4	55.3	100.0
Total non-farm business sector	1993	10.7	7.7	18.8	13.1	49.6	100.0
	1988	10.5	7.8	19.3	13.3	49.0	100.0
Canada							
Manufacturing	1992 ..		11.4	20.3	22.0	46.3	100.0
	1989 ..		9.9	21.3	22.8	46.0	100.0
Construction	1992 ..		56.0	26.7	12.3	5.0	100.0
	1989 ..		51.0	29.4	14.5	5.1	100.0
Wholesale and retail trade, hotels and restaurants	1992 ..		33.6	25.7	13.2	27.5	100.0
	1989 ..		28.9	24.5	12.9	33.7	100.0
Finance, insurance and real estate	1992 ..		17.8	12.1	9.7	60.4	100.0
	1989 ..		17.2	14.4	10.8	57.6	100.0
Total non-farm business sector	1992 ..		25.5	20.8	15.1	38.6	100.0
	1989 ..		23.5	22.0	16.3	38.2	100.0
Japan							
Manufacturing	1993	12.5	10.4	30.8	24.6	21.7	100.0
	1986	13.7	11.0	30.6	23.5	21.3	100.0
France							
Manufacturing	1992	8.1	5.0	22.4	23.6	40.9	100.0
	1990	10.1	5.1	22.0	23.1	39.7	100.0
Construction	1992	29.0	11.5	27.5	14.0	18.0	100.0
	1990	33.9	10.8	26.7	12.8	15.8	100.0
Wholesale and retail trade, hotels and restaurants	1992	32.9	10.3	25.8	12.4	18.5	100.0
	1990	38.6	9.8	23.7	11.2	16.8	100.0
Finance, insurance and real estate	1992	15.9	7.2	19.6	17.9	39.4	100.0
	1990	19.7	7.4	18.9	17.4	36.6	100.0
Total non-farm business sector	1992	18.2	7.1	21.7	17.1	35.9	100.0
	1990	22.0	7.0	21.0	16.2	33.7	100.0

Table 1.2 Distribution of employment by firm size and sector (*cont'd*)

	Year	Employment size class					Total
		1-9	10-19	20-99	100-499	500+	
		Percentages					
Germany							
Manufacturing	1992	7.8	6.2	16.3	21.6	48.2	100.0
	1988	6.1	6.1	16.1	21.5	50.1	100.0
Construction	1992	27.1	21.6	28.0	13.7	9.6	100.0
	1988	22.8	20.4	31.9	15.3	9.6	100.0
Wholesale and retail trade, hotels and restaurants	1992	37.8	12.6	19.2	11.9	18.5	100.0
	1988	29.0	14.6	22.2	13.5	20.7	100.0
Finance, insurance and real estate	1992	28.3	10.8	16.0	16.7	28.2	100.0
	1988	21.3	10.3	16.9	17.9	33.6	100.0
Total non-farm business sector	1992	21.1	10.2	18.2	17.0	33.5	100.0
	1988	15.3	10.2	19.2	18.0	37.2	100.0
Italy							
Manufacturing	1991	24.2	14.8	24.4	16.9	19.7	100.0
Construction	1991	52.3	16.0	19.5	7.9	4.3	100.0
Wholesale and retail trade, hotels and restaurants	1991	74.6	9.7	8.8	3.1	3.8	100.0
Finance, insurance and real estate	1991	49.5	7.0	9.4	9.0	25.2	100.0
Total non-farm business sector	1991	44.2	11.4	15.9	10.1	18.4	100.0
United Kingdom							
Manufacturing	1991	13.3	4.7	14.4	17.0	50.7	100.0
	1988	10.9	4.0	17.0	17.8	50.3	100.0
Construction	1991	58.3	6.1	12.3	10.2	13.1	100.0
	1988	58.2	7.4	12.9	9.6	11.9	100.0
Wholesale and retail trade, hotels and restaurants	1991	31.3	8.8	19.6	26.9	13.5	100.0
	1988	33.8	9.0	19.4	24.2	13.6	100.0
Finance, insurance and real estate	1991	25.6	5.0	13.5	12.3	43.5	100.0
	1988	17.8	4.2	11.7	20.3	46.1	100.0
Total non-farm business sector	1991	25.2	6.0	15.0	17.8	36.0	100.0
	1988	24.0	5.9	15.7	19.3	35.2	100.0

Note: Statistical unit: enterprise, except for Canada (average labour unit) and Japan (establishment). Size classes vary: Canada: 0-19; Japan: 4-9. European countries: manufacturing = class 2+3+4 of NACE 70; construction = class 5; wholesale etc. = class 6; finance etc. = class 8; business sector = class 2-8

Source: OECD, Database on SME statistics; Eurostat (1996), *Enterprises in Europe*.

Table 1.3a Average establishments/enterprise size by employment size class

		Persons/establishment or enterprise Manufacturing industry				
	Year	Employment size class				Total
		1-19	20-99	100-499	500+	
Canada	1992	7.3	36.5	190.3	889.6	47.3
	1994	7.6	37.3	196.4	914.8	50.8
United States	1991	5.6	41.2	182.0	2 513.7	57.1
	1993	6.3	41.2	182.4	2 396.9	60.9
Japan	1986	8.0	38.5	190.8	1 233.9	25.0
	1994	8.2	38.8	190.3	1 190.8	27.1
France	1992	13.3	42.8	204.7	1 069.5	73.4
Germany	1992	6.6	42.7	213.8	2 076.7	35.3
Greece	1989	13.3	41.0	197.5	963.8	43.0
	1992	13.5	39.9	177.2	955.2	39.0
Korea	1990	10.4	41.3	155.0	827.2	44.8
	1994	9.7	40.2	156.3	818.4	32.8
Mexico	1990	4.2	38.0	160.7	703.4	28.3
	1994	4.0	37.3	156.1	693.8	26.6
New Zealand	1990	4.1	39.9	203.2	1 195.1	14.7
	1994	3.8	40.3	198.2	1 130.6	12.5
Netherlands	1991	6.7	45.2	200.2	1 650.9	33.7
	1993	5.7	40.8	184.3	1 438.0	28.2
Portugal	1990	4.2	46.5	185.5	728.2	14.8
	1994	4.0	40.1	184.4	1 044.0	14.6
Turkey	1988	13.4	42.2	212.8	1 191.0	107.5
	1992	13.2	41.4	213.7	1 163.8	87.9

Note: Statistical unit: establishment, except United States, Germany, New Zealand, Portugal. Size classes differ across countries: Canada, New Zealand: 0-19; Japan: 4-19; Mexico: 1-19, 20-99, 100-199, 200+; Turkey: 10-19.

Source: OECD Database on SME Statistics, Eurostat (1996), *Enterprises in Europe*.

Table 1.3b Average establishment size

Index of persons/establishment; 1981=100					
	Manufacturing				
Year	Canada	Germany	Japan	United Kingdom	USA
1981	100	100	100	100	100
1992	89.3	100.3	111.0	83.4	89.6

Note: Minimum employment size of establishments: Germany: 20; Japan: 4; United Kingdom: 20; United States: 1.

Source: OECD, ISIS Database.

Table 1.4 Overview of studies on job creation: qualitative results

Country/Author	Period	Sector	Allocation to size class	Gross job creation rates	Net job creation rates
Canada Picot, Baldwin, Dupuy (1994)	1978-92	Business sector	Base-year	fall with firm size	fall with firm size
	1978-92	Business sector	Average	fall with firm size	fall with firm size
	1978-92	Manufacturing	Base-year	fall with firm size	fall with firm size
	1978-92	Manufacturing	Average	fall with firm size	fall with firm size
Denmark Leth-Sorensen, Boegh-Nielsen (1995)	1985-86	Business sector	Base-year	fall with firm size	fall with firm size
	1989-90	Business sector	Base-year	fall with firm size	only micro-firms show high net job creation rates - no systematic relationship for other size classes
Germany Wagner (1995)	1978-93	Manufacturing	Base-year	fall with firm size	highest net job creation rate in 20-49 size class
	1978-93	Manufacturing	Average	fall with firm size	no relationship
Japan OECD (1995)	1987-92	Manufacturing	Base-year	..	no systematic relationship
Netherlands Broersma and Gautier (1995)	1979-91	Manufacturing	Average	fall with firm size	job creation rates in firm with less than 100 employees exceed job change rates of firms with more than 100 employees
Sweden Davidsson (1995)	1985-89	Business sector	Base-year	fall with firm size	smallest firms show largest net creation and destruction rates
United Kingdom Gallagher <i>et al.</i>	1982-91	Business sector	Base-year	fall with firm size	highest net job creation rates for micro enterprises, weaker performance of 20-49 size class
United States Haltiwanger (1995)	1973-88	Manufacturing	Base-year	fall with firm size	fall with firm size
	1973-88	Manufacturing	Average	fall with firm size	no relationship
United States Dennis <i>et al.</i>	1977-90	Business sector	Base-year	fall with firm size	fall with firm size
United States OECD (1995)	1987-92	Manufacturing	Base-year	..	fall with firm size

Source: OECD (1996c).

Table 1.5 Distribution of gross job flows and employment by establishment size

Establishment size	Gross flows						Employment (last year)
	Openings	Expansions	Job gains	Closures	Contractions	Job losses	
Canada 1983-1991							
Total	100	100	100	100	100	100	100
1-19 employees	53.6	41	43.7	48	32	36.1	27.2
20-99	23	22.4	22.5	21.5	23.7	23.1	22.3
100-499	13.7	15.3	15	15.6	17.3	16.9	15.9
500+	9.7	21.3	18.8	14.9	27	23.9	34.6
Denmark 1983-1989							
Total	100	100	100	100	100	100	100
1-19 employees	55.8	56	55.9	59.5	41.7	48.1	39.8
20-99	22.6	26.5	25	21.5	30.3	27.2	31.8
100+	21.6	17.5	19.1	19	28	24.7	28.4
Finland 1987-1992							
Total	100	100	100	100	100	100	100
1-19 employees	54.9	51.5	52.7	46	35.5	38.4	34
20-99	25.2	24.4	24.7	29.5	25.8	26.9	29.3
100-499	16.1	18	17.3	19.4	25.6	23.9	25.5
500+	3.8	6.1	5.3	5.1	13.1	10.8	11.2
France 1987-1992							
Total	100			100			100
1-19 employees	54.8			53.4			35.7
20-99	24.1			25.6			29.7
100-499	15			15			22.5
500+	6.1			6			12.1
Italy 1984-1992							
Total	100	100	100	100	100	100	100
1-19 employees	71.2	63	65.7	63.9	52.3	56.2	39.2
20-99	15.5	18.4	17.5	17.6	21.1	20	22.2
100-499	7.2	10	9	9.1	12.1	11	15.6
500+	6.1	8.6	7.8	9.4	14.5	12.8	23
New Zealand 1987-1992							
Total	100	100	100	100	100	100	100
1-19 employees	53.7	57.3	55.6	53.2	33.4	41.8	45.2
20-99	25.1	27.2	26.2	28.7	31.6	30.4	30.9
100-499	16.3	11.6	13.8	12.7	22.8	18.5	18.3
500+	4.9	3.9	4.4	5.4	12.2	9.3	5.6
Sweden 1985-1991							
Total	100	100	100	100	100	100	100
1-19 employees	54.1	56.1	55.2	52.8	35.2	41.8	35.2
20-99	20.4	24.9	22.9	21.4	28.9	26.1	28.3
100-499	14.2	13.8	14	13.5	22.4	19.1	22.5
500+	11.2	5.2	7.9	12.3	13.5	13	14
United Kingdom 1987-1991							
Total	100	100	100	100	100	100	100
1-19 employees	84	37.4	50	63.6	21.1	45.6	30.5
20-99	11	18.6	16.6	19.1	15.5	17.6	16.7
100-499	4.2	15.1	12.2	10.3	16.4	12.9	12.9
500+	0.8	28.9	21.2	7	47	23.9	39.9
United States 1984-1988 (manufacturing)							
Total	100	100	100	100	100	100	100
1-19 employees	14.5	5	6.7	20.1	6	9.6	3.6
20-99	43.5	24.9	28.2	37.7	23.5	27.2	19
100-499	30.7	38.6	37.2	30.9	36.7	35.2	37.3
500+	11.2	31.4	27.8	11.4	33.8	28	40.1

Source: OECD Employment Outlook 1994.

