Entrepreneurship in the Netherlands

Ambitious entrepreneurs: the driving force for the next millenium

Colophon

This publication forms part of a series relating to entrepreneurship and small businesses. Two earlier publication in the series are *'Entrepreneurship in the Netherlands. New Firms: The Key to Competitiveness and Growth?'* and *Snelgroeiende Ondernemingen in Nederland* ('High Growth Companies in the Netherlands').

January 1999

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Graphic design and layout:
Ministry of Economic Affairs

Printing:
EIM Small Business Research and Consultancy

1428/ES

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1 Introduction

In the past few years, entrepreneurship has been a major issue in the policy of the Dutch government. No wonder: entrepreneurship is one of the keys to a buoyant economy. Small and medium sized businesses are excellently equipped to create jobs, to be flexible and innovative, to create new demand and competition and in general to create economic growth and prosperity. Research has made clear that especially young starting businesses and entrepreneurs with the ambition to grow perform well. Aim of the government is to stimulate the number of start-ups and to create a business climate that encourages enterprises to grow.

In recent years entrepreneurship in the Netherlands has enjoyed a strong increase in popularity. This is indicated by the growth in the establishment of start-ups; from 25,000 in 1987 to approximately 40,000 in 1997. However, the depth and vigour of entrepreneurial activity in the Netherlands is still a source of concern. For example, the growth in new enterprises appears to have peaked in 1995. Moreover, research shows that most young enterprises do not grow any further after start-up and that there is a relatively low proportion of fast growing enterprises in the Netherlands compared with for example the United States.

This booklet is the second edition of 'Entrepreneurship in the Netherlands'; a series of booklets that address the state of entrepreneurship in the Netherlands and the connecting policy issues. The theme of the first edition was 'New firms: the key to competitiveness and growth'. It gave an overview of recent developments in the area of entrepreneurship in the Netherlands, framed into an international perspective and recent policy discussions in this field. In this second edition the theme is 'Ambitious entrepreneurs: the driving force for the next millenium'. Through the different approaches adopted in the three contributions an attempt is made to give an insight in the importance of ambitious entrepreneurs for our economy's output capacity.

Bruce A. Kirchhoff (School of Industrial Management, New Jersey Institute of Technology, Newark, USA) focuses on the dynamics of ambitious entrepreneurs. He begins by reviewing the economic research, both conceptual and empirical, to show how new firm formations create growth and distribute wealth in capitalist economies. Following this, he presents a typology that classifies new firms for public policy evaluation and formation. Then, he describes the changing nature of entrepreneurship, especially how entrepreneurs are creating new firms with the strategy of selling the firm to a large business within five to ten years. Last, he provides a description of two programs initiated in the USA that directly address the needs of new businesses within the major growth sectors.

Johannes Borger, Wim Verhoeven and Jacqueline Snijders (EIM Small Business Research and Consultancy) focus on the role of fast growing- and hyper growth enterprises in the Netherlands. They give quantitative information on the share of these enterprises in the Dutch economy and the contribution of these enterprises to employment and sales, followed by an analysis of other economic characteristics of these enterprises, such as sector of activity, age, financial situation and export. As far as possible the fast growing

and hyper growth enterprises in the Netherlands are compared with Belgium, Denmark, Germany, the United Kingdom, Sweden, Japan and the United States.

Sander Baljé and Pieter Waasdorp (Netherlands Ministry of Economic Affairs) address the subject of fast growing enterprises in the Netherlands. Based on a survey among 300 fast growing and low growth companies, they will offer an explanation for the fact that the Netherlands has comparatively few fast growing enterprises and that the employment growth of these companies is comparatively less than similar companies in other countries. They discuss why government should intervene. Finally, they tentatively outline a number of policy options: improvement of communications and information relating to the phenomenon of high growth, promoting independent entrepreneurship through the education system, increasing attention for building employers networks and adressing the mismatch between supply and demand for professional advice.

2 The Dynamics of Ambitious Entrepreneurs

Bruce A. Kirchoff

2.1 Introduction

Over the last 20 years, economic researchers have compiled substantial evidence that new, independently owned small firms contribute substantially to net new job creation. And, some of these firms introduce innovative new products and services into markets so as to create new demand and increased competition. Subsequent to these research discoveries, new firm formation and growth has become a focus of economic development policy in many nations including the Netherlands.

For this reason, this chapter begins by reviewing the economic research, both conceptual and empirical, to show what we know about how new firm formations create growth and distribute wealth in capitalist economies. Following this review, I present a typology that classifies new firms for public policy evaluation and formation. And, then I describe the changing nature of entrepreneurship, especially how ambitious entrepreneurs are creating new firms with the strategy of selling the firm to a large business within five to ten years. Next, I provide a description of two programs initiated in the U.S. that directly address the needs of new businesses within the major growth sectors of the typology.

2.2 Entrepreneurship in the 20th Century

The act of forming a new, independently owned small firm is called entrepreneurship. Entrepreneurship is not a new phenomenon since Adam Smith in his classic book The Wealth of Nations perceived the "capitalist" as an owner/manager who combines basic resources- land, labor and capital - into a successful industrial enterprise[1]. Sometime during the 19th Century, the word "entrepreneur" began to replace the term "capitalist." In 1934, Schumpeter greatly expanded the role of the entrepreneur when he argued that entrepreneurship was the primary mechanism of competition, economic growth and wealth redistribution in capitalist economies[2]. Schumpeter argued that entrepreneurs brought innovations to existing markets thereby radically altering the existing market structures by taking market shares from existing firms in the market. At the same time, these innovations would attract new consumer interest stimulating growth in demand thereby increasing overall income and wealth. Schumpeter called this "creative destruction" because entrepreneurs created new wealth by destroying existing market structures.

Schumpeter's theories had little effect on mainstream economics since growth of most industrialized nations of the world appeared to be driven by large industrial firms while small firms were being driven into failure by the economies of scale obtained by large firms. Entrepreneurship seemed to be a dead or dying phenomenon. Not the least of these pessimists was Schumpeter who argued in his 1942 book Capitalism, Socialism and Democracy that entrepreneurship could not survive in the face of the ever larger industrial firms that monopolize innovation through well funded and organized R&D laboratories[3]. This belief continued to flourish after World War II since simple observations of industrial activity in the 1940s through the 1970s showed industrial firms growing ever larger while

published employment statistics showed the largest size firms were adding more and more employees. In 1967, John Galbraith proposed that capitalist societies would evolve into three powerful groups, big businesses, big governments and big labor unions thereby extending Schumpeter's theme. Galbraith's "new industrial state" is devoid of entrepreneurs [4].

However, evidence gradually began to emerge that new firm formation and growth was an increasingly important part of overall economic activity. In 1979, David Birch of Massachusetts Institute of Technology published statistics showing that from 1969 through 1976, small firms created over 81 percent of the net new jobs in the U.S. economy[5]. Subsequent research by the U.S. Small Business Administration showed that small firms continued to produce a disproportionate share of net new jobs from 1976 through 1988 [6].

Suddenly, the attention of economic researchers turned to small and medium sized firms. Researchers in many European nations and Canada examined various data sources to uncover the fact that similar dynamics of small firm job creation were contributing to their economic growth as well[7].

Gradually, researchers began to peel away the mysticism that characterized the early research on job creation by small firms. Birch in his book *Job Creation in America* began to break down the sources of job creation and noted that the job market was highly turbulent with three jobs created and destroyed for every net new job in the U.S. He also perceived that small firms represented a disproportionate share of net new jobs within industrial sectors deemed highly innovative. But, high growth small firms appear in all economic sectors, services as well as manufacturing, non-innovative and innovative[8]. Birch named the high growth small firms "Gazelles," a name that is widely used today. About the same time, Acs and Audresch found that small firms were more productive innovators than large firms in many industrial sectors[9]. This suggests that small firms use innovation more effectively to achieve growth. And, as reviewed by Storey, these and other discoveries were being reported at regular intervals for North America and Europe[10].

But, the missing ingredient was that this research focused on small firms, not specifically on newly formed small firms. It was newly formed small firms that Schumpeter hypothesized created economic growth and development. For this reason, new small firms became the focus of my research that culminated in the development of the Dynamic Capitalism Typology. This typology provides a basis for understanding new small firms' role in economic growth and provides a guide for public policy formation by directing it to the appropriate sectors of the economy.

2.3 A Typology of Entrepreneurs

Typology development is one step towards the development of new theory. Typologies organize existing knowledge into categories that help explain relationships and guide theory development. Furthermore, typologies can provide guidance to policy development even in the absence of full theory development. This is important because the absence of a fully developed theory does not remove society's need to design economic policy to promote entrepreneurial activity.

Business firms, including small businesses, have long been classified for policy analysis. Traditional, familiar classification criteria are business size; industry type (product or service produced); ownership type; age; and location. But, none of these provide adequate information to identify the few entrepreneurial "creative destroyers" from among the millions of small businesses that exist. Creative destroyers emerge from all industries, all sizes, all ownership types, all ages and all locations. Identifying creative destroyers, determining where innovative market entry opportunities exist, clarifying what the entrepreneurs need, and guiding economic policy so as to improve entrepreneurs' success are the dominating needs for theory/typology development.

There are millions of small firms in the world and most of these start and stay small while producing only one or a few innovations and contributing little or only modest economic growth per firm. Birch observed that small firms create most of the net new jobs but the vast majority of the new jobs are created by less than 10 to 12 percent of all small firms[11]. This observation suggests that only a small percentage of all small firms are the creative destroyers. Could these be the newly formed creative destroyers? Birch does not answer this question.

Furthermore, by Schumpeter's definition, entrepreneurship means new firm formation and growth while the job generation statistics measure the job creation of all small firms, old, middle age, and new. Statistics show that approximately five to seven hundred thousand new small firms are formed every year in the U.S. alone. In a small business sector that contains eight to ten million firms this amounts to an five to seven percent annual new firm formations. Creative destroyers are mixed in among these new firms, and among the existing firms, especially among the ones that are still young. But, not all newly formed or young firms are, or intend to be, high growth firms that plan to create major new growth. Most new firms have limited growth ambitions. Their owners form and grow the business to the point where it provides a satisfactory living standard for themselves and their families and allows time to enjoy it.

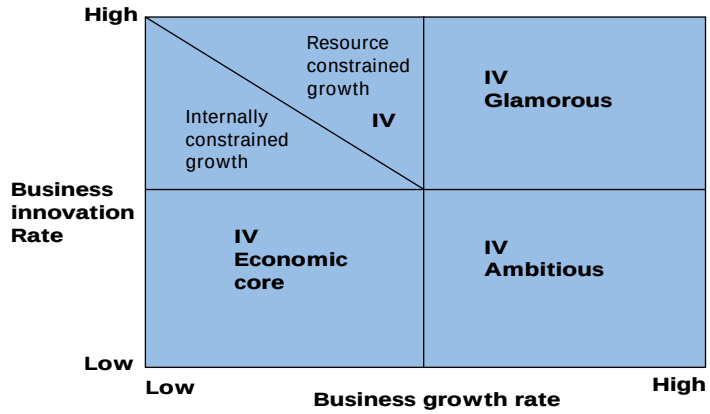
It is useful to describe and understand the phenomena of new firm formation. As will be demonstrated later, firm formation and early stage growth make major contributions to overall economic growth in capitalist systems. Economic growth cannot be created by a firm that is not formed so the more firm formations, the greater the potential growth.

2.4 Dynamic Capitalism Typology

In a dynamic capitalist economy, entrepreneurs enter existing markets using innovations. Thus, it is logical to expect that the number of innovations created by a firm will be related to the firm's growth rate. Most business owners measure success as survival and growth. But, growth comes slowly, not during the first year as most entrepreneurs hope, but in six to eight years. On the other hand, it is apparent that the direct relationship between innovation and firm growth through creative destruction as Schumpeter proposed it is not correct. Not all innovations are successful, so some firms that create large numbers of innovations will not experience high growth. And some innovations are more successful than others so some firms with only a few innovations will still achieve high rates of growth. This complex relationship between rate of innovation and rate of firm growth can be expressed in a matrix called the "dynamic capitalism typology".

The typology matrix is divided into four main categories: economic core, ambitious, glamorous, and constrained growth (see figure 2.1). Each category designates businesses with common characteristics that reflect their creative destruction capability. The matrix presents a simplification of the real world since it diagrams only the extreme cases that register either high or low on each scale. As well be noted later in the discussion of the statistical evidence, the vast majority of businesses are in the middle ground, between the extremes. Still, by examining the extremes, the matrix describes categories that add to our understanding of entrepreneurship's contributions to economic growth.

Figure 2.1: Dynamic Captialism Typology



Source: Kirchoff, B.A., (1994). *Entrepreneurship and Dynamic Capitalism*. Wetport, Conn.: Praeger Publishers

2.4.1 Economic Core

Economic core firms are those that enter business with few innovations and exhibit low growth. These firms are the most common form of new businesses. There are more low innovation - low growth firms in the small firm sector than any other kind. Most of these firms satisfy their owners' needs and therefore continue to successfully operate and fulfill their functions in the market place. No doubt, these firms achieve a degree of growth shortly after their formation but once they achieve a size that meets the owners' needs, firm growth stops. Small, independent retail stores, service firms and repair shops are economic core firms. Such firms are truly ubiquitous and provide a bevy of goods and services that are necessary for the functioning of the economy.

The economic core also contains many firms that are small temporarily. Owners of these firms are ambitious; they want to grow into big businesses. But, to the outsider, these firms look just like all other new economic core firms - small, independently owned, and struggling. For example, McDonald's restaurant was a single restaurant with an innovative way of preparing and selling food. The McDonald brothers had a good business but little interest in becoming a worldwide chain. This single restaurant was purchased by Ray Crock who created the famous McDonalds fast food hamburger restaurant we know today. He built it into the world's largest chain. Ray Crock was an ambitious entrepreneur,

an ambitious entrepreneur lost within the massiveness of the economic core until he achieved success by growing rapidly and leaping from within the Economic Core.

2.4.2 Ambitious

Ambitious firms are firms that achieve high rates of growth with one, or a combination of a few, initial innovations. A single new product or service can provide growth for many years, especially in a large market like the European Union or North America. Growth comes from the gradual accumulation of market share as the innovative product/service erodes the market share of older, established competitors. Examples of this are easy to find. McDonalds began with the basic formula of fast food sold in large volume at reasonable prices. Ray Crock used these basic innovations to expand the firm across the entire world and achieved growth by increasing his market share of the restaurant food business in nation after nation. Another example is Dell Computer Company that developed an innovative method of distributing and servicing microcomputers. It used this initial combination of innovations to gradually acquire over five percent of a very large worldwide market. Of course, it continued to bring out new versions of computers, but none of these was a significant product innovation since microcomputers had become essentially standardized. Dell's innovation in distribution method worked best because of this standardization.

