

# Denmark

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This report was prepared as part of the Country Contribution Process (CCP) conducted by the DeSeCo Project (*Definition and Selection of Competencies: Theoretical and Conceptual Foundations*). The CCP was designed to identify and describe national initiatives regarding the measurement and relevance of competencies in different areas of society--among them, policy, business, civil society, and education.

Further information on the CCP can be found on DeSeCo's web page: <http://www.deseco.admin.ch>

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# 1 Introduction

This report has been prepared by the project secretariat for the Danish National Competence Account (NCA), referred to at the end of the report. This memorandum is the Danish contribution to DeSeCo's "Country Contribution Process".

Unfortunately it has not been possible at present to set out a comprehensive and in-depth response to DeSeCo's questions, but it is nevertheless our hope that this memorandum will provide DeSeCo with a firsthand impression of the initiatives and discussions relating to competence taking place in Denmark, and which are described in "Guiding Questions" (DeSeCo Country Contribution Process (CCP) – Background note, Dec. 19 2000).

The Danish response has been primarily based on the recommended models called the "B Summary report", though with considerable modification to what is recommended. DeSeCo's questions were therefore not sent out for comment to a selected group of interested parties and subsequent entry into a central synthesis. The memorandum was authored by NCA, which is an interdepartmental initiative located in the Danish Ministry of Education.

Interpretations, analyses and a selection of examples of ministerial competencies, institutions, businesses and organisations are the authors' own.

The group of authors was given access to DeSeCo's CCP papers and was familiar with DeSeCo's general discourse.

The question of competencies is appearing on the agenda more and more in Denmark. A large number of institutions, public as well as private, include competence perspectives in their activities. This is the case at almost all levels, from the individual organisation/business to general activities at an aggregate level in national contexts. Nevertheless, it must be stated that there is a distinct lack of conceptual unity and consensus between the various bodies. A picture emerges of a number of parallel concepts, definitions and systems for assessment of competencies. This is not surprising, given that even DeSeCo has noted that from a social science perspective there cannot be said to exist any generally recognised definition of competence (DeSeCo Background paper 12 –02 –01, Appendix A), but that the concrete definition will vary according to the scientific and political perspective.

## 1.1 Methodology

As stated above, it is not possible to identify activities concerning the assessment, definition and application of competencies on the basis of unambiguous opinions or approaches, and so instead it has been decided to focus on a number of initiatives and projects that reflect the considerations and insights that have been practically and politically applied. In contrast to DeSeCo's classification, this report thus emphasises the approach characterised by the slogan "Political Negotiation, Consensus Formation". In other words, it is weighted analytically in favour of a political process perspective that is empirically based on a number of institutional examples.

DeSeCo has structured its "Guiding Questions" into five principal themes, which include a number of questions. Responding to these throws light on conditions in the Danish education

sector from several different approaches. We have therefore decided to construct this report on the basis of the social arenas where there are concrete initiatives and structures that reflect the limitation, handling and regulation of competencies. At the same time, however, we have attempted to deal with the selected topics from several different perspectives in order to retain the great breadth in our response that DeSeCo's question seeks. As mentioned above, this response does not pretend to be systematic in the sense that it covers all relevant initiatives and aspects of the topics dealt with. On several points the report is more oriented towards using the initiatives described to illustrate characteristic processes or insights that involve work on competencies.

A large part of this report concerns conditions within the education sector. The reason for this is partly the gravity displayed by DeSeCo's question concerning the connection between educational conditions and competence, and partly the fact that practical circumstances have made it easier for the authors to shed light on conditions relating to education.

## **2 Competence initiatives in selected arenas**

The discussion of competence in Denmark occurs in various contexts and with the participation of many different players. It also means that there are varying approaches and ways the problem presents itself. Seen from this perspective, it makes sense to describe the various contexts in which debate and discussion take place as different arenas.

In the following, we have decided to focus on a number of arenas which have seen the implementation of significant initiatives relevant to the discussion and development of competence in Denmark.

First we will focus on initiatives in the national arena characterised by having the state as their main initiator. In addition we will present significant initiatives in the regional arena, the professional organisations' arena, and, finally, the private arena.

This presentation will not provide a comprehensive picture of relevant arenas in Denmark, but the initiatives selected are distinctive and significant in their fields.

### **2.1 The national arena**

It is national policy to support work on competence – in both the public and private sectors. In the national arena there are several initiatives concerning competence. Examples of this include support for the preparation of regional competence accounts, industrial development schemes and the establishment of the Statens Center for Kompetence- og Kvalitetsudvikling (SCKK) – the National Centre for the Development of Competence and Quality – for public institutions. However, there cannot be said to be any collective and unambiguous understanding of competence.

The following section presents a selection of national schemes and initiatives, all involving competence.

### **2.1.1 .dk21 - A new strategy for Denmark's industrial development policy**

.dk21 is a new strategy for Denmark's industrial development policy. It is the Danish governments' vision and strategy for how industrial development policy can support the development of a sustainable society. The starting point is that welfare cannot be defined or achieved by one single target, when you wish to maintain a sustainable society. In a sustainable society welfare goes hand in hand with high social stability and a sustainable environment. The government's strategy therefore concentrates its efforts across six areas:

- competence, innovation and entrepreneurs
- global outlook
- competent, committed capital
- well-functioning markets
- good acts of law and rules
- the social responsibility of trade and industry

In .dk21 the government introduces a series of targets and initiatives. The targets are going to be used as the government's focal points for the years to come.

The total ceiling approved for the many dk.21 initiatives in 2001 is DKK 330 million, while the amount for the whole period (2001-2004) runs to over DKK 1 billion.

The first area named above, "competence, innovation and entrepreneurs" is particularly interesting in this context. This area contains a number of targets and concrete initiatives involving collaboration among a broad section of ministries – more specifically, collaboration between the Ministry of Education, the Ministry of Trade and Industry, the Ministry of Information Technology and Research and the Ministry of Labour. The selected targets within the areas reflect what is understood by competence across the ministries, and what they hope to develop:

- A future-proof education system – strengthen quality, cohesion, flexibility and adaptability in the education sector.
- Competence development – promote competence development throughout the business sector in Denmark through access to relevant knowledge and supplementary or advanced training.
- Innovation through interaction – better frameworks for collaboration between research institutions and businesses.
- The digital business – increase the application of digital technologies, the Internet and e-commerce throughout the business sector.
- A strengthened enterprise culture – strengthen entrepreneurial impulses and promote the culture of independence in Denmark.

The ceiling for all initiatives in the area "Competence, innovation and entrepreneurs" is a total of DKK 837 million for the period 2001-2004.

This technological development and its consequences are emphasised in the strategy as an important background for focusing on knowledge and competence. The use of modern information technology in daily routines, new forms of production in both new and traditional industries, and the challenges of economic globalisation all involve new requirements for Danish trade and industry.

The ability to learn and acquire new knowledge is particularly central to this. New knowledge is the driving force behind improved products and work processes, and thus development of trade and industry in the new economy.

Supplementary and advanced training in Danish trade and industry is also prioritised in .dk21.

The establishment of the Center for Ledelse - Centre for Management (see description below) – and the decision taken in connection with .dk21 to look more closely at the universities' supply of supplementary training can both be viewed as an attempt to strengthen supplementary training efforts and support the vision of life-long learning. Both, however, are initiatives that should not be viewed as isolated in the context of supplementary and advanced training. The 2000 CVT reform of Continuing Vocational Training (see presentation in chap. 3), the work of the Ministry of Education as a whole towards a coherent and flexible education system, and the work on Denmark's Virtual University (see appendix 1) are all significant components that should be included in order to form an image of the efforts in this area.

Partnerships between the public sector and the business sector to undertake tasks together are also emphasised in .dk21. There are plans for collaborations between the business sector and the public sector to develop future education and training, research and technological know-how. IT as both aim and means in competence development and the development of an enterprise culture is ascribed relatively high significance, and must be viewed in the context of the general visions of .dk21.

It is hoped that the strategies for the industrial development policy in .dk21 will be fulfilled successively according to a system of targets with accompanying indicators. As a principal rule, the government has chosen targets that can be compared across national borders. The intention is that annual measurements should be taken for all indicators to see whether development is continuing towards the established targets.

Since the work with targets is a new way of preparing industrial development policy, it is as yet too soon to draw any overall conclusions. At the present time, however, Denmark's international position, developments over recent years and initiatives already undertaken seem to indicate the need for efforts in three areas of knowledge and competence:

- Interaction and innovation. Includes commercialisation of knowledge in particular.
- IT. With particular focus on the public sector as the driving force.
- Entrepreneurs. With focus on cultural factors that can strengthen entrepreneurial impulses.

Appendix 1 contains a summary of all concrete projects in the area of "Competence, Innovation and Entrepreneurs" in .dk21.

Here, however, we must draw attention to the Centre for Management, presented below, and the National Competence Account (NCA), which will be presented in Chapter 5.

