

The Danish Strategy

Denmark's opportunities in the global knowledge society

“Competitive strategy is about being different.
It means deliberately choosing a different set
of activities to deliver a unique mix of value.”
Michael E. Porter

Contents

Foreword.....	3
Resume	4
The new global reality	7
Future growth creators.....	14
The new winning strategies	26
How has Denmark been making a living?.....	30
Future billion-dollar industries	38
Denmark's creative building site	43
The Innovation Council	45

Foreword

Globalisation is Denmark's big opportunity. Denmark currently has a real opportunity to renew its growth base and secure future prosperity. In coming years, globalisation will open up brand new billion-dollar markets and create new business opportunities, which will not only create new growth in existing Danish companies and sectors, but also foster a whole new generation of Danish companies and industries.

The requirement is that Denmark, like all other industrialised countries, is capable of reinventing its competitiveness and its sources of growth in a global context. Denmark neither can nor should compete with newly industrialised nations on their terms, but focus on its own circumstances and competencies, and develop them to world-class standards.

The winners in the future global economy are not necessarily the economically biggest and strongest nations, but the most creative and innovative. The capacity to innovate and think quickly will decide where future investments and jobs will go. Therefore, Denmark's future in the global economy must start with the ambition that Denmark should be one of the world's most innovative societies – measured in the ability to innovate and translate ideas into new products and services that answer future needs and global demands.

The new key question of globalisation is: What needs can we meet better than anybody else in the world? This requires an intense focusing on our own unique core competencies, which are hard for others to copy and innovative use of them in the marketplace. The ability to identify unique strengths and activate them competitively makes the difference for future winners.

With this as a starting point, the Innovation Council has taken the initiative to establish a broad partnership among the most important players in society in order to develop new joint winning strategies, stimulate development of both existing and new companies, as well as promote world-class knowledge environments. Specifically, the council facilitates a process creating a strategic laboratory or a "creative building site," where ideas and preconditions for future growth projects can be tested and linked in a partnership between the relevant stakeholders.

The government has already named globalisation as Denmark's biggest challenge. In his opening address to Parliament, Prime Minister Anders Fogh Rasmussen pointed out that Denmark risks losing more jobs to globalisation than we win, unless we actively take up the challenge. Accordingly, the government has put a high priority on the Danish response to globalisation. In the PM's words, we must "create new jobs by competing on skill – when the others are cheaper, we must be better." It is the government's ambition to make Denmark a leading entrepreneurial society, which researches, develops new ideas, and translates new knowledge and new ideas into growth and jobs. How this can be done, according to the PM, will be spelled out in a five-year plan that the government will present next spring.

The Innovation Council fully supports this ambition and in these pages presents its proposed strategy for Denmark's response to the global challenge.

On behalf of the Strategy Group,

Jørgen Mads Clausen

Chairman of the Strategy Group

Copenhagen, 20 October 2004

Resume

Globalisation involves a lot more than the outsourcing of Danish jobs to China and India. Globalisation is this decade's biggest opportunity for Denmark. Globalisation opens up whole new markets and creates new opportunities – in Denmark, as well – and may lead to the development of a new generation of businesses and industries.

The capacity to think quickly and innovate decides where future investments and jobs will go. The winners will not necessarily be the economically biggest and strongest nations, but the most creative and innovative.

Therefore, the Innovation Council has taken the initiative to establish a broad partnership among the most important sectors in society to develop a new joint winning strategy and inspire the development of existing and new companies, as well as world-class knowledge environments. It is in the interaction between businesses, knowledge institutions, and authorities that future winning framework conditions are formed. It is in the intersection between the private and public sectors that many future industries emerge.

This is the platform for Denmark to renew its growth foundation and create a number of new billion-dollar industries in coming years. It should be Denmark's response to the global total competition, which is forcing Europe and the United States, in particular, to rethink their competitiveness and sources of growth.

The future growth strategy primarily involves an extreme focus on our own core competences and innovative use of them in the marketplace. Identifying our unique strengths and activating them in competition will decide whether the rich stay rich or just fade away.

Accordingly, the very specific task for both Europe and the United States is identifying which factors have created prosperity in individual countries and regions, and then adapting the growth sources to the future global demands, so they contribute to prosperity, in the future as well. In general, good economic framework conditions are no longer enough – most companies have such access or they can get such access. Succeeding in the new global knowledge economy involves establishing specific and unique, winning framework conditions that are hard for others to copy.

Globalisation's new key question is: What needs can we meet better than anyone else in the world?

Year 0 of the world economy

All wealthy nations are at the same starting line. In terms of growth strategy, we are all, so to speak, in year 0 of the world economy. Each country has different preconditions, but all face the same challenge: to rethink their economic strategies, to reinvent their competitiveness. And all have the same opportunities for winning and losing. The outcome is determined exclusively by the power of innovation that is developed and the kind of leadership that is practiced.

A number of western countries – among them the United States, Canada, Britain, Spain, Finland, and Denmark – are currently developing new growth strategies for the new global knowledge economy. These strategies all have in common that they are based on the nations' or the regions' own unique core business competences and that

they target the social framework in the form of education, research, technology, and entrepreneurship, so that they will further strengthen and develop the growth centres. The requirement is a close partnership between companies, universities, and local authorities.

A Danish winning strategy

The first requirement in Denmark formulating a winning strategy for the future is understanding what created Denmark's prosperity in the first place. The answer is not necessarily simple – Denmark is a riddle. Although the Danish corporate sector chiefly consists of many small businesses in low-growth industries, Denmark has still, in decade after decade, ranked among the world's 10 richest countries, alongside such economic superpowers as the United States and such research-powered globalists as Sweden. This is an accomplishment that many other countries in corresponding circumstances have been unable to match.

Recent business research indicates that Danish prosperity is based on a culturally rooted ability to collaborate, adapt to new requirements, and find new solutions. Through history, this human and social ability to innovate has created a number of movements and institutions that have provided – and continue to provide – a unique Danish competitive edge.

The folk high school movement secured political and, in turn, economic stability in a period of political revolution in Europe; the cooperative movement was an effective response to America's cheap agricultural output; the labour movement paved the way for an upgrading strategy that has produced the world's best educated workforce; and the welfare movement activated women, so that Denmark today has the world's highest participation rate. These are social innovations that all rest on a view of humanity involving respect, competence, and collaboration.

Denmark's top ranking in international competition surveys today, not surprisingly, is largely due to process strengths. Danes are practically world champions of cooperating both with one other and with customers, creating a Danish user-driven power of innovation that matches the Swedish and American research-driven innovation.

It is in these culturally specific Danish strengths that we find the answer to future competitiveness.

Framework conditions are crumbling

However, a new kind of survey, known as InnovationMonitor, examining national innovative framework conditions, unfortunately shows that many of the same framework conditions that have advanced and developed the Danish key strengths are slipping.

The problems can be summarized as follows:

- Danish core competences are under pressure – there is a risk of wearing out the social and human capital that has been the engine driving Danish prosperity.
- Denmark is losing ground in advanced education, which, moreover, is not co-ordinated with business needs
- Danish knowledge building is too weak – too few original products are developed, and collaboration between universities and companies is too weak.

- Danish entrepreneurship is weak – that is, the ability to create new companies and make them grow.
- Leadership – there are too few Danish executives with strong strategic leadership skills and there is too little international leadership. These are weaknesses in a global marketplace.

Accordingly, there is a need for a new Danish growth strategy along two main lines.

1. The microeconomic framework must be targeted and strengthened to take Danish innovation power back to a world-class level.
2. Denmark must renew its growth foundation by creating the framework for a new generation of billion-dollar industries, which are primarily based on social, industrial, user-powered, Danish innovation power.

The strategic choices Denmark must make and the focus we need to apply does not involve a strategy based on picking the winners, but a strategy based on an ability to identify new global needs and develop the necessary solutions. Denmark should be known for its ability to think up solutions to complex challenges – a strategy that involves picking the needs and developing the solutions. This requires new kinds of partnerships between the private sector, public authorities, and research and education institutions, and it has the potential to become the driving force in building new, strong industries.

For Denmark to develop a new winning strategy for the global knowledge society, precise and structured efforts are required. Therefore, the Innovation Council will create Denmark's biggest creative building site – that is to say, the council will facilitate a collaborative process that co-ordinates and stimulates efforts among complementary partners, which together will shape the future Denmark.

Denmark's new growth strategy should be realised both regionally and nationally. Accordingly, the Innovation Council is working to establish five regional innovation councils, which, in interaction with each other, the government and other stakeholders, will tailor business development strategies to existing and potential regional growth industries.

Chapter 1

The new global reality

Denmark is facing a historic opportunity to renew its growth foundation. The global economic revolution, which is currently unfolding worldwide, opens up a long list of new market opportunities that could lead to a historic prosperity boost around the world. In coming decades, hundreds of millions of people will be able to rise to a level of prosperity that so far has been exclusive to a small minority of the world population.

The big question is who will be able to take advantage of the new opportunities – and who will let them pass by. In the modern, global knowledge economy, everyone has the same opportunities for winning and losing. Companies such as Dell, Nokia, Amazon, Cisco, and others have shown that companies with the right strategy and leadership within very few years can grow from nothing to equity of DKK 100 billion. So can nations and regions. Ireland and Finland, within very few years, have both lifted themselves out of a deep economic, social and employment crisis and become economic pioneer nations.

The difference between globalisation being an opportunity or a threat is primarily an ability to innovate and pick the right strategy. In other words, the difference between good and bad leadership has never been more important than it is today.

A need for new answers

Denmark, like all other nations, needs to formulate an innovative and cohesive answer to globalisation that is able to adapt both society and business to the new competitive conditions and market demands. It would be a strategic error to think of globalisation as business as usual – as more of a development we already know, or as a slot machine that producing instant winners.

The world economy has never before undergone such sweeping changes in such a short time as today. In the last 15 years, living conditions have radically changed for more than 4 billion people – the people working in today's market economies. This is the case with the 2.5 billion people who have made the transition from a planned economy to a competitive economy in Russia and other countries in Eastern Europe, plus China and India, as well as with the large numbers of the work force in the developed countries who are facing new demands along with new competition from colleagues in distant continents.

The result is a revolutionary new global division of labour, which, in terms of transition speed and innovation rate, surpasses anything we have seen before. A long line of basic growth requirements and competitive conditions that are of crucial importance for a nation's opportunities for creating prosperity and employment are already changing. We have still only seen a small slice of what is to come.

M77 | The global market place

1980: App. 1 billion workers and consumers



2000: App. 4 billion workers and consumers



Figure 1.1

Source: Global Statistics, 2004

China's blossoming into a new economic superpower is still in an early phase. China today has 250 million consumers with western spending power. At the present rate of economic growth, every ten years up to the year 2050, 100 million more Chinese will graduate from poverty to a standard of living allowing them to buy a car. In coming decades, China will be a trendsetter in the market development of a long line of areas. For example, already in 2008 China will be the world's second-biggest advertising market, second only to the United States. New media products of the future will increasingly be shaped in China for export to Europe and other parts of the world – not the other way around.