So, high growth can be achieved without high rates of innovation. However, an ambitious firm's growth will eventually decline unless it develops additional innovations because markets do not remain static. New entrepreneurs will enter the market with product/service innovations and the once ambitious firm will experience loss of market share. McDonalds used its original innovation of hamburgers served fast and at reasonable prices to fuel growth around the world. But after forty years, McDonalds growth rate has slowed as it has saturated the world markets. It has searched for additional innovations in fast food to continue its growth but insignificant growth in sales per store over the last few years demonstrate its failure to create new demand with these new innovations.

2.4.3 Glamorous

High growth rates can only be achieved over the long term with high rates of innovation. I call firms with these characteristics Glamorous because these firms attract news media attention and receive local and national awards for their successes. Most of these firms are rooted in technology based product businesses, products that lend themselves to continuous development and spawn innovation after innovation. Microsoft is a good example of a firm that has created an endless stream of innovations in the software business. It began with a Basic language compiler and then the now universal operating system called MS-DOS. Then it expanded to include a spreadsheet program, word processor, graphics, etc., until today it is the world's largest software company. And its growth and innovations continue.

2.4.4 Constrained Growth

Many glamorous firms emerge only after a period of constrained growth. Lacking the proper resources, these firms have high rates of innovation but do not achieve high growth. Unless revenues grow rapidly to support the expensive innovation efforts, these firms will experience financial failure. Owners of such firms fall into two classes; those

who make decisions that constrain their growth and those who choose growth but are unable to acquire the needed resources.

2.4.5 Self Constrained Growth

Self constrained owners deny that they choose to constrain their growth and insist that growth is constrained by the reluctance of the providers of resources to supply the firm. But, in truth, these owners place such burdens upon the suppliers of resources that they are unable to cooperate. Thus, the inventor who refuses to sell more than ten percent of his firm's stock in order to raise a million dollars may be to blame for his lack of capital. And the owner who refuses to offer a key manager a significant share of the firm's ownership to keep the individual constructively employed is serving to constrain the firm's growth.

2.4.6 Resource Constrained Growth

Still other owners are willing to give up reasonable shares of ownership but are unable to find or attract the capital or personnel necessary to grow the business. These are the truly resource constrained businesses. Such businesses represent a major problem in most economies because there is a lack of capital for investment in early stage, highly innovative small firms. Without early stage capital, many constrained growth firms never have the opportunity to demonstrate the value and contribution of the firm's innovations. Because innovation is expensive, such firms do not last very long. They eventually cease innovation and become economic core firms or they die.

A greater danger threatens constrained growth firms' continued existence. Innovations, especially patented inventions, are easy prey for better financed competitors. Highly innovative firms that do not achieve high growth may find their innovations are copied and markets devoured by competitors who gobble up market share for themselves. Inventors believe that patents will protect them from such competition but this belief is false. A patent exposes the technology to all competitors. If a competitor copies the patented technology, one assumes that the courts will punish the offending firm. But, the cost of bringing a patent infringement lawsuit can only be afforded by firms with good revenue and profit streams. The inventor may own the patent rights but competitors may own the market.

2.4.7 Overview

What is interesting about these five classes of firms is that they do not depend upon industrial sector, business size, age, or location. Ambitious manufacturing firms share many of their problems, needs and opportunities with ambitious retail firms and service firms of different sizes and in different locations. At the same time, ambitious firms have little in common with economic core firms in their same industry or geographical location. The typology also makes it clear that firms in the same industry are not the same in their ambitions and goals. This is true regardless of age since firm ownership changes sufficiently often that firm age tells nothing about the ambitions and goals of the owners. Even the transfer of ownership among family members (e.g., parent to child) may create a new set of ambitions. This typology identifies the firm behaviors that indicate the true ambitions and goals of the owners and defines their contribution to economic growth.

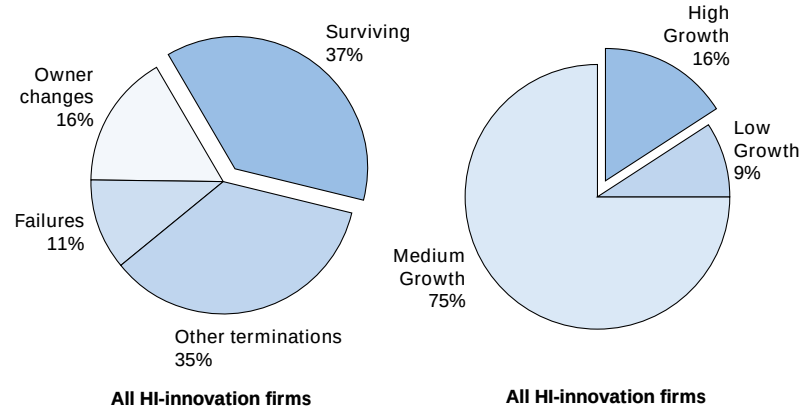
2.5 Empirical Evidence[12]

The dynamic capitalism typology provides a basis for measuring the relative contributions of the four types of entrepreneurs to overall economic growth. In Schumpeter's original theoretical formulation, it is new small firms formed to exploit innovations that create economic growth. Therefore, measurement of dynamic capitalism focuses upon newly formed firms. This approach understates the overall contributions of all the existing small firms because it eliminates growth attributable to all but a small group of newly formed firms. The approach does, however, isolate the dynamics of new firms in a direct test of the dynamic capitalism typology and creative destruction.

To accomplish this task, Bruce Phillips and I identified all firms formed in the U.S. between January 1, 1977 and December 31, 1978, i.e., all firms formed during 1977 and 1978. This cohort, or group, of firms was followed for the next six years, until the end of 1984. Measures of the number of employees in each firm were taken at the time of birth and at the end of 1984.

The cohort consists of 814,190 small firms formed during 1977 and 1978. Of these, 312,804 survived with the same ownership through 1984. We divided these firms into the four typology classes. To do this we defined high growth by calculating the growth in employment of all firms and selecting the ten percent of firms with the greatest growth rates. Low growth was defined as the ten percent of firms with the smallest growth rates. We defined rate of innovation by selecting as high innovation all firms in a selected group of industries where business activity is characterized by: (1) above average employment of scientists, engineers and technical professionals; and (2) above average expenditures in research and development. This is a common research definition of "high technology" industries. We selected another group of industries with the opposite characteristics and defined firms in these industries as low innovation (low technology).
Growth rates differed significantly between typology classes. As suggested earlier, glamorous firms showed the greatest growth of all classes. Almost 17 percent of the high

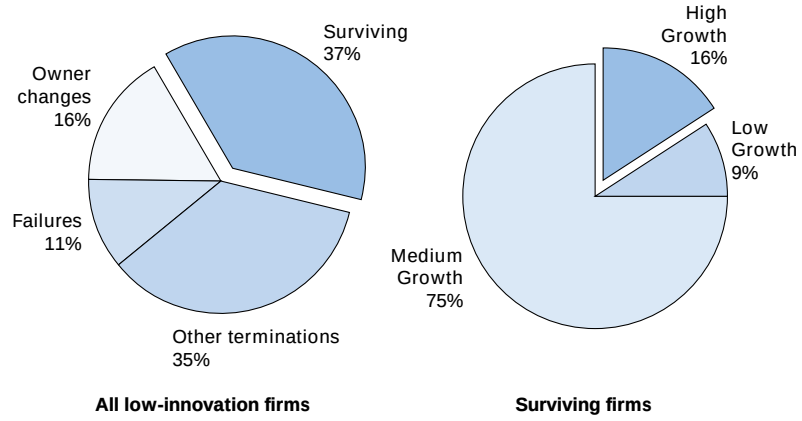
Figure 2.2: Six-year destiny of high innovation firms formed in 1977-78



Source: Kirchoff, B.A., (1994). *Entrepreneurship and Dynamic Capitalism.* Wetport, Conn.: Praeger Publishers

innovation firms grew to become high growth firms (see figure 2.2). But, only nine percent of the low growth, high innovation firms survived (constrained growth firms) providing support for our assertion that growth is essential for the survival of high innovation firms because of the cost of innovation (see figure 2.3). On average, however, the survival rate of high innovation firms was as good as that for low innovation firms.

Figure 2.3: Six-year destiny of low innovation firms formed in 1977-78



Source: Kirchoff, B.A., (1994). *Entrepreneurship and Dynamic Capitalism.* Wetport, Conn.: Praeger Publishers

In summary, it is apparent that overall survival of newly formed small firms is not dependent upon innovation rates. Thus, the failure risk of starting a high innovation firm is no greater than starting a low innovation firm. However, the chances of achieving high growth are almost twice as great for high innovation firms as for low innovation firms. Still, among high innovation firms, terminations take a greater toll among low (constrained) growth firms that are unable to continue since the resources required for survival are greater in high innovation firms.

Given these statistical results, it is somewhat surprising that so few high innovation firms are formed relative to low innovation firms. As noted above, in the U.S., low innovation firm formations outnumbered high innovation formations by five to one. This fact has significant influence upon the overall job creation contribution of this cohort of newly formed firms. The total employment of the 312,804 surviving firms at the end of 1984 was actually 25 percent less than the birth employment of the 814,190 firms in 1978. In 1978, the total cohort employment was 4.5 million. By 1984, this had declined to 3.4 million. This is due almost entirely to the departure of 502,000 firms, with their employment, during the six years even though some of the surviving firms also suffered declines in employment. Nonetheless, among the 312,804 surviving firms, total employment increased 75 percent beyond their birth employment.

Table 2.1: Percent Change in Employment Based on Cohort Total Employment at Birth and Surviving Firms Employment at Birth

Innovation sector	Based on cohort birth employment	Based upon survivers birth employment
High Innovation	13.9 %	169.2 %
Low Innovation	-25.5 %	68.6 %
Medium Innovation	-31.5 %	67.4 %
All Combined	-25.0 %	74.5 %

Source: Kirchhoff, B.A., (1994). *Entrepreneurship and Dynamic Capitalism.* Westport, Conn.: Praeger Publishers.

Employment changes differ considerably by typology class. Among high innovation firms, total employment increased by 13.9 percent. Thus, the 21,603 surviving firms employed 14 percent more workers than the entire birth cohort of 58,714 firms. This employment growth means that the surviving firms increased their birth employment by 169 percent. Eighty percent of this job growth was within the glamorous class of firms. Obviously, glamorous firms are the most productive job creators among new small firms.
Among low innovation firms, total employment decreased by 31 percent. A comparison of birth and 1984 employment of the survivors showed an employment increase of 67 percent. Seventy percent of this job creation activity was concentrated in the ambitious firms. Although not spectacular, 67 percent growth in employment over a six year period is an average of more than ten percent compounded annually. This far surpasses the growth rate of U.S. employment that averaged 2.5 to 3.5 percent annually. Furthermore, these low innovation class survivors in total produced 380,000 net new jobs. Because there are so many more low than high innovation firms, low innovation firms out produced high innovation firms in net new jobs by over two to one.

In summary, high innovation firms are more productive job generators and more aggressive growers than low innovation firms are, at least during their first six years. But, since five times as many low innovation firms are started, the low innovation firms produce twice as many net new jobs.

This entire analysis examines only the primary effects of high innovation firms. Secondary effects – often referred to as multiplier effects by economists – can be more important than primary effects. For example, as new employees join the fast growing high innovation firms, they create the need for more retail stores, restaurants, housing construction, car dealers, etc. Thus, the low and medium innovation firms form and grow around the new high innovation firms with their new employees.

Furthermore, it is likely that few of the firms in our research have achieved their full growth during their first six years. In fact, less than half of the entire cohort of surviving firms achieved any growth at all during their first six years. Nonetheless, the net impact of these firms was very important to growth of the U.S. economy. Between the beginning of 1977 and the end of 1984, the formation and growth of this cohort of firms added a total of 3.5

million net new jobs to the private sector of the U.S. economy. Since the total private sector employment during this time was 90 million, these firms increased total employment by nearly four percent.

We have examined only one two year cohort of newly formed firms. Another 800,000 were formed in 1979-80. Another in 1981-82, and so on. If each of these two year cohorts contribute four percent of the net new jobs, then the average effect is a two percent contribution annually to new employment in an economy that creates 3.0 to 3.5 percent net new jobs annually.

The evidence is conclusive. Small firm formations and early stage growth contribute over half of the net new jobs created annually in the U.S. In addition, established older small firms also grow and contribute net new jobs thereby contributing well over half of all net new jobs annually. This is how small firms create the largest percentage of net new jobs in America.

2.6 New Trends in Glamorous Businesses

Highly innovative firms that achieve high rates of growth have become the focus of many ambitious entrepreneurs. This is especially true among technology intensive businesses. Because of the difficulties associated with establishing and maintaining high rates of growth, more and more of these ambitious entrepreneurs are choosing to form new businesses with the specific intent of allying with or selling out to a large firm early in their life. In other words, they deliberately plan on selling the successful firm to another firm thereby giving up the opportunity to build a major size independent business of their own.

This is a relatively new phenomenon in the U.S. Historically, highly innovative firms newly formed by ambitious entrepreneurs have chosen to pursue the creation of large, founder controlled and managed firms. For example, Digital Equipment's founder, Ken Olsen, grew his company into the worlds second largest computer firm over a period of 30 years. And, Bill Gates grew Microsoft into the world's largest software firm that he still controls.

The reasons for the emerging new strategy by ambitious entrepreneurs are many. Paramount among these are three. First, as markets for technology based innovations have become world wide, distribution systems for innovative products and services have become very complex. This complexity poses a significant barrier to entry for new firms. For example, the proliferation of "shrink wrapped" (pre-packaged) software and the extensive distribution system that puts that software in retail stores, specialty stores, and mail order catalogues has made it difficult for new entries to find outlets anxious to buy and stock their innovative new products. On the other hand, if the new firm can sell an existing software supplier – e.g., Lotus Development or Microsoft – on its new product, these large firms can use their existing, established distribution system to bring the new product to market.

Second, the cost of establishing manufacturing and distribution of products has become prohibitive for many new small firms. Advanced, sophisticated and technologically complex new products are expensive to manufacture. It is not unusual to see manufacturing plants costing hundreds of millions of dollars. Once manufactured, they

must be properly packed, handled and shipped to ensure quality is retained all the way to the customer's location. Many firms have gone to custom manufacturers but these firms want the cost of special manufacturing assets (tools, machines, etc.) paid up front, another expensive investment. Thus, it benefits the entrepreneurs to find a large company that is willing to buy their new firm and handle the manufacturing and distribution costs. Third, and contributing to the other two, venture capitalists have become very focused in their investments and are increasingly wary of funding new start up firms. So although Silicon Valley is a hot bed of venture capital firms, few other areas of the U.S. have such activity. Therefore, new highly innovative firms in other geographical locations seek out customers for their innovations asking for early stage investment funds. Large corporations, on the other hand, have learned that the costs are much greater and the time to product times are much longer for technological products from their own R&D labs. Therefore, they recognize the investment in a newly formed entrepreneurial firm may pay off better than an investment in their own labs.