### **2.1.2 Centre for Management**

The Centre for Management (CfL – Center for Ledelse) is a direct consequence of the government's focus area "Knowledge and Competence" in .dk21. It was set up in autumn 2000 with a committee consisting of representatives from the world of research and the private business sector. The Centre's *raison d'être* – its mission – is to be in the vanguard of Danish development on the management front. More specifically, its task is to:

- Disseminate knowledge about holistic management models.
- Provide tools and qualifications for businesses.
- Promote dialogue and cooperation between businesses, the world of research and the consultancy sector.

Thus it has several roles to play. It has to carry out research and development in the field of management, and it is also responsible for providing mediation and advice on the basis of this accumulated and processed information. This work must all be carried out in collaboration with the business sector, the world of research, and the consultancy sector.

Under .dk21 it has been allotted DKK 7 million for 2001, from a total of DKK 25 million over the period 2001-2004.

### **2.1.3 Agreement on systematic competence development in national institutions**

In connection with the collective bargaining of 1999, the Ministry of Finance and the Joint Committee of the Central Organisations (an amalgamation of employees' central organisations) entered into an agreement on systematic competence development in national institutions.

The premise of the agreement is that on-going development of public employees' competencies and qualifications is vital for efficient national institutions with high quality output. For both parties, it is essential that employees in the various institutions have the opportunity for competence development both through their day-to-day work and through supplementary and advanced training.

The aim of the agreement is to commit management and employees to prioritising increased competence development, including endeavours in supplementary and advanced training. Both management and employees must take responsibility for ensuring the personal and professional development of the employees, whilst also ensuring that the institution's needs are met.

One aim is that annual strategic development targets be set up for all employees, and the agreement requires that all national institutions undertake systematic competence development and educational planning for all employees.

The agreement defines competence development as the development of new knowledge, skills and/or attitudes in employees. Competence development has often been combined only with courses, updating of professional skills and general education. But the agreement stresses that competence development also takes place in the workplace – in the work situation. The basic concept is that people develop every time they try something new, so it is possible to call it competence development every time an employee's ability to do something is expanded.

### **2.1.4 The National Centre for Competence and Quality Development (SCKK - Statens Center for Kompetence- og Kvalitetsudvikling)**

One concrete national initiative, as a continuation of the 1999 collective bargaining, is the National Centre for Competence and Quality Development (SCKK - Statens Center for Kompetence- og Kvalitetsudvikling). SCKK was set up by the Ministry of Finance and the Joint Committee of the Central Organisations (amalgamation of employees' central organisations).

As a knowledge centre, the aim of SCKK is to intensify and raise the profile of national work on competence and quality development. This is to happen through counselling and guidance for national institutions and the various state employee groups with regard to competence and quality development, including educational planning, and by coordinating activities to promote competence and quality development.

SCKK is managed by a committee composed equally of members of the Ministry of Finance and the Joint Committee of the Central Organisations. The Centre has been set up with an independent operating grant from the budget.

### **2.1.5 Management, Organisation and Competence (LOK - Ledelse, Organisation og Kompetence)**

Management, Organisation and Competence (LOK - Ledelse, Organisation og Kompetence) is an example of another state initiative. The aim of LOK is to provide qualifications for Danish consultants, teachers, researchers etc., and to support management and organisational development in Danish trade and industry.

The LOK scheme currently consists of a total of seven initiatives, involving a large number of different players. These initiatives include a research project on intellectual accounts accounts (see also Chap. 4 for a more detailed introduction), the LOK Research Centre, consisting of a virtual collaboration between four different research institutions in Denmark, and Learning Lab Denmark, whose task is to investigate through experiments how businesses, institutions, organisations and people learn and develop knowledge and new competencies. It is intended that these initiatives will each strengthen the quality of the network businesses draw on when modifying their organisational structure.

Appendix 2 contains an overall summary of the initiatives in the LOK scheme.

## **2.2 The regional arena**

### **2.2.1 Regional competence accounts**

Regionally, too, the public sector is aware of the necessity of relating strategically to competence. Three regional authorities are preparing – or have prepared - regional competence accounts, in which the regions' competencies are documented as a basis for political initiatives. These regional competence accounts represent pioneering work in the sense that they do not deal simply with the theoretical development of models for goals and the assessment of competence – but also with practical implementation using concrete selection of indicators and data material. The aim of the competence accounts is for them to act as a management tool for political prioritisation in industrial and educational policy etc.

Common to all the regional competence accounts is a relatively systematic and structural approach, oriented towards industrial development, which attempts to show the interaction between local trade and industry, local educational institutions and the demographic foundation.

The accounting metaphor reflects the aim of being able to measure and assess competence, and as such there is a certain degree of instrumental rationality underlying it. The accounts also



include a focus on theoretical and methodical problems regarding how competence is to be understood and pinpointed in terms of developing a tenable model.

## **2.3 The professional organisations' arena**

### **2.3.1 *The Developing Workplace***

Since 1993, the Danish Federation of Trade Unions has been working on a strategy called "The Developing Workplace". The purpose of the strategy is to focus on and improve cooperation between employers and employees in order to increase the employees' influence and responsibility at work as well as creating a productive workplace.

The fundamental concept behind The Developing Workplace is that employees' competence is best developed and utilised when they themselves have extensive opportunities to actually influence the work. Participation and influence result in job satisfaction, commitment and a sense of responsibility for the process and the product. And the thinking is also that it pays to delegate competence and responsibility to the employees, as job satisfaction also means that the workplace can reap financial rewards in the form of increased efficiency, lower error rates and a greater effort from each and every employee for making quality products.

The Developing Workplace focuses on four concrete areas for development:

- Personnel policy
- Personal development
- New management roles
- Training and development

For each area a large number of procedural tools have been developed for use by shop stewards, employees and management at each workplace. Competence and the development of competencies is thus closely linked to the actual conditions at that particular workplace, which is why there is also an attempt to alter those conditions. Thus it is not actual key competencies connected to a particular individual that are being highlighted – but rather the organisational competencies at the workplace, which primarily involve the ability to cooperate and the delegation of responsibility.

Chapter 5 will introduce another significant initiative by the Danish Federation of Trade Unions. This concerns their bid to create a national competence account called "The National Human Capital Accounts".

## **2.4 The private arena**

### **2.4.1 *The House of Mandag Morgen***

A dominant player in the Danish debate on competence is The House of Mandag Morgen. The House of Mandag Morgen is a private firm that issues a weekly newsletter for business leaders and public decision-makers on current national and international social, political and business-related topics. The House of Mandag Morgen has set up a Competence Council (Kompetenceråd)

composed of competence advisers (Kompetencevismænd) with the aim of putting competence on the agenda in the media. This Competence Council has issued several reports on competence. The House of Mandag Morgen has also taken the initiative of establishing a number of competence forums, composed of paying decision-makers.

The idea of a national competence account in Denmark thus comes from The House of Mandag Morgen, who have introduced their own bid for a Danish national competence account (The National Competency Account 2000).

Chapter 5 contains a more detailed analysis of The House of Mandag Morgen and its competence account. See also appendices 6 and 7.

Industrial development policy and trends in businesses' use of knowledge and competence will be discussed in Chapter 4.

### **3 Competence and education**

This chapter focuses on how competencies are perceived, determined and regulated in the Danish education system.

In connection with this, a basic figure in the analysis has been to seek to pinpoint how the curriculum is determined in the various types of education, and to also shed light on which players are active in the determining of a curriculum – this applies particularly to general trends in education – what is important? Which competencies should be prioritised? As a continuation of this it has also been necessary to include in the analysis institutional conditions concerning the management of education.

In Denmark both parties on the labour market (social partners) have quite a large influence on the entire vocational area, while in other areas there is a central or framework-oriented management. This huge diversity makes it difficult to comment generally on how competence is determined and on what considerations it is based.

Finally, there are metalevel normative objectives for the formation of citizens as social individuals who are bearers of democratic and humanistic values. These exist as general objectives in educational directives. We have included objectives in the analysis, as they are, in our opinion, central to the understanding of how competence has been handled in purely practical terms in the education system.

In recent years, a number of major institutional reforms have been implemented in the education sector. We have chosen to illustrate these reforms, as, to a great extent, these are based on considerations that implicitly or explicitly involve considerations regarding the increase of institutional competence.

#### **3.1 Democracy – an objective for educational policy**

In the following section we have listed those parts of the major declarations of objectives from the education sector that describe in broad terms targets for those competencies that should promote independent reflection in a democratic context. The underlined sentences have been underlined by the authors.

### **3.1.1 Folkeskole - Primary and lower secondary school**

“The task of primary and lower secondary schooling is to work with the parents to promote the pupils’ acquisition knowledge, skills, work methods and forms of expression, which contribute to the all-around personal development of the individual pupil.

*Paragraph 2.* Primary and lower secondary schooling must attempt to create a framework for experience, energy and concentration so that the pupils develop awareness, imagination and keenness to learn, and achieve confidence in their own abilities and a basis for forming attitudes and for action.