Table 1.6 Size distribution of value added in manufacturing

		Employment size class			
	Year	1-19	20-99	100-499	500+
Percentages					
United States	1993	4.6	10.0	13.6	71.9
Canada	1994	4.5	20.1	39.0	36.3
Japan	1994	12.1	23.2	29.3	35.4
Korea	1994	10.3	21.9	14.2	53.5
Australia	1994	15.3	25.0	36.2	23.5
Austria	1993	4.1	23.8	23.0	49.1
Finland	1992	7.9	14.7	45.3	32.0
Germany	1993	15.4	19.4	10.0	55.1
Greece	1992	12.0	29.9	35.4	22.6
Hungary	1994	5.4	15.3	25.2	54.1
Italy	1992	27.2	25.7	22.2	24.9
Netherlands	1993	6.9	24.8	27.9	40.4
Portugal	1994	12.6	23.9	26.4	37.1
Sweden	1993	-	-	-	-
Czech Republic	1995	12.3	9.4	22.9	55.5
Turkey	1992	1.7	11.0	32.1	55.2
United Kingdom	1994	9.5	16.6	28.0	45.9

Note: see note to Table 1.1.

Source: OECD, Database on SME statistics; Eurostat (1996), *Enterprises in Europe*.

SECTION 2

FINANCING SMALL AND MEDIUM-SIZED ENTERPRISES

Key differences in financing smaller and larger enterprises

The variance of both profitability and growth decreases with firm size. The second key source of divergence is that smaller enterprises have a lower probability of survival than larger enterprises. In a normally functioning financial market, some of these differences should be reflected in higher interest rates or less favourable terms of debt financing. This general observation, as well as the following points, should be taken into account in the design of policy responses to the needs of SMEs:

- Financial institutions assess smaller and medium enterprises as being inherently more risky.
- Larger firms usually comply with higher disclosure requirements to a greater extent than SMEs because of their access to a broad range of external funds (including bonds, equity and loans). Financial institutions charge higher interest rates to SMEs than to bigger companies in order to compensate for the higher costs of information collection, the smaller volume of external financing and the greater risk of failure.
- For many existing SMEs “insiders” (the entrepreneur, management) have better information about the expected profits of activities than external financial institutions. This lack of information leads to higher market rates to compensate for risk which may crowd out low-risk, low-return borrowers, leaving a relatively higher number of high risk/return borrowers in the market. Charging higher interest rates may therefore not be in the interest of banks as low-risk borrowers -- those most likely to repay loans -- are driven from the market.
- In the case of new enterprises or activities, outsiders (experienced bankers or other specialised financial intermediaries) can, in many cases, better assess the risks involved than relatively inexperienced “insiders”. A specific disadvantage of young firms is that they cannot point to credit histories which provide important signals and help facilitate access to debt financing.
- Lending to SMEs is more likely to be based on collateral than is the case for loans to larger firms. This may lead to situations in which lending is not based on expected return but rather upon access to collateral. On the other hand, collateral reduces or eliminates contract problems such as “moral hazard” and “adverse selection”. Many SMEs lacking access to “good collateral” suffer from credit rationing.

Types of financing for existing and for new SMEs

Funding methods for SMEs include: overdrafts; retained earnings; factoring; leasing; private equity; external equity; bank loans. Wide variations exist among OECD countries in the use of funding methods. For example, German SMEs are more likely to have recourse to loan facilities, rather than to overdrafts; loans in foreign exchange are characteristic of Danish, Italian and Portuguese SMEs but almost totally absent in other EU countries; more than half of US SMEs are using credit in the form of a credit line from a bank or capital lease; in Japan, more than 60 per cent of all bank loans are to SMEs.

It is important to make a distinction between the financing of new businesses and existing SMEs. For example, the most important source of funding of business start-ups in the United Kingdom is personal savings, while around one-third of start-up businesses borrow from banks. Broadly similar findings are reported for Australia.

In addition, it is important to make a distinction between firms which grow rapidly, and slower growing or zero-growth firms. Rapidly growing businesses make a key contribution to employment growth. However, fast growing businesses are usually perceived by financial institutions as more risky than the “typical” SME. Rapidly growing SMEs are likely to access or consider assessing a considerably greater diversity of funding sources than slower growing or stagnant businesses. The mix of funding sources normally changes with each stage of growth. In the initial stage of development, profit retention is a major source of finance with a heavy reliance on short-term debt. Further expansion of the business is only possible for firms whose owners are willing to share equity with outsiders. At the same time, several studies indicate that many small business owners are very reluctant to share equity with outside investors.

Few enterprises obtain venture capital at start-up. However, at later stages of development, successful, fast growing firms need to reduce their reliance on retained earnings and obtain higher amounts of private equity from outsiders. The organised private equity market (*i.e.* the professionally managed equity investments in the unregistered securities of private and public companies) has become a very important source of funds for private middle-market firms, firms in financial distress, public firms seeking buy-out financing and, increasingly, for start-up firms.

For example, over the last 15 years, private equity has been the fastest growing market in the United States for corporate finance compared with other markets such as the public equity and bond markets and the market for private placement debt. The organised private equity market has grown since 1980 from roughly US\$4.7 billion to some US\$100 billion: non-venture capital outstanding has grown from less than US\$2 billion to nearly US\$70 billion, while venture capital outstanding has increased ten-fold in the last 15 years from around US\$3 billion to around US\$30 billion. By some estimates, however, the so-called informal private equity market (including so-called “business angel capital”), is several times the size of the organised private equity market.

The expansion of the private equity market has increased the access of both classic start-up companies and established private firms to outside equity capital.

Venture capital

Venture capital is risk finance, usually provided in the form of a long-term equity investment, to fund the start-up, expansion or purchase of private businesses. Venture capital financing is usually provided without collateral or guarantees in the private equity market. In 1994, this industry represented over US\$ 90 billion worldwide and has continued to grow strongly.

The stages of venture capital investing can be classified as follows:

- seed capital for financing the initial concept of the business;
- start-up capital for product development and initial marketing;
- expansion capital for financing the growth and expansion of the company;
- mezzanine capital for preparing the company for a public offering;
- buy-out or buy-in capital for purchasing a firm from its owners.

In many OECD countries, venture capital funds appear to concentrate on the expansion or buy-out stages. The exceptions seems to be the United States and Canada, both of which make available significant funds for the early-stage financing of new ventures.

Venture funds can be classified as follows: i) captive funds that are subsidiaries of industrial corporations or financial institutions; ii) public-sector funds; iii) independent funds. These structural differences determine the sources of finance of the different types of funds: the parent company for captive funds and government institutions for public sector venture funds. The sources of finance of the independent venture funds are more varied: private individuals (including business angels); institutional investors; corporations; government; foreign investors.

The 1980s saw the emergence of institutional investors as the primary source of capital for venture funds. US pension funds provide the bulk of venture capital (47 per cent in 1994). Although institutional investors outside the United States have increased their venture financing activities, they provide less equity financing to start-up companies than those in the United States and Canada. A large part of what is classified as venture capital in Japan and Europe is dedicated to management buy-outs and buy-ins, as opposed to start-ups or traditional funding of expansion.

Efficient exit mechanisms are critical for the development of the venture capital industry. Investors and entrepreneurs need to have exit routes for mature investments. Exit mechanisms include trade sales, private placements, initial public offerings (IPOs), and repurchases (buy-outs and buy-ins). Countries looking to stimulate venture capital often pay insufficient attention to efficient divestments. Trade sales are the main exit route in Western Europe, whereas IPOs tend to be the preferred mechanism in the United States, the United Kingdom, and Japan. Second-tier or parallel markets for IPOs constitute efficient exit vehicles in the United States (NASDAQ) and Japan (JASDAQ). In particular NASDAQ's success spurred many initiatives to launch second-tier markets in other OECD countries.

However, except for Japan, this first generation of second-tier markets has failed. Two main reasons have been put forward for the failure: lack of independent management structure for the second-tier markets; the relative unimportance of institutional investors outside the United States as buyers of smaller-company stock. This initial failure has been blamed for a liquidity crisis: the amount of money being invested in venture capital funds far exceeds the amount of capital being divested. The problem with existing exit vehicles has stimulated the search for new possibilities, notably in Western Europe (EASDAQ, AIM in the United Kingdom, METIM, Nouveau Marché in France, Neue Markt in Germany). Thus far, these latter markets have been more successful than the earlier European experiments. However, it will be important to monitor their development, as well as that of the Japanese JASDAQ, in order to see whether they will become as successful as NASDAQ.

The special case for financing new technology-based firms

Investments of US and Canadian venture capital funds have a high concentration in technology. Although the emphasis in other OECD countries is less pronounced, new technology-based firms may be considered a special case for the financing of smaller businesses more generally. The financing of new technology-based firms may be more problematic because of their complexity and riskiness. In particular, outside the United States, the funding of new technology-based firms seems to pose problems -- there are indications that venture capitalists are investing significantly less in the technology sector. Reasons include risk aversion by investors and lack of expertise to operate complex ventures.

SECTION 3

SMES AND REGULATORY REFORM

The regulatory burden

A review of the regulations that govern the establishment of an enterprise is of particular relevance for creating a favourable regulatory environment and should be at the forefront of the overall economic policy agenda. One of the effects of such regulations is that they appear to discourage the creation of new technology-based firms and innovative start-ups which are important for employment growth, technological change and innovation.¹

Establishing a relationship between regulation and a firm's competitive capacity is particularly arduous in the case of SMEs. Regulatory regimes will have very different impacts from one firm to another. While empirical studies may shed light on the problems of a particular category of SMEs, it will be hard to draw general lessons.

Analysis suggests that, while some regulations may deliberately favour SMEs (many regulations exclude the smallest firms), in general the adverse impact of regulations on SMEs can be particularly harmful. This is because SMEs are less equipped to deal with problems arising from regulations since they have less capacity than larger firms to navigate through the complexities of regulatory and bureaucratic networks. SMEs are more likely to be hampered by regulations because their strength stems from their flexibility. Some regulations designed to prevent entry into the market by dynamic SMEs are particularly detrimental.

Furthermore, due to its "fixed-cost" nature, the cost burden of regulation is larger for small firms than for larger firms: *i.e.* administrative costs entailed in compliance have a disproportionate effect on small firms. In many cases compliance is based on an initial fixed, standard cost for all firms, irrespective of size, followed by a sliding scale, related to increasing size. This means that average compliance costs per employee are much higher for small firms. For instance, in the case of the Netherlands, of the Gld 7 billion spent annually on meeting administrative obligations, companies employing between 0-4 workers were required to pay annual administrative costs of around Gld 4 000 per employee, whereas for companies employing over 500 staff, the equivalent cost per employee was only Gld 200.² Table 3.1, using a different study, confirms the progressive increase of costs for smaller firms.

A major consequence of the asymmetric rise in fixed costs is not only the diversion of scarce financial resources away from productive investment, but also, and equally important, the absorption of management time. Both are critical for SMEs. Investment ability may be compromised if the cost of

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1. OECD (1996), *SMEs: Employment, Innovation and Growth -- The Washington Workshop*, Paris.
 2. OECD (1995), "Reducing the Regulatory Burden on Business in the Netherlands: How Can This be Achieved?", *Best Practice Policies for Small and Medium-sized Enterprises*, Paris.

compliance to regulation deflects an excessive amount of resources, including capital as well as current expenditure. Absorption of management time implies that scarce managerial resources cannot be used for directing the strategy and managing the operations of the enterprise.