Emerging from this combination of causes is a new economic phenomenon of ambitious entrepreneurs working in cooperation with the large firms that used to be their targeted competitors. This is the way they overcome the increasing magnitude of entry barriers and the growing lack of access to start-up capital. At the same time, large firms have reorganized so that they are searching for new firms in need of capital, distribution or manufacturing. Many examples exist. Lucent Technologies Inc. has formed a venture investment group that searches for and invests in new firms with technological innovations that may be useful to their own products. Microsoft Corporation has invested in a myriad of new software development companies. In 1997 alone it acquired 80 such firms to integrate independently developed software into Microsoft's product line. And, these large corporations act on their intentions. Nortel Corporation (formerly Northern Telecom) recently acquired Bay Networks, a ten year old firm that makes routers and switches for data transfer on the Internet. This gives Nortel a quick move into a new product line beyond its traditional voice switching and transmission equipment. Even relatively new glamorous businesses have adopted this approach. For example, Cisco Systems Inc., founded in 1984 and today's world leader in routers and switches for Internet protocol data transmission, states that it has acquired eight to twelve companies a year since 1993 in order to expand its technologies and increase its sales[13].

Furthermore, many entrepreneurs are deliberately designing their innovations to be attractive to large corporations because they recognize the three limitations of distribution, manufacturing and capital that new, highly innovative firms face. Yuri Systems, developer of a highly innovative data transmission technology for Internet servers made no effort to create a distribution system for its products. Instead, Yuri went to large manufactures of data transmission equipment and negotiated agreements to sell its new machines under the large manufactures' brand names. Thus, Yuri's sales grew ten fold in two years as its "instant" distribution system created an explosion of demand. Six months ago, one of the large manufactures in their distribution system, Lucent Technologies, acquired six year old Yuri Systems.

This trend has extended to much of the rest of the world, including the Netherlands. For example, Twente Micro Products (TMS) of Enschede is spinning off a new business, Total Micro Solutions B. V. TMS is seeking venture funding to design and manufacture micro-

electro-mechanical systems. One of the interested investors is Philips. Philips is interested because this new technology promises to become a significant part of its future products.

In summary, entrepreneurs are simply exercising a new mechanism to overcome the resource constraints that dominate their early years of struggle to achieve growth. Capital alone is not enough in a complex world economy. Highly innovative entrepreneurs need partners to assist in overcoming barriers in engineering, manufacturing and distribution. Such big-firm/entrepreneurial-firm partnerships are now fundamental in technology intensive industries as large firms realize that their R&D departments are unable to keep up with the rapid development of new technologies so they buy them from entrepreneurs. As a vice president from Bell Laboratories division of Lucent Technologies recently stated, "Over 80 percent of the technology Lucent sells in its products comes from out side of Bell Laboratories."

2.7 Policy Initiatives in the U.S.

The job creation statistics described herein make it clear that highly innovative firms are a vital component of economic growth in the U.S., the world's largest technology driven capitalist economy. Such firms create new wealth and distribute it based upon the virtues of talent, creativity, hard work – and good luck. Yet, the U.S. economy is not isolated but is a part of a worldwide economic phenomenon so it continues to show concern for the success of its small technology firms. Two significant public programs have been launched in the last 20 years to provide assistance to these firms. The first was begun in 1982 with the Small Business Innovation Development Act that authorized the Small Business Innovation Research (SBIR) Program. The second was launched in October, 1996 and is called the Angel Capital Electronic Network, or "ACE-Net."

2.7.1 Small Business Innovation Research Program

The act requires most federal agencies that purchase extramural (from outside of the government) research and development services to spend a specified percentage of their R&D budget on research performed by small firms. The act has a "sunset" clause that says it will expire in six years unless congress votes a renewal. The "percentage set-aside" was initially 1.5 percent but has been increased each time the act has been renewed. It is now 2.5 percent for all government agencies with extramural R&D budgets over $100 million. The objective of the program is to encourage and fund the development of new, commercial products that benefit the U.S. economy.

Each agency is allowed to independently administer its expenditures in this program. However, the agency must spend a designated percentage of its funds on a three phase program specified for small business firms. In Phase I, the agency solicits proposals to perform a feasibility study of technology. The agency uses its standard procedures for competitive proposal submission and specifies the R&D topics of interest to the agency. Bidders on these topics must be small firms that provide proposals according to agency rules. The proposals are reviewed competitively and the winners are awarded up to $100,000 for the technical feasibility study. At the completion of the project, the small firm may submit a proposal for Phase II of up to $750,000 to develop a model or prototype of the product and define the markets for the product. This proposal must also include a letter of commitment from investors that if the prototype is successful, the investors will fund the

commercialization of the product. These proposals are also reviewed competitively. Phase III, actual commercialization, is carried out without additional government funding.

Many people credit the SBIR program for raising the R&D expenditures by small firms from 5.6 percent of all R&D in 1980 to 14.5 percent in 1995. In the meantime, federal government R&D funding to small firms rose to 5.8 percent in 1994 of which 4.7 percent was SBIR funding. By 1996, more than 220,000 proposals have been received with 33,000 awards. Although the program's primary purpose is to meet the government's R&D requirements, more than 25 percent of SBIR projects have become products or services sold in the market place.

The National Science Foundation's SBIR program began in 1977 and served as a pilot for the SBIR program legislation passed in 1982. NSF carried out a research effort to determine that impact of their program in 1996. Researchers selected a sample of 25 firms that received NSF SBIR awards after their founding and between 1977 and 1989. Together, these firms had 490 employees at the time of first award. By 1995, total employment was 7,904 jobs. More than 500 patents had been issued and 579 research collaborations related to SBIR had taken place[14].

The SBIR program's Phase I and Phase II funding is basically start up or "seed capital" for new technologically intensive businesses. And, it provides seed capital without any conditions or limitations to the firm except that it develop technology that the government wants and needs. Thus, once the firm has succeeded in meeting the needs of the government, it is free to use its technology to create a new commercial business.
In 1997, the Small Business Technology Transfer Program was added to the legislation re-authorizing the SBIR program. SBTTP authorizes research institutions such as universities to participate with small businesses in SBIR type technology development program. The rationale for this new program is to tap into the reservoir of ideas that lie within research institutions by using the skills of entrepreneurs to achieve commercialization. The program is too new to have generated any results as yet.

2.7.2 ACE-Net: New Source of Growth Capital

The U.S. Small Business Administration's (SBA) research in 1995 and 1996 confirmed that equity capital in sums of between $500,000 to $1.5 million are simply not available from existing sources in the U.S. Entrepreneurs who start new firms with capital provided from their own resources or by friends and family only can obtain funds up to $500,000. Beyond that, they have a serious problem. Venture capital firms rarely provide investments for early stage firm development nor do they provide sums of less than $3 million. Entrepreneurs are required to search the informal venture capital market, one referred to as the angel investor market. Angels are wealthy individuals with interest in new firms. However, the angel investor market is not an organized market and the transaction costs to find such investors can be very high.

SBA recognized that a listing service was necessary to link entrepreneurs to angels. Yet, two barriers had to be overcome, the securities laws and protection of the privacy of the angel investors. In the U.S., securities laws and regulations designed to protect investors from fraudulent sales of securities severely limit the ability of entrepreneurs to announce or advertise their desire to have new investors in their business unless they create, file

and receive approval for a fully authorized issuance of securities. Meeting the requirements of the securities laws and regulations of the federal government and 50 state governments involves very large transaction costs. Not surprisingly, such costs for the initial public offering of stock in a small firm can run over one half million dollars. Clearly, this sum is too great for a firm that desires to obtain less that a million dollars.

The Internet provides a convenient mechanism for advertising stock offerings to angel investors. Furthermore, the Internet can function to transfer information only one way so the investor can examine an offering of securities without the offerer knowing whom the investor is. So SBA decided to find a way within the existing securities laws and regulations to allow entrepreneurs to advertise their need to raise capital of less than five million dollars on the Internet. The Securities and Exchange Commission (SEC) is the Federal agency that regulates the sale of securities in the U.S. The commission already has in place two regulations regarding the issuance of securities for less than five million dollars. However, such registrations cannot be advertised and usually are placed privately at high transaction costs to the seller. SBA negotiated three agreements. First, the SEC agreed to allow entrepreneurs to file their prospective securities offerings using the standard SEC forms via the Internet. An authorized agent, including a computerized on line editing process approves the filings. The SEC establishes the filing fees; currently these are $450. All securities offerings are stored on an Internet server (computer) at a single location. Second, SBA worked with the National Association of State Security

Administrators to obtain a proposed regulation for enactment by each of the 50 states so that registration in each state can be accomplished with the SEC Internet filing. Currently, there are 34 ACE-Net operators in the U.S. and Puerto Rico. And, 29 states have approved the registration process.Third, the SBA obtained SEC permission to allow “qualified” investors to browse the offerings on the Internet server using a variety of search systems designed by SBA. SBA’s authorized operators for the ACE-Net system (one or more operators in each state) will serve to obtain proof of “qualification” from the investors and provide the investors with unique passwords that give them access to all offerings on the system. By the beginning of 1999, ACE-Net will have over 1000 investors, including many venture capital organizations, registered and using the system.

The ACE-Net is only a registration and listing service. No transactions, either the sale or purchase of securities, take place through ACE-Net. Transactions are handled directly between the investor and the entrepreneur. There is no secondary market in securities. Once a trade takes place, the securities are relatively illiquid until the firm makes a full public offering on one of the stock exchanges.

ACE-Net provides an organized information system designed to link investors to entrepreneurs. It also greatly reduces the transaction cost of registering a securities offering thereby making the process of selling securities much less expensive for the entrepreneur. Given the nationwide appeal of this system, entrepreneurs will be able to advertise their firms’ investment opportunities to hundreds, eventually thousands of qualified investors across the nation.

ACE-Net began full operation in late 1997. Currently there are approximately 150 prospectuses on the system. Anecdotal information suggests that about 20 firms have

received funding through the system. But, the numbers are growing as the system is becoming a major source of investment information.

Systems like ACE-Net are needed in all nations. Eventually, such systems may become international. However, until we find ways to reduce the transaction costs of raising capital, entrepreneurs will be frustrated and many will fail to act.

2.8 Conclusions

Schumpeter's economic theory brought to life by empirical research in the 1970s and 1980s shows capitalist economies how they can achieve economic growth and development through public policies that promote entrepreneurship. The Dynamic Capitalism typology organizes the concepts of innovation and growth into a system for categorizing new firms to expose the common problems they face in achieving success. Empirical evidence drawn from the U.S. economy demonstrates that highly innovative high growth firms are the most productive at job creation even though they represent the smallest share of new firms. National policy should focus on this group of highly innovative ambitious entrepreneurs to achieve the greatest economic growth rate. The U.S. has found two public policies that assist in encouraging highly innovative ambitious entrepreneurs. The SBIR program provides startup capital for technology development firms. And, ACE-net provides a low transaction cost for such entrepreneurs to obtain early stage funding for their firms. Entrepreneurs can serve the important role of economic growth and development and governments need to realize this potential.
More needs to be done in the U.S. and throughout the industrial nations of the world.

Notes Chapter 2

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3 Fast Growing Enterprises in The Netherlands

Johannes Borger, Wim H.J. Verhoeven and Jacqueline A.H. Snijders

3.1 Introduction

In the first chapter Bruce A. Kirchhoff concluded that in the United States high innovation firms are more productive job creators and more aggressive growers than low innovation firms, at least in the first six years of existence. The Starters Cohort of EIM[1] revealed that in the Netherlands 15% of the start-ups in 1994 could be characterised as innovative[2]. After 2 years of existence almost one quarter of these innovative start-ups can be characterised as fast growing enterprises in terms of employment growth.

In this chapter we shall provide more insight in the contribution to employment creation of already existing fast growing enterprises and hyper-growth enterprises in the Netherlands. For both groups of enterprises we will pay attention to the share of these enterprises in the economy, their contribution to employment and sales and their economic characteristics, such as sector of activity, age, financial situation and export. As far as possible the fast growing and hyper-growth enterprises in the Netherlands are compared with Belgium, Denmark, Germany, the United Kingdom, Sweden, Japan and the United States[3]. At the end of the chapter a synthesis of the results is given.

The information on fast growing enterprises in the Netherlands is based on two studies carried out by EIM. In the first study *"Creation and Loss of Jobs in the Netherlands"*, the Dutch enterprises with more than 20 employees are classified on the basis of their growth in employment in the period 1989-1994. As a result five groups of enterprises can be distinguished, among others fast growing enterprises. The second study *"Middle-Sized Enterprises in the Netherlands in an International Perspective"* compares the Dutch mid-sized enterprises with 100-999 employees with similar enterprises in Belgium, Denmark, Germany, the United Kingdom, Sweden, Japan and the United States. In this study also attention has been paid to fast growing enterprises. Since the majority of fast growing enterprises in the Netherlands can be found in the size class 100-999 this second study can be used for an international comparison of fast growing enterprises. In the first study fast growing enterprises are defined as enterprises with more than 20 employees and an increase in employment of approximately 32% in 3 years, whereas in the second study fast growing enterprises are mid-sized enterprises with an employment growth of 16% in 3 years.

Since this growth in employment is not extremely high, we also included in this chapter information on "hyper-growth enterprises". The information on hyper-growth enterprises is based on a third study of EIM called: *"International Comparison of High Performance Enterprises"*. Hyper-growth enterprises are defined as enterprises with an employment growth of at least 60% over the period 1990 to 1993.

The research methodology of the studies is summarised in the Appendix to this chapter.

As stipulated in the Introduction to this report we will restrict ourselves mainly to quantitative information. In the next chapter more qualitative information on fast growing enterprises will be provided.

3.2 The role and characteristics of Dutch fast growing enterprises

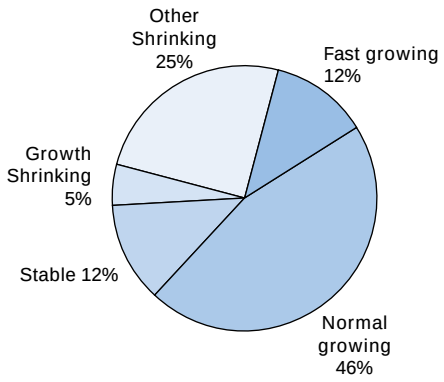
How many fast growing enterprises can be found in the Netherlands?

To answer this question we have classified the Dutch enterprises with more than 20 employees on the basis of employment growth (based on the EIM growth rate[4]), in five groups, viz.:

- fast growing enterprises: enterprises with a large increase (approximately 32% in 3 years) in employment[5];
- normal growing: enterprises with a normal increase (approximately 12% in 3 years) in employment;
- stable enterprises: enterprises with no growth in employment;
- growth shrinking enterprises: enterprises with a decline in employment, but a high sales growth (approximately 10% decline of employment in three years);
- other shrinking enterprises: enterprises with a decline in employment and a small increase or decrease in sales (approximately 15% decline of employment in three years).

An estimated 2,704 enterprises in the Netherlands are fast growing enterprises. This is one tenth of all enterprises with at least 20 employees and these enterprises employ one fifth of all employees. The majority of Dutch enterprises, however, are normal growing firms (see figure 3.1).

Figure 3.1: Shares of enterprise growth types in the Netherlands 19 89-1994* (%)



Source: Bangma, K.E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of jobs in the Netherlands.* Zoetermeer:EIM
• Since us was made of a panel this distribution is the same for 1998 and 1994

How big are the Dutch fast growing enterprises?