Global upheaval in Denmark

The global upheaval is visible in Denmark as well. A survey of Danish executives concerning the effects of globalisation on their company over the next 2-5 years illustrates the changes:

- 52 per cent of the executives expect to outsource more tasks to other countries
- 87 per cent expect their employees' professional skills to change – especially as regards language and cultural understanding
- 80 per cent expect large organisational changes in their company

- 87 per cent of the executives expect their own work domains to change

Such expectations are signs of total competition where practically everything and everybody are put to the global test on skills and utility value, and everything is in constant change and transition. The globalisation wave of the last 15 years represents a radical market-economic innovation that forces all players in the global marketplace to reevaluate and rethink their own growth model.

This development, fuelled by the necessity of businesses adapting to the market, will put tremendous pressure on Denmark, Europe and the United States. The demands for transition, development, and upgrade of qualifications will increase tremendously.

The following sections provide a brief overview of the most important features of globalisation and the perspectives inherent in the global development.

A new global division of labour

The global revolution is driven by a number of parallel, mutually reinforcing development characteristics.

New information and communication technologies are making worldwide communicate ever faster and cheaper, while container shipping is steadily lowering transport costs. In fact, the global costs of transacting communication and transport are fast approaching zero. Accordingly, it will be a lot more profitable for businesses to use the special advantages inherent in selling and producing elsewhere in the world than in their home market.

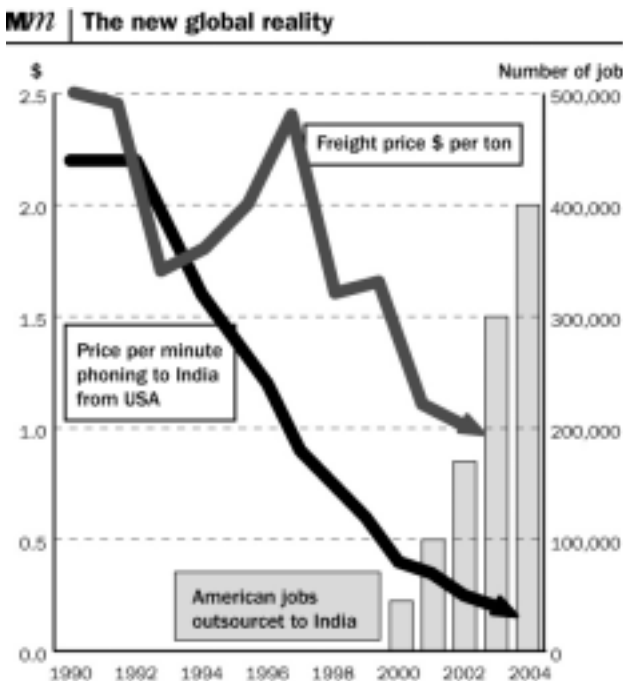


Figure 1.2

Source: Economy.com, Federal Communications Commission

After the fall of the Berlin Wall in 1989, new markets opened up, in one fell swoop expanding the global marketplace. Before, the world markets were much smaller, more nationally limited, and marked by high trade barriers. The market economies at the time included about 1 billion people, mainly in the United States, Western Europe, and Japan. The fall of the Berlin wall signalled the final collapse of planned-economy thinking, and in very few years the free world markets expanded by three billion workers and consumers in such countries as China, India, Russia and the rest of Eastern Europe.

Market-economic liberalisation in the 1990s triggered history's biggest wave of cross-border investing, ushering in a historic industrialisation of the new market economies and heralding history's biggest redistribution of labour.

In coming years, this globalisation will reorganise production worth billions and reallocate millions of jobs worldwide. Companies in the wealthy countries will hire new staff in new markets and transfer more tasks to them, because it is cheaper – while also hiring new employees at home because of growing production and rising development needs. Businesses in the new market economies will outperform their old rivals in the wealthy countries, but they will also hire new staff because they are growing.

Fear of globalisation

Today, it is very difficult to predict the exact extent of the new global division of labour and the bottom line for individual countries. There are several reasons for that. One is that globalisation is a learning process for many of the main actors.

Businesses are getting increasingly better at globally dividing the individual tasks on a company's value chain, which means that more and more projects, and jobs, are put to the global test every year: Can a task be solved better and cheaper elsewhere?

Nations are undergoing a similar learning process, as rich countries in many areas have better structures in place, often in the form of comfort barriers. The new market economies have so far proved to be quick to create a good growth framework for global competition, such as good education and world-class research. As a result, knowledge-intensive white-collar jobs, such as laboratory work and software design, are now also increasingly being moved to cheaper places in the world.

Another significant reason for the uncertainty about the effects of globalisation is that the global division of labour is not quantifiable – that is, it is not a question of how many jobs are lost and won. It also has a quality dimension – many jobs are subjected to new demands as a consequence of rising competition and a higher use of technology and knowledge. In other words, simple tasks are being replaced by advanced tasks.

According to most studies, globalisation has so far not had very negative consequences for the Danish labour market. Most of those who have lost their jobs due to the effects of globalisation have found new jobs. The Danish labour market and education system have proved they are capable of handling the transition. It remains to be seen whether that will be the case in the future as well.

A Rambøll Management study of the effects of globalisation on employment in Denmark estimated that 375,000 salary jobs are threatened today – that is, jobs that risk being eliminated or changed in content due to the risk of globalisation – while other about 728,000 other jobs are vulnerable. Even if it turns out that the threat was greater than the actual outcome, globalisation produces an anxiety that feeds protectionist and populist political forces, which could lead to new mental barriers.

Strategically, it thus makes sense to formulate future scenarios of opportunities in globalisation that will crowd out the fear of globalisation. Such scenarios should start from a worst-case scenario, because that sets a comforting ambition level for the response.

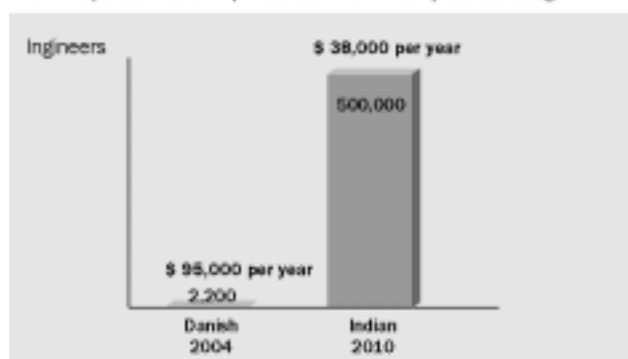
Knowledge becoming an off-the-shelf product

For the rich countries, the biggest challenge posed by globalisation is that the competition is no longer only about cheap manual labour, but increasingly about clever minds.

Many of the new market economies are targeting efforts to raise their education level and research efforts to compete for increasingly value-adding production. For example, India is currently increasing its output of engineers. In 2010, India will graduate an estimated 500,000 new engineers annually. In comparison, Denmark currently graduates 2,200.

W72 | New competition - people and products

The competition on competent labor is violently accelerating



... while innovation must pay for itself increasingly faster

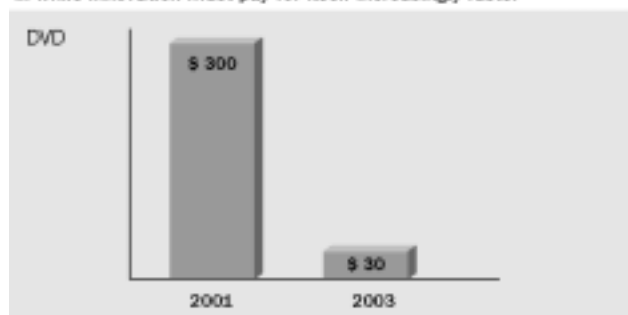


Figure 1.3

Sources: Danish Ministry of Education, Deloitte Research, 2004, IMD 2004, New York Times, 2005

It goes without saying that Danish engineers will be facing competition in coming years, such as they have never seen before. That is the case not just in terms of cost – an Indian engineer costs a fraction of a Danish engineer – it is increasingly also the case in terms of specialisation. The amount of Indian engineers alone can create critical mass in a long line of technologies and specialties, in which Danish engineers today have a competence lead.

Many other professional groups will be feeling the same pressure. Accordingly, education and knowledge are ever more quickly losing their competitive advantage in the western nations. World-class knowledge simply becomes a requirement for even competing.

This development should be seen in the context of the fact that companies in wealthy countries are transferring knowledge and technology to the new market economies. The rich countries are losing the competitive edge of possessing a knowledge base of superior research, production, and management – the conditions that in the last several centuries have especially secured Europe and the United States global superiority in the world markets.

The result is that the nature of international competition is changing:

- **Knowledge as an off-the-shelf product.** As knowledge production gains increasing speed and new knowledge spreads still faster, existing knowledge also becomes outdated faster. The half-life of the knowledge acquired by a newly graduated IT engineer is now only one year. For the entire workforce, half their professional knowledge becomes outdated after eight years. Therefore, the competition issue is not so much about having knowledge as about acquiring and using knowledge faster than the competition – what is also known as the ability to innovate.

Mastering innovation is especially important for high-cost areas such as Europe and the United States at. As knowledge becomes outdated faster, there is increasingly less time to make money on new knowledge, which is typically difficult and expensive to procure. For example, the price of a DVD in the United States fell from 300 dollars to 30 dollars in little over two years. That was how long it took for the competition to copy the frontrunners' technology and production methods, and market its product.

Therefore, the national innovation systems, the patent systems, and business innovation models will assume an increasingly more central role in the economic competition – as the ability quickly to develop and protect innovation becomes increasingly more crucial.

- **Competition in knowledge environments.** The growing importance of the ability to innovate on competitiveness and earnings potential makes actual knowledge environments ever more important – for the individual person and the individual company it is about being part of a dynamic, leading innovation environment that continually produces new spearhead knowledge, while for countries it is about hosting globally leading knowledge environments. In that respect, a country such as India, solely by virtue of its enormous output of engineers, will be able to host a long line of specialised knowledge environments in coming years, while a country such as Denmark must by necessity become dead certain about the spearhead areas in which Danish engineers should be world champions. The same is the case, naturally, for other knowledge environments. Efforts that fail to produce world-class results are a waste of resources.

In other words, we are headed for a global division of labour, which to a great extent involves knowledge specialisation. Individual regions and nations in the world must accordingly localise and put an extreme focus on its unique core competences in a global context and ensure the best possible framework for them in order to create world-class

innovation environments – it is in these environments that the future competitive edge is forged.

This will be a new strategic reality for many people, because the issue is as much about knowing what to include as what to leave out. Moreover, no one can know in advance that the efforts will succeed. It is an inevitable element of the new strategic realities that many decisions must be made according to signals and data that have yet to be fully documented economically. The only certainty in the new global knowledge economy is that those who do not focus, choose, and gamble will probably act too late to win the future.

Chapter 2

Future growth creators

The new socio-strategic key questions, which globalisation forces all developed nations to ask, are:

What is our role in the global division of labour?

What can we do better than anyone else in the world?

What do we specialise in? – no nation has the resources to secure a world-class level in all areas?

What are our special strengths and advantages, which we can compete on and which are hard for others to copy?

This essentially challenges traditional growth-strategic thinking, with its goal of creating a strong macroeconomic framework and letting the market do the rest.

Today, these are insufficient basic conditions for ensuring competitiveness and growing prosperity. Nations that fail to formulate a strategy that prioritises economic efforts risk weakening their national sources of prosperity in coming years.