Table 3.1 The average costs of administrative burdens per size class, enterprise and employee in the Netherlands, 1993 (in ECU)

Number of employees	Costs per enterprise	Costs per employee
0	2 800	--
1-9	12 100	3 500
10-19	20 500	1 500
20-29	47 100	1 400
50-99	62 000	900
100 or more	171 000	600
All size classes	9 800	

Source: "Administratieve lasten bedrijven 1993" (Administrative Burdens in Enterprises 1993), EIM Small Business Research and Consultancy, 1994, cited in The European Observatory for SMEs (1995), *Third Annual Report*, p. 287.

Finally, the impact of regulation on operational flexibility is likely to have a particularly negative impact on smaller firms. In one survey of the industrial cleaning sector, which is dominated by SMEs and in which "success" is strongly influenced by flexibility, 83 per cent of the companies surveyed linked regulations to the inability to expand their business operations.

Required policy measures

Improving the information available to SMEs

Reducing administrative and regulatory burdens would constitute a major improvement in the business environment for SMEs. The majority of OECD Member countries have implemented measures to achieve this goal by reducing red tape, simplifying administrative procedures, streamlining and/or eliminating regulations, improving the information available to enterprises about administrative obligations, drawing up special rules for those enterprises (usually smaller enterprises) that are most affected by administrative burdens, improving the quality of regulations, etc.

Nevertheless, and despite the fact that the cost and complexity of regulations are recognised as having a particularly adverse impact on SMEs, little data is available regarding regulatory burdens on business categorised by firm size.

Table 3.2 Summary of selected evidence of costs of regulation

What is being measured?	Cost estimates	Source
Administrative costs to firms and citizens		
“Tax operating costs” for firms (administrative and compliance costs of taxation) in the <i>United Kingdom</i>	More than 5 billion pounds sterling/year (1986-87), or 4% of total tax revenue (1.5% of GDP). 58 pounds/employee for firms with 1-5 employees, 11 pounds/employee for firms with over 500 employees.	Sandford, Cedrick (1989) <i>Administrative and Compliance Costs of Taxation</i> , Bath Centre for Fiscal Studies, Fiscal Publications, UK
Costs of paperwork and operational requirements of regulation (excluding capital costs). Clerical cost and time, in firms, due to regulatory requirements.	Two-thirds of firms in US spend an average of \$17 000 per employee on regulatory compliance . US firms with 1-4 workers spend \$2 080 per employee, firms with 500-999 spend \$120 per employee.	Hopkins, Thomas (1995) <i>A Survey of Regulatory Burdens</i> , Report to the US Small Business Administration, June, Washington, DC
Measure of recurrent direct costs of federal government information requirements to small and medium enterprises in <i>Canada</i> .	Businesses with fewer than five employees spend 8% of revenues on federal information requirements; with 5-19 employees, 3.8% with 20-49 employees, 2.4% with 50-99, under 2%	“Federal Information Costs for a Panel of Small and Medium Enterprises”, Final Report by Information Management and Economics, Inc., Toronto, Ontario, December 1995.
Direct compliance costs		
Direct compliance costs to small businesses (less than 20 people), including paperwork, fees, and new equipment purchases, of compliance with five sectors of regulation in Queensland, <i>Australia</i>	Annualised average compliance cost per small business is A\$ 17 094. Road freight transport showed the highest costs.	Australia, State of Queensland (1996) <i>Final Report: Impact of the Cost of Compliance with Government Regulations, Licences, Taxes, and Chargers on Small Businesses in Queensland</i> , prepared for the Department of Tourism, Small Business, and Industry (19 August).

Source: OECD (1997), *Issues and Developments in Public Management: Survey 1996-97*, PUMA, pp. 69-70, Paris.

There is a need for more (and more appropriate) data in order to create a regulatory regime that takes account of the characteristics of SMEs. Such data could enable young and dynamic SMEs to gain a voice in the political arena as regards their specific needs and problems: thereby alleviating the tendency of gearing regulatory reform to the requirements of large firms or to well organised groups of small firms.

Creating an SME environment conducive to R&D

To the extent that costs for R&D, technology generation and meeting associated standards are high or increasing more rapidly than other costs, smaller firms and businesses may, due to inadequate resources, be (increasingly) excluded from R&D and technology development.

This suggests that consideration be given to such issues as: i) ensuring, wherever possible, that compliance procedures associated with R&D and new technologies are not unnecessarily costly, complex, or long; and ii) that competition regulations do not prevent SMEs from achieving economies of scale in R&D through consortia.

Providing broader access to information on regulations

As competition increases, and flexibility and the ability to respond to changing demand and supply conditions become even more crucial, continuous reconfiguration of enterprise resources is an increasingly important component of firm strategy. This calls for access to information, and the requisite resources not only to acquire that information but also to assimilate and act upon it. At the same time, there may be economies of scale in acquiring, assimilating and using information (including information about regulations), thus disavouring smaller business units. Policy implications may include: i) facilitating the availability of information in the public domain of relevance to firm strategies and behaviour, and making sure that no unnecessary regulatory burdens exist which are exacerbated by small size, thus hindering access to such information; ii) where such information is not formalised, ensuring that mechanisms exist to codify and widely distribute it without regulatory hindrance; and iii) ensuring that regulatory procedures do not create needlessly high thresholds to access or use information that is, in principle, widely available and essential for business performance.

SECTION 4

PUBLIC SUPPORT TO SMES

Public support to industry in the OECD area

According to OECD data, public support grew by 25 per cent in nominal terms from 1989 to 1993. Table 4.1 shows that nominal net expenditure rose from US\$37 billion in 1989 to US\$47 billion in 1993. This upward trend should be even more significant when 1992 and 1993 data for certain large support programmes becomes available. These figures underscore that the persisting importance of subsidies as an instrument of structural policy in OECD Member countries was largely outweighed by stronger support in all other areas.

The overall trend masks considerable diversity in spending, however. Support declined in only one-third of participating countries, while it grew in the remaining two-thirds. Regarding policy objectives, regional development almost doubled in the period under review and was the predominant cause of the observed increase in public support. Table 4.1 shows reductions in the areas of sectoral aid, investment incentives and SMEs.

Support programmes for SMEs

One-quarter of all support programmes in OECD countries primarily target SMEs. More than one-third of all programmes included in the database have been designed to at least partly assist SMEs. Of the programmes primarily targeting SMEs, slightly less than 10 per cent were designed exclusively to finance the provision or acquisition of advisory and consultancy services. Other programmes addressed SME financing, offering soft loans and guarantees for start-ups, equipment modernisation and/or R&D and technological innovation. Job creation and training, as well as export promotion, are specified in relatively few programmes. However, several countries dedicated more than 50 per cent of their support programmes to SMEs.

In terms of expenditure, support to SMEs ranked fourth at both the beginning and the end of the period. In terms of Net Cost to Government (NCG), SME support accounted for US\$5.4 billion in 1989 and US\$6.0 billion in 1990, before steadily dropping back to US\$3.7 billion in 1993 (Table 4.2). This sharp decline is mainly the result of the reduction of one important SME programme.

Ten programmes accounted for approximately 50 per cent of the total Net Cost to Government recorded under this policy objective. The average support of the remainder was close to US\$ 6 million in 1993. Only under the policy objective of environmental protection was the average funding by programme at an equally low level. This implies that there is potential for integrating these programmes into a smaller number with a wider scope, facilitating their understanding and implementation by SMEs, and reducing administrative costs for governments.

Table 4.1 Reported expenditures and programmes by policy objective

	Programmes	NCG ³ in current prices; million US dollars				
Policy objective		1989	1990	1991	1992	1993
Sectoral	147	4 449	4 923	5 813	5 194	3 388
% share	10.2	12.1	11.7	12.1	11.1	7.4
Crisis aid	53	1 625	668	875	585	3 188
% share	3.7	4.4	1.6	1.8	1.3	6.9
R&D & tech. innovation	269	6 369	7 864	9 102	9 976	8 677
% share	18.7	17.3	18.7	19.0	21.4	18.9
Regional development	213	8 510	9 803	1 4049	14 863	15 386
% share	14.8	23.1	23.3	29.3	31.8	33.4
Investment	148	2 953	2 805	2 767	2 396	2 594
% share	10.3	8.0	6.7	5.8	5.1	5.6
SMEs	359	5 432	6 031	4 340	4 693	3 750
% share	25.0	14.7	14.4	9.0	10.0	8.1
Export & foreign trade	118	6 883	8 973	9 920.2	7 813.4	7 267.8
% share	8.2	18.7	21.4	20.7	16.7	15.8
Energy efficiency	64	436	620	840	866	1 443
% share	4.5	1.2	1.5	1.8	1.9	3.1
Environment	66	249	338	276	329	333
% share	4.6	0.7	0.8	0.6	0.7	0.7
Total	1 437	36 906	42 025	47 983	46 717	46 028

Note: All programmes are categorised according to their primary objectives.

Compared to the large numbers of SMEs in the OECD area, evidence shows that few SMEs benefited from SME support programmes, and that the expenditure per benefiting company represented only very small amounts.

In addition, the profile of support to SMEs has the following characteristics:

- sub-central levels of government (sub-central, regional and local) administer 52 per cent of SME support programmes, while a further 10 per cent are managed jointly by central and sub-central authorities;
- loans, tax concessions and grants are the principal financing instruments for delivering support to SMEs; and
- concerning the specific economic activities supported by SME programmes, investment costs initially attracted a large share of overall support.

The high number of programmes, and the low level of average funding per programme raises questions regarding administrative costs⁴. Almost 70 per cent of the programmes reported had a duration of five years or more. In fact, the turnover in the stock of SME support programmes was the least

3. NCG measures the Net Cost to Government generated by a support programme.

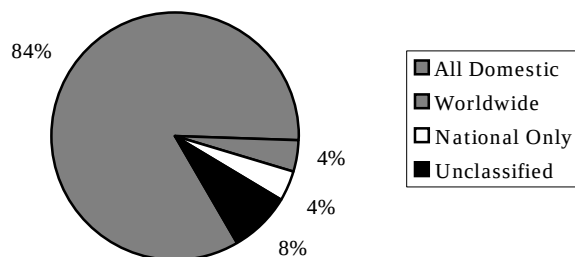
4. Total cost of public support programmes are composed of the Net Cost to Government plus the administrative costs. The latter have not been taken into account in the tables.

dynamic among all policy areas. The relative high stability in the stock of programmes appears problematic with respect to the responsiveness of programmes to changing policy priorities.