The majority of fast growing enterprises are small, i.e. in the size class of 20-49 employees (see table 3.1). However, it appears that this size class has a comparatively small share of fast growing enterprises, given that its share in the total enterprise population is 63%. The share of fast growing enterprises is increasing with the size of the enterprises (see table 3.1). Notably, a quarter of the enterprises employing more than 500 people are fast growing enterprises, while only one tenth of enterprises employing 20 to 49 people can be characterised as fast growing. So, relatively more fast growing enterprises are found among enterprises with more than 500 employees.

Table 3.1: Share of the number of fast growing enterprises (employing more than 20 employees) of the total number of fast growing enterprises and total number of enterprises, by size class (%), 1990-1994

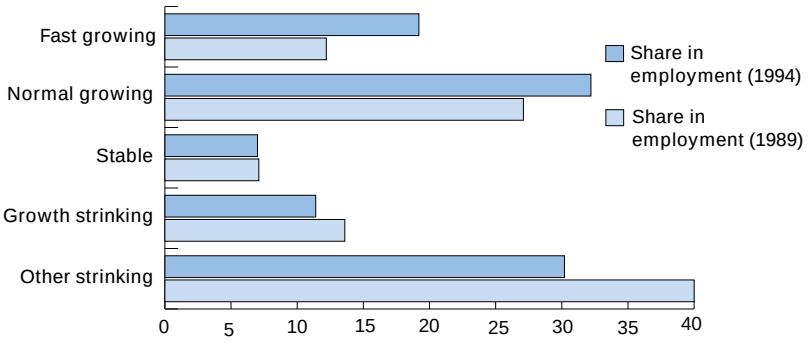
Size class (no. employees	Size class structure of fast growing enterprises	Share of fast growing enterprises as % of total number of enterprises in the size class
20-49	54	10
50-99	23	13
100-199	10	14
200-499	7	15
500+	6	26
Total	100	12

Source: Bangma, K., E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands.* Zoetermeer: EIM

Are fast growing enterprises important for the creation of news jobs?

In the period 1989-1994 fast growing enterprises accounted for slightly more than half of the total gross creation of employment. On the other hand, the majority of the gross loss of jobs was accounted for by the other shrinking enterprises. The share of fast growing enterprises in total employment has grown considerably during the period examined, while the share of both growth shrinking and other shrinking enterprises in total employment has decreased dramatically (see figure 3.2). Moreover, employment growth of fast growing enterprises with at least 20 employees was 10% per annum over the period examined. This was over 50% of gross employment creation of existing enterprises and nearly 5 times the net employment creation. So, one may conclude that the greater part of new jobs in the Netherlands has been created by fast growing enterprises.

Figure 3.2: Share of enterprise growth types in total number of enterprises employment in 1989 and 1994 (%)



Source: Bangma, K.E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands.* Zoetermeer:EIM

Are the new jobs mainly created by larger fast growing enterprises?

Taking into account the size class of the enterprises with at least 20 employees one fifth of the Dutch fast growing enterprises employed more than 100 people (see table 3.1). These large fast growing enterprises however provided for 80% of total employment of fast growing enterprises in 1994 and also 80% of the total job creation of fast growing enterprises. Moreover, 70% of total employment of fast growing enterprises is still generated in enterprises employing more than 500 people (see table 3.2). Though larger enterprises dominate employment in absolute terms, the relative employment growth (as a percentage) is for small and medium enterprises on an annual basis higher than that for larger enterprises. So, larger fast growing enterprises generate and create more employment in absolute terms than smaller ones, although the percentage growth of employment is lower.

Table 3.2: Employment situation, change in employment and employment growth (%) for fast growing enterprises by size class, 1990-1994.

Size class	Employment situation (shares 1994)	Change in employment (shares 1990-1994)	Annual employment growth (percentage, 1990-1994)
20-49	7	9	16.5
50-99	7	9	14.3
100+	86	82	9.1
100-499	16	20	12.5
500+	70	62	8.5
Total	100	100	9.9

Source: Bangma, K., E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands*. Zoetermeer: EIM

Do Dutch fast growing enterprises grow more in terms of sales than other Dutch enterprises?

More than a quarter of total sales of all Dutch enterprises with at least 20 employees originate from fast growing enterprises; whose growth in sales is 12% per annum. The annual growth in sales of growth shrinking enterprises is nearly the same at 11%, but growth rates of other growth types are much lower.
Considering the sales growth of fast growing and growth shrinking enterprises one may conclude that fast growing enterprises realise the high growth level of sales by enlarging capacity, while growth shrinking enterprises realise the high growth level by reducing their (labour) costs. So, fast growing enterprises showed the largest increase in sales.

Sales growth for fast growing enterprises does not show a particular size class pattern. The annual sales growth varies between 11 percent and 12 percent[6] for the defined size classes.

Are Dutch fast growing enterprises mainly active in services?

Fast growing enterprises are active in all economic sectors most likely due to the fact that fast growing enterprises are experts in finding niches that occur in all market sectors. Nevertheless relatively more fast growing enterprises are active in services than in industry and trade (see table 3.3). In addition, the service sector has the greatest part of fast growing enterprises. However the annual growth rate of employment by sector varies between 9 percent and 10 percent, showing no major differences.

Table 3.3: Shares of the sectors in the number of fast growing enterprises and share of fast growing enterprises in the total number of enterprises in the sectors (%), 1990-1994

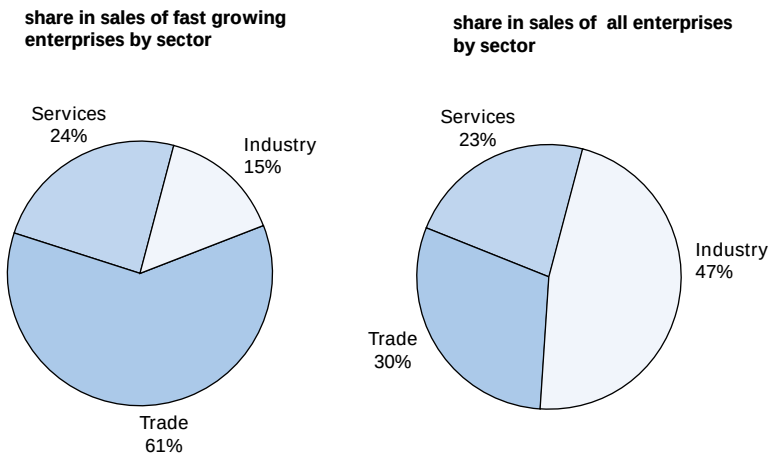
Sector	Share of sectors in the number of fast growing enterprises (%)	Share of fast growing enterprises in number of enterprises of the sectors (%)
Industry	33	8
Trade	32	12
Services	36	16
Total	100	12

Source: Bangma, K., E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands.* Zoetermeer: EIM

Industry is the biggest sector in the economy in terms of total sales and total employment. However, trade and services are sectors in our economy with 7 to 8 percent annual sales growth versus 2 percent in the industrial sector. This high annual sales growth might explain the large share of fast growing enterprises in these sectors. In fact, fast growing

enterprises are most important in trade, with half of sales from fast growing enterprises, and least important in industry, with only one tenth of sales from fast growing enterprises. Moreover, three quarter of the total sales of fast growing enterprises are realised in the trade sector and one quarter in the service sector (see figure 3.3). One may that conclude the majority of fast growing enterprises' sales are realised in the trade sector and that the increase in sales is higher in trade and in service sectors than in industry.

Figure 3.3: Share in sales of fast growing enterprises and all enterprises by sector (%),1994



Source: Bangma, K., E. van Noort and W.H.J. Verhoeven (1997), *Creation and Loss of Jobs in the Netherlands.* Zoetermeer:EIM

Are Dutch fast growing enterprise mainly active in high tech sectors?

The high-tech enterprises are prominent in the development of new products as well as in product innovations. High-tech enterprises generally invest more in R&D and are involved in growth markets. Fast growing enterprises introduce new products more often, organise the innovation process better, meet fewer problems with the introduction of new technologies, have a management with a higher educational level, pay more attention to education and training and follow a more offensive strategy[7]. In addition, previous research[8] concluded that innovation and R&D activities outside the high-tech sector is primarily realised by fast growing enterprises[9]. So it is not a surprise that they are overrepresented in the section of fast growing enterprises. About 40 percent of all high-tech mid-sized enterprises are fast growing enterprises and an additional 25 percent are normal growers and one third is shrinking.

Are Dutch fast growing enterprises younger than other Dutch enterprises?

The typical Dutch entrepreneur of a fast growing enterprise is a man aged about fifty[10]. On average fast growing enterprises are younger, 15 years, than other enterprises. Nut one must take into account that these are averages. Fast growing enterprises are found in all

age classes. About a third of fast growing enterprises is between 5 and 10 years, another third between 10 and 20 years, and the remaining third older than 20 years. Enterprises that are classified as other growth types are on average 2 to 6 years older than fast growing enterprises. As fast growing enterprises are overrepresented in the lower age class one may conclude that a growing number of start-ups might lead to a higher share of fast growing enterprises in the near future.

Do Dutch fast growing enterprises realise a higher labour productivity than other Dutch enterprises?

Sales per employee can be used as an indicator of labour productivity. The total sales per employee for all enterprises is NLG 202,000. The sales per employee is highest in fast-growing enterprises and lowest in growth shrinking enterprises (see table 3.4).

Table 3.4: Sales per employee, 1989 (NLG.) and growth of sales per employee (%), 1990-1994

Growth type	Sales per employee (1989, NLG))	growth of sales per employee (1990-94, %)
Fast growing	330,000	0.4
Normal growing	180,000	3.1
Stable	173,000	1.2
Growth shrinking	120,000	13.3
Other shrinking	210,000	-0.3
Total	202,000	3.0

Source: Bangma, K.L. and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands.* Zoetermeer.

However the growth in productivity for the fast growing enterprises was much lower than the overall productivity growth. This can be explained by the fact that these enterprises invest in enlarging their capacity, anticipating sales growth in the near future. But because of their high labour productivity fast growing enterprises can afford this lower productivity growth. Fast growing enterprises operate very efficiently and, among other things, they consider education and training important factors[11].

Do Dutch fast growing enterprises have a better financial position than other Dutch enterprises?

Solvency rates, efficient use of capital and profitability are indicators for the financial position of enterprises. Solvency gives financiers an indication of the risks involved in financing enterprises. Solvency is measured as the proportion of equity capital to total capital. This means the higher the solvency the more equity is available in the enterprise and the lower the risk that an enterprise will not able to repay its debts. It is remarkable

that fast growing enterprises have the highest solvency among all growth types. However, differences among growth types are small. There is a positive relation between solvency and the size of the enterprise (see table 3.5). A good financial position is indispensable for funding liabilities. However, one must take into account that the most important sources of finance for fast growing enterprises are next to bank loans, retained profits and own savings[12].

Table 3.5: Average solvency in the period 1990- 1994 (%) for fast growing enterprises and all enterprises (20+)

Size class	Fast growing enterprises	All enterprises (20+)
20-49	32.5	33.5
50-99	30.2	30.6
100+	40.8	39.2
Total	38.5	36.4

Source: Bangma, K., E. van Noort and W.H.J. Verhoeven, (1997). *Creation and Loss of Jobs in The Netherlands*. Zoetermeer: EIM

The turnover rate, calculated as the assets to sales ratio, indicates the capital needed to generate the sales and is a good indicator to measure the efficiency of using capital. The average turnover rate in the period 1990-1994 for fast growing enterprises was much higher than the turnover rate for all Dutch enterprises in total. Consequently, fast growing enterprises make very efficient use of capital relative to other growth types. On the other hand one should take into account that the majority of Dutch fast growing enterprise are active in the service sector. Enterprises in the service sector have relatively few assets compared to manufacturing enterprises, so this high asset turnover could be expected.

A good indicator for the profitability of an enterprise is the return on equity. Return on equity (ROE) is measured as the profit after taxation in terms of invested equity. During the period 1990-1994 the return on equity was somewhat greater for fast growing enterprises than for the average enterprise, but slightly less than that for normal growing enterprises. So, fast growing enterprises are more profitable.

Do Dutch fast growing enterprises invest more than other Dutch enterprises?

Good indicators of investment are the net investment intensity and the net growth in fixed assets. The net investment intensity, investment as a percentage of sales, was highest for fast growing enterprises with an average annual increase of 28 percent over the period from 1989-1994. As described before, fast growing enterprises invest to enlarge their capacity.
However, for all enterprises the investment intensity is less than half this amount which is partly due to a negative growth in investments of other shrinking enterprises. Consequently, the overall growth in assets amounted to 5 percent but was by far the highest for fast growing enterprises with an annual growth of 23 percent in fixed assets.

Do Dutch fast growing enterprises export more than other Dutch enterprises?

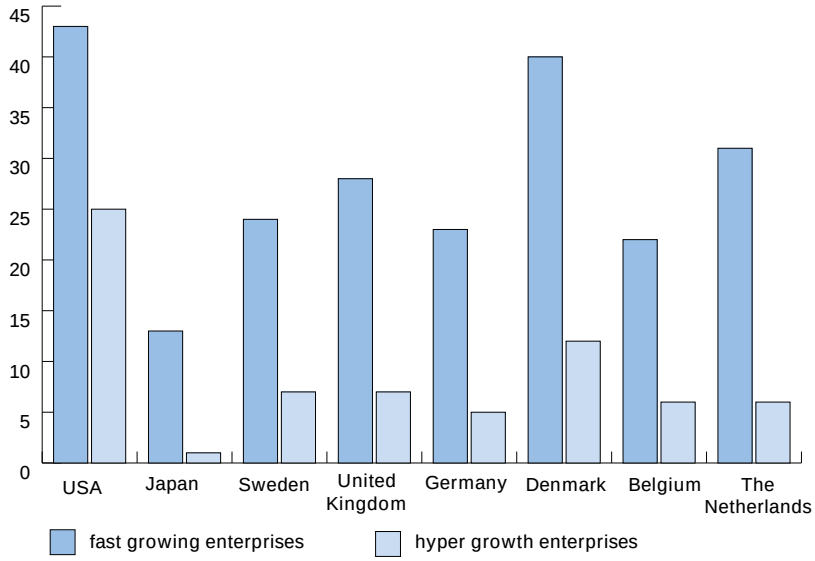
It is surprising that fast growing enterprises on average export less than other enterprise types. An above average part of that is exported to Western European countries. In addition, only one quarter of fast growing enterprises are exporters, versus one third for the entire population. The reason for this low export might be that fast growing enterprises are experts in finding niches in the market, which can be niches in the Netherlands as well as abroad. The aim is to actively find new products and markets to expand the economic activities. The larger an enterprise grows, the more necessary it is to develop new export markets since the national market will then become too small. To cope with competition these enterprises have to reduce costs, as is seen in the growth shrinking enterprises. Compared to other Dutch enterprises fast growing enterprises set up more often subsidiaries on foreign markets[13].