*Paragraph 3.* Primary and lower secondary schooling must make the pupils familiar with Danish culture and contribute to their understanding of other cultures and of man’s interaction with nature. School prepares pupils for participation, sharing responsibility, rights and obligations in a free, democratic society. The school’s teaching and entire daily routine must therefore be based upon intellectual liberty, equality and democracy.”

Notification of primary and lower secondary school law (LBK no. 730 of 21/07/2000) § 1

### **3.1.2 Vocational Training and Education**

“This education system must be organised so that, to the greatest possible extent, it is able to:

- contribute to the development of young people’s interest in and ability for active participation in a democratic society and contribute to their personal development,
- meet the labour market’s needs for vocational and general qualifications evaluated with reference to industrial and social development, including development in industrial structure, labour market conditions, workplace organisation and technology ...
- provide those looking for training with a basis for advanced training.”

Notification of vocational training and education law (LBK no. 724 of 25/07/2000) § 1

### **3.1.3 General Gymnasium - Upper secondary school**

“The teaching must also contribute to the pupils’ personal development and to developing their interest in and ability for active participation in a democratic society.”

Notification of upper secondary school law etc. (LBK no. 754 of 08/08/2000) § 1

### **3.1.4 Open Youth Education<sup>1</sup>**

“The aim of free out-of-school education is to give young people, (...) the opportunity to undertake an individually organised education process, providing all-round qualifications and developing the young person’s personal competence.”

Notification of Open Youth Education law (LBK no. 610 of 22/06/2001) § 1

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<sup>1</sup> The programme is intended as an alternative for those young people who either are not able to or do not want to complete a traditional youth education programme. Open Youth Education is independently organised.

### **3.1.5 Medium-length further and higher education**

“These studies must give students in the various fields of study theoretical and practical qualifications at a high technical level and provide them with a basis for immediate performance of an occupational function. They must also be able to create the prerequisites for further education, including diplomas, master’s studies and other special postgraduate studies. These studies must also contribute to developing the students’ interest in and ability for active participation in a democratic society.”

### **3.1.6 Medium-length further education law (LOV no. 481 of 31/05/2000) § 3 General adult education**

“General adult education is a qualifying form of education, aiming to give adults the opportunity to improve on or supplement their general knowledge and skills. This form of training must strengthen adults’ prerequisites for active participation in a democratic society and their understanding and influence over their own life situation. It must provide adults with the opportunity to achieve general prerequisites for continued study and general knowledge and skills that are relevant to their working life.”

Notification of law on general adult education and adult education centres (LBK no. 668 of 07/07/2000) § 1

As the above makes clear, “active participation in a democratic society” and “personal development” appear in the objects clauses for basic schooling, out-of-school education, further and higher education and adult education. These are thus competencies that should be greatly emphasised in assessments of education courses.

## **3.2 Continuing Vocational Training reform (CVT)**

Today around 85% of a Danish class completes an out-of-school education course ending in commercial or academic qualifications, while around 40% goes on to further and higher education. However, for one third of today’s workforce, basic schooling is still the highest level of education. There is therefore a need to strengthen the basic and professional skills of this section of the workforce. There are three reasons for this: to secure a well-functioning labour market, to meet the demand of businesses for a competent workforce, and so that the individual adult can achieve better opportunities for continuing to learn and develop competencies on the basis of professional and life experiences already gained.

Denmark is currently implementing a comprehensive reform of adult and supplementary education. In May 2000, the Danish Parliament passed a number of laws tying supplementary and advanced education together in a coherent adult education system. In broad terms, the reform combines objectives from the areas of both labour policy and education policy.

### **3.2.1 The aims of the reform**

The three overall aims of the adult education reform (Regeringen 2000: Voksen- og efteruddannelse i Danmark, p. 1) are:

- 1 To offer relevant advanced and supplementary education to all adults, from those with a short formal education to academics. These educational opportunities must be linked to a competence system that can provide all adults with official recognition of the knowledge and the competencies they achieve, whether it be at work or in formal education.
- 2 To meet the needs of adults with a short formal education. General courses for adults in reading, writing and arithmetic, and supplementary professional education etc. play an important part in providing educational opportunities for those with a short formal education. The same is true of new opportunities for gaining work experience and specialist courses credited as part of training that ends in formal commercial qualifications.
- 3 To make better use of resources.

### **3.2.2 Preparatory Adult Education (FVU - forberedende voksenuddannelse)**

An extremely important part of the adult education reform is to strengthen the basic skills - reading, writing and arithmetic. An investigation published by OECD in spring 2000 has shown that around one million adult Danes involved in the labour market read at a level assessed as inadequate for the reading requirements of our information society. Therefore, the adult education reform includes an initiative called "Den Forberedende Voksenundervisning" (FVU) – Preparatory Adult Education. This is an initiative that is directed primarily at reinforcing general skills rather than at commercial qualifications.

FVU is offered to anyone over 18 who wishes to consolidate his or her general skills, in order to cope better with the labour market and as citizens in a democratic society. This will also give them considerably better opportunities to educate themselves further within the framework of the advanced education system for adults (as presented below). FVU teaching is organised to fit in with the course participants' daily routines. This means that a large proportion of activities can take place at the usual workplace instead of at educational institutions.

#### **3.2.2.1 Job retraining courses (AMU – Arbejdsmarkedsuddannelser)**

Denmark has a large supply of job retraining courses. These are courses of varying length, organised for adults in work, aimed at both skilled and unskilled adults. Job retraining schemes have also played an important part in providing courses for the unemployed, who must be activated according to legislation on unemployment benefits. Job retraining courses play a central role in improving the competence of a large group of individuals with a short formal education.

Job retraining courses can be organised so that they function as a supplement to a company's regular internal training programme. In other words, there is a high degree of flexibility with these courses – i.e. they are very flexible in the way they can meet any requirements for competence development that an individual business might have. Job retraining courses will thus usually be directed towards reinforcing concrete competencies for particular job functions, e.g. welding or truck driver's licence, but with the reform they can also provide accreditation for the vocational training and education system.

Job retraining courses thus play an important role in the adult education reform, as the individual can now both retain his or her link to the labour market and at the same time have the training course credited as part of a 'grunduddannelse for voksne' – basic training for adults (GVU, see below). This is basic training, comprising one part out of a total of four, in the new advanced training and education system for adults (see below).

### **3.2.3 Advanced training and education system for adults**

The main principles behind the reform's advanced training system for adults are:

- to guarantee relevant supplementary and advanced training for all adults,
- that adult education should be at recognised and comparable levels,
- that there should be good opportunities for building bridges between types and levels of education (Regeringen 2000: Voksen- og efteruddannelse i Danmark, p. 3).

An overall characteristic for courses in the adult education system is that the work and life experiences of the adults play an important part in the organisation and content of the courses, and in their profile and length. Another important goal for the system is that everyone should be able to upgrade their qualifications, regardless of their current level of competence.

The advanced training system for adults can be divided into a total of four training levels:

- 1 *Basic Training for Adults (GVU - Grunduddannelse for Voksne)*, which are courses providing the same level of competence as the ordinary commercial out-of-school education courses.
- 2 *Further Adult Training (VVU - Videregående Voksen Uddannelse)*, which is on the same level as a short-term further education course in the ordinary education system.
- 3 *Diploma courses*, which correspond to a medium length further education course in the ordinary education system.
- 4 *Master's courses*, which correspond to a long-term further education course in the ordinary education system.

#### **3.2.3.1 Concerning the principles of basic training for adults (GVU):**

This is not an individual type of training but a framework for training, in which the individual participant's previous education and work experience is supplemented by further courses in order to achieve a skilled level (appendix 10 "Quality Work in the Danish VET System" contains an introduction to Vocational Education in Denmark). The actual educational content of a GVU is thus dependent upon what specialist courses the individual has done previously, and what practical experience he or she has. In other words, GVU bases itself on the individual's previous experiences and qualifications, so they can be used in the best possible way. An adult taking a GVU course takes the same final examination as a young person in a corresponding qualifying out-of-school education programme.

In order to be able to get onto a GVU course, the participant has to undergo a "real competence assessment" (formal, non-formal and in-formal competences), in which previously completed courses and work are assessed. Then the school works out a personal training plan that shows what the person concerned needs to do to achieve a complete education.

#### **3.2.3.2 Concerning the principles for the advanced levels in the further education system for adults:**

Despite the fact that the three advanced levels of the further education system for adults correspond exactly to short-term, medium length and long-term advanced courses respectively, they differ from the ordinary education system in both organisation and content. It is possible to choose whether to undertake further training in depth or more broadly, i.e. specialise in a subject either within or outside one's current field. To begin a course in the further education system, it is necessary to have the relevant educational background and at least two years' relevant work

experience. As in GVU, the content and teaching of the courses is based to a large extent on the life and work experiences of the people concerned. The basis for this is that the individual must be able to undertake this further education while still handling his or her normal job.

As is the case with GVU – Basic Adult Training (den Grundlæggende Voksen Uddannelse) – the courses at the advanced levels are organised first and foremost as teaching in leisure time and are offered according to the principles inherent in open education.