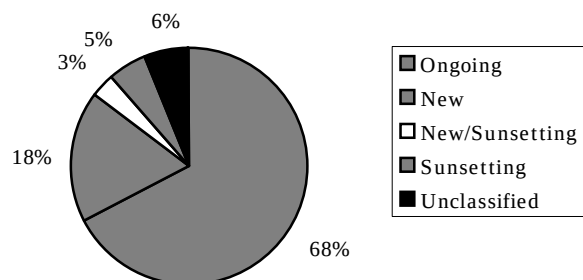
Table 4.2 Support patterns of small and medium-sized enterprises programmes

	Programmes (% Share)	NCG current million \$ (% Share)				
		1989	1990	1991	1992	1993
Total	359	5 426.0	6 019.2	4 325.2	4 674.6	3 734.9
Financing instrument		1989	1990	1991	1992	1993
Grant	99 (27.6%)	397.7 (7.3%)	449.8 (7.5%)	496.6 (11.5%)	1 045.9 (22.4%)	529.5 (14.2%)
Interest rate subsidy	22 (6.1%)	646.3 (11.9%)	475.5 (7.9%)	513.0 (11.9%)	720.9 (15.4%)	423.7 (11.3%)
Loan	155 (43.2%)	665.2 (12.3%)	1 450.8 (24.1%)	1 096.4 (25.3%)	1 061.3 (22.7%)	952.8 (25.5%)
Guarantee	28 (7.8%)	220.4 (4.1%)	244.6 (4.1%)	156.4 (3.6%)	118.3 (2.5%)	161.6 (4.3%)
Equity capital	5 (1.4%)	0.9 (0.0%)	0.8 (0.0%)	1.1 (0.0%)	1.5 (0.0%)	1.2 (0.0%)
Tax concession	20 (5.6%)	3 316.9 (61.1%)	3 172.5 (52.7%)	1 836.0 (42.4%)	1 453.5 (31.1%)	1 317.7 (35.3%)
Mixed	29 (8.1%)	174.0 (3.2%)	220.1 (3.7%)	220.5 (5.1%)	268.3 (5.7%)	344.4 (9.2%)
Unclassified	1 (0.3%)	4.6 (0.1%)	5.1 (0.1%)	5.2 (0.1%)	4.9 (0.1%)	4.0 (0.1%)
Economic activities supported		1989	1990	1991	1992	1993
Production	56 (15.6%)	364.5 (6.7%)	574.7 (9.5%)	359.6 (8.3%)	316.3 (6.8%)	359.8 (9.6%)
Investment	124 (34.5%)	1 870.8 (34.5%)	2 194.2 (36.5%)	1 941.9 (44.9%)	1 817.3 (38.9%)	1 239.5 (33.2%)
Specialised investment	120 (33.4%)	471.3 (8.7%)	557.1 (9.3%)	495.2 (11.4%)	499.3 (10.7%)	558.3 (14.9%)
R&D	15 (4.2%)	20.7 (0.4%)	32.3 (0.5%)	34.3 (0.8%)	552.0 (11.8%)	57.0 (1.5%)
Transportation	0 (0.0%)	0.0 (0.0%)	0.0 (0.0%)	0.0 (0.0%)	0.0 (0.0%)	0.0 (0.0%)
Non-profit institution	20 (5.6%)	115.8 (2.1%)	118.1 (2.0%)	129.1 (3.0%)	157.9 (3.4%)	154.9 (4.1%)
Unclassified	24 (6.7%)	2 583.0 (47.6%)	2 542.9 (42.2%)	1 365.2 (31.6%)	1 331.8 (28.5%)	1 365.4 (36.6%)

SME programmes by national treatment



SME programmes by programme duration



Source: OECD Industrial Support Database, April 1996.

SECTION 5

INNOVATIVE SMES

“Technological progress is not translated into economic benefits and jobs by governments, countries, or sectors, but by innovative firms. Innovative firms are not superior algorithms to maximise production functions, but efficient learning organisations that seize technological and market opportunities creatively in order to expand production frontiers. The single most important finding of recent economic research might be that new evidence from longitudinal microeconomic data reveals that firms that innovate more consistently and rapidly employ more workers, demand higher skills, pay higher wages and offer more stable prospects for their workforce.”⁵

Among innovative firms, SMEs play an important and distinctive role and face specific obstacles. This explains why governments have generally increased the priority attached to SME policies while reconsidering their focus to give greater emphasis to the promotion of innovation and technology diffusion. However, given the variety of factors that determine SMEs’ innovativeness and growth potential, and the heterogeneity of the SME population in terms of technological capabilities and needs (Figure 1), they are confronted with two main issues:

- What is the appropriate balance between action on framework conditions and more focused government support to innovation and technology diffusion?
- What is the appropriate technology and innovation policy mix between general measures addressing generic problems related to smallness or newness and more targeted approaches better suited to the specific requirements of particular types of SMEs, such as new technology-based firms?

The role of small innovative firms in a knowledge-based economy

To quantify the importance of small innovative firms, including new technology-based firms, Figure 2 provides first approximations based on average figures derived from selected national and international statistics and studies:⁶

- Between 30 and 60 per cent of all SMEs can be characterised as innovative, but only a relatively small share, approximately 10 per cent, is technology-based.
- Based on average start-up rates (between 5 and 20 per cent per year) and an average survival distribution of new firms, a simple model of enterprise demography predicts that between

5. OECD (1996), *Technology, Productivity and Job Creation*, Paris.

6. OECD, (1997), “Interim Report on Technology, Productivity and Job Creation -- Towards Best Policy Practice” submitted to the May 1997 Council at Ministerial Level.

10 and 30 per cent of all SMEs could be categorised as new firms, where *new* is defined as less than five years old.

- Assuming that these ratios are also valid for *new* SMEs, new technology-based firms would account for between 1 and 3 percent of all firms. For example, the US Office of Science and Technology estimates that there are 75 000 small high-tech firms in the United States (*i.e.* around 2 per cent of the total population of firms) with about 1.75-2 million direct employees.

Small firms and large companies play somewhat different roles in innovation. SMEs are generally more market- and less research-driven, quicker to respond to new opportunities and more oriented to small incremental advances. Overall their contribution to R&D or broadly based innovation and to high-technology employment is very significant (in 1991, in the United States, small firms produced 55 per cent of innovations and provided 25 per cent of the jobs in high-technology industries).

Among small innovative firms, technology-oriented business start-ups are a unique source of diversity and flexibility and ensure the long-term performance of innovation systems. They play a vital role in pioneering and developing new markets and providing product diversity and innovation in fragmented existing markets, characterised by risk/reward ratios which are dissuasive to large firms. Their principal function is to “probe, explore and sometimes develop the production and consumption frontiers in search of unrecognised or otherwise ignored opportunities for economic growth and job creation” (US Academy of Engineering, 1996).

Technology diffusion policy in transition

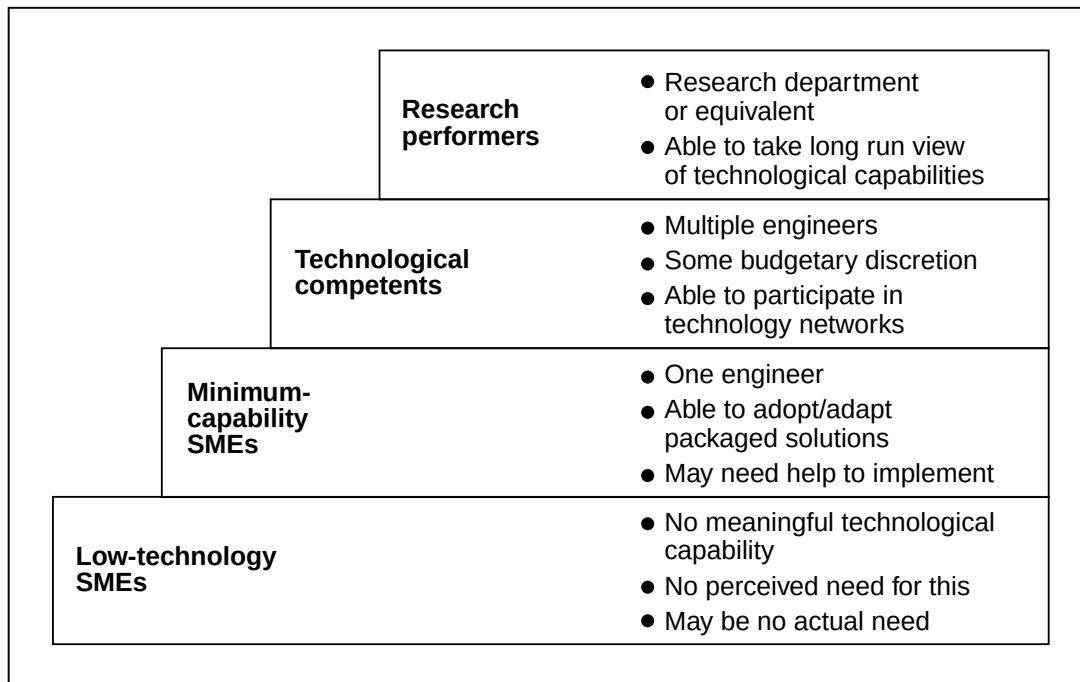
OECD governments maintain a variety of technology diffusion initiatives to aid SMEs in identifying, absorbing and implementing technology and know-how. Programmes to diffuse technology are intended largely to address market and systemic failures. Firms may lack information about technologies or face disadvantages due to scale requirements or high learning costs, resulting in underinvestment in new technology. At the system level, failures may arise from weaknesses in linkages and interactions among different actors in national innovation systems. In addition, part of the rationale for public support to technology diffusion lies in maximising returns from public investment in R&D and technology development programmes. Other economic goals such as competitiveness, regional economic development and job creation are also reasons underlying government initiatives to disseminate technology.

Recent years have seen a gradual shift from traditional supply-side diffusion measures toward policies that reflect a more interactive model of innovation and recognise innovation and diffusion as interdependent processes. The growing realisation that the impact of technological development on productivity, growth and job creation greatly depends on the receptiveness and innovation capacity of SMEs has prompted changes in technology diffusion policies. These were traditionally aimed at facilitating technology transfer from research institutions or equipment suppliers to users (Level 1 goal in Table 5.1). They now seek to go beyond solving the immediate technical problems of firms to stimulating them to develop and implement a more strategic upgrade (Levels 2 and 3 goal in Table 5.1).

Building the innovation capacity of SMEs: policy rationale and new approaches

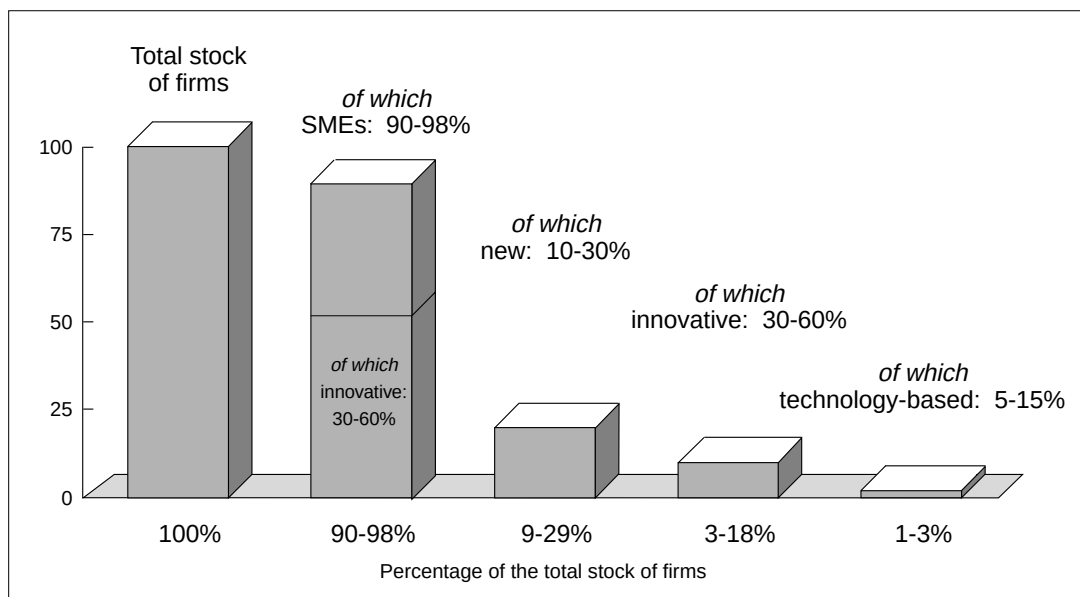
The weak technology receptiveness and innovation capacity of firms often constitutes one of the most important bottlenecks in the diffusion process and results from barriers to firms' rational behaviour, and associated market imperfections, namely:

Figure 5.1 Company types



Source: Arnold, E. and Thuriaux, B. (1997), "Supporting Companies' Technological Capabilities", Technopolis report to the OECD.