3.3 International comparison of fast growing and hyper-growth mid-sized enterprises

Do the Netherlands have a lot of fast growing and hyper-growth enterprises compared to other countries?

In an international context the share of fast growing enterprises among mid-sized enterprises in the Netherlands is relatively high. Almost one third of all mid-sized enterprises can be characterised as fast growing. Only in Denmark and the United States is the share of these enterprises greater (see figure 3.4).

Figure 3.4: International comparison of fast growing and hyper-growth mid-sized enterprises



Source: Verhoeven, WHJ. (1998). *International Comparison of High Performance Enterprises: A Benchmark Study.* Zoetermeer. EIM, (1996). *Middelgrote Bedrijven in Nederland in Internationaal Perspectief* ('Middle-Sized Enterprises in the Netherlands in an International Perspective') Zoetermeer

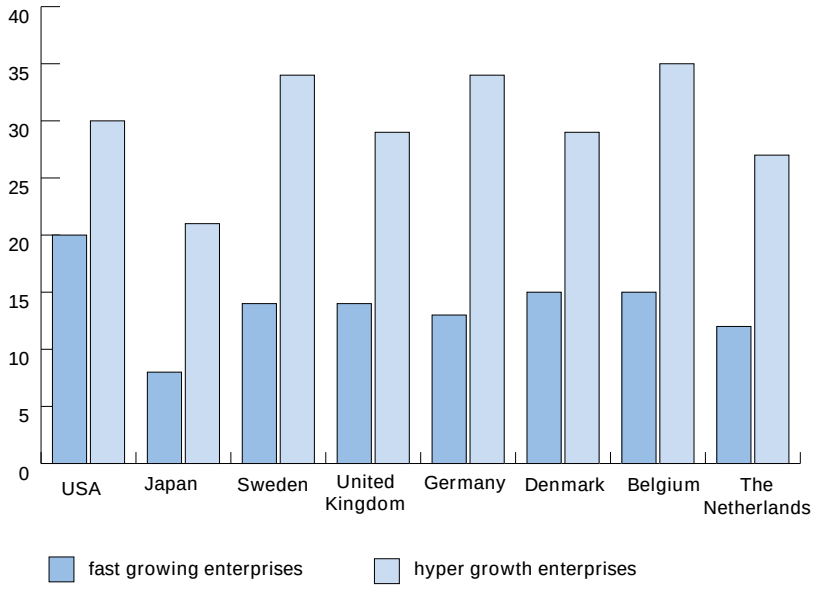
In this study hyper growth enterprises are mid-sized enterprises with a 60% employment growth in three years (1990-1993). As figure 3.4 shows the United States has with 25% the highest share of mid-sized hyper-growth enterprises. In Europe, Denmark again has the highest share. The Netherlands has with 7% a below average share of mid-sized hyper-growth enterprises; only Germany and Japan have lower shares.

The relatively low number of hyper-growth enterprises compared to the number of fast growing mid-sized enterprises, 30% percent versus 7 %, suggests that the Dutch fast growing enterprises show a relatively low growth level:

Do the Dutch fast growing and hyper-growth enterprises create more employment than in other countries?

Fast growing mid-sized enterprises showed over the period 1990-1993 an annual growth of employment of 12%. This is relative low compared to the other countries examined. All countries but Japan have higher annual growth rates. The annual growth in employment for the Dutch hyper-growth mid-sized enterprises (27% annual growth) yields internationally the same picture (see figure 3.5).

Figure 3.5: International comparison of the annual employment growth of fast growing and hyper-growth mid-sized enterprises



Source: Verhoeven, WHJ. (1998). *International Comparison of High Performance Enterprises: A Benchmark Study*. Zoetermeer. EIM, (1996). *Middelgrote Bedrijven in Nederland in Internationaal Perspectief* ('Middle-Sized Enterprises in the Netherlands in an International Perspective') Zoetermeer

The low employment growth of Dutch fast growing mid-sized enterprises could be explained among others by the relatively low investments in equipment and the bottlenecks on the financial markets compared with the United States and Denmark.

Do the Dutch fast growing and hyper-growth enterprises realise a larger increase in sales than in other countries?

Compared to other countries the level of sales growth of Dutch fast growing mid-sized enterprises is average (12%). Only in the United States and Belgium the growth rate is higher. The same holds for the annual growth of sales of hyper-growth enterprises in the Netherlands (20%). In Sweden, Denmark and Belgium the growth rate is higher.

So, we may conclude that sales growth of Dutch fast growing mid-sized enterprises is average and employment growth is low. This implies a higher productivity of Dutch fast growing mid-sized enterprises. These and other economic characteristics are discussed below.

Are Dutch hyper-growth enterprises active in other sectors than in other countries?

Examining the Dutch hyper-growth mid-sized enterprises, they appear to be active particularly in services, which is however not the common picture for the other countries examined. In other countries, like the United Kingdom and the United States, trade is the dominant sector. In all countries there are relatively few hyper-growth enterprises active in industry.

Are Dutch fast growing enterprises younger than in other countries?

The Dutch fast growing mid-sized enterprises have an average age of 40 years; hyper-growth enterprises are only 2 years younger. They are the oldest in Europe plus Japan. Unfortunately no figures are available for the United States

Is the labour productivity of Dutch fast growing and hyper-growth enterprises higher than in other countries?

Labour productivity for Dutch fast growing and hyper-growth mid-sized enterprises was higher than the average of the selected countries. In Japan and the United States the labour productivity was in both cases higher in the period 1990-1993. In Belgium labour productivity was higher in the case of fast growing enterprises and in Germany in the case of hyper-growth enterprises.
The real growth of labour productivity of both fast growing and hyper-growth enterprises is more favourable in the Netherlands than the average. Concerning the fast growing enterprises the situation is only better in the United States, Belgium and Sweden and in the case of hyper-growth enterprises only in Denmark and Sweden.
Hyper growth enterprises showed in all benchmark countries a decrease in labour productivity. This negative growth in labour productivity can be sustained by hyper-growth enterprises because the level of their labour productivity and their profitability is high (see below).

How is the financial situation of Dutch hyper-growth enterprises compared to other countries?

The solvency of hyper-growth enterprises was the lowest in Sweden and Japan, whereas

the solvency rate of hyper-growth enterprises in the Netherlands, Denmark and the United States was above average.
Compared to the other countries, the profitability (return on equity) of hyper-growth mid-sized enterprises in the Netherlands in the period 1990-1993 was the highest. It was just 1 percent-point higher than Denmark but nearly three times that of the USA. Profitability was the lowest in Japan, followed by the United Kingdom and Belgium. One may conclude that the financial position of the Dutch fast growing and hyper-growth enterprises is good.

How large is the size of the investment of Dutch fast growing mid-sized enterprises compared with other countries?

In an international context, the investments of fast growing mid-sized enterprises in the Netherlands are relatively low. This might explain the lower growth rate of fast growing enterprises in the Netherlands.

3.4 Synthesis

The position of Dutch fast growing enterprises compared with other Dutch enterprises

In the period 1989-1994 the majority of jobs created in the Netherlands were created by fast growing enterprises with more than 20 employees. In addition these enterprises showed the largest increase in sales. The share of fast growing enterprises increased with the size of the enterprises and consequently the majority of employment growth of fast growing enterprises was created by enterprises larger than 500 employees. Fast growing enterprises are above average active in the service sector. Other characteristics of the Dutch fast growing enterprises compared with other Dutch enterprises are that:
- they are relatively younger;
- they show a higher level of labour productivity although they lag behind in the development of labour productivity;
- their profitability is above average;
- they make more efficient use of capital and have higher solvency rates;
- they invest more.

The good performance of fast growing enterprises can be explained by a number of factors, such as the higher educational level of the management, the attention paid to education and training, the more offensive strategy and search for new markets and new products, the attachment of importance to high quality of products and services and the better and more active innovation process.

An international comparison of fast growing and hyper-growth mid-sized enterprises

Compared with other countries the Netherlands has many fast growing mid-sized enterprises but only a few hyper-growth mid-sized enterprises. Both show a relatively low annual employment growth (see table 3.6). The Netherlands remains far behind the USA and Denmark. In table 3.6 the characteristics of hyper-growth enterprises are summarised. For all variables except for the share of enterprises the international position for the Dutch fast growing mid-sized enterprises and hyper-growth mid-sized enterprises shows a similar pattern. The performance of the Dutch hyper-growth enterprises however is relatively good.

Table 3.6: Characteristics of hyper-growth enterprises by country, 1990-93 (60% employment growth)

	NL	B	DK	D	UK	S	J	USA
Share of enterprises	6%	6%	12%	5%	7%	7%	1%	25%
Annual employment growth	27%	35%	29%	34%	29%	34%	21%	30%
Annual sales growth	20%	22%	22%	19%	16%	25%	21%	20%
Labour productivity (NLG 1,000)	502	406	412	974	470	404	557	711
Growth of labour productivity	-8%	-13%	-7%	-15%	-10%	-2%	-11%	-11%
Profitability (ROE)*	19%	10%	18%	9%	9%	10%	18%	7%
Solvency	0.30	0.28	0.38	0.27	0.28	0.20	0.17	0.38
Age (1993)	38	-	24	28	29	30	26	-

Source: Verhoeven, W.H.J. (1998). *International Comparison of High Performance Enterprises: A Benchmark Study*. Zoetermeer: EIM.
* ROE is Return on Equity

Compared to the hyper-growth mid-sized enterprises in other small European countries, Belgium, Denmark and Sweden, the Dutch show:
- a high labour productivity. However the decrease in labour productivity is the highest in the Netherlands compared with the small countries, except for Belgium;
- a better financial position than the Belgium and Swedish enterprises;
- a slightly lower in growth in sales.

Compared to the hyper-growth mid-sized enterprises in the larger European Countries, Germany and the United Kingdom, the Dutch show::
- a higher growth in sales;
- a higher labour productivity than in the United Kingdom, but much lower than in Germany. The decrease in labour productivity however is considerably less than in Germany and slightly less than to the United Kingdom;
- a better financial position.

The growth of annual sales of the Dutch hyper-growth mid-sized enterprises is the same as the American and Japanese enterprises. Labour productivity is lower, but again the decrease in labour productivity is also lower. The financial position is better than that of enterprises in the United States and Japan.

In conclusion fast growing enterprises in the Netherlands account for more than half of job creation. Compared with other countries the Netherlands have many fast growing enterprises but they show a relatively low growth of employment. This can be explained by their relatively low investment level. On the other hand these enterprises show a comparatively strong performance with high productivity and profitability.

Appendix 3.1 Research methodology and classification

Three complementary studies of EIM have been used for this chapter. In this annex we will discuss the research methodology and the classification of these studies.

Study 1: Bangma, K., E. van Noort and W.H.J. Verhoeven, (1997). ***Creation and Loss of Jobs in The Netherlands. Zoetermeer: EIM.***

This study focuses on enterprises in the Netherlands in the period 1989-1994 and includes those enterprises that have 20 or more employees[17]. These enterprises are classified according to the estimated value of the EIM growth rate (EGR). This EGR is derived from the Birch growth rate. The focus of the EGR is on the employment growth over a 5 year period and is measured as the absolute growth of employment between 1989 and 1994 multiplied by the relative change in employment;

$$EGR=\{(Empl_{1994}-Empl_{1989})^{0.25}\} * \{(empl_{1994}-Empl_{1989})/Empl_{1989}\}$$

Compared to Birch the absolute term is made less dominant to overcome discrimination against smaller enterprises. For those a multiplication of the work force, a high relative growth, is still small in absolute numbers.

Using the EGR five growth types are distinguished and defined. The choice of the value of the EGR for the classification of an enterprise as being, for example, fast growing has an impact on the final result of the study regarding the number of enterprises, employment, sales and so on by class. The following classification and definitions of enterprises with more than 20 employees are used to identify five groups:

- fast growing enterprises, with an EGR above 1.5; account for 12% of enterprises in the Netherlands,
- normal growing enterprises, with an EGR between 1.5 and 0.05, account for 46% of Dutch enterprises,
- stable enterprises, with an EGR between 0.05 and -0.05, have a 12% share of Dutch enterprises,
- growth shrinking enterprises, with an employment EGR below -0.05 and a sales EGR above 1.5, represent 5% of Dutch enterprises. These enterprises experience a declining employment, but a high sales growth.
- other shrinking enterprises, with an employment EGR below 0.05 and a sales EGR below 1.5, comprise 25% of Dutch enterprises. These enterprises show decreasing employment and either a modest increase or a decrease in sales.

Furthermore, the data used for the analysis covers 11,000 Dutch enterprises out of a total population of 23,400 with at least 20 employees in 1994 and existing in 1989 and 1994 during the whole year[18]. Employment is measured as the number of people employed, no corrections have been made for part-time employment situations. Five size-classes are distinguished:

- 20-49 employees,
- 50-99 employees,
- 100-199 employees,
- 200-499 employees and
- more than 500 employees.

The sectors involved in the study are industry, which includes mining, manufacturing, public utilities and construction, trade, which includes wholesale- and retail trade, sales and repair of motorcars and hotel and catering, and services, including transport and communication, financial and business services.

Study 2: EIM, (1996). *Middelgrote Bedrijven in Nederland in Internationaal Perspectief* ('Middle-Sized Enterprises in International Perspective'), Zoetermeer: EIM.

In this study an international comparison has been made of mid-sized enterprises in the Netherlands, Belgium, Denmark, Germany, the United Kingdom, Sweden, Japan and the United States. This study concentrates on mid-sized enterprises that employed between 100 and 1,000 employees in 1993. Three size classes are defined: 100-199, 200-499 and 500-1,000 employees. Among other things attention has been paid to fast growing enterprises. Fast growing mid-sized enterprises are defined as enterprises with an increase in employment in the period 1990-1993 of at least 5% per annum.

Study 3: Verhoeven, W.H.J. (1998). *International Comparison of High Performance Enterprises: A Benchmark Study.* Zoetermeer: EIM.

In this benchmark study' hyper-growth enterprises in which the Netherlands is compared to other European countries, Japan and the USA. The focus in this study is on mid-sized enterprises employing between 100 and 1,000 employees. The definition of a hyper- growth enterprises is related to the development of 1 or 2 variables over a three year period (1990-93)[19] and concentrates on mid-sized enterprises that employed between 100 and 1,000 employees in 1993. Three size classes are defined: 100-199, 200-499 and 500-1,000 employees. The benchmarks that are defined for growth - over a three year period - are the following:
- growth in employment of at least 60%,
- growth in sales of at least 60%,
- growth in employment of at least 100%,
- growth in sales of at least 100%,
- growth of 100% in sales and employment.

In this chapter the first item, growth in employment of at least 60% over three years, has been elaborated. One must take into account that the definition of these "extreme" or "hyper-growth" in percentage of growth profoundly affects the results. For example, defining hyper-growth as minimum 60% growth in employment yields 192 hyper-growth enterprises, but defining hyper-growth as minimum 100% growth in employment yields only 72 hyper-growth enterprises in the Netherlands. The definition of both 100% growth in employment and sales as well would only yield 19 hyper-growth enterprises.