The new basic framework conditions

A good macroeconomic framework has long been a necessary, though insufficient requirement for growth. Fundamental macroeconomic conditions only account for a limited part of growth in the developed countries today. The rest – which is by far the most growth – is based on the quality of the microeconomic framework, especially education, research, technology, and entrepreneurship – framework conditions that very directly affect a nation's innovation capacity – the ability to constantly invent new products and services that the market will demand:

- Human resources – our level of education
- Knowledge production and knowledge usage – our ability to create new knowledge and use it
- ICT – our proficiency at using information and communication technology as tools
- Entrepreneurship – our ability to create new, innovative companies with a big growth potential
- Leadership – the capability of managers to turn the framework into results

The FORA model

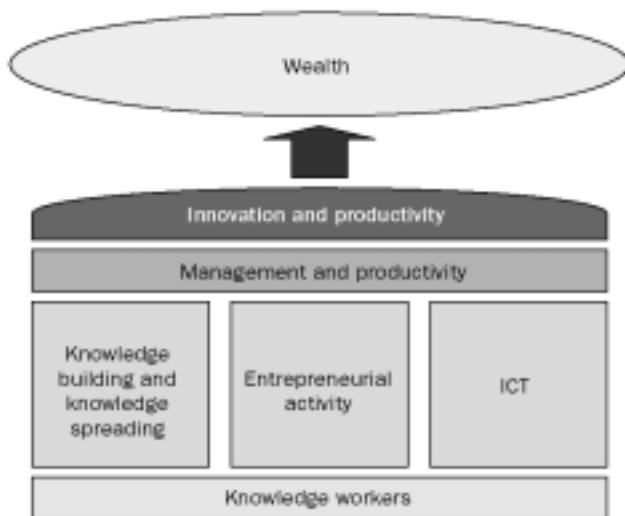


Figure 2.1

Source: FORA, 2004

The five framework conditions are important separately. Education, knowledge production, and technology usage each account for around 20 per cent of the growth, while entrepreneurship accounts for less than 40 per cent. In other words, new companies are the most important single source of new growth in the global innovation economy.

The individual framework conditions also support each other. For example, education is a prerequisite for smarter use of new knowledge and technology, entrepreneurship is a prerequisite for taking full advantage of investments in new knowledge, and management is a crucial catalyst for maximizing the other conditions.

It is, in other words, possible to significantly raise the entire growth potential of a modern economy by strengthening these microeconomic framework conditions. Conversely, if nothing is done, there is a risk of the framework conditions weakening and crumbling, undermining today's growth in prosperity. In other words, raising the growth potential by utilising the microeconomic framework is not merely an opportunity, it is an economic necessity.

There are two significant growth-strategic challenges in regard to the microeconomic framework conditions:

- **Differentiation.** Most countries seek to strengthen their microeconomic framework on the backdrop international benchmark studies and, in principle, they can attain a similar, relative level of education, research, technology usage, business start-up, etc. In other words, world-class education, research, technology usage, and entrepreneurship will be the necessary, but insufficient, requirements for growth and prosperity – just as a good macroeconomic framework is today. This convergence has already begun. Competition will henceforth be about specialisation, since no country has the resources to take the global lead in all areas.
- **Focusing.** The microeconomic framework conditions can provide strong and unique competitive advantages when co-ordinated with local industry strong suits. This

may sound logical, but in practice such coordination is often lacking. That is certainly the case with Denmark, where a lack of coordination between research efforts and industry's needs is diminishing the payback from research and forcing leading Danish research companies to have their research tasks solved elsewhere in the world. Such coordination – which to large extent is about focusing and prioritising research and education resources according to where they can do the most economic good – is weak today in some countries, and strong in others.

Denmark's competitiveness

In order to estimate Denmark's strength in the global innovation economy, the Innovation Council – in collaboration with FORA, the analysis and business research unit of the Ministry of Economy and Business Affairs, along with several international institutions and organisations, including the OECD – have developed a new benchmark for comparing Denmark with other countries in terms of the macroeconomic and microeconomic framework: InnovationMonitor.

InnovationMonitor provides a unique x-ray image of Denmark's position in the new knowledge economy. In the future, it will be updated annually, making it possible to track Denmark's adaptation to the new global demands.

According to InnovationMonitor, Denmark is strong today in macroeconomic conditions. There is a trade surplus, inflation is low, the public debt has been lowered, the public budgets are balanced, savings are adequate, the krone is stable, and interest rates follow the European lead. Following the turbulent 1980s, a decade of economic abyss, high inflation, and seven years of austerity measures, Denmark has managed to create a world-class macroeconomic framework.

There is still room for improvement, though: Danish regulations weaken competition, the tax system skews the economic incentive structures, and the labour market could be strengthened – all things that would create a better dynamic and improve the foundation for innovation. Still, Denmark leads all OECD nations in terms of macrostructures.

Measured by microeconomic framework conditions, Denmark leads the middle field of the 27 OECD nations in the survey. The ranking is based on surveys regarding 20 policy areas and 166 indicators, which together cover the most important framework conditions for a nation's innovation capacity. The United States, Sweden, and Finland show the best performances, while Denmark is in the middle of the field or at the top of the B-team.

This is not satisfactory. It is a sign that a number of fundamental requirements for Danish competitiveness are slipping and a sign that Denmark should not necessarily expect to maintain its spot at the top of competition tables and prosperity surveys.

Denmark's weaknesses can be summed up as follows:

- Danish education risks becoming worn out – in particular, Denmark is losing ground in higher education
- Danish knowledge building is too weak – Denmark develops too few new original products; collaboration between business and research is tenuous

- Danish entrepreneurship gets a bottom ranking – regarding the ability to create new companies that are able to utilise their global potential
- Denmark has too few executives showing strategic and international leadership

M777 | Who leads the innovation race

Total index of performances and framework conditions for the 4 innovation drivers (USA=100)

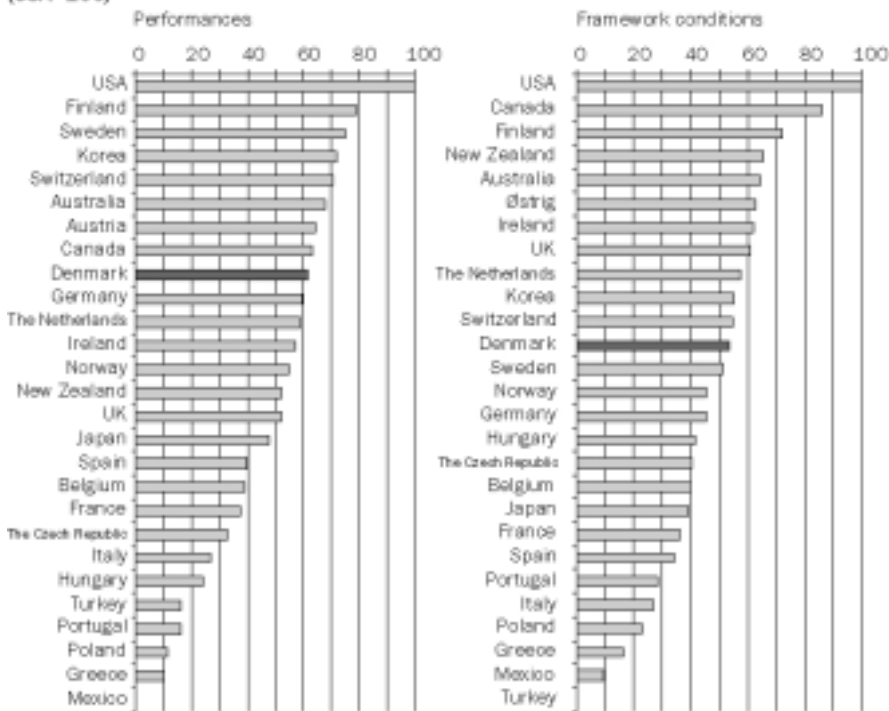


Figure 2.2

Source: FORA, 2004

It is especially problematic that the Danish weaknesses are concentrated around the most fundamental growth conditions – human resources and future companies. Competent, well-trained employees are the backbone of Danish competitiveness. New companies should provide Danish jobs and shape new billion-dollar industries in the future.

Overall, Denmark lags behind in significant areas – though not so far behind that it is not possible to close the gap and reach a top position in terms of microeconomic framework conditions. However, it requires Denmark to mobilise targeted, forceful efforts.

The following is the status of Denmark’s position in the global knowledge society, according to the first InnovationMonitor survey.

Human resources

Denmark performs considerably worse than its Nordic neighbours Sweden and Finland in terms of human resources.

In terms of the population’s overall education level and the education’s relevance to the needs of business, Denmark lags behind. We simply do not produce

enough graduates, while producing too many in the wrong fields – compared with the needs of business representing the Danish opportunities for growth. A stronger link between education efforts and business developments in Denmark is lacking.

Sweden and Finland rank considerably higher in terms of their populations' skills. A main reason is that Sweden undertook a reform of its higher education, with an eye on the global future, already in the early 1980s, while Finland took similar steps in the early 1990s. In both countries, education programs are centrally managed. In Finland, appropriations, especially for engineers and commercial degrees, are linked to an educational institution's ability to produce candidates who get jobs in the Finnish business clusters, which secures a very strong link.

M772 Danish strengths and weaknesses measured by human resources

Denmark compared to the top 3 in the world

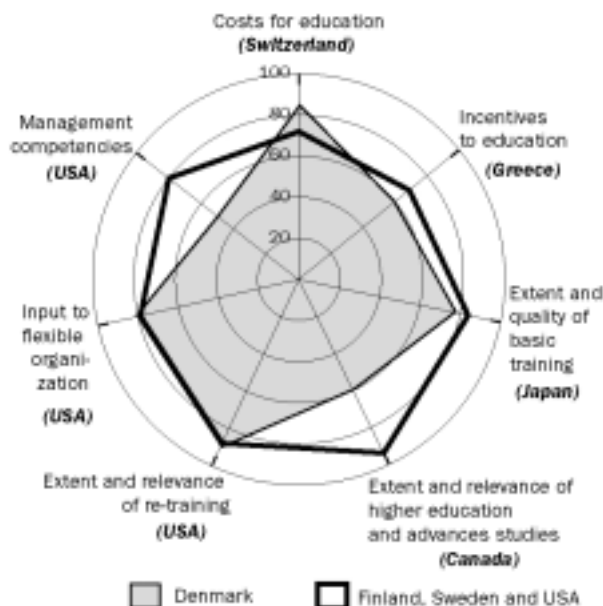


Figure 2.3

Source: FORA, 2004

This Danish weakness is clearly among the most critical conditions concerning Denmark's future competitive potential. In the global marketplace, Denmark to a large extent no longer competes on wages, but on competencies. Therefore, the fact that the most competence-intensive educations, in particular, do not meet international best practice is a very serious danger signal.

Denmark also does poorly in the primary school area. The Danish public school system does well in terms of soft values such as collaborative skills, independence, and understanding democracy – conditions which contribute to maintaining and strengthening fundamental Danish cultural values such as social justice – but poorly in terms of academic knowledge. Sweden and Finland do as well in soft values as Denmark, but Finland, in particular, does far better in academic knowledge.

The government has initiated a number of reforms in higher education, putting more business executives on university boards, as well as in the primary school area,

including tests of academic skills, etc. Whether this is enough for Denmark to catch up is unclear.