Figure 5.2 Share of new technology-based firms¹



1. All figures are orders of magnitude which may vary considerably between countries and years. They roughly correspond to a definition of SMEs as establishments/enterprises with less than 500 employees.

Source: OECD, Eurostat, *Enterprises in Europe*.

- The “low capability trap”, which means that until a firm has learnt something it cannot properly specify what it needs to learn. More generally, despite market pressures SMEs tend to overestimate their capability relative to competitors’ best practices .
- Organisational inadequacies which prevent the rational exploitation and matching of new technological and market opportunities; and/or deficiencies in business skills preventing a sound self-diagnosis of needs and reducing the perceived value of organisational change and external (e.g. consulting) market services.
- Inadequate availability of information on technological and market opportunities, the business infrastructure, and/or business services.

Table 5.1 Typology of technology diffusion programmes

Goal	Programme types	Objectives
Level 1: Improve the adoption and adaptation of specific technologies	Technology, institution, or sector-specific	To diffuse a specific technology to a wide number of firms and sectors, to promote technology transfer from specific institutions, or to diffuse technology to a particular industrial sector
	Demonstration	
Level 2: Improve the general technology receptor capacity of firms	Technical assistance	To assist firms in diagnosing technology needs and in problem solving
	Information networks	
	Assistance for small-scale R&D projects	
Level 3: Build the innovation capacity of firms	Diagnostic tools	Assist firms to develop innovation-oriented management (includes organisational change)
	Benchmarking	Transmit best practice from elsewhere
	Sector-wide technology road map	Systematic planning for future strategic technology investments
	University-industry collaboration	Upgrade the knowledge base of the firm

Source: OECD/GD(97)60.

Promoting new technology-based firms

Realising the potential contribution of new technology-based firms to economic growth and job creation depends on the existence of business opportunities, an entrepreneurial culture, a supportive business and technical infrastructure, and availability of and access to key resources.

In addition to facilitating access to technology and know how and ensuring appropriate conditions for business start-ups in general (e.g. simplification of administrative and legal procedures), governments need to address the combined impact of a number of factors on opportunities for the

creation, survival and growth of small technology-based firms. These factors fall within different realms of government policy:

- New technology-based firms already have to cope with an exceptional level of technical and commercial risks and may consequently be more vulnerable than other firms to the additional uncertainties that government action may create in their tax, regulatory or macroeconomic environment.
- The rewards expected by entrepreneurs and their financiers should be proportionate to the risks they take. Framework conditions should not impact unfavourably on the risk/reward ratio (e.g. tax systems which discriminate against capital gains, high interest rates) but rather should aim to provide mechanisms for rewarding investment in new technology-based firms.
- Flexibility in seizing market opportunities and developing innovative responses is a characteristic of successful new technology-based firms which rests primarily on their individual managerial and organisational skills but depends also on external factors, such as the mobility of human resources and the good functioning of markets for specialised services.
- In many activities technology-based firms do not themselves create new knowledge through formal R&D activities, but rather test on the market new ways of combining existing technical solutions. Spin-offs of technology, personnel and business opportunities from large firms' R&D efforts are important in this respect and they must be accounted for when assessing government financial support to private R&D. The more diversified the research portfolio of universities and other non-business organisations, the better the springboard it represents for small firms in a wide spectrum of activities.

SECTION 6

HIGH-GROWTH SMES

Introduction

Analysis suggests that a small group of high-growth small and medium-sized enterprises (HGSMEs) make important contributions to job creation and productivity growth. In particular, it has been shown that both job creation and job destruction tend to be concentrated: a significant part of gross job creation is in a comparatively small number of very rapidly expanding firms and a large part of gross job destruction is in a relatively small number of rapidly contracting or exiting firms. However, the role of, and factors influencing, growing firms is not fully understood. A more complete understanding of high-growth firms may lead to adjustments in government policies to enhance their unique contributions to economic growth.

Results of selected country studies

Canada

In Canada, there has been a series of three studies on SMEs conducted by Statistics Canada on the causes of firm dynamics:

- The first study, “Strategies for Success” (Baldwin *et al.*, 1994), provides an overview of the strategies and activities of a group of 2 000 typically “established” SMEs experiencing rapid growth between 1984 and 1988. It focuses on the differences between the faster and slower growing firms in the sample and finds that innovation is the key to success. However, the research also shows that business performance depends primarily on the insight and energy of the entrepreneur and that financial management provides a core capability of a firm. The study also reported on other areas in which the practices of these growing firms differ from those of less successful ones: the importance given to the quality of labour skills; the significant amount of business conducted outside their regions; and the use of networking for learning and assistance.
- The second study, “Successful Entrants: Creating the Capacity for Survival and Growth” (Baldwin *et al.*, 1997), looks at a group of new firms. In general, it was found that the faster growing successful entrants outperform in every area -- innovation and the search for improvement being the key factors. Moreover, these faster growing firms also reach more often beyond the bounds of their established market.

- The third study, “Failing Concerns: Business Bankruptcy in Canada” (Baldwin *et al.*, 1997), investigates the characteristics associated with failure. The major findings of this study are that internal and external factors are equally responsible for firm failure. Internal factors are more important among firms that are less than five years old. Major internal deficiencies, particularly in these younger firms, fall into the area of management capabilities.

United States

- For the 1991-95 period, it was found that 3 per cent of new firms i) start with at least US\$100 000 in first year sales; and ii) generate at least 20 per cent annual sales growth. Gross job creation tends to be concentrated among such high-growth firms or “gazelles” (Birch, *et al.*, 1996) that are found in all economic sectors, accounting for 6 per cent of start-ups in manufacturing, 3.4 per cent in trade (wholesale and retail), 2.4 per cent in finance, insurance and real estate (FIRE); 2.1 per cent in services; and 3.5 per cent in other (agriculture, mining, construction, and transportation, communications and utilities). Smaller firms, including high-growth firms, are a major source of job growth in all of the nine major regions of the United States.
- In an analysis of all sectors of the US economy before 1976-88, it was found that 31 000, or 4 per cent, of the 814 000 firms created in 1977-78 were responsible for 74 per cent of the gross employment growth of the entire cohort by 1984 (Kirchhoff, 1994, p. 187). After eliminating those firms that recorded “unbelievable growth”, firms with growth rates in excess of 300 per cent (an average of 50 per cent per year over six years) were considered high-growth (Kirchhoff, 1994, p. 178-179).
- Analysis was carried out using data provided by representative samples of new firms 1-6 years old in all economic sectors from Minnesota (1985 sample), Pennsylvania (1994 sample), and Wisconsin (1993 sample). About 8 per cent of these firms had both growth and initial annual sales above the median (high-growth, high-start). They were responsible for 15 per cent of the jobs, 27 per cent of the sales and 40 per cent of the out-of state exports of the cohort (Reynolds and White, in press). The top 2 per cent of the firms from the Minnesota and Pennsylvania samples with at least two years of sales accounted for 10 per cent of the jobs created in the cohort (Reynolds, 1993).

Given this diverse and incomplete assessment of firm growth, its relationship to age, and its contribution to overall economic growth, there is clearly a strong justification for a more careful assessment.

France

This case study uses the database of the Ministry of Industry and examines the complete set of 23 000 manufacturing firms with more than 20 employees in 1994.

- The first analysis shows that half the enterprises were permanent throughout the period between 1985 and 1994. These permanent enterprises lost jobs equivalent to 10 per cent of their aggregate workforce, but these job losses stemmed solely from very large firms with over 2 000 employees. This confirms the observation of concentration of job losses in a

small number of firms. No analysis has yet been conducted concerning job creation but a similar pattern of concentration is likely.

Europe's 500

Comparisons across European countries have been carried out in an extensive analysis sponsored by the European Commission. The study shows that during 1989 and 1984, a period of recession, 500 of Europe's most dynamic entrepreneurs increased employment levels in their companies by almost 160 per cent. The report focuses on these entrepreneurs and explains how they managed to create jobs during a period of rising unemployment across Europe:

- These dynamic entrepreneurs are typically male, aged 40-50, generally have a university degree, consider themselves to be “trained professionals”, and rate themselves most highly on skills typically associated with general management. They are typically “team starters”, but at the same time they own a majority of the company's shares and seek to maintain its independence.
- Dynamic entrepreneurs are found in all the European countries and in all major sectors, but there is an above-average representation in the service sector. The majority of the entrepreneurs selected for *Europe's 500* have pursued well-defined strategies to achieve rapid rates of growth. Their strategies are proactive and outward-looking, based on product differentiation rather than low cost. Quality is their watchword throughout their organisations and in the products and services they offer. They like to be financially self-reliant to the greatest possible extent, but say that people are the key to their success. They devote enormous energy to creating and then maintaining a highly motivated and well-qualified staff.

A tentative summary of the characteristics and strategies of high-growth firms

From the above-mentioned US and Canadian studies and *Europe's 500*, a number of features emerge which appear to characterise HGSMEs:

- *Innovation* and attention to *human resources* are most strongly related to growth. Regardless of sectors, innovators grow faster than no-innovators. At the earlier stages management capabilities are crucial to survival. As the firm matures, human resource and innovation strategies increase in importance. By the time the firm has reached an established stage, its management and human resource capabilities are typically quite developed, and growth is more closely associated with innovation.
- Faster-growing successful entrants are almost twice as likely to *innovate* as slow-growing firms. Similarly, fast-growth firms place more emphasis on strategies relating to enhancing, updating or expanding their *product line*, and improving production. Successful fast growing entrants are those that translate their strategic emphases into action by undertaking *R&D, innovation and training*.
- Successful fast-growing firms place greater emphasis on hiring *skilled employees* and motivating their employees.

- *Balance* -- an emphasis on striving to enhance their capabilities in all areas -- is a consistent theme among faster-growing firms. Nevertheless, balance appears to be more important to growth in the high-knowledge sectors than in the low-knowledge sectors.

Main barriers to HGSMEs and policy implications

- *Market failures in capital markets* can make it more difficult to obtain financing than is justified by the potential of start-up and small firms. As mentioned above, faster-growing successful entrants tend to be more innovative than slower ones. However, given the risk of knowledge investments, firms will undertake sub-optimal amounts of this type of investment, both because they cannot be guaranteed to reap the rewards and because they cannot get financing for it.
- *Government regulations* and policies are seen by the entrepreneurs of the fastest growing firms as the main obstacles to the development of their businesses. Entrepreneurs rate bureaucracy, social security contributions, company taxes, personal income taxes, fiscal policy and labour law, in that order, as representing the governmental interference with the most negative impact. In general, entrepreneurs indicate that *indirect labour costs* are a barrier to growth.
- *Access to foreign markets* is also considered to be difficult for small businesses. Exchange rate fluctuations, identifying and prospecting markets, different technical standards, discriminatory public contract award procedures and bureaucracy all represent barriers to international trade and globalisation.
- *Access to existing technologies* should not be hampered by lack of information, insufficient bargaining power of SMEs or abuse of dominant positions by large firms.
- Difficulties in *recruiting qualified staff and skilled workers* are also considered a major barrier to the fast growth of small business.

On a preliminary basis what can be said about the role of government? The broad findings of these studies tend to indicate that the role of government should be oriented towards ensuring a supportive business environment for SME growth. The results also show that, although new and small hi-tech firms have a potential to grow fast, they are far from being the only group of successful high-growth entrants. Therefore, governments should have a broad scope for action and should look for ways to promote knowledge investments in order to overcome the underinvestment problems faced by SMEs in general. Governments can help by focusing on the timely provision of vitally needed information, knowledge and expertise, in particular with regard to access to foreign markets, access to technology, skill building and in encouraging the creation and support of business networks.