The general intention is that the new education system for adults will improve opportunities for all adults in future – regardless of their current level of education – to be able to learn, develop and gain recognition for new competencies, based on their work and life experiences.

### **3.3 Other training opportunities outside the formal education system**

Without pretending to supply a complete picture of the numerous training opportunities that could be listed in the category of “outside the formal education system”, in the following section we will attempt to illustrate by example what kind of training opportunities are available and thus indicate the enormous variety that exists in this “undergrowth” of opportunities.

This cursory review, however, should not be misunderstood. Seen from a historical perspective, several of these types of training have actually had very great significance in building up competence in Denmark.

One example of this is folk high schools, evening classes and continuation schools. These have been institutionalised by law and are therefore eligible for subsidies, and despite their position with regard to the traditional education system, to a large extent they do have an influence on the Danish competence debate. They are distinguished by being voluntary, without compulsory examinations. They are also interesting in that they often offer courses in more personal/ “soft” areas.

There are also a large number of education associations, which originally had a political basis, e.g. the Liberal Education Association (Liberalt Oplysnings Forbund) and the Workers’ Education Association (Arbejdernes Oplysnings Forbund). These operate within publicly demarcated limits and receive subsidies. Otherwise, however, they have free rein with regard to the structure of their teaching programmes and so on.

What is interesting about this model is that, outside the actual state education system, there exists a variation of education/competence opportunities that deal with the competence development of a large group of people on certain other premises than those that exist “within” the formal education system. At one and the same time, the state promotes this training – but also allows private/semi-private (though not commercial) institutions responsibility for structuring their training opportunities. This brings others, apart from the state, into the arena where the concepts surrounding competence are discussed, practised and developed.

In addition, there are initiatives purely private in nature, which do not receive any form of subsidy from the Danish state, but which nevertheless influence the perception of the competence concept. These include private supplementary training such as Supplementary Training for Engineers (Ingeniørernes Efteruddannelse), Supplementary Training for Lawyers and Economists (Juristernes og Økonomernes Efteruddannelse), Supplementary Training for MAs (Magisternes Efteruddannelse) etc., which offer courses to academics. Finally there are a number

of initiatives directed at the development of shop stewards' personal and professional-political competencies.

### **3.4 Determining competence targets – management and regulation**

There is a strong tradition in Denmark of including relevant interested parties within the education field when determining the content, structure, targets, final status etc. of courses.

In the legislation for both education and institutions, there are constructions that ensure that interested parties from the labour market and elsewhere have real influence on the development and design of courses. Thus, in educational legislation, there are rules that guarantee interested parties and consumers within the various education fields influence over general education issues. Generally, the interested parties are assigned roles as advisers to the Minister for Education. This model should ensure the real practicability of the courses and of the competencies achieved.

The degree of influence and selection of interested parties varies considerably between the education fields and is a reflection of the varied traditions concerning aims and targets in education.

There are two models in educational legislation for influence by interested parties – one based on representatives of consumers, employers and employees, and one based on representatives of interested parties and experts.

- The model based on representatives of consumers, employers and employees is, as a rule, associated with training ending in commercial qualifications, e.g. specialist training (e.g. office and craftsmen's training), commercial academic training (e.g. laboratory technician and marketing economist) and professional training (e.g. teacher and educational training).
- The model based on representatives of interested parties and experts is mainly associated with general basic and youth education (folkeskole and gymnasium - primary and secondary) and academic university education.

The advisory structure extends very wide over both models with regard to both the influence of these bodies and their level and focus:

- The influence of the bodies varies from purely advice to a formal right of decision over the development, content, structure etc. of the training.
- The level varies from general problems in an entire education field to problems limited to a single specialist course.
- The focus varies from narrow specialist questions to the needs of the labour market, including the covering of competence in accordance with documented requirements for qualifications in the business sector and on the labour market, and the consequences for education of new or altered requirements for qualifications and competencies.

The individual councils are listed below. Appendix 3 contains a description of the structure of the councils and of their tasks.

#### **3.4.1 Councils concerning general basic and youth education:**

- The folkeskole council (primary and lower secondary schools council)



- The gymnasium council (general upper secondary school education) – upper secondary Schools council

#### **3.4.2 Councils concerning initial vocational training and vocationally oriented initial training:**

- The Council for Vocational Training and Education (Government and social partners)
- Trade Committees (Social partners)
- Education committees (Vocational colleges. Social partners)

#### **3.4.3 Councils for short-term and medium-length further education:**

- The Council for short-term further education
- The Council for medium-length further education
- The Council for educator training colleges
- The Council for teacher training colleges

#### **3.4.4 Councils for long-term higher education:**

- Technical Education Science Council (Teknisk Uddannelsesråd)
- Social Education Science Council (Samfundsuddannelsesrådet)
- Scientific Education Science Council (Naturvidenskabeligt Uddannelsesråd)
- Humanities Education Science Council (Humanistisk Uddannelsesråd)
- Health Education Science Council (Sundhedsuddannelsesrådet)

Appendix 3 contains a more detailed summary of the structure of these councils, as well as their spheres of influence.

These external interested parties do not simply have influence on Danish education through the councils. External interested parties are also represented on the board of governors of educational institutions. Institutions in Denmark are typically private educational institutions, directed by a board of governors with overall responsibility for the management of the institution. The board of governors of the institution will usually consist largely of members from a circle of consumers and other circles outside the institution, who have considerable interest in the business affairs of the institution. At vocational schools, for example, where basic vocational courses are offered, there is a requirement for equal representation of employers and employees on the board of representatives, and it is also required that these must be associated with the local area and the labour market covered geographically by the school.

In order to understand the regulation of the form and content of Danish education it might be necessary to “roughly” categorise the forms of regulation involved.

In simple terms, there are three models for regulation of education in educational legislation and proclamations:

- 1 *One based on central management by rules.* Regulation via central management by rules in principle refers to general, basic and youth education (folkeskole and basic gymnasium), and is based on a detailed fixing of the content and structure of what is taught.

- 2 *One based on target and plan management.* The target and plan management model is basically used for higher education and vocational training and education, and is based on local fulfilment of centrally set overall targets and plans for the training.
- 3 *One based on negotiation.* The negotiation model is a feature of vocational training, and is based on real participation for employer and employee organisations regarding the structure, content and so on of the training.

Below is a summary of the different types of influence possible in educational legislation. This account is illustrative rather than exhaustive. Examples are provided from general basic and youth education (folkeskole and gymnasium), vocational training and education and further education.

Field of education	Interested party model		Authority of the interested party in relation to the form and content of the training
	Labour market parties	Experts etc.	
Basic education	X		Advisory
Gymnasium education	X		Advisory
Vocational training and education	X		<b>Decision-making</b>
Short-term further education	X		Advisory
Medium-length further education	X		Advisory
Long-term further education		X	Advisory
Educator training	X		Advisory
Folkeskole teacher training	X		Advisory

As the model shows, the field of vocational training and education differs from the other fields of education in that here the interested parties have decision-making authority (Trade Committees) regarding the form and content of the training.

Similarly, long-term further education distinguishes itself in that the Council for long-term further education is primarily composed of experts, who do not represent the parties on the labour market.

Please refer to appendix 3 for further information.

### 3.5 The position of the concept of competence in evaluation initiatives

When it comes to evaluation of teaching, the central players at local level take the form of the managers, employees and pupils/students of the schools/institutions. Depending on the field of education, parents and local trade and industry may also play a part. In most fields of education, the proclamations include requirements for evaluation of the teaching that has been performed at a local level. These results belong to the institutions themselves and are not necessarily passed on to the Ministry of Education or made public.

The Ministry of Education monitors the fields of education by means of a review of grades and tests etc. In addition, the Ministry carries out inspections. These inspections or this form of evaluation focuses to a large degree on the professional level of the teaching.

Actual evaluation of training and teaching is carried out by such bodies as the Danish Evaluation Institute (Danmarks Evalueringsinstitut).

### **3.5.1 The Danish Evaluation Institute (EVA - Danmarks Evalueringsinstitut)**

The Danish Evaluation Institute is an independent state institution, which aims to contribute to ensuring and developing the quality of teaching and training in Denmark. The Evaluation Institute advises and works with the Minister for Education and other public authorities and education institutions in the question of evaluating and developing the quality of education etc. The task of the Evaluation Institute is to collect national and international experiences in evaluation of education and quality development and to regularly develop and innovate methods of evaluation and quality development. The Evaluation Institute was established in 1999 to replace the Evaluation Centre, which only evaluated further and higher education. The Evaluation Institute's sphere of work covers the entire field of education.

As a rule, the evaluations are carried out on the basis of the formulated objectives for the training in question, which does not mean, however, that the evaluations do not consider the extent to which the targets are relevant and in keeping with the times.

The Evaluation Centre conducted evaluations of further education based on 14 quality criteria. The selected quality criteria describe indirectly which competencies were focused on for the evaluations.