Sweden and Finland likewise top all lists in terms of executive competence, while Denmark lags behind in this area as well. Danish executives do not do well in international experience and strategy – two important conditions for competing in the global marketplace. Part of the reason is found in Denmark's position as 17th out of 27 countries in terms of quality of business education – management education programs are simply too poor.

Knowledge building and knowledge spread

Denmark does better in knowledge building and usage, but, again, Sweden and Finland outperform Denmark. Denmark is in seventh place in patented innovations, introducing new or technologically improved products or processes.

InnovationMonitor, moreover, reveals a familiar, problematic picture: there is a lack of collaboration between Danish businesses and public research centres; commercialisation of research and development is relatively modest. These are serious weaknesses when it comes to building world-class innovation environments.

The countries that have the best expanded research and development partnerships are Sweden, Canada, and Finland. All three countries allocate far more funds on university budgets to corporate partnerships than Denmark does – Finland 10 times as much, and Sweden three times as much. Moreover, partnerships in the other Nordic countries are more committed and longer term – typically, the boards are anchored with executives from the universities and the businesses. Meanwhile, partnerships in Denmark in many cases are based on personal networks between individual researchers in businesses and at universities.

Considering Denmark's business structure – many small companies without the critical mass for large research departments – it is relevant to consider whether Danish universities ought not, in fact, spend more resources than Sweden and Finland on building partnerships with businesses.

The government has made an effort to lift Danish research efforts by establishing a high technology fund. It remains to be seen whether it can generate funds quickly enough to pick up the Danish slack and secure world-class Danish knowledge environments. The Danish Research Strategy Council meanwhile has proposed a tighter link between Denmark's strengths and endeavours in research. The question is whether the link could be further strengthened by an economic scheme of government subsidising research that also has an investment by business.

M772 Danish strengths and weaknesses in IT

Denmark compared to the top 3 in the world

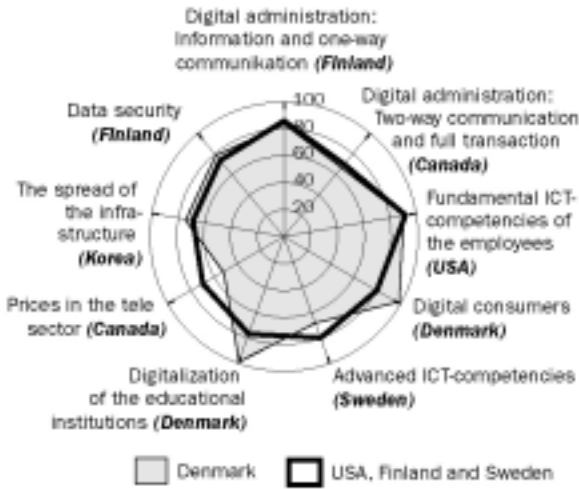


Figure 2.4

Source: FORA, 2004

ICT usage

Denmark is relatively proficient at using information and communications technology as a tool in the competitive marketplace. Measured in basic IT usage, such as the number of PCs per office worker, Denmark finishes fifth in the rate of firms with Internet access and home pages, with the United States and Sweden in the top slots. In terms of more advanced IT usage, such as electronic shopping and sales, plus Internet usage for advanced services, Denmark ends up in fourth place.

M772 Danish strengths and weaknesses in knowledge building and knowledge spreading

Denmark compared to the top 3 in the world

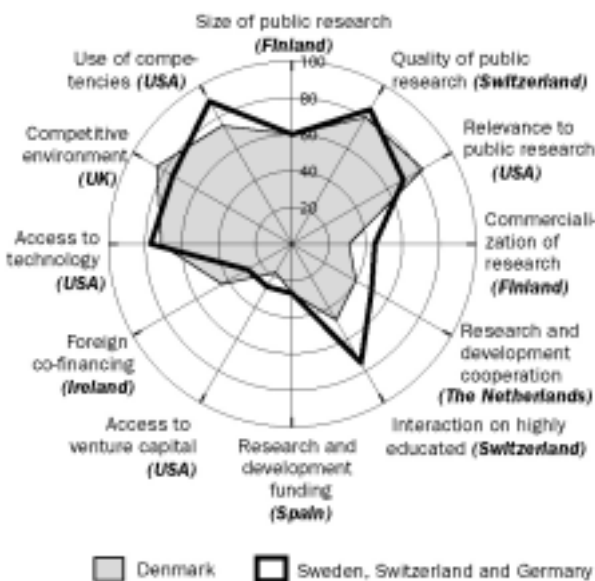


Figure 2.5

Source: FORA, 2004

Examining the framework conditions underlying the Danish performance, Denmark also does relatively okay in terms of the number of IT staff with advanced ICT competencies – though not as well as the leading countries. Reaching the level of the leading nations would require a 10 per cent increase in the number of staff with advanced ICT competencies. Such an increase would require doubling the number of students at the IT University of Copenhagen (ITU) or a significant import of foreign competencies.

Moreover, Danish telecommunications prices are relatively high, hampering Internet and telephony use in general.

Concrete initiatives for addressing these weaknesses are lacking.

Entrepreneurship

Denmark is a relatively good place to start up a new company – better, probably, than most people would think. Every year, 16,000 companies are started up in Denmark, and around 6 per cent of Danes are involved in entrepreneurial activities, either by setting up their own company or playing a crucial role in developing a new company. By international standards, these are high numbers – among the highest in Europe and on a par with the United States. In other words, there is no lack in Denmark of entrepreneurial desire or of willingness to take a risk.

This is very positive. New companies have great importance for the power to innovate and for growth across society. Business research has shown that new, small businesses provide more than half of the innovation in business and upwards of 90 per cent of radical innovation. Moreover, new companies are important catalysts for business clusters and help to strengthen the dynamics and growth potential of clusters.

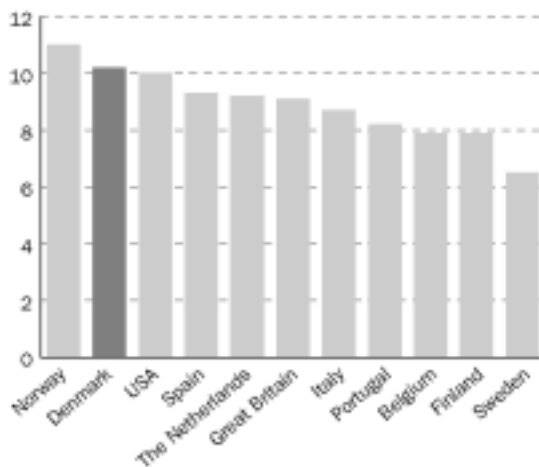
The problem is that Denmark's many new companies do not grow. Actually, a minority of new companies in Denmark enter a virtuous growth cycle. In the United States, more than 10 per cent of new companies show annual growth of more than 60 per cent. In Denmark, that figure is just 3 per cent.

There is thus ample reason to reevaluate the traditional perception of Denmark as a weak entrepreneurial land. That perception is inaccurate. Rather, Denmark has a weak growth framework for new companies. This framework ranges from an entrepreneur's management competencies to financing, taxes, and bankruptcy laws. If this framework were strengthened, Denmark could quite probably realise a growth potential with a takeoff in the Danish entrepreneurial spirit to relatively match America's.

NW22 | Strong Danish entrepreneurial spirit

Denmark is good at starting new companies...

Company start-up rates in Europe and USA (1998-2000)



...but they do not grow large

Share of new, smaller companies with a growth of more than 60 per cent (2000-2002)

Korea	15.5
USA	13.5
Great Britain	8.5
Spain	8.2
The Netherlands	7.3
Finland	5.8
Norway	5.7
Sweden	5.1
France	4.0
Italy	3.9
Denmark	3.3
Portugal	3.1
Germany	2.6
Switzerland	1.8
Austria	1.7

Figure 2.6

Source: Eurostat 1998-2000. The figures are harmonised and corrected for differences in sectors. National Agency for Enterprise and Construction

According to InnovationMonitor, Denmark's weaknesses in the entrepreneurial area mainly involve the following problems:

- Bankruptcy laws determine when an entrepreneur who has gone belly-up can translate that experience into taking a new shot. The United States, Korea, and the UK – among the best countries for entrepreneurs – also have the best conditions for starting up again after a bankruptcy. The period is typically 1-2 years. In Denmark, it typically takes 7 years. That is clearly a barrier to entrepreneurs who learn from their mistakes and want to start over, as well as for intrapreneurs who want to break out of their employment conditions and start their own company. Accordingly, the government has asked the Bankruptcy Council to come up with proposals for revising Danish bankruptcy laws.
- Taxation can hamper entrepreneurial activities in many ways. In the best nations for entrepreneurs, small businesses benefit from a special, low corporate tax rate. In the United States, Canada, and the UK, small businesses are taxed at a rate of 10-15

per cent, or about half the ordinary corporate tax rate. Not so in Denmark. The United States, Canada, and the UK also have favourable tax conditions for “business angels” – i.e., the return on investment in certain new growth companies is especially low. In Denmark, start-up companies do not enjoy similarly favourable tax conditions and there are no separate tax regulations for business angels, which may go some way to explain why there are relatively few business angels in Denmark. A related problem is generational change of ownership, which is heavily taxed in Denmark in a combination of capital gains tax, dividend tax, and inheritance tax/indirect tax, hampering the possibilities for many Danish companies of growing from small to big – instead, promising companies are bought up by big foreign companies.

- Venture markets are large and run smoothly in the leading nations for entrepreneurs. The public sector has played an important role in the development of such markets in all these countries. A flow of seed capital apparently requires permanent public involvement. Denmark has a relatively large seed market thanks to public involvement in the innovation environments and the Danish Investment Fund. A market for venture capital financing the last leg of a new firm’s development (i.e., expansion capital) is developing and it appears to be self-sustaining. However, there is a gap in the Danish venture market between seed capital and expansion capital – a gap that can be closed within a relatively short period only by government involvement. The government has entered into a dialogue with life insurance companies and pension funds about the capital conditions of new companies.
- Secondary stock market. All the best entrepreneurial nations have a large and smoothly running secondary share market. These are markets where small companies that do not qualify for listing on the main stock exchange can float unlisted shares. A well-functioning secondary stock market is an important opportunity for venture capital and a market where growth companies can get capital to realise global expansion. The biggest and best known secondary stock market is America’s Nasdaq for hi-tech stocks. In recent years, new and interesting secondary stock markets have emerged in Korea and Sweden. A secondary share market must be established by the financial sector itself, and for small countries like the Nordic nations a cross-border partnership could be a big advantage. The government can take initiatives promoting collaborative development of a well-functioning secondary stock market.