Notes Chapter 3

1 This cohort started in the first quarter of 1994 and covered 2,000 start-ups. This cohort study makes it possible to follow start-ups over a period, since always the same enterprises are surveyed.
2 Innovative was characterised by 2 criteria: carrying out R&D and/or development of new products
3 This benchmark however is limited to mid-sized enterprises (100-999 employees) due to the availability of data in an international context.
4 The definition of the EIM Growth rate is given in the appendix.
5 The growth level decreases with the size of the firm: enterprises in the size class 20-49 employees have on average a cumulated growth of 58% in three years and enterprises in the size class (500 employees 'only' 27%.
6 However, including micro enterprises (employing between 0 and 20 people) the results change and show considerable differences in sales growth between size classes. Sales of micro enterprises (0-10 employees) grow annually by 28%, small and medium enterprises (10- 99 employees) by 18% and large enterprises (100+ employees) by a relatively low 11%.
7 Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High Growth Companies in the Netherlands'). Den Haag.
8 Hoeven, W.H.M.and W.H.J. Verhoeven, (1994). *Creatie en Teloorgang van Arbeidsplaatsen* ('Creation and Loss of Jobs'). OSA werkdocument W123.
9 This is confirmed by Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High Growth Companies in the Netherlands'). Den Haag.
10 EIM, (1997). *Fast Growing Enterprises: The Netherlands and Europe.* Zoetermeer.
11 EFER, (1996). *Europe's 500 Dynamic Entrepreneurs:The Job Creators.* Brussels.
12 EFER, (1996). *Europe's 500 Dynamic Entrepreneurs:The Job Creators.* Brussels.
13 Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High Growth Companies in the Netherlands'). Den Haag.
14 EIM, (1996). *Middelgrote Bedrijven in Nederland in Internationaal Perspectief* ('Middle-sized Enterprises in the Netherlands in an International Perspective'). Zoetermeer: EIM. Results are given for the period up to 1993 for Europe and 1994 for Japan and the USA.
15 EIM, (1996). *Middelgrote Bedrijven in Nederland in Internationaal Perspectief* ('Middle-sized Enterprises in the Netherlands in an International Perspective'). Zoetermeer: EIM.
16 EIM/BIRC, (1998). *Internationale Vergelijking van Externe Financieringsmogelijkheden voor het MKB* ('International Comparison of External Financing Possibilities for Small and Medium-sized Enterprises'), Zoetermeer/Maastricht.
17 Note that start-ups and closures during the 1989-94 period are excluded from the data. A rough estimate illustrates that 85% to 90% of all Dutch firms employing more than 20 people in 1994 already exist in 1989. The remaining 10% to 15% represent young firms established after 1988 and firms that originated from mergers and take-overs.
18 The observations on sales, turnover, solvency, return on equity, investments and exports are based on a limited panel that varies between 138 and 1,980 enterprises. This reduces the reliability of the results.
19 For Japan and the USA a different period is selected, i.e. 1991-94.

4 Fast Growing Enterprises: Discoverers and Innovators*

Sander H. Baljé and Pieter M. Waasdorp

4.1 Introduction

The policy of the Ministry of Economic Affairs is aimed at the promotion of sustainable economic growth in order to generate more prosperity and employment. This takes place in a rapidly changing international environment with major challenges and also high risks. Continually changing markets, new technological opportunities and increasing individualisation call for a greater capacity to innovate and adjust of the Dutch economy[1]. Flexible and innovative companies and entrepreneurs play a leading role in this transition from a managerial to a more entrepreneurial economy[2]. Fast growing enterprises merit specific attention in this process. These companies are typical examples of businesses that succeed in operating flexibly in this increasingly challenging environment and generate more employment and prosperity. It therefore comes as no surprise that political attention to this group of companies is growing, in the Netherlands as well as in other OECD-countries. For example, the Coalition Accord of the current Cabinet explicitly discusses the importance of these fast growing enterprises for a dynamic economy[3].

This chapter discusses the group of fast growing enterprises. We describe the distinguishing features of these type of companies and discuss policy options for the government. The design of the chapter is as follows. The second section provides a brief description of the importance of fast growing enterprises. It also shows that there are relatively few of these in the Netherlands. The results of a large-scale survey of Dutch fast growing enterprises are summarised in the third section. Both the quantitative and the qualitative surveys provide a number of leads for government policy aimed at high growth. We legitimize this government intervention in the fourth section, and in the fifth, outline tentative policy directions. Section six contains the summary and conclusions.

4.2 The importance of fast growing enterprises

Fast growing enterprises are the driving force of innovation

In the past decade research into fast growing enterprises has prospered[4]. Despite differences in methodology and results of the various studies, the general consensus is that fast growing enterprises are of critical importance to economic development. Fast growing enterprises stimulate competition and challenge other companies to innovate. This is shown, for example, by the fact that Coopers & Lybrand's `hypergrowth companies' (1995) invest far more in new products and production processes. 62% of the hypergrowth companies launches new products several times a year, compared with 34% of all other companies. Apparantly, their product development spending is effective enough to result in new products more often. Simon (1996) shows that innovation is a key succes factor for the so-called 'hidden champions'. These companies are almost all European or world market leaders because they were ahead in their markets. Finally, Oerlemans and Meeus

(1998) show that fast growing enterprises manage to develop new markets primarily by providing a varied product package. They appear to focus more on market innovation than low growth companies (see box 4.1). On the whole we can conclude that the innovative capacity of the Dutch economy is heavily dependent on fast growing enterprises.

Box 4.1: Market Innovation

In 1995, the Technology Management Faculty of Eindhoven Technical University conducted a survey of Dutch industrial and service companies as part of the CINT project. The main aim of the survey was to define the innovative behaviour of Dutch companies. Meeus and Oerlemans made a comparison between companies with high sales growth (>18% per year) and low sales growth (<2% per year) for the CINT- and TNO-dataset (sea section 4.3).. The study showed that fast growing enterprises experience a substantially higher output dynamic (composition of customers and product package) than low growth companies. Fast growing enterprises apparently manage to develop new markets primarily by providing a varied product package. They focus more on market innovation than low growth companies.

Based on: Meeus, M.T.H. and L.A.G. Oerlemans, (1998). *Snelgroeiende ondernemingen in Nederland: een vergelijking met twee datasets* ('Fast growing enterprises in the Netherlands: A comparison with two data sets'). Technische Universiteit Eindhoven en Ministerie van Economische zaken.

... and are important for job creation

Since David Birch first demonstrated the importance of small businesses for employment growth in 1979, the question of which kinds of companies create the most jobs has been raised often in economic research. In *Job Creation in America*, Birch focused particularly on the importance of small high growth businesses, which he dubbed `gazelles'[5]. In the US, 3% of all companies account for almost 80% of job creation[6]. By way of comparison, in the Netherlands, the top 8% of companies (20,000 companies) accounted for about 50% of the gross job creation of existing companies in the 1990-1994 period[7]. About 80% of this job creation is of an organic nature[8]. Fast growing enterprises can be found in all sectors: i.e., not only in well-known high growth sectors such as information and communications technology, but also in the more mature retail trade[9]. High opportunity market niches can be found in every sector. However, on balance the service sector accounts for a higher proportion of fast growing enterprises. Some 12% of companies in the service sector are fast growing enterprises, compared with 6% in manufacturing industry.

... but the Netherlands has few fast growing enterprises

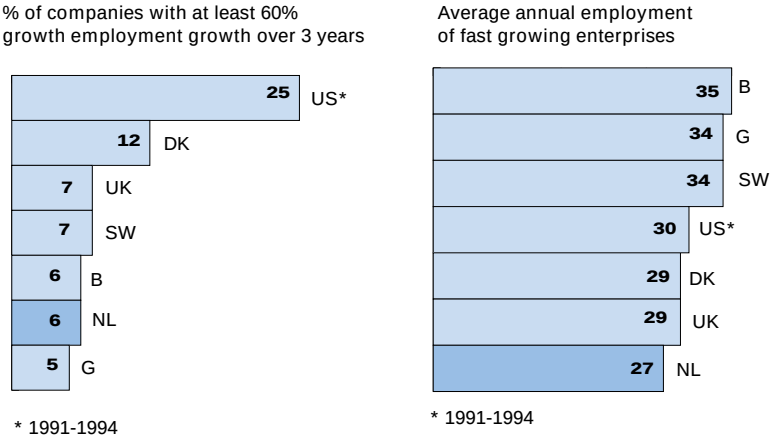
How does the Netherlands perform in comparison with other countries? At present, an internationally comparable study into the importance of fast growing enterprises is being developed within the Organisation for Economic Cooperation and Development (OECD). This does not appear to be any sinecure. Often, different periods are analyzed by the countries taking part, or there are differences in the definition of high growth. Verhoeven (1998) recently completed a benchmark study for the Ministry of Economic Affairs, in which fast growing enterprises are defined as those where employment growth by at least

60% in the space of three years. This study shows that the Netherlands has only a limited number of high growth medium-sized enterprises (100-1,000 employees)[10]. Just 6% of Dutch medium-sized enterprises realise high growth, compared with 25% in the US[11]. The Netherlands also performs less well than other European countries. Denmark, for example, holds twice as many fast growing enterprises as the Netherlands (see figure 4.1).

... and growth trails other countries

Furthermore, Dutch fast growing enterprises do not grow as fast as similar companies in other countries[12]. Average jobs growth among Dutch fast growing enterprises is 27% per year, compared with 29% for Danish and as much as 30% for American fast growing enterprises (see figure 4.1). The question is, of course, whether this is a worrying trend from a macro-economic point of view. After all, it is quite possible that the decision to grow somewhat more slowly is a conscious decision by the businesses themselves. A more moderate general economic development is a natural result. Nevertheless, the differences are so large that we do not believe that this can be the entire explanation. Furthermore, the fact that high growth businesses form a kind of indicator for the capacity to innovate and adjust of the Dutch private sector, as we mentioned above, gives even more cause for concern. In that case, a lower number of fast growing enterprises in the Netherlands raises questions about the future growth potential of the Dutch economy. Consequently, increasing the number of fast growing enterprises should be an important policy objective. But before detailing out policy options a number of questions remains to be asked: why do Dutch companies show slower growth, and most of all, why do fewer businesses in the Netherlands achieve high growth[13]?

Figure 4-1: Percentage of fast growing enterprises among medium-sized enterprises (100-1000 employees) in 1990-1993



** Based on: Verhoeven, W.H.J., (1998). *International Comparison of High Performance Enterprises: A Benchmark Study*. Zoetermeer: EIM.

4.3 The secret of fast growing enterprises

A wide range of different factors could explain the Netherlands' poorer performance. These can be divided into external factors (e.g. the operation of the capital market) and internal factors (e.g. corporate strategy). We focus on the internal factors. This is not because the external factors are regarded as less important: on the contrary, research shows that Dutch fast growing enterprises often experience considerable problems in attracting venture capital[14]. Also the limited availability of well qualified employees and the high administrative expenses appear to have a growth-constraining influence[15]. The reason is far rather that a great deal, albeit not enough, is already known about the influence of the external factors, while far less is known about the influence of the internal factors. In fact, this is still largely uncharted research territory. We do not yet now very much about fast growing enterprises and the secret of their success[16]. Which entrepreneurs operate fast growing enterprises? What types of companies are they? How old are fast growing enterprises? How innovative are they? Do they invest more in human capital? Do they have problems in continuing their current growth rate? And how does this compare with the low growth companies?

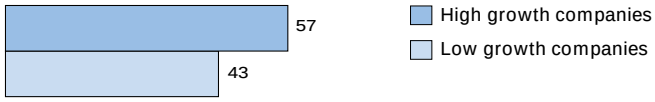
New Dutch research

To find the answer to these questions, the Ministry of Economic Affairs and TNO-STB surveyed almost 300 high growth and low growth companies in which potential explanatory factors for growth and success were assessed[17]. The results of the survey were supplemented by 20 case studies of fast growing enterprises. This survey produced two main conclusions. Firstly, it is clear that, while there is no blueprint for fast growth, fast growing enterprises manage to effectively break through the `glass ceilings' that they encounter during their development. Secondly, the original founder often still plays a crucial role in fast growing enterprises. High growth appears to be primarily a question of good entrepreneurship.

No blueprint for fast growth

Many companies run up against a `glass ceiling' or 'growth barrier' in the course of their development, for example because the organisational structure is no longer adequate, or because the product range no longer meets market demands[18]. The strength of fast growing enterprises is that they are able to break through these barriers effectively. Such growth ceilings ultimately become milestones and turning points in the history of a fast growing company. All the fast growing enterprises interviewed were able to identify the points when their company faced such a ceiling. However, the survey results show that there is no fixed pattern in which growth barriers occur, or for that matter a fixed set of solutions. These events are unique to each fast growing company. No blueprint can therefore be defined for fast growth. What the fast growing enterprises have in common is that sooner or later, they run up against a growth ceiling and find a solution that enables the company to continue growing (see figure 4.2).

Figure 4.2: Percentage of companies that experience problems with reorganisation



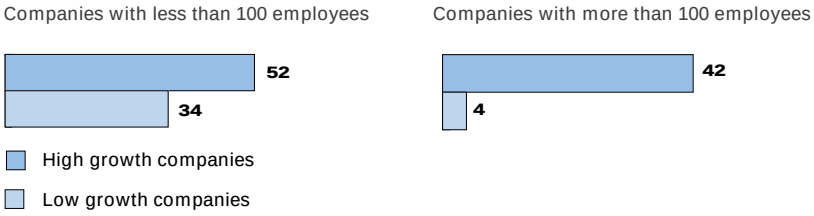
Based on: Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High growth companies in the Netherlands'). Den Haag

The survey does show that on average, fast growing enterprises manage most of their internal business processes more effectively than low growth companies. However, individual fast growing enterprises do not attempt to excel in every area of corporate policy at the same time. Depending on the growth ceilings that they encounter and the solutions chosen, fast growing enterprises often excel in two to four areas, which can differ for each one, such as innovation policy and human resource management (see boxes 4.3 and 4.4)[19 20] .

The founder is of key importance to fast growing enterprises

In many cases, the founder of a fast growing enterprise still plays a crucial role (see figure 4.3). Among far more high growth than low growth companies, the original entrepreneur is still the managing director. It is primarily the founder's entrepreneurial skills that contribute to good performance. These qualities, combined with his or her internal management capacities, are the key to the success of the company. Fast growth appears to be primarily a matter of good entrepreneurship.

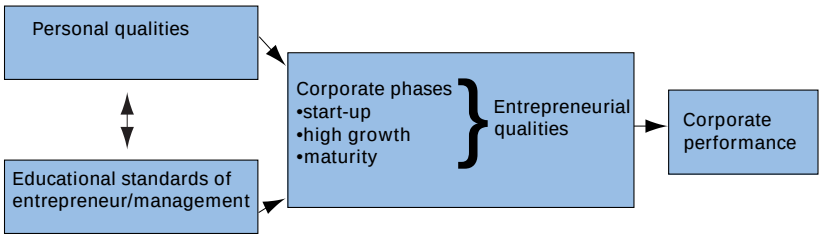
Figure 4.3: Percentage of companies in which the founder is the general manager (as % of total number of companies)



Based on: Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High growth companies in the Netherlands'). Den Haag

The critical qualities vary according to the phase in which the company finds itself. The determining entrepreneurial qualities may differ for a company in the start-up phase from those in a company that is operating in a saturated niche market. Four phases are distinguished in figure 4.4 below[21]. The entrepreneurial qualities are related to personal characteristics (ambition, helicopter view and age) and entrepreneurial competences (e.g. education and training levels).