#### **3.5.1.1 14 quality criteria:**

- 1 Objectives. The programme has formulated specific objectives.
- 2 Management, organisation and resources. Rules and budgets adhered to.
- 3 Structure. The programme's structure complies with rules and guidelines.
- 4 Content. The programme's content is suitably prioritised with regard to the objectives, including terms for identification.
- 5 Work experience. Periods of work experience are included if relevant to the objectives of the programme.
- 6 Teaching forms. Use of teaching forms (project work, team teaching, lectures, tutorials, exercises etc.) is both professional and educationally based.
- 7 Teachers/education. The teaching is of a high professional standard.
- 8 Examination conditions/forms of tests. The examination conditions reflect a well-founded emphasis between examinations as tests of the students and as an educational tool for management of the students' form of learning.
- 9 Physical setting. The physical setting supports the fulfilment of the objectives.
- 10 The students' backgrounds and studies undertaken. The students' backgrounds and the organisation of the programme ensures that to a great extent the students are able to get through the programme in the standard time with an output corresponding to the objectives of the programme.
- 11 Services for the students. There is a good study environment and well-run study guidance for the programme.
- 12 Internationalisation. The programme is internationalised.
- 13 Cooperation. The programme regularly works together with other programmes at the same educational institution, with other educational institutions and with external interested parties.
- 14 Quality assurance mechanisms. Efficient quality assurance mechanisms have been set up at the teaching sites.

### 3.6 General prioritisation in relation to international evaluations

In international comparative surveys, Denmark places emphasis on “traditional” vocational skills or competence in reading, mathematics, natural sciences, IT and foreign languages. But Denmark also places a great deal of emphasis on multidisciplinary and personal qualifications – the soft competencies, as they are known, or Cross Curriculum Competencies (CCC) as well as the ability to learn to learn. CCP include:

- Perception of democracy. It is not just the responsibility for conveying adequate knowledge about society to children and young people – in respect of political, economic and civic rights issues – and knowledge about their own duties and rights that rests with the school; the foundation for involved and committed citizenship is also largely formed here.
- Cooperative skills and adaptability. The ability to cooperate and adapt from one environment to the next is a skill greatly appreciated by teachers, parents and employers. Ultimately, this is considered a basic prerequisite for ensuring high and stable productivity.
- Self-confidence, self-perception and motivation. Indicates whether the individual is in possession of the most important prerequisite for being able to acquire new skills and use them adequately. It also indicates whether the education system contributes to developing these skills in children and young people.

Denmark is participating in a number of international projects involving direct or indirect work on defining competencies: first and foremost DeSeCo and the other section of OECD’s INES project. Denmark is also participating in PISA, the results of which are expected to provide a breakthrough in international comparisons of young people’s competencies.

Denmark has also participated in:

- The second round of the Adult Literacy Survey (SIALS), which shed light on reading and arithmetical skills in adults.
- Civic Education Study (“Citizen and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen. IEA 2001.”).
- TIMSS (Third International Mathematics and Science Study) from 1995 (but not TIMSS-R (Third International Mathematics and Science Study-Repeat) from 1998).

These international skills surveys had great influence on political debate on education in Denmark. For example, the results from TIMSS very much put the focus on the reading skills of schoolchildren and showed Danish basic schooling in a very critical light. From a Danish perspective, not all objectives set in an international survey are relevant to the Danish context. But at the same time, there is an increasing demand for data that can illustrate the Danish education system in an international perspective. It is hoped that to a large extent PISA will help to meet this demand in the short term, and that DeSeCo can contribute in the longer term to the measurement and comparison of relevant competencies

### 3.7 Quality that can be seen (Kvalitet der kan ses)

Quality that can be seen (Kvalitet der kan ses) is a specific project started by the Danish Ministry of Education in 1998 with the aim of systematically carrying out quality measurements of the Danish teaching system. These measurements were to subsequently form part of the basis for continued development of education.

The aim is not to give a total ‘mark’ for the quality of the education system, but rather to create a basis for continued improvements, so that the education system can adapt itself to society’s needs and developments.

The first results of the “Quality that can be seen” project can be found in the publication of the same name, which came out in September 2000. The intention is to release regular publications describing the quality of the Danish education system.

### **3.7.1 The method**

It is extremely difficult to measure quality of an education system, as education and teaching are not clear quantities. Product and process are often very difficult to separate in teaching, and teaching quality is basically dependent on the learning process, especially the interaction between teacher and pupil/student, the physical setting, teaching material, study environment etc.

This project’s method is based on two main categories of targets for assessment of results:

- *Objectives* for the education sector’s achievements/results
- *Preconditions/framework conditions*, i.e. preconditions for achieving quality in teaching and in education generally.

The objectives are an expression of certain overall targets for the education system. In other words, they state the intention – what we want to achieve – while the preconditions indicate whether the basis for fulfilling the quality objectives is in place, i.e. what the basis for realising the overall objectives for high quality looks like. The objectives and the preconditions are linked to a number of quantifiable indicators, both quantitative and qualitative in nature.

The seven objectives of the project are:

- 1 Education for all
- 2 High professional level of teaching
- 3 Coherence in the education system
- 4 High education level
- 5 Growth and development
- 6 Resources must be used efficiently
- 7 Motivation for continued education

The five overall preconditions /framework conditions of the project are:

1. Qualified and motivated teachers and managers
2. Qualified and motivated pupils and students
3. Development information
4. Economic and physical setting
5. Support functions

Once the objectives and preconditions /framework conditions have been defined, the idea behind the method is that the objectives should be evaluated by describing the ‘condition’ of the predetermined indicators. If the values for the indicators are too low, there is reason to consider how the quality can be improved in the relevant field, e.g. whether the preconditions /framework

conditions should be adjusted /revised in order for them to be able to support good quality in the education system to an adequate degree.

In this context there is no reference to the project's results to date. It is simply mentioned as a Danish attempt to develop a method for quality assessment for the education system. It is too early to draw any firm conclusions, as the database and method are still incomplete, but future issues will attempt to do this, according to the plan.

See appendix 4 for a more detailed presentation of the project's method.

### **3.8 The importance of institutional initiatives**

Within the education policy arena a range of new initiatives can be pointed out that all play a role in an overall political vision of interactive competence development at basic, further and supplementary education level in the Danish education system. Despite the brief and divided nature of this presentation the initiatives must be considered in an overall context of this type.

#### **3.8.1 *The Danish University of Education (DPU - Danmarks Pædagogiske Universitet)***

Danmarks Pædagogiske Universitet, DPU, was established on 1<sup>st</sup> July 2000. DPU was created as an amalgamation of three existing institutions, the Royal Danish School of Educational Studies (Danmarks Lærerhøjskole), the Danish Institute for Educational Research (Danmarks Pædagogiske Institut) and The Danish School for Educators (Danmarks Pædagoghøjskole).

##### *3.8.1.1 The vision behind DPU*

The vision behind this merger and the foundation of DPU was to create a dynamic knowledge centre for educational research and training in Denmark, and at the same time gain an institution that could assume a role as bridge builder between research, training and the practical-educational reality at all types of institutions for children, young people and adults: a bridge builder between theory and practice. The creation of DPU will ensure that all research and experience within the field of education works together towards the common goal of steadily improving the Danish educational system, and will guarantee professional quality development, thus providing a steady and lasting boost for national competencies.

##### *3.8.1.2 Lifelong learning*

One of the points in the objectives of Danish education policy is lifelong learning, i.e. continuous consolidation of general, professional and personal qualifications, so that the knowledge and competence of the individual develops constantly throughout life. The merger between the aforementioned institutions and the creation of DPU has established a body that will work on and ensure that this lifelong learning proceeds at the highest professional level and using the best educational approach. One of the new university's most important tasks will be to conduct research and further and higher education to the highest scientific level within the entire field of education and contribute to spreading knowledge of the field's working methods and results. DPU will also guarantee integration of education-based research, so that educational practice is included in the research. So, it is DPU's responsibility to undertake competence development in

both the private and public labour market (Ministry of Education, 1999: Forslag til faglig profil for Danmarks Pædagogiske Universitet (DPU), Del 1: Målsætning og præmisser).

### **3.8.2 Learning Lab Denmark (LLD)**

In the society of the future knowledge will be the most important resource and learning the most important process. The challenge for Danish society is neither lack of nor access to information, but an increased capacity to learn to develop competence throughout one's entire life. It is necessary to bring learning into focus, because learning upgrades qualifications to competencies and transforms information into knowledge. Thus, Learning Lab Denmark has been set up as an independent research and development centre under DPU.

Learning Lab Denmark conducts research and development concerning learning and competence development across different professional disciplines and across the education and business sectors. The projects are implemented using interaction between theory and practice in the form of concrete experiments and trials in companies, organisations, education and research institutions and other public or private institutions. With these experiments LLD is seeking to explain the science of how companies, institutions, organisations and individuals learn and develop knowledge and new competencies. Here, competence is understood as the individual's actual capacity to act. Competence is therefore viewed as the subset of the individual's accumulated set of qualifications and potential, that is properly activated and refined by virtue of organising work, strategic management and learning etc. (Ministry of Education, 1999: Learning Lab Denmark. A working party report).