MV77 Danish strengths and weaknesses measured by entrepreneurship

Denmark compared to the top 3 of the world



Figure 2.7

Source: FORA, 2004

- Entrepreneurial infrastructure. As American experience shows, a very important element in building a strong entrepreneurial region is having a competent and finely meshed network of entrepreneur advisers – a strong entrepreneurial infrastructure. This involves a very broad field of advisers, from lawyers, auditors, and patent experts to business angels, venture capitalists, bank officers, and technical specialists, as well as marketing specialists and PR advisers. Such networks do not spring up on their own. In any event, setting up and operating entrepreneurial networks will probably require a non-government involvement. Driving forces can be an entrepreneurial organisation, a business house, a research park, or an entrepreneur centre at a university. Financing must come from established businesses, as well as regional and public authorities. The government has called a tender to find an organisation or institution that can be the driving factor in building an entrepreneurial infrastructure.
- Education in entrepreneurship is less common at Danish institutions of higher learning than it is abroad. Young Danes today are just as interested in starting their own business as young people in other countries, but they are not assisted to a similar extent. All major, respected universities in the United States have special entrepreneur centres. There are no corresponding systems in Denmark. The government has taken the initiative to establish a new Danish entrepreneur academy focusing on research, educating about entrepreneurship, producing educational materials for universities and other places of learning, training teachers in entrepreneurship, and educating advisers. This does not, however, replace the need for entrepreneur centres at universities, ensuring a selection of courses on management, economy, marketing, and innovation, while establishing an incubator framework for starting up actual companies, possibly with an affiliated venture fund.

Revitalising the Danish innovation base

A fundamental requirement for Denmark to get ahead in the future innovation economy is having world-class fundamental framework conditions – both on the macro and the micro levels. That is not the case today.

The Innovation Council is therefore establishing task forces in six selected areas, where Denmark has special needs for, or a unique advantage in, targeted efforts:

- Human resources – how to adapt higher education, in particular, to the global education market of the future
- Knowledge building/knowledge spread – establishing a cohesive strategic knowledge network between Danish and foreign institutions and partners
- Entrepreneurship – developing, for instance with an entrepreneur academy as the hub, a new generation of entrepreneurs and intrapreneurs in all aspects of society (social, cultural technological, etc.)
- Creativity – strengthening and maintaining the creative potential of young people through new forms of learning and development concepts
- Labour market – evolving the Danish labour market into a competence market to become a crucial competitive parameter in the competition for talent and investments
- Leadership – changing Danish management into a regional competitive parameter, taking inspiration from global winning strategies

It should be a strategic goal for Denmark to belong among the world elite in each area, according to recognized international criteria.

Chapter 3

The new winning strategies

Most countries today are developing new strategies in response to the new global growth conditions. This is the case with such diverse countries as China, India, Singapore, and Dubai – which today are all committed to education, research, technology, and entrepreneurship based on a shared realisation that this is what it takes to win the future, no matter how the past has been. Common to all these countries is that they are taking these steps on the basis on annual growth rates of 7-9 per cent and an authoritarian national leadership, which makes it possible to implement new strategies quickly and effectively.

Leadership in the western democracies of course follow other, slower rules. This enhances the requirements for precision in analyses, innovation in strategies, and consensus on execution. But transition is underway. Several countries – among them, the United States, Canada, Britain, Finland, and Denmark – are currently developing new growth strategies, not merely strengthening the microeconomic framework conditions, but adapting them to their own, culturally determined business strengths embracing the competitive advantages that are hard for others to copy.

The winning framework conditions

The new growth-strategic thinking is based on the realization that growth and prosperity are predicated not so much on individual companies or general national economic conditions as on the prevalence of specialised clusters of companies and institutions – innovation environments – which, by virtue of rivalry or close partnership relations, as well as special framework conditions based on culturally anchored competencies, are able to develop solutions and products that are more advanced and competitive.

M777 | The new global competitive position



Figure 3.1

Source: Monday Morning, 2004

Such innovative competence clusters represent specialised networks providing competition advantages to the companies that are partners in them. The global role model for such innovation environments is Silicon Valley, which attracts high-tech companies from all over the world, because the region, by virtue of research at its universities and companies, offers spearhead knowledge about technology, which helps to create a supply of skilled professionals with world-class competencies, sophisticated customers who buy and demand innovation, and a broad supply of able collaboration partners.

In other words, apart from macroeconomic and microeconomic framework conditions, there is a set of culturally determined competitive framework conditions that springs from local customs, attitudes, and values. These have typically evolved over time and represent unique conditions. This is what might be called a winning framework, because it most often is the reason for new companies emerging, and existing companies and sectors succeeding in international competition. The winning framework conditions explain what it is that over time has created strong local innovation environments and, essentially, provided prosperity in regions and countries.

In terms of strategic growth, it is a problem today that these winning framework conditions, economically speaking, largely are uncharted territory. Following the old growth-strategic thinking, it was not necessary to focus on national, culturally determined core competences in order to create prosperity. It can be discussed whether that assumption was ever entirely correct – but, in any event, it is a condition that is now changing dramatically, as old sources of growth dry up.

The OECD today emphasizes a region's competitiveness in terms of microeconomic framework conditions as crucial to the economic growth strategy. According to the OECD, regional success or decline directly depends on the regions' varying ability to use local, financial, environmental, social, and human capital to facilitate national and international investment in the region.

Accordingly, a strategy for future growth to a large extent involves identifying the local winning framework conditions and next, through targeted efforts, activating them as competitive parameters.

The European strategy: regional innovation centres

A number of regionally based innovation clusters are emerging in Europe. Most are based on growth-strategic thinking with a takeoff in regional winning framework conditions.

For example, the British government in 2000 implemented a comprehensive national growth strategy, delegating responsibility to individual regions in order to identify Britain's strong business clusters and further develop them in collaboration with local universities, businesses, schools, and authorities. To that end, individual regions have set up independent non-profit organisations for the purpose of facilitating collaboration and moving the process forward.

One of these regional facilitators, Yorkshire Forward, has developed a strategic plan for a partnership among universities, businesses, and authorities which, from 2004 to 2010, will lead to 150,000 new jobs, double the number of new business start-ups, raise the skill level of some 3 million people, treble the investment level, cut the

number of marginalised people in half, and foster economic growth well above the EU average.

Finland, Spain, and France, among others, are undertaking similar initiatives. Many countries are choosing regions as main actors in the new growth strategy, because cultural competencies and world-class innovation clusters, regardless of globalisation, are generally geographically defined phenomena building on close interaction among local stakeholders. Most competence clusters are not particularly big. According to Harvard University's big Cluster Meta Study, the biggest survey of business clusters to date, the average European business cluster numbers fewer than 5,000 people. Locating responsibility for developing framework conditions and partnership relations close to the individual clusters provides better opportunities for tailor-making a strategy promoting individual business areas.

The economic gain from promoting regional business clusters and growth environments is threefold:

- It strengthens existing companies
- It attracts new investments
- It improves the changes of new companies surviving.

Not surprisingly, experience so far indicates that regionally founded efforts make the biggest difference in areas where stakeholders share an awareness of the possibility of influencing their own growth conditions and opportunities for success via targeted collaboration and partnerships.

Innovation Alliance

Still, it remains to be seen whether a regional or national growth strategy can stand alone in a global economy. Even when the winning framework conditions are local, the requirements for realising their potential may very well depend on global conditions. Nor is this a very well-described aspect of growth-strategic research.

Accordingly, the Innovation Council has taken the initiative to establish an innovative business policy and growth-strategic partnership known as the InnovationAlliance between Denmark, Finland, and California's Bay Area (the nine counties around San Francisco, including Silicon Valley).

All three regions are wealthy economies that are feeling the pressure of globalisation. Therefore, these global regions have decided to undertake a partnership on future growth strategies in a joint action and act the part of laboratory regarding how best to manage the global division of labour and knowledge in practice. The questions are: Can the three regions learn something about their own strategic opportunities from each other's experiences and studies? Can the three regions develop joint solutions representing competitive responses in the global economy?

The InnovationAlliance has already led to the establishment of a joint innovation centre for solving advanced IT tasks in the health sector, where the United States has special technological spearhead knowledge and Denmark has sophisticated user knowledge.

The strategies will be discussed and developed at joint meetings.

- Silicon Valley. The challenge there especially involves the crisis in the IT industry and the outsourcing of jobs, combined with near hysterically high price levels, particularly in Silicon Valley. Cost levels make it attractive for local companies to locate manufacturing and projects in countries such as India, while it is less attractive for new companies to settle there. Job losses have fostered powerful political tensions. Roughly a dozen bills have been proposed in California to ban or limit the offshoring of jobs. Corporate leaders have been put on the defensive and forced to explain their tactical decisions, which spring from the logic of the global market. According to the study, jobs will continue to flow out of the area in coming years, including high-tech manufacturing, office work, financial functions, computer programmers, and engineers. The question for Silicon Valley and the entire Bay Area – which considers the development of new driving technologies to be its culturally determined, global position of strength – is whether it is possible to develop a new generation of driving technologies to compensate for, and supplement, IT, and in that way create future growth and jobs.
- Finland. The challenge there resembles Silicon Valley's. This model nation in the north with such impressive economic results in the 1990s now fears that it will lose out in the global division of labour. As in Denmark, job flight is not pronounced in Finland, but the government predicts that, as development tasks and white-collar jobs are torn free from national economies, innovative companies and skilled staff will become extremely important for future growth – and for that, proactive efforts are required. According to a Finnish study, the world is full of countries with economies that are stagnating because they failed to take the future seriously enough. Finland does not want to be on that list. As a preliminary response to globalisation, an expert group appointed by the Finnish Prime Minister's Office has proposed boosting research by 7 per cent annually for the rest of the decade, raising public funds for entrepreneurs, lowering taxes (to a maximum personal income-tax level of 50 per cent), establishing regional innovation centres, strengthening partnerships that promote foreign investing, easing immigration of foreign experts, and financially strengthening education and universities. This is not the full Finnish response, but it is a first step, aiming to strengthen fundamental conditions for growth in a global economy. A new growth strategy is in development, organisationally revolving around regional Finnish business clusters.

Denmark's challenge is not all that different from Finland's and Silicon Valley's. The question, naturally, is what Denmark's strategy should be.

Chapter 4

How has Denmark been making a living?

Denmark's response to the future begins with a question about the past: What has created Denmark's prosperity?

The Danish business sector chiefly consists of many small companies in low-growth industries supplemented by quite a lot of agriculture. Still, Denmark for decades has managed to rank among the world's top 10 richest nations. Other countries with corresponding preconditions have been unable to match that accomplishment.

The Danish accomplishment is based on a rare ability to optimise the effect of given and limited resources. The sea has fostered one of the world's biggest shipping companies with huge foreign exchange earnings, the ground supplies far more energy than we ourselves need, the soil provides bountiful exports of butter, sugar, ham, beer, machinery, and pharmaceuticals. Even the western wind has been harnessed into the successful wind-energy industry. The skilled use of relatively modest basic conditions has created revenue over the last century, producing one of the world's most prosperous nations and financing one of the world's most advanced welfare societies, which in turn has bred a number of successful Danish pharmaceutical companies.

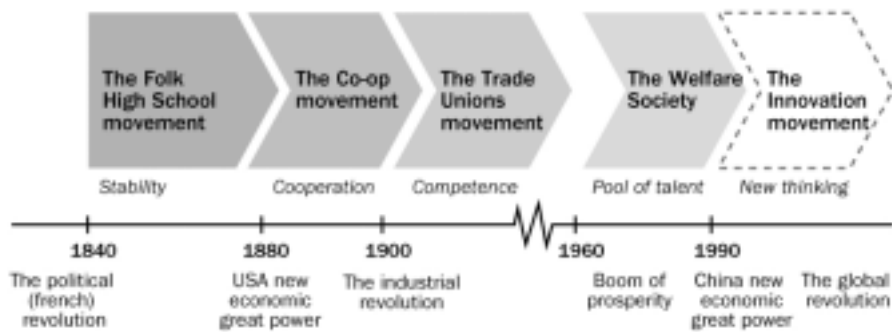
The question is how we describe and explains this special Danish ability to make so much out of so little. What is behind the Danish power to innovate?