SECTION 7

WOMEN-OWNED SMES

Women-owned SMEs are growing at a faster rate than the economy as a whole in several OECD countries. The potential of women-owned SMEs for job and wealth creation, as well as innovation, is increasingly focusing the attention of policy makers on this sector and was recently the subject of the “OECD Conference on Women Entrepreneurs in SMEs” held on 16-18 April 1997. While data and statistics on this phenomenon are not available in all Member countries, the following information appears to indicate the importance of this trend throughout the G7 countries:

- In the United States, in the last several years, the number of firms created and managed by women has grown twice as fast as those set up and managed by men. Recent statistics indicate that approximately 8 million businesses are owned and managed by women in the United States. According to the same source, one out of four private sector jobs in the United States is provided by firms headed by a woman. Three out of four female-owned companies stay in business longer than three years, compared to only two out of three male-owned companies.
- According to the Japan Small Business Research Institute (JSBRI), 23.3 per cent of private Japanese firms are set up by women (2.56 million of 11 million).
- In Germany, women in the new German *Länder* have been responsible for the creation of one-third of new firms since 1990, representing 1 million jobs and US\$15 billion in turnover per year.
- In France and the United Kingdom, one out of four firms is headed by a woman.
- In Canada, women own and/or operate 30.3 per cent of all firms, and the number of women-led firms is increasing at twice the national average.

This trend is also evident in other OECD countries: in Australia, one-third of existing firms are now owned and managed by women, while in the Netherlands and Denmark, one-third of new enterprises are held and managed by women.

The need to improve economic performance and social well-being today calls for a closer look at the contributions and needs of women-owned SMEs and for the implementation of commensurate structural reforms. This is true for a number of reasons: facilitating the development of women-owned SMEs allows societies to capitalise on the skills of educated and trained women who may be blocked in corporate advancement because of the “glass ceiling”; the increased flexibility inherent in owning one’s own business allows women to contribute to the income of their families while balancing their work and

family responsibilities, thus enhancing social cohesion; lastly, the resulting economic independence reduces disparities between men and women, thus leading to a more active and representative role by women in the economic and political life of their countries.

Issues

While the numbers provided above indicate the growing importance of this sector, the economic potential of women entrepreneurs remains partly untapped. Research indicates some unique characteristics of, and barriers to, women-owned businesses. Although these characteristics are tentative and further research is needed, they must be taken into account when addressing how women entrepreneurs can best realise their potential:

- Women tend to establish enterprises in sectors and under legal structures which are different from those chosen by men. In the United States, men represent 75 per cent of independent businesses whereas women represent 70 per cent of family businesses. In all OECD countries, a great majority of businesses run by women are in the wholesale and service sectors. Estimates from a poll of 17 000 women in several European countries (with the exception of Spain and Portugal) show that nearly 5 million women work independently. Almost 46 per cent of these women are in retail, 12 per cent in the beauty and skin care business, 10 per cent in professional services (doctors, lawyers, etc.), 9 per cent in crafts and only 1 per cent in the manufacturing sector.
- In some countries, female businesses seem to have a higher rate of failure than male businesses. This phenomenon seems to be related more to the type of business chosen than inadequate management but may also reflect barriers to their operations. In other countries, the opposite is true, which has been argued to be associated with the more risk-averse attitudes of women entrepreneurs.
- Access to capital is one of the principle barriers encountered by women entrepreneurs. Women tend to be risk-averse and borrow less capital than men, raising their average cost of loans.
- Women are less likely to seek counselling and expert advice in starting up and developing their businesses. This is due in part to their unawareness of the existence of these services, and because women's enterprises (due to their size and sector) are often not targeted by SME experts.
- Women often lack networks which would allow them to facilitate business development, know-how concerning corporate and public sector procurement, and mastery of technologies that would enable them to penetrate new markets.
- In certain countries, women co-entrepreneurs who are part of a family business do not always receive retirement benefits that take their contribution to the enterprise into consideration. Spouse-partners also face the added problem of obtaining social security coverage.
- In the 1990s there has been a tendency towards the development of support services for women entrepreneurs. This seems to be more prevalent at the regional than the national

level. National programmes tend to be more motivated by concern for equal opportunity than in encouraging female entrepreneurship.

Policy implications and recommendations

A broad set of recommendations emerged from the “OECD Conference on Women Entrepreneurs in SMEs” for actions to be taken by government, business and financial institutions. Among these are:

- The knowledge of women's entrepreneurship should be deepened with a view to increasing the overall effectiveness of SME policy. In this context, the OECD should play a leadership role, and in particular encourage and facilitate the collection and standardisation of statistics and data on SMEs, including women-owned SMEs, on a worldwide basis.
- Best practices in the financing of women entrepreneurs should be identified, with particular attention to the role played by “business angels”, equity or quasi-equity formation (including tax-driven mechanisms), guarantee programmes, women's loan funds, micro-business financing programmes, and training and counselling programmes linked to financing.
- OECD Member countries should be encouraged to define the mix of private and government actions required to improve access to capital for women entrepreneurs. Research should analyse the nature and value of “intellectual capital” so as to provide financial institutions with new elements to consider in evaluating credit risk.
- International networks of existing national women entrepreneurs' associations should be encouraged and strengthened in partnership with government and corporations.
- Technology use should be promoted to improve competitiveness and networking. Education and training in technology and business skills should be provided to women business owners in centres, educational institutions and, through technology, in the home.

SECTION 8

THE REGIONAL DIMENSION OF ENTREPRENEURSHIP

Entrepreneurship has several regional or territorial dimensions that are relevant for policy analysis and development. Entrepreneurship is often dependent on its territorial context: entrepreneurial activity often varies markedly across sub-national regions with some regions having much higher rates of entrepreneurial activity than others (see Table 8.1), and with certain types of activity often being clustered together. For example, the so-called “third Italy” has firm creation rates which are much higher than in the southern Italian regions.

Table 8.1 Firm birth rates and variations within countries at the regional level¹

	Annual firm births at the regional level (per 10 000 persons)			
	Regional variations			
	National average	Min	Max	Min/Max
All sectors				
France (1981-91)	118	67	264	3.9
Germany (1986-89)	55	41	90	2.2
Italy	144	74	202	2.7
Sweden ² (1985-89)	88	56	149	2.7
United Kingdom (1980-90)	72	42	107	2.5
United States (1986-88)	33	18	74	4.1
Manufacturing only				
Germany (1986-89)	6.8	4.5	12.0	2.7
Ireland ³ (1980-90)	22.3	10.7	42.7	4.0
Italy	26.8	12.7	51.0	4.0
Japan (1985)	6.7	4.1	12.7	3.1
Sweden (1985-89)	10.3	4.4	28.7	6.5
United Kingdom ³ (1980-90)	27.5	10.0	59.5	6.0
United States ³ (1986-88)	16.8	2.4	114.0	47.5

1. There is definitional variation across the countries due to differences in the methods used to measure firm births. As a result, cross-national comparisons of the average values are not appropriate.

2. Population 16-64 used as denominator, rather than size of workforce.

3. Manufacturing workers used as denominators.

Source: OECD (1993), “Regional Characteristics Affecting Small Business Formation”, ILE Notebooks No. 18, Paris.

Clusters

Silicon Valley in California is currently the most prominent cluster of computer-related entrepreneurial firms. Clustering produces several types of benefits: firm concentration creates a larger

market for specialised labour and for intermediate inputs; and there can be “informational spill-overs” owing to the increased intensity of communication facilitated by the geographical concentration of producers. Clustering can be of particular benefit to smaller firms who, because of their size, often cannot provide specialised training or maintain in-house services such as R&D or marketing.

According to one view, clusters develop naturally, based on the intrinsic advantages such as natural resources (e.g. mines, port facilities) found in a particular region. For example, firms in the steel industry are often established close to energy supplies and good transportation networks. Others argue that the process of clustering is marked by historical “accidents”. An invention or technological development is exploited by an enterprising individual and leads to persistent centres of production,⁷ particularly in industries which are “rootless”, that is, industries which are not dependent on fixed natural resources (e.g. light manufacturing). For example, Silicon Valley owes its start to the Vice-President of Stanford University who established the famous research park on university land, leading later to the creation of many dynamic new firms. These two views are not mutually exclusive and a combination of both *a priori* regional advantages provided by the presence of natural resources and historical accident are responsible for the creation of many clusters. Both views agree that clusters generate cumulative benefits that can progressively increase the cluster’s competitive edge.

A number of intangible factors at the regional level such as culture, social capital and local networking influence enterprise development. Much of the literature on clusters cites the importance of the social environment and of social cohesion within the network of firms, enabling the maintenance of a high level of wages even in sectors dominated by developing countries which benefit from cheap labour. This is the case, for example, in the textiles sector in Denmark and the shoe industry in Italy.

While clusters of enterprises can be stable over long periods of time, it would appear that these cumulative advantages are not altogether decisive, and the position of an entrenched cluster can be successfully challenged. Examples of this abound: steel in Europe and the United States, certain types of computer chip-making in the United States and Japan, automakers in the United States, cameras in Germany, textiles in many industrial countries. Therefore, as production becomes standardised over time, localisation of an industry can fade away. There appears to be a kind of product cycle in which emergent new industries initially flourish in localised industrial districts, then disperse as they mature. As clusters of enterprises mature and disperse, the regions in which they are situated may suffer an economic shock as firms down-size or close, causing high social costs from which it is difficult to recover.

Regional policies

Traditional regional development policies introduced to assist regions suffering from a declining industry have often been guided by a development model which promoted large investments in infrastructure or in social assistance. Another relatively common regional development policy has been to attract firms from other regions or countries to establish themselves in the disadvantaged region by offering subsidies of various kinds. More recently, entrepreneurial policies have been introduced which concentrate on improving the labour pool and intermediate inputs. For example, training policies have been introduced in several countries to encourage employee training, many of them targeted at small firms. Recognising that much of the training undertaken is informal, the Australian government has sought to encourage more training by creating an accreditation scheme for skills obtained on-the-job⁸.

7. Krugman, P. (1991), *Geography and Trade*, MIT Press, MA.

8. Colardyn, D. (1996), *La gestion des compétences*, PUF.

Policies have also tried to improve the supply of information and advice sought by smaller firms. For example, the US government has created a nation-wide network of locally managed manufacturing extension centres dedicated to helping smaller manufacturers improve their competitiveness by adopting modern technologies⁹.

Entrepreneurial policies are also being introduced by local authorities who have begun to play an increasingly important role in regional development since the 1980s. In their view, a self-sustaining entrepreneurial pole can be created in disadvantaged regions. The objective of these policies is to create the conditions which generate the cumulative benefits leading to economic growth. A number of policies concentrate on developing the “technological spill-overs” that come from close proximity. For example, prompted by the high-tech success of clusters such as Silicon Valley in California and Boston’s Route 128, geographically targeted technology programmes have been introduced in order to create similar clusters. Some communities have created research parks in which new firms and/or the R&D departments of large companies carry on research in close co-operation with a university or public research facility. Others have created high-tech incubators which provide new high-tech firms with an optimum chance of survival. Science parks have also been created to encourage existing high-tech firms to relocate by offering them attracting surroundings and close proximity to research facilities.

The regional dimension to entrepreneurship is not limited to clusters of enterprises but also includes micro-enterprises and small firms and their role in indigenous development. These firms contribute to economic, employment and social development as well as to the socio-cultural development of a region, especially when they are created in disadvantaged areas. Programmes to assist the creation and development of micro-enterprises in inner cities and remote rural areas have become widespread policy tools in OECD countries due to their important economic impact on the general business climate and their potential to act as a catalyst for further growth.