Figure 4.4: Entrepreneurial qualities and corporate performance



Interviews with the entrepreneurs in these fast growing enterprises show that they themselves attach considerable importance to being a real enterpreneur. They feel this as a prominent aspect of their personality. They also seek out challenges to their entrepreneurial skills in order to continually improve them. This entrepreneurial aspect of their personality is also reflected in the strategic choices they make: for example entrepreneurs attach considerable importance to the other party's professional and entrepreneurial skills.

Box 4.2: Organisational 'glass ceiling'

Production company : Fullup Ltd.
Employees in 1997 : 93
Sales in 1997 : Fl. 28 million

Fullup Ltd. was formed in 1958 and in the period from 1993-1997, Fullup Ltd. saw its workforce grow from 45 to 93 employees. However, this rapid growth gave rise to a fair number of organisational problems. Fullup was previously a functional organisation, with the Managing Director at the top and the other employees in line functions. But as a result of the growth, the managing director was unable to keep track of the entire organisation. A clear division of responsibilities was lacking. A reorganisation was therefore introduced. The current Managing Director now has the support of a management team and within the organisation, there is a growing emphasis on communications and exchanges of information. The management team convenes on a regular basis and there are meetings of all employees two or three times per year. As a result Fullup can now respond more flexibly to changing circumstances.

Based on: Bracke, J.W.M. and K.A. van der Zouwen, (1998). *Glasscherven Brengen Succes* (`Shattered Pieces Bring Success'). Nijenrode Universiteit en Ministerie van Economische Zaken.

Box 4.3: Innovation

The development of new products and processes is a critical factor for a company's competitiveness. Fast growing enterprises are well aware of this. They are far more innovative than low growth companies. It is hardly surprising that fast growing enterprises deliberately opt for a pro-active technology strategy. A total of 32% of large fast growing enterprises (more than 200 employees) opt for the `leading' strategy, as opposed to 8% of low growth companies. On average, fast growing enterprises spend over 40% more on process innovations than low growth companies. Process innovations can lead to substantial cost savings and thereby increase a company's competitiveness. They also spend almost 40% more, on average, on developing new products and services. The higher expenditure translates directly into a higher rate of new product introductions. This does not lead to more difficulties with the introduction of new technologies. All in all, this shows that fast growing enterprises are of major importance to the innovative capacity of the Dutch economy.

Based on: Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High growth companies in the Netherlands'). Den Haag.

Box 4.4: Human Resource Management

The success of fast growing enterprises can largely be attributed to the quality of their staff. Fast growing enterprises devote considerable attention to the quality and motivation of their personnel. First and foremost, the knowledge-intensive production process calls for graduate employees. In 1996, graduates accounted for more than 20% of the workforce in 42% of fast growing enterprises. For the low growth companies, the figure was just 8%. In the period from 1992 to 1996, the knowledge gap between high and low growth companies increased substantially. Greater efforts in the areas of training and advanced payment methods certainly play an important positive role. Fast growing enterprises invest 67% more time in training workers, and apply profit sharing and option schemes relatively more often.

Based on: Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High growth companies in the Netherlands'). Den Haag.

4.4 Market and government

In addition to a policy aimed at start-ups

What do these insights imply for government policy? A policy aimed at increasing the number of fast growing enterprises obviously starts with a policy aimed at increasing the number of start-ups. In due course new businesses can become fast growing enterprises. The Ministry of Economic Affairs recently published a discussion paper entitled *`Get set!'* for this purpose. The paper discusses entry barriers that (potential) entrepreneurs encounter in starting their own businesses[22]. It covers entry barriers barriers such as administrative costs, legislation and regulations and inadequate financing for new businesses, and exit barriers such as the Bankruptcy Law.

... also a policy for growth

But promoting the number of starts-ups will only bear fruit in the medium to long-term. A successful government policy that succeeds in emphasing and stimulating the key role that fast growing enterprises play and where possible should primarily be linked to the key role that *the entrepreneur* plays. First and foremost, this is only meaningful in relation to ambitious entrepreneurs who also have the ambition to grow fast. This covers both existing fast growing enterprises and potential ones.

... by creating the right conditions

How can government best respond to this? After all, the government's primary task is to create the right conditions for dynamic competition and prevention of alliances that restrict competition. The results of the study of fast growing enterprises seem to indicate that we also need to think about policy aimed at reducing the barriers to growth - naturally, while taking account of individual employers' responsibility for their own internal business operations. It is certainly not the government's place to step into the entrepreneur's shoes. But this does not mean that the government has no role to play in removing barriers to growth.

... and removing market imperfections that restrict growth

The government's role in this area is related to the existing market imperfections. In general, these can arise through market dominance, external effects and lack of information (or asymmetrical information)[23]. We focus on the market imperfections in the field of fast growing enterprises.

Asymmetrical information and networks

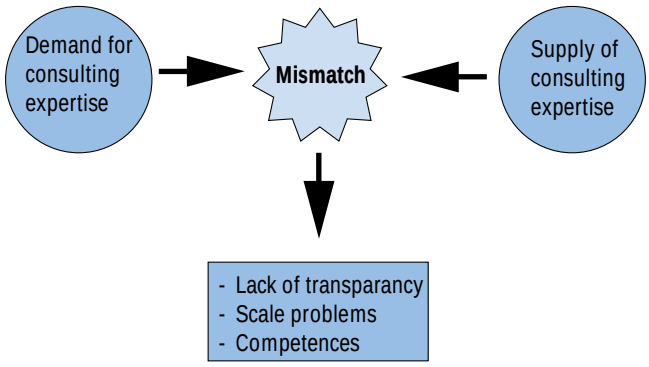
As already mentioned, fast growing enterprises appear to be able to break through various glass ceilings somewhat more effectively. This certainly applies for the group of potential fast growing enterprises. They often need only a minor push to realise higher growth rates. Entrepreneurs in both types of company need advice and coaching in making strategic choices. Interviews with entrepreneurs showed that they often consult their relatives and friends for this. Fellow entrepreneurs can also play an important role[24]. These networks

have an important function in supporting entrepreneurs. However, setting up a network of fast growing enterprises is not feasible for most of these entrepreneurs. The search costs (caused by asymmetrical information) for finding owners of other fast growing enterprises outside their own markets are (too) high. As a result many owners of fast growing enterprises are unable to benefit enough from each other's expertise.

Asymmetrical information and the professional and public consulting market

In fact, the professional consulting market should be able to provide a solution here. Apart from advice and support from fellow entrepreneurs, fast growing enterprises also need more professional support in breaking through `ceilings'. The group of (potential) fast growing enterprises is faced with a consulting market that is often non-transparent and in which scale problems also play a role. These entrepreneurs feel that consultants often draw too little on their entrepreneurial skills. The consultants themselves are often not (former) entrepreneurs, and were trained as management consultants, financial experts or in other skills. Such consultants are not perceived as their `real' advisors[25]. This does not mean that no good business consultants exist at all. There are simply too few of them for this segment of the market, and they are hard to find in the Dutch consulting jungle. The relatively small scale of these type of companies also means that it is not always equally profitable for consultancies to operate in this market segment and build-up specific knowledge of fast growing enterprises. There appears to be a `missing market' (see figure 4.5). At the same time, the government policies do not always pay enough attention to this type of companies either. Often subsidies and facilities are formed at either small businesses (new businesses, for example) or big enterprises. But many of the fast growing enterprises fall between the two stools.

Figure 4.5: Professional consulting market for fast growing enterprises



External effects

Even if the lack of information is solved, the market system can still result in suboptimal outcomes. This is the case when external effects are present, for example. External effects arise when the utility of A is directly affected by the behavior of B, but B does not take this into account in making its market decisions. External effects can lead to an

excess or shortage of a particular economic activity. A classic example here are the positive external effects resulting from fundamental research. External effects also play a role when fast growing enterprises are concerned. In the preceding section, we showed that fast growing enterprises are of considerable importance to economic innovation. Among other things, they spend over 40% more than other companies on product development (see box 4.2). By increasing the number of fast growing enterprises, we also indirectly stimulate investments in this technological and organisational innovation, which in turn will benefit the whole Dutch economy.

4.5 Tentative policy options

Experiences in other countries

An analysis of government policy in other countries shows that political attention to fast growing enterprises continues to increase. Generally speaking, this involves government policy directed at specific areas of business conduct or at issues that are important for specific sectors. There are examples of countries and programmes that have made a start (albeit often a cautious one) with a more specific policy approach to the group of ambitious companies. The most notable being the UK and Denmark.

In the UK, the Department of Trade and Industry (DTI) developed the *Management Best Practice* system. This consists out of three different parts, designed to ensure that entrepreneurs learn to help themselves. Connect for better business consists out of nine CD-ROMs in which different areas of business strategy are explained in more detail. Intermediaries (banks, consultants, business links) can show the CD-ROMs to (potential) entrepreneurs. With the benchmarking index, various aspects of corporate policy can be compared with the average for the sector. With Inside UK Enterprise, companies are presented with role models with which they can compare themselves. In the Netherlands, the Ministry of Economic Affairs has implemented a somewhat similar programme known as `Maak kennis met ...' (Get to know ...). The British Business Links (similar to the Dutch SYNTENS) play an important role in advising (potential) fast growing enterprises. Danish policy focuses strongly on improving the organisational structure of Danish businesses. The government is aiming to improve access to consultancy (partly by setting up an information service to simplify connections between consultants and entrepreneurs) and actively encourages alliances between large and small businesses. Both policy options are designed to increase companies'capacity to adjust

... and in the Netherlands

The Netherlands also now has a number of programmes directed at companies with growth ambitions. We refer here to the TNO-MKB initiative, the Mirror project in Limburg and the Business Lift in SYNTENS[26]. Companies taking part in one of these projects first undergo a business scan. Once the main problems/growth barriers have been identified, the company is put into contact with a professional consultant (or at SYNTENS, an internal consultant)[27]. The core of all the programmes, although they can differ considerably in some parts in terms of focus and implementation, is that the management institution provides for the contact between companies and professional consultants.

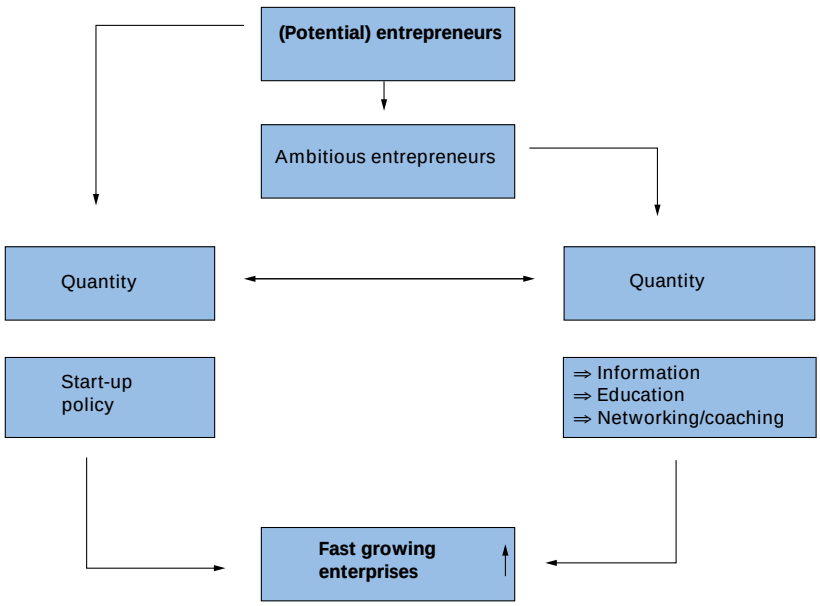
... provide leads for a new policy model focusing on ambitious companies

The foreign initiatives mentioned above show that there are different ways to design government policy for ambitious companies. The examples of Dutch initiatives also show that in itself, such an approach is not entirely new to the Netherlands. Often, elements of it are already being carried out. What is missing, however, is a comprehensive approach with a consistent vision and adequate control mechanisms. The matrix below tentatively shows how such a structural policy-approach could be designed (see figure 4.5). The matrix immediately shows that policy on start-ups and fast growing enterprises must be closely interrelated. In the following sections, we focus only on the right-hand column: policy on fast growing enterprises.

Information

Generally speaking, policy-makers still pay too little attention to the phenomenon of fast growing enterprises. This can be solved by a regular dissemination of the available knowledge on the phenomenon of fast growing enterprises and the related problems as well as encouraging further research into such companies (see box 4.5). Perhaps even more important is that potential fast growing enterprises can also benefit from such strategic information. This for example, could provide points for comparison of their own internal business processes with those of successful counterparts. A useful option is this respect is Volberda's (1998) proposal that a benchmarking tool be provided via Internet. Such a tool can serve as input for a databank with sectoral data for individual companies, and at the same time also offers the government relevant up-to-date information on the operations of (growing) companies and sectors which in due course can serve as input for policy options[28]. Examples of a similar approach can be found in the UK, where the DTI and the CBI regularly publish reports on how companies can improve their performance[29]. Provision of strategic information by the government also receives specific attention within the Netherlands Ministry of Economic Affairs' cluster policy[30]. This is also increasingly reflected in the regular publication of the test of competitiveness at the macro and sectoral levels[31]. However, a comprehensive approach is still lacking.

Figure 4.6: Matrix on policy options



Box 4.5: Inc

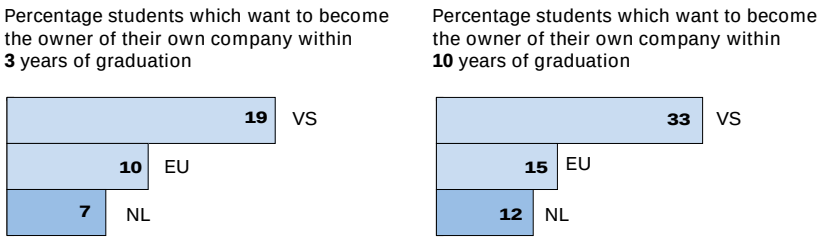
An interesting best practice for such targeted supply of information is the homepage of Inc in the US, where fast growing enterprises can find information on strategic issues, market trends, relevant legislation, a list of the top 500 fastgrowing enterprises etc (http://www.inc.com/500). It is also possible to customize the Electronic-information by creating your own Inc-homepage. The website was launched in June 1996, and is very succesful. Personal talks with fast growing firms show that there's room for such an initiative in the Netherlands too. However, as far as we know, no private party seems to initiate. This is curious, because a lot of companies in the Netherlands are connected to the Internet, and the popularity of the Internet is growing very fast. By the end of 1998 by about a third of all companies was connected. We have to mention that this percentage differed considerably between size-classes: 83% of the companies with more than 500 employees was connected compared with 22% of the companies with 5-10 employees.