Social innovation

The Danish growth model, the Danish prosperity engine, is fundamentally built on a positive view of humanity: Danes do not believe in systems – they believe in people. They believe that an individual human being can make a difference. This respect for the individual – that all are equal before God – has taken root through generations and today pervades all of Danish society and its institutions. As such, the Danish view of humanity has created a centuries old tradition of collaboration and taking care of one another – educationally, socially, and in the workplace.

“Social fairness,” in other words, is a powerful guiding value in Denmark and, accordingly, through history Denmark has chosen to adapt differently from many other nations. For example, while what matters most in the United States is fair competition, in Denmark fair treatment of people has far greater value. This has had far-reaching consequences for the development of the whole of society and created different institutions and structures in Denmark than abroad.

M77 | The Danish Model - social innovation



Figur 4.1: Denmark has repeatedly over the history met new challenges with wide, popular social innovations which have shaped the Danish society, Danish economy and Danish business

Source: Monday Morning 2004

For example:

- **The folk high school movement** is a groundbreaking and uniquely Danish social innovation in response to the French political revolution, which began in 1789 and ended with the establishment of the Second Republic in 1848. The political revolution heralded the fall of the monarchy and a new era of democracy was underway. Prominent Danish social strategists such as Grundtvig understood that, in order to attain a democracy that was as functional and stable as possible, as many people as possible should be able to participate in the democratic process – presupposing a general level of enlightenment. The folk high schools anticipated Danish democracy and created a broad and strong popular information culture, and Danes remain one of the world’s broadest, best educated populations. This has clearly contributed to stability, cohesiveness, and economic growth. Around 80 percent of Danes today vote in general elections.
- **The cooperative movement** is another uniquely Danish social innovation, which developed when the United States arose as an economic superpower at the end of the 19th century and American industrial farmers swamped Europe with cheap grain, threatening the livelihood of the more cost-intensive Danish farmers. The Danish response to American industrial operations was to undertake cooperation in the form of the cooperative movement. This response was so effective, Danish agriculture became so competitive, that Denmark was one of the last countries to industrialise – industry did not overtake agriculture as an export engine until the 1950s. Meanwhile, agriculture functioned as a platform for new billion-dollar industries in anything from agricultural machinery to insulin. Eighty per cent of farmers were members of the cooperative movement.
- **The labour movement** is a Danish social innovation that emerged as a response to the industrial revolution. The labour movement is not unique in itself, of course, but the way the Danish unions operate is. The main agreement of 1899 adopted a special Danish consensus-based negotiation model for the labour market, which has entailed that Denmark today, according to international competitiveness studies, has what are probably the best labour market relations in the world. Just as

importantly, as early as the 1930s the labour movement committed to an upgrading strategy, by which unskilled workers via evening classes at vocational schools were able to compete for skilled jobs, creating a domino effect resulting in the internationally unique skill level of the Danish workforce today. According to the OECD, the Danish labour market today is simply one of the world's best and best functioning, an example to be followed by new market economies and a crucial factor in Denmark's opportunities for growth and employment. Eighty per cent of Danes today are members of a union.

- **The welfare movement** is yet another social innovation, springing from the desire to take care of others and secure equal conditions for all. Welfare solutions in the 1960s enabled women to enter the labour market in large numbers and gain greater equality with men by having an income and a career of their own. The welfare system also liberated young people, enabling them freely to choose the course of their lives. The Danish welfare model is one of the world's most developed and inclusive systems. It has produced the world's highest percentage of women in the workforce – in sharp contrast to countries such as Italy – in itself contributing substantially to Denmark's economic growth and social cohesiveness, which is also important for economic growth. Eighty per cent of Danes accept high tax levels as a precondition for the welfare state.

Denmark, in other words, excels at social innovation based on human relationships and development needs. Likewise, there is a remarkable consensus and solidarity behind the solutions, testifying to a unique national mobilisation capacity and consensus formation.

The Danish tradition of answering new challenges with collective, social innovation makes it likely that the latest challenge – China's blossoming and the global revolution we are undergoing – will also mobilise a broad, collective response in the form of an "innovation movement," shaping a new Danish business structure that can secure Danish prosperity for decades to come.

Social and humane innovation

Recent business research lists some of the basic elements of the uniquely Danish social and humane innovation as:

1. Optimal use of society's human resources. From kindergarten, primary and secondary school, higher education to labour market and continuing education, life-long learning creates an elite at all levels – even the unskilled worker has clearly defined competencies and belongs among the best trained workers in an international context.
2. A strong culture of equality, with a weight on independence, is expressed in the well-developed social solidarity that has been a pillar in the development of the Danish welfare state and labour market (the Danish model).
3. Short power distances and flat hierarchies. Danes are from a common vocational culture, centred on small businesses. Many top executives come from a vocational background (skilled workers and the like) and naturally identify with, and respect, people “on the floor.”
4. Optimal interaction between society's human resources. The development of a labour market based on a social compact and mutual trust has made trade organisations a powerful force in innovation and a driver of industrial development for decades.

Source: “Det grænseløse arbejde,” Peer Hull Kristensen, 2002 (Borderless Work)

Humane innovation

The Danish view of humanity has very directly effect on how managers and employees cooperate in Denmark. Respect, equality, and skills have created a trusting and flexible model of cooperation in Danish businesses that stands apart from most other countries.

The model of cooperation is apparent, for instance, in the World Economic Forum's annual Global Competitiveness Report, which measures national competitiveness by a number of parameters. Danish managers delegate more responsibility and more tasks to their employees than any other managers in the world. This very democratic management form – one might also call it “social leadership” – is one why reason why the Danes, according to several employee polls, are among the most satisfied workers in the world. Moreover, Danes are generally happier about their managers and employers than any other population.

As business research shows, a high level of employee motivation is especially important for innovation and adaptability, and it directly affects productivity. Therefore, the Danish model of cooperation provides a highly significant competitive edge in a time when competition increasingly involves innovation in the knowledge economy.

The Danish model of cooperation not only builds on a special view of humanity, it also to a very large extent involves a unique view of competence. There is strong professional rivalry among Danish staff, creating a unique Danish competition with regard to reputation – it is professionally and socially important to be better than the other guys.

This rivalry creates a dynamic that builds competencies, strengthens collaboration, and promotes development, because Danish employees actively seek out new competencies and new technology, use customers, partners and executives to find

new and better solutions to outdo their rivals, and thus manifest professional superiority. This represents the “hidden” Danish power of innovation.

International competition studies show how important these process-based strengths are for Denmark. Denmark is among the world’s top five competitive nations, according to both the World Competitiveness Report and the World Competitiveness Yearbook from the IMD business school. If one looks at what it is that provides this strength, process strengths take centre stage.

M772 | Here Denmark is world-class

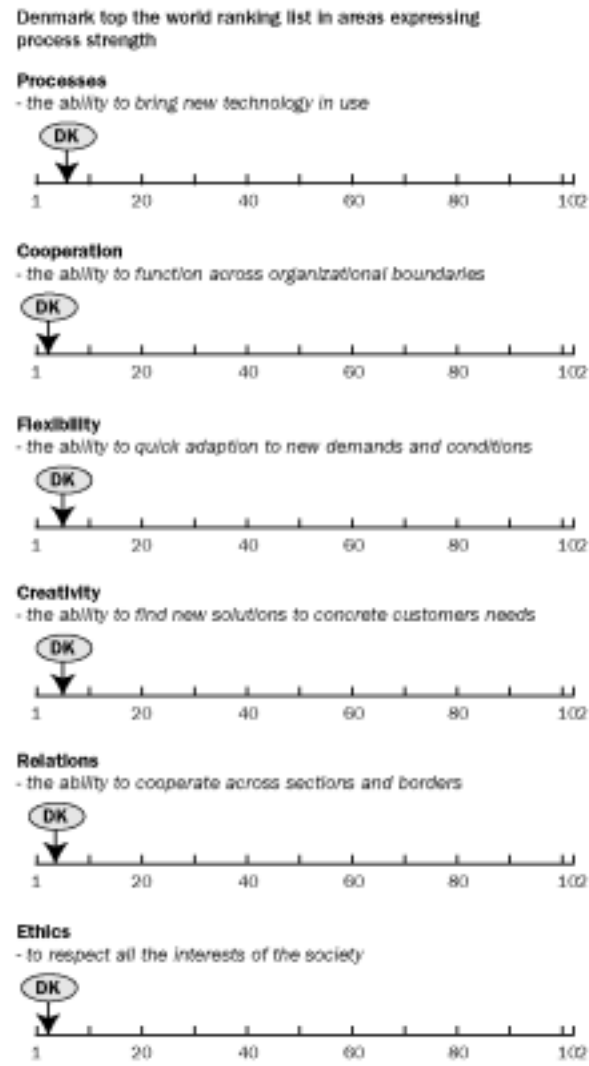


Figure 4.2
Source: The Global Competitiveness Report, Oxford University Press, 2004

Denmark’s strengths include:

- Processes – the ability to use new advanced technology
- Collaboration – the ability to work together across organisational boundaries

- Flexibility – the ability quickly to adapt to new demands and conditions
- Creativity – the ability to find new solutions to specific customer needs
- Relations – the ability to collaborate across sectors and boundaries
- Ethics – respecting all of society’s stakeholders

All the Nordic countries have a high ranking on international lists when it comes to process strengths, but no country gets more points overall than Denmark.

The Danish process strengths make up a clear innovative competitive edge that sets Denmark apart from other countries. While the United States is clearly better than Denmark at innovative research, Americans have a harder time turning that research into production and continuing improvement. Denmark has process competencies making Denmark uniquely suited as a testing and development centre.

Market-driven innovation

One Danish strength is our market-driven innovation capacity. Only 0.6 per cent of Danish companies carry out pure research-driven innovation, while 22.5 per cent, or almost one in four, carry out user-driven innovation – i.e., innovation and development which is mainly fuelled by contact to suppliers, users, and customers – or the market.

This is a logical strength. The preponderance of Danish small businesses means that relatively few companies have established big research departments. The strong build-up of competencies at the bottom of Danish organisations – the elite on the floor, so to speak – signals a strong vocational culture that, although it may represent a barrier to highly educated people and researchers, make of customers, users, and suppliers natural dialogue partners.