Evidence is emerging that the formulation and delivery of policies to promote the start-up and growth of small businesses can be most effectively delivered with the input of local authorities who are more aware of and sensitive to local conditions and needs. For example, regional and local programmes can provide debt financing to small enterprises more effectively than national schemes. It is argued that loans delivered by regional credit co-operatives have a lower loan default rate than the loans of government programmes or banks because the co-op is better able to assess the credit risk of the loan proposal. Co-ops, being linked to trade associations, benefit from local industry experts who provide consulting advice as well as loan monitoring. Perhaps even more importantly, because the loan applicant is known personally to the loan reviewer and, indeed, the other members of the co-op, this creates a very strong social pressure on the loan recipient to fulfil his loan obligations.¹⁰

Governments wishing to adopt the policies of other regions or countries should take the regional context into account. A policy which is effective in one country or region may not perform well elsewhere. Certain regional features, such as population density, influence the effectiveness of entrepreneurial policy. Policies to improve labour-force skills can be effective in urban regions or in intermediate regions, but have little impact in rural areas where take-up rates are low. Conversely, policies which seek to create new firms may be more effective in rural areas than in urban or intermediate regions due to lower dead-weight and displacement effects.

9. Shapira, P., D. Roessner and R. Barke (1995), “New Public Infrastructures for Small Firms Industrial Modernization in the USA”, in *Entrepreneurship and Regional Development*, pp. 63-85.

10. Brusco, S. and E. Righi (1989), “Local Government, Industrial Policy and Social Consensus: The Case of Moden Italy”, in *Economy and Society*, Vol. 18, No. 4, November, pp. 405-423.

SECTION 9

BEST PRACTICE POLICIES FOR SMEs

As a conclusion, this section presents some of the lessons learned from policies implemented in the following five areas:

- financing;
- Business environment;
- Technology;
- Management capabilities; and
- Access to markets.

Financing

Role of government in financing SMEs

The main role of the public sector in supporting venture capital and other types of risk financing should be to reduce the risk and cost of private equity finance. The government should complement and encourage the development of the private-capital industry, including enhancing the skills of the people involved in undertaking this task. A danger is that “excessive” public interference (including spending) will crowd out or retard the development of private financial intermediation. In particular, the efficacy of financial government-induced incentives is the subject of heated debate. Advocates of financial incentives by government argue that investors are attracted to relatively risky projects which would not otherwise have been undertaken. Critics claim that government incentives attract unsuitable players into the private equity market, who display poor performance and give a bad image to the whole industry.

Direct government measures and policies to encourage and support the provision of risk capital include: development banks; loan guarantee schemes; fiscal incentives; regulations regarding the treatment of innovations; rules regulating investment by insurance companies and pension funds in equity classes; taxation and regulation of stock options; the provision of loans at preferential rates; and the direct provision of risk capital for particular classes of investment as a catalyst for private financing. Indirect measures (structural and supportive policies) include market support and regulation; training; communication; support for R&D; and privatisation.

Obstacles to providing bank credit to SMEs

“Conventional” bankers are generally less well equipped than venture capitalists to address the specific issues and risks inherent in financing the seed and start-up stages of enterprises. Banks' credit

assessments are based on track record, projections of future cash flows and collateral. Consequently, banks are in a better position to provide loans to existing SMEs than to new SMEs.

Smaller potential borrowers have a handicap in obtaining loans from banks because credit assessment costs are fixed. In response, banks have been seeking ways to improve their SME credit assessment skills so as to be in a better position to price the credit risks of SMEs as well as to better assess their credits. Information on the spread of interest rates paid by SMEs seems to suggest that financial intermediaries outside the United States tend to have greater difficulties in assessing and pricing credit risks than US financial institutions.

Loan guarantee schemes

To overcome these problems with borrowing, G7 countries such as Canada, France and the United Kingdom, have introduced loan guarantee schemes. A percentage of the loan is guaranteed by the state so that, in the event of default, the loss to the financial institution is only a proportion of the sum at risk. In return, the charge paid by the borrower on such loans is higher than under normal arrangements since an additional premium is paid to the state to cover expected losses. Even so, the SME is able to access funds from a financial institution without access to collateral. The table below shows the financing terms for Canada, France and the United Kingdom.

Table 9.1 Loan guarantee conditions

	France	Canada	United Kingdom
% of loan guaranteed	65	90	70-85
Interest rate premium	0.6	1.75	1.5

The general lessons for loan guarantee schemes are that the criteria for success should be clearly specified. These include:

- *Minimisation of dead-weight*: the state will wish to ensure that its funds are not used by banks as a substitute for their own loans.
- *Job creation*: the state may wish to be satisfied that there are wider economic benefits, for example *additional* job creations, associated with the scheme.
- *Developing banking expertise*: the guarantee scheme may encourage banks to lend more on the basis of the quality of the project and less on the basis of available collateral. If private-sector banks can develop more expertise and become better at distinguishing good projects from bad ones, this will lead to increased lending to small firms by banks from their own resources.
- *Speed of decisions*: in implementing any guarantee scheme it is vital that, since SMEs require speedy decisions, access to the guarantee does not add significantly to the time taken to make decisions about loans.

Financing the seed and start-up stages of investment

In Canada and the United States, it is relatively easy to obtain early-stage venture capital. Outside North America raising early-stage funds is more problematic, thereby shifting the emphasis onto later-stage investments. In a number of countries, commercial banks have set up subsidiaries to provide venture capital but they seem to be more active in the later stages of investment.

Involvement of institutional investors in venture financing

Institutional investors generally prefer larger and later-stage investments over relatively small and early-stage investments.

The evolution of the limited partnership model in combination with favourable regulatory changes (in particular allowing pension funds to invest in private equity) and changes in the tax code spurred the flow of capital to the private equity market in the United States (more than 75 per cent of venture capital is provided through limited partnerships, with pension funds providing the bulk of total financial commitments).

Raising private equity via limited partnerships seems to becoming more popular outside the United States. However, in many OECD countries, pension funds are barred from investing in the private equity market.

The importance of exit mechanisms

Efficient exit mechanisms (trade sales, initial public offerings and repurchases) are crucial for a healthy venture-capital industry. In Canada and the United States, sales to portfolio investors are the most common exit route, while in Europe trade sales and buy-ins/buy-outs are most widely used.

The limited possibility of exiting through sales to portfolio investors is a serious obstacle to the full development of the European venture-capital industry.

Second-tier markets

Second-tier and private equity markets for unlisted securities are important for SMEs. Second-tier markets for initial public offerings constitute efficient exit vehicles in the United States and, to a lesser extent, in Japan.

Problems with existing exit vehicles in countries outside Japan and the United States have stimulated the development of new parallel markets, notably in Western Europe. Thus far, these new markets have been more successful than the earlier European experiments.

Informal venture capital

While the formal venture-capital sector is of considerable interest to policy makers, the conditions for informal venture capital, provided by private individuals or “business angels”, are also of primary importance. Such individuals are thought to provide significantly more equity to private business than the formal sector.

Experience from Canada and the United States suggests that the informal venture-capital sector can be stimulated through:

- improved networking services to enhance the flow of information between investors and investees;
- use of the taxation system to encourage wealthy individuals to invest in private business.

The role of taxation

Taxation may impose a relatively heavier burden on small than on large businesses, and it is appropriate to consider steps to reduce this distortion.

If assistance to small businesses is considered desirable, then there is a need to consider whether such help is best delivered through the tax system. The economic arguments for aiding small businesses suggest helping certain types: firms in dynamic sectors of the economy; firms having difficulties in raising funds, etc. It is rarely the case that any tax paid by small businesses will coincide closely with a target group, be it personal income tax, corporation tax, general consumption taxes or taxes on the owners of small businesses. The disadvantages of this lack in precise targeting of tax-based measures must, of course, be measured against the attractions of using existing administrative machinery. A fundamental question is to what extent the tax system is an appropriate vehicle for removing obstacles to SMEs in a cost-effective manner.

The following is a list of areas where the tax system has a potential role to achieve various policy aims: limiting the cost disadvantages faced by small businesses in complying with tax legislation; encouraging the creation of new small businesses; ensuring the continuation of small businesses when control passes from the founder of the firm to another person.

Business environment

From the viewpoint of SMEs, legislation is perceived to be drafted to satisfy the interests of law-makers, administrators and enforcers, rather than seeking the most cost-effective means of satisfying legal requirements.

Five initiatives can help to strike a balance between the need for regulation and the interests of those -- particularly SMEs -- complying with the regulations:

- New regulations should be scrutinised in a systematic manner. Those proposing legislative change should have to clearly justify any new procedures. Economic side effects, such as differential compliance costs according to firms size, should be estimated and quantified.
- A Business Impact System could be implemented to ensure the audit and monitoring of new legislation along the lines of an Environmental Impact Assessment.
- Countries such as Canada seek to trawl existing regulations with a view to eliminating those where compliance costs exceed the benefits. The Enterprise and Deregulation Unit in the

United Kingdom has similarly been successful in eliminating much “unnecessary” legislation.

- The government of the Netherlands has sought to introduce legislation which exists only for a fixed period of time -- the so-called “sunsetting principle”. The advantage is that, if at the end of its lifespan, it is felt necessary to re-introduce the legislation, then a specific case has to be made, rather than allowing legislation to continue by default. This forces politicians to debate the value of legislation and enables regulated firms to make their case for amendments.
- Greater use should be made of information technology. Increased use of information technology creates opportunities for reducing bureaucratic burdens on SMEs. For example, enterprises could be given a single number for use in all their dealings with government. This would avoid the duplicating information to a variety of government departments such as taxation, business registration or employment agencies. The problem with this is that, whilst wider adoption of electronic data interchange (EDI) would be particularly helpful to smaller enterprises, it is precisely these firms that are the least likely to have access to expertise in this area. They therefore run the risk of being significantly and increasingly disadvantaged.

Technology

Government action to remove obstacles to firm-level learning of best-practice technology and innovation management must take into account the different needs of the various types of firms (Figure 2). It must also avoid crowding out private initiatives in the service sector. Table 9.2 gives examples of recent initiatives in OECD countries.

Experience in OECD countries suggests that technology diffusion initiatives and services can be improved through the use of best practice whether at the overall policy level, the programme level or the service delivery level. A recent OECD report¹¹ identifies a number of trends in OECD technology diffusion programmes which also reflect emerging agreement on best practices at a general level:

Ensuring quality control -- technology diffusion programmes should take steps to ensure the quality of service providers, the appropriate training of consultants and the effectiveness of local delivery systems. In the United States, this is achieved among the numerous centres of the *Manufacturing Extension Partnership* by merit-based competition and ongoing external review of centre performance. In the Austrian *MINT programme*, the effective training of consultants to work with firms in developing strategic upgrade plans is a key element of the programme's success.

Focusing on customers -- technology diffusion programmes should start with a focus on customers and users and aim at meeting the changing technical needs of companies. Germany's *Fraunhofer Society* promotes technology development and diffusion through a network of 46 research institutes mainly through demand-led contract research projects between firms and the research institutes.

11. OECD (1997), “Diffusing Technology to Industry: Government Policies and Programmes”.

Upgrading the innovative capacity of firms -- technology diffusion programmes should promote a general awareness of the value of innovation among management and stimulate demand for technical and organisational change within firms. In Norway, the *Business Development Using New Technology (BUNT) Programme* was one of the earlier schemes focused on developing the problem-solving capacities of firms and their organisational ability to incorporate technology. Both the *Integrated Production Innovation (IPI) programme* in Austria and the *Managing Integration of New Technology (MINT) programme* are based on the approaches used in BUNT. A related programme is the *Irish National Technology Audit Programme (NTAP)*, which provides an analysis of a company's operations in relation to technology, human resources and management with a view to the identification of opportunities for enhancing profitability. The *Production 2000 programme* in Germany supports the evaluation of technology needs in firms, particularly for information and communications technologies, and includes recommendations for upgrading managerial systems.