Learning Lab Denmark performs a national knowledge centre function at international level, with the centre's researchers occupying the central role with a view to ensuring the scientific quality and presentation of research results and experiences (Notification of regulations for LLD, Chap. 7 § 11). LLD's experiments are systematic and research-based, so practical experiences are regularly converted into theoretical knowledge, tools, materials, principles and methods, which are application-oriented and can therefore improve and develop practice.

LLD is intended as an exploratorium that will generate new holistic knowledge about learning across disciplines and across the business and education sectors. So there is a correlation between LLD's purpose and the long-term objectives of DPU, as demands will be made for research to cover both all sections of the education system and learning within companies.

### **3.8.3 Denmark's Evaluation Institute (EVA - Danmarks Evalueringsinstitut)**

Danmarks Evalueringsinstitut is an independent national institution, whose purpose is to help ensure and improve the quality of education and training in Denmark (Notification of Danmarks Evalueringsinstitut Act. Chap. 1 § 1).

EVA is not a research institution, but the regulatory framework ensures that EVA will function as the national knowledge centre for education evaluation and quality development.

The collaboration with DPU involves data collection and research databases, fundamental research into the suitability and development of various evaluation methods, including the consequences of the methods for the forms of education reviewed, development of evaluations

and evaluation methods and presentations for institutions on development of evaluation and test models and principles.

### **3.8.4 Centre for Further and Higher Education (CVUs - Centre for Videregående Uddannelse)**

In 2000 the Danish parliament passed a bill for the foundation of the Centre for Videregående Uddannelse (CVUs). This bill relates primarily to the structure of the further and higher education institutions offering medium-length courses, which up to now have been characterised as ‘mono-institutions’, as they have only offered a single type or a fairly small selection of courses each (e.g. teacher training, educational studies, social work, health, nutrition and engineering diploma courses). The CVU bill means first and foremost that the various further and higher education institutions offering medium-length courses, and, to a less significant extent, those offering short-term courses, will in future have the opportunity, on a voluntary basis, to join together to form a CVU.

#### **3.8.4.1 The aim of the CVUs**

The aim of the CVU bill is to gather basic, supplementary and advanced training within the same institution, as supplementary and advanced training will in future be assigned to the CVUs. In line with the intended research association for the CVUs a new title, bachelor of profession, will be introduced, which can be accorded to existing or new programmes that involve dynamic interaction between theory and practice, and are of a comparable level to university bachelor degree courses. A third aim of the CVU bill is to maintain and consolidate the regional supply of knowledge and practice-related research and training and provision locally, including opportunities for synergism through ensuring greater interaction between disciplines and broader professional and study environments at the CVUs.

#### **3.8.4.2 DPU and CVUs**

DPU has an obligation to collaborate with the CVUs, which develop their educational practice through both their own development projects and research projects at DPU. This research affiliation involves the CVUs or DPU defining research-relevant areas and programmes. The CVUs can choose to participate in some of these research projects by contributing development resources or employees, who participate in researcher training at DPU in parallel with their employment at a CVU. The collaboration should not be based on passive filtration of research, but should be an equal and dynamic partnership, where practical experience and theoretical expertise come together in a concrete collaboration.

#### **3.8.4.3 Interaction with the outside world**

One central aim in setting up the CVUs is that by virtue of their knowledge centre function they will develop into attractive partners and opponents in regional trade development. The programmes offered are practice and profession-oriented with multidisciplinary elements and close consumer orientation, i.e. they concentrate on systematic transfer of knowledge given that the boards of the CVUs can include representatives from local trade and industry, labour markets parties, public authorities, etc. Another way to create close interaction with the surroundings could be local/regional ‘trade and industry partnerships’, where students, either from the start of their studies or for a limited period during their course of study, can be attached to a business or public institution for the purpose of visits, practical placements, project processes etc. So, this is



a central element in the conception of the CVU structure, that they should contribute to developing and ‘viewing’ the courses offered and the actual image of the institution in close relation to the local/regional consumers’ business profiles and/or leading competencies.

#### *3.8.4.4 Improved quality and competence development under the auspices of CVU*

The hope is that the future CVUs, with research affiliations and development foundation by virtue of allotted development resources, will be capable of raising the quality of the educational programmes by drawing in and utilising the latest research and knowledge in the teaching of the students, while at the same time the employees, to a greater extent, have opportunities, time and an obligation to continuous professional and educational development. The aim is for the CVUs to assist in providing a quality and competence boost for short-term and medium-length further and higher education to a greater extent than the previous institution structure by virtue of the larger workforce with a broader professional grounding, as well as the larger volumes of students. With the opportunities for interaction with regional labour markets and trade and industry, the research affiliations and the incorporation plus the development of supplementary and advanced training on an equal footing with ordinary educational activity, from a political angle comes the intention of creating the framework for this quality and competence boost in education, which is necessary due to the rapid knowledge development in the society.

## **4 Competence development in trade and industry**

There is currently great competition among companies to attract new (proficient) employees, but they are also focusing on retaining and upgrading the qualifications of existing employees. An important competitive parameter in companies’ efforts to appear as an attractive work place is competence development – both individual and collective, formal and informal training and courses. So there is increasing emphasis – on the part of both employees and companies – on advanced and supplementary training, and increasing awareness of the importance of appropriate planning of the work (i.e. utilisation of competence) - both for pastoral reasons and in the interests of productivity. So competence development is very broadly perceived as an integrated and essential part of companies’ organisational development.

The focus on competence in the private sector ranges from educational and development-oriented efforts directed at individuals or groups of individuals – to something of a more general and structural nature. The approaches ranges from qualitative (“soft”) and discussion-oriented - to quantitative (“hard”), instrumental, measurement and assessment-oriented; concrete activities range from customised employee courses in teamwork etc. - to development and formulation of overall concepts, e.g. competence accounts and intellectual accounts.

### **4.1 Initiatives in the Ministry of Trade and Industry**

In the opinion of the Ministry of Trade and Industry, a crucial competitive parameter to enable Danish companies to keep up with international development is to develop a company’s intellectual resources or intellectual accounts.

In this context “intellect” should be perceived as having a very broad meaning. It can cover such diverse concepts as individuals’ professional knowledge, the desire and motivation to take part or

collaboration between groups across various subject boundaries. Or it can be competence in being innovative, which the Ministry of Trade and Industry regards as completely crucial, if companies are to survive in a market that is constantly changing. So, it is also very important to recognise and work on the competencies in the company that help to support these innovation capabilities, and an intellectual accounts statement allows this.

#### **4.1.1 *The intellectual accounts statement project***

As part of their efforts to provide structure and gain recognition for this intellectual accounts, in 1998 the Ministry of Trade and Industry set up a 3-year research and development project, whose purpose was to set out guidelines for how an intellectual accounts account is to be formulated. Seventeen companies participated in the project, and their practical experiences in preparing intellectual accounts statements provided inspiration to enable researchers from the Copenhagen and Aarhus Business Schools, in conjunction with the Ministry of Trade and Industry, to formulate a set of guidelines for the compilation of intellectual accounts statements. The purpose of these guidelines is to help other companies starting work on preparing intellectual accounts statements. The guidelines are an attempt to benefit from the experiences gained during the course of the project.

##### **4.1.1.1 *Intellectual accounts statement indicators***

The companies' work on the intellectual accounts statements showed a very wide range in the intellectual resources the participating companies chose to focus on. Generalisation of these experiences meant that all contributions could be categorised under one of the following four indicators:

- Employees
- Customers
- Processes
- Technology

These four principal categories also became the four principal indicators in the guidelines that were published when the project was completed at the end of 2000. The guidelines go into further detail on the individual indicators, give examples etc. They also provide ideas on elements such as the process for formulation and prioritisation of what is central to the company's management of intellectual resources etc.

##### **4.1.1.2 *The intellectual accounts statement project and the concept of competence***

The guidelines can be seen as an aid to interpretation of how intellect and competencies are seen and understood etc. within the scope of the Ministry of Trade and Industry.