W72 | Danish companies - champions in user-driven innovation

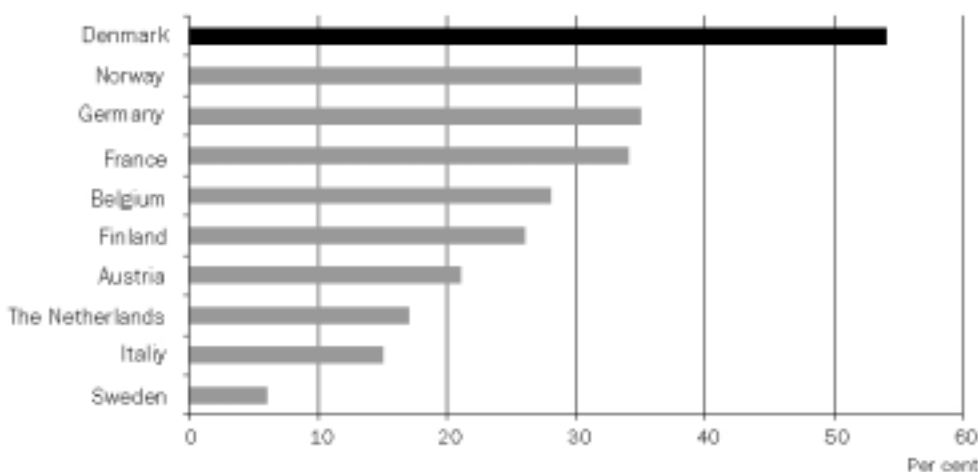


Figure 4.3

Source: The EU Commission, "European Community Survey III, 2003"

Mastering user-driven innovation can be a major advantage in the global marketplace. Many of the world's trendsetting companies these years are trying to switch to improved market-driven innovation. That is because experience as well as business research show that companies which are driven by user innovation are generally excellent at developing unique and tailor-made concepts that tie together several dimensions into a complete user experience, including usability, design, identity, service, experience, price, and more – simply put, products that are difficult to copy.

The close contact to customers and markets is one reason why many Danish products are design-driven, including B&O, Georg Jensen, Royal Copenhagen, Grundfos pumps, House of Sand, etc.

Moreover, technological innovation rides on the coattails of user-driven innovation. One example is Coloplast, among other things a manufacturer of colostomy bags and other equipment for the chronically ill. Coloplast grew by 100 per cent from 1998 to 2003, making it one of Denmark's fastest growing companies. Coloplast has established a partnership between the company's designers and development department, on the one hand, and nurses at the country's hospitals, on the other. As the "experts" closest to the end users, the nurses continually report experiences and desired improvements to Coloplast, which uses the information to develop new technological solutions and other things.

Many other Danish companies use a similar approach, not least GN Resound, Oticon, and Microsound, successful Danish manufacturers of hearing aids which combined control 40 per cent of the world market.

User-driven innovation, in other words, drives technological innovation, no matter if it is colostomy bags or hearing aids, just as social innovation paved the way for market-driven innovation in the form of the high Danish competence level and the egalitarian model of cooperation. The Danish growth model can be described as a circle of innovation, where social innovation feeds user-driven innovation which unfolds as technological innovation.

M772 | The Danish growth model



Figure 4.4: The Danish growth are due to an innovation circle where social-driven innovation feeds user-driven innovation, which pulls technology-driven innovation

Source: The House of Morsby Morsing

It is in the intersection between social, market-driven and technological innovation that Denmark has a globally unique platform for innovating the existing and inventing the new – products, companies, and industries.

Danish world class

Denmark today has a long list of world-class companies that have grown out of the unique Danish cultural framework. Here are just a few examples:

- The cooperative movement led to the development of the world's perhaps most efficient agriculture and a sophisticated food industry: Europe's biggest dairy company (Arla), one of the world's biggest meat-packers (Danish Crown), and the biggest Nordic retail chain (Coop).
- The welfare system early on created a demand for insulin, extracted from the Danish pork production, which paved the way for Novo Nordic, the world's biggest producer of insulin. Moreover, Novo Nordic is an international role model in sustainable development and social responsibility – and, accordingly, a case study of the link between the Danish view of humanity and advanced industrial development.
- The labour movement's focus on skills and cooperation, combined with Danish social leadership, made the ISS cleaning company possible. Today, ISS is one of the world's biggest service groups. ISS was founded on social indignation – unskilled women ought to have a chance to attain social status and gain a respected elite position at their level. According to former ISS executive Poul Andreassen, ISS could only have been established in Denmark.
- Democracy and the tradition of folk high schools have contributed to the strong environmental awareness in Denmark, which has dictated a no to nukes and a yes to alternative energy, an approach that has made Denmark the world's biggest producer of wind power. Vestas, the unrivalled world leader in wind-turbine production, today is Denmark's biggest industrial group.

These examples illustrate the potentials of the interplay between culturally founded strengths and business opportunities. Obviously, the more precise the knowledge of such links is, the better the chances of succeeding in business will be.

Chapter 5

Future billion-dollar industries

A strategy for Denmark's future must necessarily start from the ambition that Denmark should be one of the world's most innovative societies – in terms of the ability to innovate and translate ideas into new products and services that will be in demand on the market. Denmark has good preconditions for that. The Danes have built one of the world's richest nations almost solely by virtue of their powerful innovation capacity.

Of course, a past ability to innovate will never be enough to secure future prosperity, just as many of the framework conditions that historically have strengthened the Danish innovation capacity today appear to be weakened. And what is almost worse, there is a lack of knowledge and insight about how globalisation affects the dynamics of Denmark's "hidden" power to innovate.

What does it mean for the Danish model of cooperation when co-workers are Chinese or Indian? What does it mean for the ability to innovate when a company has to be managed according to a foreign manual?

Globalisation continues to pose more questions than answers. That is one of the future strategic conditions of life. Thus, a new growth strategy for Denmark must be in the form of directional indicators that are constantly tested and adjusted, as the future comes more clearly into view.

In light of the knowledge we have today, a Danish winning strategy should proceed along two main lines:

1. Strengthening the microeconomic framework to return Denmark's power to innovate to centre stage, and targeting the framework to areas where Denmark has world-class potential. Beginning wear and tear is a serious problem.
2. Renewing the Danish growth foundation by developing a new generation of billion-dollar industries that link unique framework conditions with user-driven innovation and advanced technology.

These are the preconditions for future jobs moving not only to China, but to Denmark as well.

Crucial to Denmark's future competitiveness will be the ability to focus the country's resources in areas where Denmark has unique competencies and preconditions, in order to be the first mover. No country in the world has enough resources to create world class in all areas. The smaller a nation, the bigger the requirement on it to focus. And this focusing must necessarily build on a precise understanding of the conditions that created the present prosperity in the first place, for therein lie also the strengths that can provide future prosperity.

A general commitment to nanotechnology, biotechnology, and IT is not focusing: identifying the sectors and industries, in which new technologies and industries can contribute to creating new growth, is.

Developing new billion-dollar industries

Denmark can renew its growth foundation by targeting its framework for growth to support and develop old industries – but also by developing a new generation of industries focusing on future market needs.

Denmark's industrial future should not be based on a pick-the-winner strategy. Future Danish billion-dollar industries should instead build on the ability to identify new global needs and develop solutions for them. Globalisation reveals and creates new needs that require new kinds of solutions. Many of the needs revolve around people's expectations for a good and healthy life. Solutions must be found to the global obesity epidemic, along with new answers to chronic and epidemic diseases, future energy and environmental problems, global security problems – the economic, social, and technological divides that still polarise the world's peoples. Denmark's new growth strategy therefore is a strategy of picking the needs and developing the solutions.

The strategy cannot be pursued by individual companies, but requires establishment of cross-border competencies and development of whole new knowledge environments. Accordingly, new billion-dollar industries require close collaboration among companies, authorities, research institutions, and others in order to establish the necessary framework around innovative projects linking Danish strengths in user-driven innovation and using the most advanced technology to meet the new market needs that Denmark has the unique preconditions for meeting.

By virtue of its culture and history, Denmark has unique preconditions in quality-of-life products. Many of Denmark's biggest business successes are based on products that raise the quality of life, such as insulin – a product that was developed in collaboration between private and public researchers, industry, agriculture, and health authorities. The same has been the case with colostomy bags, hearing aids, thermostats, catalytic converters, and more – products that merge market-driven innovation with high requirements on quality, utility, environmental correctness, and ethics.

These are innovations that typically emerge in the intersection between the private and public sectors, between businesses and the research and education sectors. It is often in this intersection that innovative social views link into market demands for advanced solutions.

Many future-oriented Danish business efforts and projects likewise indicate big future markets in quality-of-life products. At issue is a market development driven by globalisation, which in future decades will increase global prosperity and raise consumers' and citizens' expectations and requirements for health, environmental, energy, ethical, functional, and design aspects of products and services worldwide.

Denmark has an historic opportunity to capitalise on its cultural strength as unofficial world champion in people's needs and create an interesting growth base in the global division of labour, if current business initiatives are strengthened by setting up the right partnerships and the right framework for new products, services, and industries in quality of life issues. A number of companies, industries, and sectors have already come together to develop new knowledge environments and solutions that answer the demands of the new markets.

The Innovation Council has identified three of these knowledge environments: *the future health industry*, *the future housing industry*, and *the future industry of play and learning*. Common to them all are that they grow out of a user-driven demand for a healthy

life, that their purpose is improving an individual's quality of life, and that they possess development potential that could make them Denmark's new billion-dollar industries.

These three areas are examples of possible efforts based on defined global needs and existing Danish competencies, which, in the right proportions, will presumably be able to produce the necessary solutions.

1. The health industry

Via a new understanding of a person's potentials and needs as a health user and a patient, brand new market opportunities emerge. A healthy life has become a consumer good. It is seen as a shortcut to a full, happy existence. Pressure to innovate the health sector comes from the users and concerns a highly fragmented market. The demand for a better life puts pressure on the food industry's capacity to innovate and develop healthy products, as well as public health sector's opportunities for meeting the individual patient's articulated needs, which are no longer limited by technology but by rising costs, especially the cost of treating chronic lifestyle diseases.

Denmark has strong competencies and good preconditions, business-wise as well as research-wise, for developing new, integrated health industries. Several companies and organisations have already come together to develop the market potentials of the health and lifestyle area.

In the *health cluster of the future*, the Innovation Council seeks to consolidate and unfold the various projects and networks under a joint agenda bringing together the relevant main actors, including representatives of the agricultural sector, the food industry, the medico industry, the pharmaceutical industry, the public health sector, and education and research institutions in such fields as nutrition, health, and prevention.

The ambition is to create a strong platform of cooperation enabling various players across traditional sector and industry divisions to share complementary knowledge and experience with the aim of developing health-oriented solutions that enhance the quality of life of individual users.

The *New Nordic Cuisine* project is an example of an already established network, which, under the leadership of the chef and entrepreneur Claus Meyer, works to innovate and market Nordic cuisine as a nutritious and delicious alternative to southern European cuisine and McDonaldisation. The Innovation Council works with Claus Meyer and the other project partners to consolidate and develop the area into a position of strength for Danish food companies and Danish research, for instance in nutrition.

2. The future housing industry

New values and demands for a higher quality of life also increase the demand for *healthy housing*. In coming years, this demand will be especially pronounced among users with special needs, such as the elderly and the disabled. The market for housing for seniors has an especially big development potential due to the growing number of seniors who will have to find appropriate housing in the next 40-50 years. The challenge here is to develop a form of housing integrating the various needs, especially in terms of treatment and rehabilitation.

Players that want to be part of the future housing market need to develop, build, design, and furnish future housing solutions in a complementary partnership that cuts across traditional industry divisions and which is based on a joint acknowledgement that the development must be determined by the needs of housing users.

Several players from the public and private sectors have already come together in specific cases to develop future housing for seniors. Danish companies already have international positions of strength in developing housing for seniors with inherent welfare concerns.