Table 9.2 Government promotion of technological and innovation management in SMEs

	Benchmarking firms' performance	Diagnostic of firms' managerial and organisational capabilities		
		Overall diagnostic	Thematic diagnostic <i>(e.g. quality, IT)</i>	Focus on innovation management
Government monitors innovation performance, evaluates innovation capacity and screens firms' needs	<i>Innovation Surveys (CIS, national initiatives)</i>	FORBAIT proactive mentoring (Ireland)		Pilot SESSI survey (France) DTI report on "How The Best UK Companies Are Winning"
Government provides benchmarking or diagnostic services	DTI Benchmarking service (United Kingdom)			
Government encourages and coordinates private initiatives	PBS service (United States)	FRAM programme (Norway)		MINT programme (Austria)
			IMTs programme (European Union)	
		MEP (United States)		
Government facilitates access to private service providers	STATEGIS (Canada) Benchmarking Information Service (Australia) Business Links (United Kingdom)			
Private initiatives	Consultants and consulting firms			

Source: OECD Secretariat.

Integrating with national innovation systems -- technology diffusion programmes should build on existing inter-relationships in national innovation systems and have greater coherence between programme design (e.g. targets, objectives, modes of support) and service delivery. Germany's *network-based strategy* emphasises the development of bridging institutions and partnerships to promote information flows and new technology diffusion and commercialisation, including incentives to foster co-ordination and networking within regional technology infrastructures. Similarly, in the Netherlands, a regional system of *Innovation Centres (ICNs)* acts as intermediaries between firms and private and public sources of knowledge. ICN

counsellors advise firms and refer them to public research institutions, commercial suppliers of knowledge and private consultants. As a way to build on existing local, state and national resources, the *Manufacturing Extension Partnership* (MEP) programme in the United States provides links and referrals to other public institutions such as federal laboratories (for technology), the Environmental Protection Agency (for environmental technology) or the Small Business Administration (for financing and business planning).

Building in evaluation and assessment -- technology diffusion programmes should have mechanisms for assessment which can guide and improve their operation and management on a continuing basis. Evaluation is currently the Achilles heel of technology diffusion policy in OECD countries, especially when relating its specific objectives to broader policy goals. There are a variety of methodological, operational and programme impact issues related to evaluating technology diffusion that could benefit from cross-national comparison. The OECD work on best practices in technology and innovation policy and the European Commission's *European Innovation Monitoring System* (EIMS) respond to this need in documenting and comparing the efficiency of similar programmes across different countries.

Management capabilities

Subsidised consultancy and training services

There is a general consensus that the competitiveness of an individual SME is strongly related to the "quality" of its owner/manager. "Quality" is, in this context, strongly related to the human capital of the individual, in turn influenced by a combination of formal education, training and experiential learning.

In most OECD countries, it is also the case that:

- the formal educational qualifications of individuals managing smaller enterprises are inferior to those managing larger enterprises; and
- the probability that a worker or manager is in receipt of formal training is significantly less in small, than in large, enterprises.

Several G7 governments have sought to enhance the "quality" of owner/managers of SMEs either by encouraging (subsidising) training and/or by providing access to (subsidised) advisory and consultancy services.

The precise nature of these services varies widely from one G7 country to another. Probably the most extensive assistance is provided by Japan, which has both a highly developed system of advisory services and also SME colleges. Established initially in 1962, there are now eight colleges educating SME employees, consultants and managers. Formal training is provided in courses, of up to 12 months' duration, which are certified by the Ministry of International Trade and Industry (MITI). In 1993 alone, short- and long-term training programmes were provided for more than 11 000 people.

Until 1994 the United Kingdom had a consultancy initiative in which SMEs employing external consultants in marketing, quality, design, etc., for up to 15 days were subsidised at up to 50 per cent. The role of the consultant was to produce a development plan, in conjunction with the SME, which the SME would then implement after the consultant's departure.

Perhaps one of the most interesting initiatives is implemented under Italian Law 44. Introduced in 1986, the scheme seeks to develop managerial expertise among young entrepreneurs up to 30 years of age in Southern Italy. Law 44 requires that training and technical assistance be provided simultaneously, together with financial incentives, to such enterprises. Each young entrepreneur is required to have a mentor (generally a manufacturing or consulting firm) whose function is to develop the young partner's entrepreneurial capabilities, whilst helping the enterprise achieve its objectives. Although the scheme is clearly expensive to implement, survival rates for these businesses are significantly higher than would be expected of businesses established by young individuals in the less prosperous areas of Southern Italy.

The following factors should be considered by subsidy schemes aimed at enhancing the skill base of SMEs:

- *Specification of objectives.* In some instances government criteria for the success of such schemes is their take up and overall “penetration rate”. Both are highly sensitive to the level of subsidy provided by government. Penetration rates cannot be used as a perfect indicator of the satisfaction and value of the scheme as far as SMEs are concerned.
- *Situation after the removal of the subsidy.* In the case of both the French and UK schemes, external consultants are employed at a (generally) 50 per cent subsidy for up to about 15 days. One criterion of whether the SME is satisfied with the services received could be whether the consultant continues to be employed once the subsidy is removed. Unfortunately, however, there is no “benchmark” on which such success could be calibrated, e.g. success is defined as whether the consultant is employed for a further ten days in 50 per cent of cases.
- *Asking the SMEs themselves.* Almost all such initiatives seek the views of SME owners/trainees. These fairly consistently report high levels of satisfaction with the training provided, but it is more difficult to link training provision to enhanced firm performance in terms of business survival and/or growth.

Information networks for SMEs

The OECD globalisation study emphasized that, while SMEs were less likely to export than large firms, they were strongly influenced by globalisation and were starting to play a more powerful role. To fulfil a leading role it was necessary that SMEs had access to information not simply about their own country but elsewhere in the world. The G7 study of global market-places emphasized that SMEs needed information about other parts of the world; it also stressed the need to develop electronic commerce. Electronic commerce constitutes a fundamental change in trading activities and is not limited to simply extending trading on the World Wide Web.

Information is a key to the competitive advantage of SMEs, and it is likely to increase substantially in the future.

Several major policy issues have emerged from discussions on governments' efforts to extend the scale of electronic commerce, with a particular focus on SMEs:

- *Customising databases.* The central problem encountered by those seeking to provide information services is the huge diversity of needs of the SME community. In many respects, governments face “tensions” between the ability to provide information and

customer requirements. Hence the central challenge is to seek to produce a database which is “user friendly” but which does not assume a specific enquiry structure.

- *Information overload.* The ability of time-constrained entrepreneurs to scan databases to absorb the relevant information, even where this information can be found, is limited. Furthermore, computer literacy is likely to be lower, the smaller the enterprise.

To address these issues, four approaches have been developed:

- *Know your customer.* This involves monitoring usage of databases, with a view to focusing more closely on those services which are extensively used and dropping those which are not; it also involves the regular use of surveys which can be quickly and efficiently conducted on the Internet. However this does not overcome the problem of the substantial proportion of SMEs managed by individuals who are not computer literate. One response is to focus the information system, not on SMEs themselves, but instead on groups of intermediaries, most notably accountants, consultants, etc., whose role is to interpret the information on behalf of their customers -- SMEs. The problem here is that SMEs are rarely prepared to pay for such “interpretation” services where the benefits are not immediately apparent.
- *Access.* It is clear that there has been close dialogue between Canada and the United States and that, while their databases are not necessarily wholly compatible, the approaches adopted are broadly similar. A key question which emerges, however, is the extent to which databases and information systems are usable by non-nationals. The argument in favour of restricting database access to firms located in a particular country are that there may be national security issues. Even more important, if the information is regarded as commercially valuable and the databases have been established by national taxpayers, then there is a powerful incentive for the prime beneficiaries of these databases to be the taxpaying firms.
- *Avoid interference with the market mechanism.* While the provision of public databases, funded by public funds, clearly benefits the economy as a whole, there is a risk that their provision ultimately competes with the commercial information industry. Both in Canada and the United States it is recognised that, in principle, the state should not seek to directly compete with the provision of services by the private sector. For this reason the Canadian strategy has been to include “hard-to-get information”.
- *Subsidisation.* The target groups using the Canadian databases were growing businesses and it was decreed that pricing should be based on at least full cost recovery. The state should not subsidise provision of the information, since the firms were able to pay for it themselves, and to do so would undermine the commercial information industry. However, it is also the case that these rapidly growing businesses provide positive national “externalities”, such as raising the competitiveness of the economy, creating jobs, etc. On these grounds there is a case for some public subsidisation.

There remain fundamental problems with the principles for pricing policy in this area. Markets work best when the consumer has considerable information about the merits of a particular product/service accumulated on his or her behalf by regular purchases and repurchases. It works least well when the purchaser has little idea of the qualities of the product/service under consideration. In short, the “needs” of SMEs are normally reflected in their willingness to pay. However, since they are

almost entirely ignorant of the benefits, the market-place may be a questionable mechanism for allocating resources in this context.

Access to markets

International markets

Almost all the G7 countries have implemented policies which focus specifically on easing the access of SMEs to international markets.

The philosophy in Japan is based on the use of non-discriminatory measures which seek to support efforts made by SMEs themselves. Policy seeks to tackle the disadvantages which SMEs experience through their lack of access to human resources, to external markets and to technology. Japan has established Local Industry Promotion Centres (LIPCs) in which groups of SMEs in similar industries in a particular locality collaborate for their common good. These are established by local governments with finance being provided through long-term low-interest loans from central government.

Overseas promotion is co-ordinated by JETRO and Japanese policy is currently seeking to place greater emphasis on encouraging imports and enabling Japanese SMEs to become more aware of purchasing opportunities overseas.

Public procurement

Governments themselves are an important market-place for SMEs; indeed the United States government is the world's largest single purchaser. Yet governments throughout the world are often viewed by SME owners as particularly difficult customers. This tension reflects attitudinal and cultural differences. From the small businesses' perspective government is slow and bureaucratic. From the government's point of view, the small-firm supplier has poorer administrative and billing procedures than is the case for large firms. In fact, although it may be cheaper to purchase individual items from specific small firms, it is often administratively cheaper for government to enter into a single contract with a large firm to supply a wide range of products than to enter into a large number of separate contracts with small firms, each providing a narrower range of products or services.

Nevertheless the United States, and other OECD countries such as Australia, have made efforts to increase the "share" which small firms take of government contracts. The US experience on "set-asides" is clearly positive from the viewpoint of SMEs. The main benefits are that they do help the small business community, clearly earmark funds and, thirdly, from the point of view of government itself, can result in a better deal. Finally "special groups", such as the socially disadvantaged, or those located in particular areas, have sometimes received targeted help. It is less clear whether "set-asides" serve the interests of the economy as a whole. "Losses" may accrue to the large-firm community, possibly to government in terms of additional purchasing costs, and to the small business community in terms of raising possibly unfulfilled expectations.

NOTES

1. OECD (1996), *SMEs: Employment, Innovation and Growth – The Washington Workshop*, Paris.
2. OECD (1995), “Reducing the Regulatory Burden on Business in the Netherlands: How Can This be Achieved?”, *Best Practice Policies for Small and Medium-sized Enterprises*, Paris.
3. NCG measures the Net Cost to Government generated by a support programme.
4. Total cost of public support programmes is composed of the Net Cost to Government plus the administrative costs. The latter have not been taken into account in the tables.
5. OECD (1996), *Technology, Productivity and Job Creation*, Paris.
6. OECD (1997), “Interim Report on Technology, Productivity and Job Creation – Towards Best Policy Practice”, submitted to the May 1997 Council at Ministerial Level.
7. Krugman, P. (1991), *Geography and Trade*, MIT Press, MA.
8. Colardyn, D. (1996), *La gestion des compétences*, PUF.
9. Shapira, P., D. Roessner and R. Barke (1995), “New Public Infrastructures for Small Firms: Industrial Modernization in the USA”, in *Entrepreneurship and Regional Development*, pp. 63-85.
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11. OECD (1997), “Diffusing Technology to Industry: Government Policies and Programmes”, Paris.