For clarification of the concept of competence in relation to DeSeCo, we believe that the "employees" indicator provides the best inspiration. Under this indicator the guidelines offer ideas for concrete work on:

- Staff development interviews
- Competence and career planning
- Training costs
- Resources used for knowledge building

- Job rotation, promotions and secondments

The examples below show how these indicators can be expressed in an intellectual accounts statement. All the checkpoints have been used in one or more of the 17 companies' intellectual accounts statements:

<p><b>Staff development interviews</b></p> <p><i>Calculation:</i> The number of staff development interviews completed</p> <p><i>Purpose:</i> Staff development interviews indicate whether the company has plans to develop the individual employee. The figure is typically related to management challenges such as: continuous updating of knowledge, recruitment, retention etc.</p>
<p><b>Competence and career planning</b></p> <p><i>Calculation:</i> The number of employees with competence development plans.</p> <p><i>Purpose:</i> Competence and career planning covers personal development plans, showing that the company is focusing on individual employees' knowledge development, professional standards, competencies and responsibility.</p>
<p><b>Training costs</b></p> <p><i>Calculation:</i> Total costs for training, e.g. in relation to number of employees.</p> <p><i>Purpose:</i> Training costs indicate how much the company is concentrating on retaining employees by providing further training for them, and how it is attempting to prepare for the future by developing employees' competencies. Training costs can therefore be a competitive parameter in connection with recruitment of new employees. Training costs are closely connected with the category "employee recruitment", if the job requires training.</p>
<p><b>Resources used for knowledge building</b></p> <p><i>Calculation:</i> The number of hours spent on knowledge building per month. Knowledge building includes participation in courses and seminars, participation in development tasks, reading books and articles, targeted use of the Internet etc.</p> <p><i>Purpose:</i> Resources used in knowledge building can indicate what the company is doing to prepare its employees for the future, by participating actively in development and innovation.</p>
<p><b>Job rotation, promotions and secondments.</b></p> <p><i>Calculation:</i> The number of employees involved in job rotation, being promoted or seconded.</p> <p><i>Purpose:</i> Job rotation, promotions and secondments provide indications of employees' flexibility and mobility, development of employees' competencies through new challenges, retention and dissemination of knowledge.</p>

There are instances where aspects within the other categories can also have an effect on the “employee” category, for example, “customer satisfaction” can have a direct influence on “employee satisfaction” etc.

#### *4.1.1.3 Adjustment of knowledge and competence definitions*

As there was an above average representation of service companies among the 17 participating companies, it may be assumed that as other types of companies begin to use the guidelines, there will be an adjustment of the concept definitions that form the basis for the current guidelines. The Ministry of Trade and Industry has therefore just initiated the second phase of the Intellectual accounts Statement Project. The aim of the project is partly to spread knowledge of intellectual accounts statements, and partly to develop the guidelines further. This will be done in association with a range of researchers plus a number of industrial organisations and around 100 companies.

#### *4.1.1.4 The industrial policy agenda*

With the Intellectual accounts Statement Project the Ministry of Trade and Industry has put “knowledge and competencies” on the political agenda, so that discussion and work on intellectual resources is now taking place at many different levels in the Danish industrial policy arena, in addition to companies being offered a concrete tool to assist in the preparation of intellectual accounts statements.

### **4.1.2 Other industrial policy initiatives**

There are numerous other projects in progress, originating from the Danish Ministry of Trade and Industry, which has influenced and continues to influence the national debate regarding competencies. These projects include:

- Target measurements
- Competence cluster analysis
- OECD survey on knowledge management in private companies
- Denmark’s creative potential
- The DISKO project
- Developing information services
- Benchmarking of Danish trade and industry
- Technological vision

For further information on the individual initiatives refer to appendix 9.

## **5 Major competence initiatives**

This chapter presents three major Danish initiatives, which have all attempted/are attempting to provide a fixed concept and assess competencies.

The first of the three initiatives was formulated within the Danish Federation of Trade Unions (Danish TUC), while the second initiative was brought about by the aforementioned “House of Mandag Morgen” – an independent and privately owned knowledge company. (“Mandag

Morgen” means Monday morning.) The company has an English page at [http://www.mm.dk/engelsk/about\\_hmm.htm](http://www.mm.dk/engelsk/about_hmm.htm)

The third initiative is the National Competence Account (NCA) - Det Nationale Kompetenceregnskab - an initiative taken by the Danish government this year, which will be handled by the undersigned interdepartmental project group until 2003.

All the initiatives are enclosed as appendices no.s 5, 6, 7 and 8.

## **5.1 The National Human Capital Review – a contribution from The Federation of Danish Trade Unions**

Traditionally, the Federation of Danish Trade Unions (the Danish TUC) has taken a major interest in competence and competence development and, seen in this light, their contribution in 1999 to the field of competence accounting is not surprising (The report ‘The National Human Capital Account’ is included in the English version as appendix no. 5).

The national Human Capital Account is one way that the Federation of Danish Trade Unions is trying to make the general public aware that Denmark needs a general competence boost – their perspective being especially those in the labour market with a short formal education:

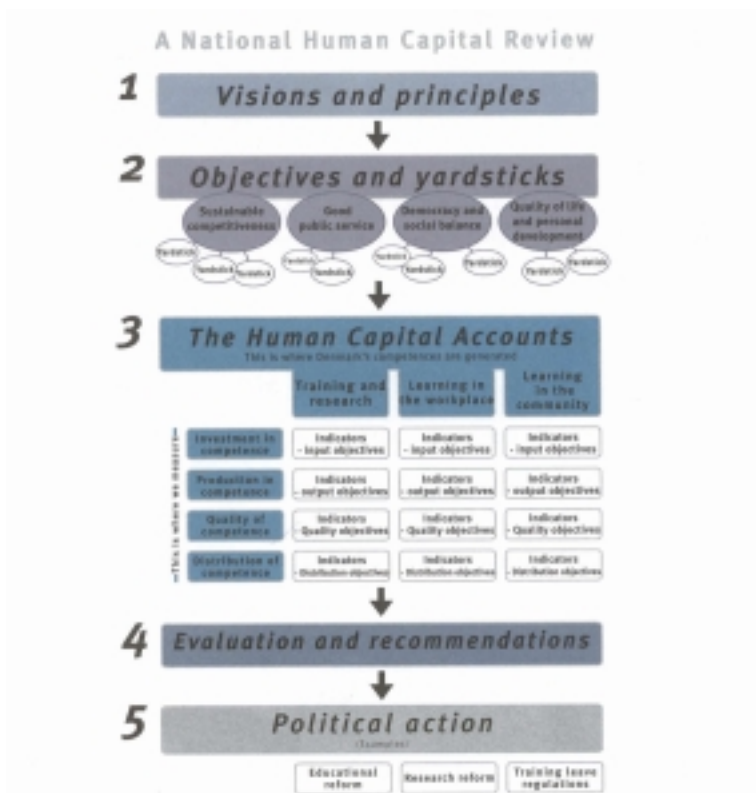
*“The major challenge must be viewed in the light of the fact that not everyone in the Danish labour market today has equal opportunities to develop their skills (...) Competence development is not just for the elite!” (preface, appendix 5).*

To the Danish Federation of Trade Unions competence development and therefore also the attempt to account for this development should be seen within the framework of a specific political agenda. The desire is for a competitive society, but a society that is also characterised by social equality and stability. Creating such a society is defined as a political responsibility and is therefore also an important issue for the Federation. Competence development is seen as a right for everyone to obtain. However, it is also considered a duty for everyone to seek to build a society where everyone can participate in the learning that takes place in society. Lifelong learning is the name of the medium through which the Danish Federation of Trade Unions wishes to promote its political vision. The Human Capital Account is seen as a way to check whether society is heading in the right direction or not. They put it this way:

*“The aim of the Human Capital Account is to tell us whether we are on the way to realizing the objectives that we have set ourselves” (p.18, appendix 5).*

That is why it is also called a Human Capital Review since the accounting is only a part of the whole process of the political evaluation of the development of competencies in society.

The review has been set up to consist of 5 steps. (see figure)



The first step of their analytical and methodological set-up is a first definition of Visions and principles. Visions and principles are to be discussed and agreed on politically. The Union, however, already has suggestions five leading principles. (see p. 8-10, appendix 5).

The second step is called Objectives and yardsticks, to be drawn from the above visions and principles. This second step is seen as the basis of the Human Capital Review and is a starting point for the actual account.

The third step is called The Human Capital Account and presents the framework for measuring competence – the actual model for accounting.

The model has two dimensions. Firstly, it sets up three societal arenas as the focus for accounting. These arenas are:

- Education and research
- The workplace
- The community

Secondly, the model distinguishes between four different perspectives when measuring competencies:

- The investment in competence, i.e. resources used
- The production of competence, i.e. how many and how much is produced
- The quality of competence – dependent on the objectives
- The distribution of competence among population groups – i.e. focus on the inequalities that might occur between different population groups, as some sections may not have any access to competence development

It is within this framework that the concrete indicators are to be found. Indicators that, according to the Danish Federation of Trade Unions, should consist of both quantitative and qualitative data from existing statistics as well as new studies.

In spite of the many difficulties in finding adequate indicators, it is clear that comparison, including international comparison, is considered an important political goal for the future.

After the actual accounting process comes step four, Evaluation and recommendations. Here they seek to evaluate and make recommendations on the basis of the results of the accounts - and, more importantly, they do so on the basis of the objectives and principles, which were the initial political starting point.

With this procedure, it is again stressed that accounting, seen from the perspective of the Danish Federation of Trade Unions, is not about creating a dogmatic statement of the competence situation in Denmark. The Human Capital Account is also regarded as a societal learning process, which can help support the political decisions and actions to be taken. Political action being the fifth and final step in the process.