In the *housing cluster of the future*, the Innovation Council seeks to consolidate and strengthen this potential by developing a national platform of cooperation bringing together central players from the world of research, the public sector, consulting firms, manufacturers of building materials and aids for the disabled, housing companies, ICT companies, the medico industry, and others. The intention is to strengthen the existing preconditions in order to develop new billion-dollar industries that can make Denmark a leading global provider of flexible housing solutions.

3. The future industry of play and learning

There is an acute need to innovate and develop new play and learning options for children and young people. A sedentary life in front of the computer combined with unhealthy eating habits has large and unintended future consequences for children and young people. Epidemics of lifestyle-related illnesses, especially overweight and obesity, are spreading among children and young people throughout the western world, including Denmark.

There is a need to develop alternatives to sedentary activities. These should combine physical activity with activities that challenge, motivate, and develop children and young people on mental and creative levels.

A number of researchers and companies have already come together to develop a series of alternatives. An example of this is the *Body Games* project, where various researchers, technicians, and manufacturers on Fyn collaborate to develop a new type of interactive playground that puts children at the centre of their own stories.

The project has the potential to revolutionise the way modern children spend their leisure hours. The same is the case with other, related projects in development at Danish research institutions and companies.

In the future industry of play and learning, the Innovation Council will build a strong network where various existing and potential players can gather their knowledge and experience in the area.

4. Winning framework conditions

For these and similar projects to result in new industries with billion-dollar potential, three conditions must be met:

- Strategic research – building research-based knowledge within the selected areas on which Denmark is focusing. It is crucial that all areas have access to the most advanced technology, either developed in Denmark or imported into Denmark. In

that regard, the Innovation Council will supply proposals for programme efforts to the newly established Strategic Research Council.

- Strategic competence development – guaranteeing the presence of the necessary human competencies in sufficient measures. This applies not just to research level, but to all levels.
- Strategic partnerships – close collaboration with all social sectors and entities representing knowledge and competencies in a specific area, e.g., businesses, research and education institutions, public authorities, the capital market, etc. The hub of a partnership shall be the companies involved. Here, it is especially crucial to involve the substratum of small and medium-sized businesses. This takes a communication and motivation effort, since their agenda and horizon are strikingly different from those of the biggest Danish companies.

It is important to stress that the overall growth-strategic effort should contribute to the development of a new generation of entrepreneurs and new growth companies, and be effected through a tight link between the Innovation Council's projects and the respective entrepreneurial policy initiatives.

Developing new growth regions

To realise a successful new Danish winning strategy it is crucial to create the necessary preconditions for developing and establishing strong industries and business clusters on the regional level, in Denmark as well as in the rest of Europe. A specific strategic partnership on framework conditions and core competences works best when it as close as possible to individual business and knowledge environments.

To promote a regional growth strategy, the Innovation Council will establish five regional innovation councils in Denmark, which will contribute to identifying highly specialised knowledge and growth environments in individual regions and developing them by strengthening collaboration between the most important regional stakeholders.

The national innovation councils will establish the five regional innovation councils in close collaboration with companies and central players in individual regions to secure agreement between regional and nationwide activities. The task of the individual council will be to develop regional business development strategies according to regional opportunities and positions of strength. A number of projects are already in development that could become case stories for developing regionally driven knowledge environments, such as the Katrinebjerg IT-city in Århus.

In counterpart to the national regions are international regions such as the Oresund Region and the Baltic Area. The Innovation Council works with the Baltic Development Forum to develop a new metropolitan strategy identifying the unique strengths of, and development opportunities for, Danish and other companies in the Baltic Area.

Chapter 6

Denmark's creative building site

For Denmark to develop and realise a new strategy for succeeding in the global knowledge society, precise and structured efforts are required. Accordingly, the Innovation Council aims to create "Denmark's biggest creative building site." In other words, the Innovation Council will facilitate a process that translates visions into reality by forming partnerships and testing ideas as early on as possible.

A consortium (or network) of stakeholders is established around each Innovation Council project to discuss, develop, and possibly test the proposal in practice.

The aim is to gain a strong innovation match along the following parameters:

- Linking related initiatives and securing the necessary critical mass – a concept match
- Securing optimal use of existing knowledge and experience – a competence match
- Coordinating efforts and strategies, so that they reinforce each other – a strategic match
- Promoting individual initiatives enabling the surrounding world to see and understand them as a whole – how they reinforce each other and creates synergies – a communication match.

The Innovation Council to date has facilitated projects with players in such areas as health, wellness, and housing. Many other projects are expected to take shape and have their potential tested. The projects selected so far were presented at the annual meeting of the Innovation Council on 26 October 2004.

The task of the individual consortium will be, within a fixed period (4-6 months), to work out plans and ideas for lifting the given projects, including specifying requirements for winning framework conditions, such as strategic research or strategic competence development. In March-April 2005, the respective consortia will present their proposals to the Innovation Council's Strategy Group.

This process will secure the direct involvement of society's players and inspire them to close cross-sector collaboration, as well as identify and exemplify the practical opportunities inherent in new innovative efforts.

In four-six months, each task force will present a plan for how Denmark can match the global requirements in its specific area. In several of the areas, projects have already been established or are in development.

Demand for leadership

Developing new future Danish billion-dollar industries requires fresh leadership in Denmark. No one today can lift this task alone – not the government, business or anyone else. Ensuring future framework conditions and developing new future

products and services requires broad, focused collaboration – it requires someone to step up and take responsibility, and a risk, by taking the lead and showing the way.

Without strong, visionary leadership Denmark will not be a frontrunner in the global knowledge economy. Vital opportunities for Denmark in the global economy will be lost, if everybody first waits for everybody else.

The Innovation Council is a framework around future leadership and a forum for trendsetting players across society who want to come together and secure Denmark a head start on the future. Members include executives and experts from business, politics, public administration, interest organisations, education, labour, and other sectors that are responsible for, or have an influence on, Denmark's international competitiveness.

A new development of society is, after all, a joint affair, in which everyone shares responsibility – and in which everyone can contribute according to a shared awareness of our own competencies. The real paradigm shift in the global economy lies not in the choice of industry, but in the choice of process.

Appendix

The Innovation Council

The Innovation Council was established by the Ministry of Economy and Business Affairs; the Ministry of Science, Technology and Innovation; the Ministry of Education; Danfoss; FUHU; Novozymes; and the Danish Bankers' Association – by initiative of the House of Monday Morning. The House of Monday Morning and FORA, the analysis unit of the Ministry of Economy and Business Affairs, manage secretarial functions for the Innovation Council.

The Innovation Council's task is to help Denmark, in the next decade, to develop into one of the world's most innovative societies. This is also the government's defined goal and it is a goal that is backed the Innovation Council. The goal will be attained through collaboration among all central sectors of society, including private business, public authorities, education and research institutions. No sector can solve the task alone.

This collaboration comes together in the membership of the Innovation Council and it is expressed in the strategy group, which heads the Council. The Strategy Group's task is, in close collaboration with the other members of the Innovation Council, to set out the overall guidelines for the Council's work and develop specific recommendations and initiatives.

The Innovation Council's Strategy Group

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CEO Jørgen Mads Clausen, Danfoss A/S (chairman)
CEO Lars Rebien Sørensen, Novo Nordisk A/S
CEO Lars Mikkeldgaard-Jensen, IBM Danmark A/S
Director Jørgen Thorball, Novozymes A/S
CEO Elsebeth Budolfson, T-Cellic A/S
CEO Peter Foss, Foss A/S
CEO Jørgen A. Horwitz, Danish Bankers' Association
Director Jesper Zeuthen, BankInvest
CEO Martin Lauth, FUHU
Director Mikkel B. Rasmussen, Kontrapunkt A/S
Editor-in-Chief Erik Rasmussen, Monday Morning

Research

Principal Mads Tofte, IT-University
Principal Lars Pallesen, DTU
Deputy Director Jon Wulff Petersen, Risø Research Centre

Public sector and ministries

Chairman Anders Knutsen, Danish Council for Trade and Industry
Permanent Secretary Michael Dithmer, Ministry of Economy and Business Affairs
Permanent Secretary Henrik Nepper-Christensen, Ministry of Education
Permanent Secretary Leo Bjørnskov, Ministry of Science, Technology and Innovation
Development Director Jørgen Rosted, FORA

Chief Executive Bo Johansen, Århus County Council
Chief Executive Allan Vendelbo, Ballerup Council
CEO Christian Motzfeldt, Vækstfonden

Labour

Group Chairman Børge Frederiksen, SID
Chairman Thorkild E. Jensen, Danish Metal

The following future projects have been prioritised according to past Innovation Council efforts:

We need to identify new agendas

Building an innovation laboratory: This is the core and hub of the Innovation Council. Council members meet four times annually for workshops and plenary sessions to debate and prioritise new agendas and initiatives. This is done on the basis of brief inspirational notes and often has the participation of external speakers. Discussions usually focus on selected cases and challenges, with the aim of developing specific recommendations and ideas.

We need to establish a tight international sparring network

Partnerships with global knowledge and research centres: The Innovation Council last year established a close alliance with two of the world's strongest knowledge environments, Finland and Silicon Valley. The purpose is sharing knowledge and projects within the alliance, and thus strengthening each other's competitiveness. The partnership is between central institutions and research environments in the three geographical areas. Initial discussion has centred on establishing a joint innovation centre for solving advanced IT projects in the areas of health and senior citizens. The plan is to expand the alliance into other international centres.

We need to find out of what Denmark does best

Mapping Denmark's competitiveness: A collaboration with FORA, the analysis unit of the Ministry of Economy and Business Affairs, has benchmarked Denmark against a number of other nations. Together with international institutions and organisations, including the OECD, FORA has developed a model identifying the most important criteria for success in the future global competition and evaluating the current Danish efforts. The first study, published in 2004, provides a unique x-ray image of the state of Denmark in the new knowledge economy.

We need to develop proposals for how to get even better

Identifying Denmark's new growth conditions: In the past year, Innovation members have worked with three significant areas for strengthening innovation and entrepreneurship in Denmark: education, intrapreneurship, and public-private interaction. The work has been specified in a number of proposals. Coming years will see a focus on six new areas. These are *higher education, spreading knowledge among sectors,*

establishing a new entrepreneurial culture, developing the creativity of children and young people, the future labour market, and leadership.

We need to assist in translating visions into action

Developing future billion-dollar industries: The global markets demand new products and competencies – thus the need to establish new industries or developing existing ones. This opens up brand new opportunities for Danish companies. It is not the task of the Innovation Council to identify the new industries, but to contribute to optimal growth conditions for new initiatives. Accordingly, in autumn 2004, the Innovation Council will assist in the establishment of networks among private and public companies, and assist research institutions examining opportunities for building new international knowledge environments or industries. Involved are areas such as health, housing, energy, play & learning, fashion, etc.

The Innovation Council is financed by its members – that is, companies and institutions that have an interest in making Denmark one of the world's leading innovative societies, and which themselves may become the new billion-dollar industries and knowledge environments we have the preconditions for developing. The membership requirement is actively working in innovation, having specific experience and a willingness to share it with others.

Members of the Innovation Council, 2003-2004.

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Alt4kreativ

Communications Director Ulrik Grimstrup

ASE

Regional Director Kim Lundshøj

ASE

CEO Jesper Scharling Sørensen

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CEO Peer Kølendorf

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Comitel A/S

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Configit Software A/S

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Danish Commerce & Services

Director Ole Krog

Danish Industry

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