Profiles of entrepreneurs

As already explained, the qualities of the entrepreneur are of crucial importance to the development of a business. The regular education system would appear to be ideally suited to developing these specific qualities among students. This will substantially increase the number of fast growing enterprises in due course[32]. In its advisory report on future social and economic policy in 1998-2002, the Social and Economic Council (SER)

proposes that attention to enterprise be increased in initial education. The education system could play three roles: (1) teaching an entrepreneurial attitude, (2) teaching entrepreneurial skills and (3) acquiring knowledge of independent enterprise as a prospective career[33]. In the UK, too, education and training are major policy options in order to make society more entrepreneurial[34]. The fact that only 7% of Dutch students intend to start their business within three years after graduation shows that much has still to be gained at this level in the Netherlands. This lags far behind the US where 19% of the students intend to start their own company (see figure 4.7). Not only is attention to enterpreneurship generally limited in Dutch (higher) education, but training courses for entrepreneurs are often of a theoretical nature and take little account of personality aspects and specific entrepreneurial skills[35]. Although there are favourable exceptions such as the Technological Universities of Twente and Eindhoven, this generally occurs too little at present. Apart from attention to enterpreneurship in the regular education system, also masterclasses could be provided for ambitious entrepreneurs.

Figure 4.7: Percentage students which want to become the owner of their own company



** Based on: Universum, (1998). *Examining Students Attitude Towards Entrepreneurship.* Stockholm

Networking/coaching

The need for support in breaking through `ceilings' has already been mentioned. Entrepreneurial networks can play an important role in this. At the regional level there are already various entrepreneurial groups and initiatives such as the De Commisseur Foundation, which mediates between SMEs and managers/directors willing to offer their experience. Another successful initiative is the PLATO programme, in which SMEs receive advice and support from large companies. An evaluation of this programme showed that it encourages networking between entrepreneurs. Although all these networks are valuable, they pay only limited attention to the phenomenon of high growth. Moran (1998) reports that this is an important requirement if such networks are to be genuinely useful to owners of fast growing enterprises[36]. The Ministry of Economic Affairs can play an important role in drawing attention to this issue.

Moreover, government policy could play an essential role in addressing the mismatch between supply and demand for professional advice. Kumpe (1998) sees a key role here for TNO and SYNTENS[37] He calls for an approach in which the main problems of SMEs are identified through business analyses, focusing not only on technological innovation but precisely on management innovation as well. After all, technological and management innovation are inextricable. TNO and SYNTENS could design such a national initiative in

cooperation with a number of universities and consultancies. Moreover, regional advisory bodies could also participate here. They should, however, focus specifically on reaching the target group. Again also here a comprehensive approach is needed.

4.6 Summary and conclusions

Fast growing enterprises are of major importance for a country's economic development. They stimulate competition and challenge other companies to innovate. They also serve as *role models* which other companies can emulate and compare themselves with. In comparison with other countries, however, the Netherlands has relatively few fast growing enterprises, and those that there are, do not grow as fast as similar companies in other countries. Research among fast growing enterprises has shown that they usually encounter a `glass ceiling' and that high growth is largely a question of good entrepreneurship. The original founder often plays a crucial role in these practices. At first glance, these results may not appear to warrant any specific government role. However, if the issue is analyzed in more depth, the opposite proves to be the case. Talks with owner-managers of fast growing enterprises show that they have a considerable need for support in order to break through the glass ceiling. They often seek this support from relatives and friends.Obviously, the relationship of trust plays an important role. But this is not the only reason they turn to friends and relatives. It proves to be hard for fast growing enterprises to make contact with counterparts outside their own markets. The search costs are (too) high. Lack of transparency means that the professional consulting market does not provide a solution. There appears to be a *missing market* here. These two shortages of information justify a government role, as do external effects (more fast growing enterprises leads to more investment in technological and management innovation). A global analysis of policy in other countries indicates that as yet, little experience has been gained with specific policies aimed at high growth. In the Netherlands, for the time being we call for a comprehensive approach aimed at increasing the number of fast growing enterprises. Important elements of such an approach are the improvement of communications and information relating to the phenomenon of high growth, promoting independent entrepreneurship through the education system, and increasing attention for building employers networks and adressing the mismatch between supply and demand for professional advice.

Notes Chapter 4

* A shorter version of this chapter was published in the joural *Economisch Statistische Berichten.* Baljé, S.H. and P.M. Waasdorp, (1998). Ontdekkers en Vernieuwers ('Discoverers and Innovators '), pgs 924-6.

1 Waasdorp, P.M. *Waar Moet Nederland Zijn Brood Verdienen?* ('Where should the Netherlands Earn its Living?'). The Hague: Ministry of Economic Affairs (mimeograph).

2 Drucker, P.F., (1985). *Innovation and Entrepreneurship.* London: Pan Books Ltd.

3 Borst-Eilers, E., W. Kok and G. Zalm, (1998). *Kabinetsformatie 1998.* Brief van de informateurs aan de Tweede Kamer ('Cabinet Formation 1998. Letter from the people charged with forming the new government to the Second Chamber of Parliament'). TK 26024, No. 9.

4 We summarise three examples here. Coopers & Lybrand (1996) analyzed a group of 'hypergrowth companies': companies that more than doubled turnover and employment in three years. Simon (1996) defines hidden champions as companies which are European or world market leaders, and have no more turnover than 1 billion US dollars. Finally, Oerlemans and Meeus (1998) analyzed fast growing enterprises in Brabant province. In this study, fast growing enterprises were defined as those that increased turnover by at least 18% per year for four years.

5 Birch, D., (1987). *Job Creation in America.* New York: Free Press. See also the chapters by Kirchoff and by Borgers et al. in this publication.

6 Birch, D., A. Haggerty and W. Parsons, (1993). *Who's Creating Jobs?* Cognetics Inc. They only analyze companies that existed throughout the 1987-1991 period.

7 We refer here to the gross job creation of companies that existed both in 1990 and in 1994. In total, gross job creation in the 1990-1994 period was about 1 million jobs. Young companies (i.e. those formed during the 1990-1994 period) accounted for almost 56% of new jobs). Fast growing enterprises were responsible for more than 20% of *total* gross job creation. Bais, J., K.L. Bangma and W.H.J. Verhoeven, (1997). *Het Belang van Bedrijfstypen voor de Werkgelegenheidsontwikkeling* ('The Importance of Company Type for Employment Growth'), Zoetermeer: EIM. Bais et al. (1997) use an adjusted Birch Index. The results are generally comparable with Birch et al. (1993), who use the 'conventional' Birch Index.

8 This is based on a study of 70 fast growing enterprises conducted by the Confederation of Netherlands Industry and Employers VNO-NCW. Of the remaining 20% of job creation, 15% was realised via mergers and acquisitions and 5% through joint ventures and other alliances. It is open to question whether this result is representative of all Dutch fast growing enterprises. SKIM INDIS, (1998). *Conjuncturele Ontwikkelingen Nederlands Bedrijfsleven 1997-1999 en Profiel van Gazellen* (Economic Development of Dutch Trade and Industry in 1997-1999 and Profile of Gazelles'). Uithoorn.

9 Empel, F. van, (1998). *Uitblinken is het sleutelwoord* ('Excellerate is the key-word'). *Elsevier*, 14-11-1998, pgs. 90-8.

10 Verhoeven, W.H.J., (1998). *International Comparison of High Performance Enterprises:* A Benchmark Study. Zoetermeer: EIM.

11 The 6% of high growth medium-sized enterprises cannot be compared with the 12% of fast growing enterprises in the Dutch private sector as a whole, as referred to above.

The latter percentage is based on 'high growth' determined by the adjusted Birch Index in terms of employment.

12 For this conclusion, see also: *Financieele Dagblad,* (1998). 'Will the Dutch Bill Gates please stand up?', 20 October 1998 and OECD, (1998). *OECD Economic Surveys: The Netherlands.* Paris: OECD.

13 The modest performance of Dutch medium-sized fast growing enterprises appears to be in line with the general picture of the lack of dynamics in large sections of the Dutch economy. The number of Dutch business start-ups has grown during the past decade, but the entry-quote still lies below the rate that would enable the Netherlands to be included in the European average. New businesses also appear to encounter substantial growth constraints. See Baljé, S.H. and I.R. Verdonkschot, (1998). Ondernemerschap in Nederland ('Entrepreneurship in the Netherlands'). *Economisch Statistische Berichten*, pgs. 464-6.

14 EIM/BIRC, (1998). *Internationale Vergelijking van Externe Financieringsmogelijkheden voor het MKB* ('International Comparison of External Financing Possibilities for Small and Medium-sized Enterprises'). Zoetermeer/Maastricht and Haffner, R.C.G. and P.M. Waasdorp, (1998). Kapitaalmarkt als concurrentie-indicator ('The Capital Market as an Indicator of Competition'). *Economisch Statistische Berichten*, pgs. 377-8.

15 SKIM INDIS (1998), *Conjuncturele Ontwikkelingen Nederlands Bedrijfsleven 1997-1999 en Profiel van Gazellen* (Economic Development of Dutch Trade and Industry in 1997-1999 and Profile of Gazelles'), Uithoorn.

16 Alders, B.C.M., (1998). Boekbespreking: de verborgen winnaars. ('Book review: The Hidden champions). *Economisch Statistische Berichten*, pgs. 155-156.

17 Ministry of Economic Affairs, (1998). *Snelgroeiende Ondernemingen in Nederland* ('High growth companies in the Netherlands'). Den Haag. This report is for the main part based on: Alders, B.C.M., (1998). *De Formule van Snelgroeiende Bedrijven: Een Kwestie van Slim Concurreren?* (`The Formula of Fast growing Enterprises: A Question of Smart Competition?'. Apeldoorn: TNO-STB, and Alders, B.C.M., Van Beckhoven, M. and J. Coumans, (1998). *Rapportage case-studies* (`Case Study Reports'). Apeldoorn: TNO-STB.

18 Garnsey (1998) asserts that few companies manage to break through a growth ceiling after a period of growth. She writes: 'Many other firms reach a plateau, and are unable to expand further. [...] Relatively few firms overcome these problems ('ceilings') to achieve sustained growth.' Garnsey, E., (1998). A Theory of the Early Growth of the Firm. *Industrial and Corporate Change*, 3, pgs. 523-56.

19 This contradicts the findings of Cobbenhagen et al. (1995), who conclude that fast growth is visible in all areas of internal corporate policy. Cobbenhagen, J., F. den Hertog and H. Pennings, (1995). *Koplopers in Bedrijfsverniewing* ('Leaders in Corporate Change'). Den Haag: Ministerie van Economische Zaken

20 The specific behaviour of fast growing enterprises in the fields of innovation policy and human resource management is discussed in variuos 'boxes' in this section. We also consider an examples of a ceiling encountered by fast growing enterprises.

21 A study into the required entrepreneurial qualities is currently being conducted on commission from the Ministry of Economic Affairs and the Netherlands Association of Venture Capital Companies. Such research is fairly scarce. Two relevant studies can be mentioned. Boone et al. (1996) studied the relationship between psychological character traits of company managers and their company's financial performance. The 'locus of control' quality (belief in one's own ability) proved to be a key explanatory

variable. In some cases, the influence of the management team is also discussed. Boone et al. (1998) conclude that in turbulent markets, homogeneous management teams perform better than teams of a different composition. This is consistent with our study of fast growing enterprises, which shows that small high growth firms are far more likely to have a homogeneous management team. Boone, C., B. de Brabander and A. van Witteloostuijn, (1996). CEO Locus of Control and Small Firm Performance: An integrative framework and empirical test. *Journal of Management Studies*, pgs. 667-699. And Boone, C., W. van Olffen and A. van Witteloostuijn, (1998). Psychological Team Make-up as a Determinant of Economic Firm Performance: An experimental study. *Journal of Economic Psychology*, pgs. 43-73.

22 Ministry of Economic Affairs, (1998). *Klaar voor de Start? Een Discussie over Nieuw Ondernemerschap* ('Get Set! A discussion of new entrepreneurship). Den Haag.

23 Kay, J. and J. Vickers, (1988). Regulatory Reform in Britain. *Economic Policy*, pgs. 285-351.

24 KPMG Strategic Vision and KPMG Inspire Foundation, (1998). *Verslag Workshops EZ* ('Ministry of Economic Affairs Workshops Report'). Amstelveen, KPMG

25 Ganzevoort, J.W., (1998). De onderneming is a mens ('A Company is a Person'). *Next,* pg. 105.

26 For an evaluation of the Mirror projet, we refer to MERIT, (1997). *Een Spiegel voor het Spiegelproject: Evaluatie van het IC/LIOF Spiegelproject* ('A Mirror for the Mirror Project: Evaluation of the IC/LIOF Mirror Project'). Maastricht: MERIT.

27 The outcome of the qualitative survey, that 'fast growing enterprises face more organisational problems' is supported by practical experiences with these initiatives. Within the TNO-MKB initiative, attention was paid to the internal organisation in 65% of the projects. In the Mirror project, the emphasis initially lay on technological problems, but it quite quickly became clear that strategic and organisational problems were more urgent.

28 Volberda, H.W., (1998). *Flexibilisering van de organisatie* ('Flexiblisation of the Organisation'). Paper commissioned by the Ministry of Economic Affairs.

29 E.g.: CBI, (1998). *Managing a Growing Business.* London: CBI.

30 Ministry of Economic Affairs, (1997), *Kansen door Synergie*. Brief van de minsiter van Economische zaken aan de Tweede Kamer.('Opportunities Through Synergy. Letter from the Minister of Economic Affairs to the Second Chamber of Parliament'). TK 25518, No. 1.

31 E.g. Ministry of Economic Affairs, (1997). *Benchmarking the Netherlands: Prepared for the Future?* Den Haag and Ministry of Economic Affairs, (1997). Bedrijfstaktoets 1997 ('Sectoral Test of Competititeveness'). Den Haag.

32 Ybema, G., (1998). School moet meer ondernemers kweken ('Schools must breed more entrepreneurs'). *Algemeen Dagblad,* 11 November 1998.

33 SER, (1998). *Sociaal-economisch beleid 1998-2002* ('Social and Economic Policy, 1998-2002'). Den haag: SER.

34 DTI, (1997). *The Entrepreneurial Economy.* London: Department of Trade and Industry.

35 Another positive exception is the Erasmus University in Rotterdam, where courses in Managerial Economics started in the current academic year. These courses combine elements of general and management economics, focusing mainly on the problems that entrepreneurs face in the management of their businesses.

36 Moran, P., (1998). Personality characteristics and growth-orientation of the small business owner-manager. *International Small Business Journal,* pgs. 17-39.

37 Kumpe, T., (1998), *Technologische en Organisatorische Vernieuwing Gaan Hand in Hand* ('Technological and Organisational Innovation Go Hand In Hand'). Paper commissioned by the the Ministry of Economic Affairs.

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