## **5.2 The National Competence Account from The House of Mandag Morgen**

In 1998 The House of Mandag Morgen established The National Council for Competence with the aim of putting people's competencies and competence development high on the national agenda. As a result of this, in 1998 they published their first analysis and report on conditions in Denmark with regard to competencies. This was followed by a report in 1999 that presented an analytical framework as well as a first account and evaluation of competencies in Denmark. In 2000, the same procedure was followed for their next and final report (The 1999 and 2000 reports are included in this report as appendices no.s 6 and 7).

The Council expresses the purpose of their work and the reports as follows:

*“The purpose of this new form of competence reporting is to focus attention on those areas in which Denmark scores low in terms of competence development, and to learn from those areas in which people, organisations, companies and social structures do well”*

The Councils' idea of competence accounts draws inspiration from a broad, international movement among analysts, companies and nations seeking new ways to describe socio-economic conditions and potential. A competence account is seen as a supplement to the classic national account. Based on year-by-year comparison, as well as international comparisons, it is regarded as a new navigating tool for Denmark – a new instrument for the government in facing the challenges of the knowledge economy.

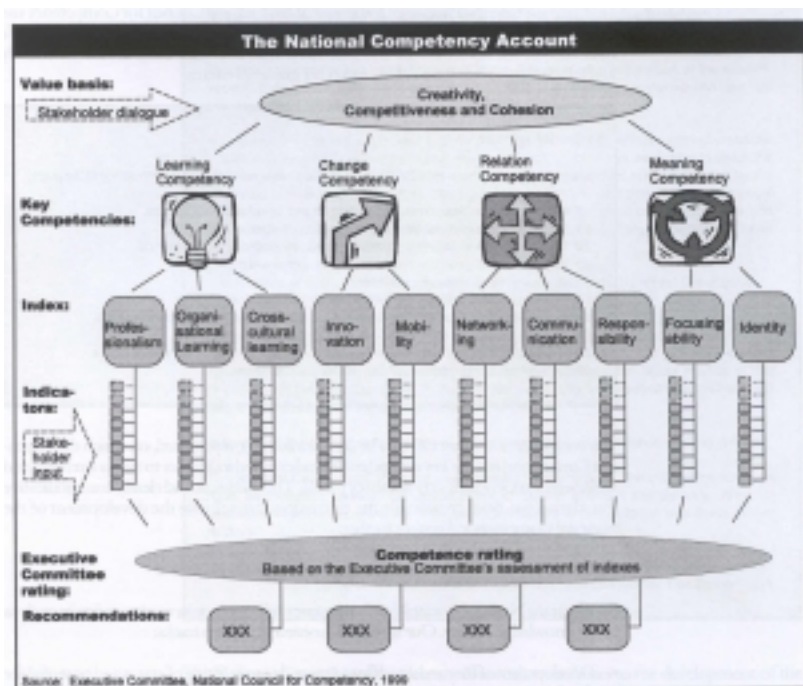
The National Council for Competence consists of a range of private companies, trade unions, educational institutions, public authorities and experts in the field of competence development. It is separated into an Executive Committee and a Network.

The councillors of the executive committee are working on putting competence policy high on the national agenda, while the Network serves to provide inspiration for this work, through discussion and development of new competence strategies based on practical experience.

To measure the level of competence in Denmark, the Council has selected a set of key competencies. Key competencies are regarded as crucial in identifying the challenges to be met in the knowledge society. Before selecting these, the Council points out that the concept of competence is not yet firmly established, and so they have to define a concept of their own. In their definition competence is expressed as follows: “(...) when individuals manage to meet professional and personal demands for purposeful action”. In this sense competence exceeds the concept of qualifications as well as skills. Competence is seen as happening in a dynamic interaction between task and individual as well as between individuals. In this light not only individuals but also organisational settings and societal frameworks become important for the development of competence.

As a result of the above definition the Council has identified the following four key competencies. All are cited directly from the 1999 report and are given in full (p. 2 of the National Council for Competence Report 1999):

- *Learning competence*. With the amount of global knowledge growing at an explosive pace, and the content of knowledge also expanding in relation to all products and processes, it is not so much access to knowledge, but the ability to acquire knowledge and transform it into economically and societal valuable action, that is becoming a key competence.
- *Change Competence*. The knowledge society requires an ability and willingness to move both mentally and physically, and to switch roles. It requires the ability to take initiatives, both within established patterns and as new players in the business world, the public sector and civil society.
- *Relation competence*. Networking and the ability to handle diversity are becoming increasingly important for individuals, organisations and societies alike. Hierarchies and markets no longer provide the framework for either business or society. Cultural expansiveness and the ability to form networks are becoming requirements for success.
- *Meaning competence*. Increasingly, the new economy demands that we see, create and exchange meaning, both as individuals and collectively. A person or business can only gain from joining a network if they already have a clear identity and focus of their own. Without meaning competence, it is neither possible to take a stance nor to find one’s way in the knowledge economy.



Under each of these four key competencies the Council has highlighted out a number of indexes – ten in total. (see figure).



Each index consists of at least 132 indicators, which are all made operational through statistical measurement. The indicators include statistical data from three levels: the individual, the organisational, and the social. The findings are then graded and thereby made comparable – across levels and across the different indexes. The scale used is the marking scale from 1-13. This makes it possible to add up all the marks in each index and eventually end up with just one number. This number is then an expression of the level of competence in Denmark.

Obviously, as is also mentioned in the 1999 report, the statistical basis is not always compatible with the information needed in the accounting process. The dilemma is expressed as follows:

*“A major aim is to create complete, regularly updated statistics, so that it will be possible to base the competence account on statistics that are updated on an annual basis. This is not possible with the statistical sources currently in existence”* (p. 18, National Council for Competence 1999 Report)

The House of Mandag Morgen has now decided to concentrate on the problems and possibilities of organisational learning – with the aim of minimising “the organised waste of talent”, which has been one of their main conclusions, drawn from the two accounts produced.

### **5.3 The Danish National Competence Account (NCA) (Det Nationale Kompetenceregnskab)**

The idea of a National Competence Account (NCA) (Terms of reference for the initiative are enclosed as Appendix B) has been incorporated as an integrated part of the Danish national strategy for industrial development “.dk21”, described in chapter 2. The .dk21 plan is therefore to be seen as the policy oriented background for the National Competence Account.

Work on the NCA is still in its initial phase, but according to the terms of reference for the NCA it has to highlight areas in business, education, research and labour market policy where changes, reallocations and/or new types of integration are needed. NCA should provide an overall picture of Danish efforts towards development and utilisation of human resources within and across these areas.

Broadly speaking, the focus of the NCA work will be in areas that are important to a society in a state of growth and development. This includes the whole scope of themes ranging from personal qualifications for individuals to organisational and societal structures.

The secretary for the NCA is responsible for contributing to the public debate about competencies. Seminars and meetings will be arranged where results will be presented and comments collected. Other initiatives will include a newsletter and a website.

#### **5.3.1 Analytical approach and delimitations for the work on NCA**

The terms of reference for the NCA provide some starting points for the analytical approach to and delimitations for the work.

The NCA operates with three levels of analysis, namely the individual level, the organisation level and the societal level. It is necessary to develop indicators that refer to all three levels.

Some of the indicators at macro level could, for example, be familiar indicators describing expenditure in education. In contrast to those, often quantitative indicators, at individual level it is better to use more qualitative indicators.

A major part of the project will be to develop new indicators that will reflect processes and tendencies in a society that has not yet been subject to testing or benchmarking. These indicators should generate insights alternative to the traditional, mainly economic, indicators for societal development.

Furthermore, it is important to stress that definition/development of indicators in NCA has to reflect the basic understanding of the main priorities for future development of the Danish society, as expressed in the terms of reference for the NCA, such as:

- continued development of competencies and human resources for everybody - both those with a short formal education and those who are highly educated - are central;
- marginalisation processes in the labour market are a threat to a social sustainable society, and a threat to generic competence development.

Another major methodological problem is how to handle and present different types of results, originating from different branches of the NCA, e.g. how to compare two quite different measurements. Here the hereditary problem with the “account” metaphor becomes distinct. The associations with bookkeeping and national accounts for import and export etc. are obvious.

The most likely solution is that the NCA will operate with a combination of descriptions, reviews and statistical figures. Data will be collected from areas covered by the four Ministries supporting NCA (see below).

### **5.3.2 Concept of competencies**

Defining the concept of “Competencies” is not easy. There is no scientific or practical consensus on a single definition.

In the NCA a pragmatic approach is used, stating that for this purpose, competencies will be defined as related to the use of qualifications. This means that competencies are related to the work situation and its social and organisational context.

Here, qualifications are primarily understood as formally acquired skills used in working life, although it is obvious that life outside the work sphere and education system also contributes to the individuals’ total qualifications.

In the NCA we are aware that it can be very difficult to sustain this distinction. It is a fact that a number of personal competencies are also related to biography and social background, and therefore establishing an operational concept becomes one of the major challenges.

### **5.3.3 Organisation of NCA**

The terms of reference for the NCA have been worked out jointly by an interdepartmental working party with representatives from the Ministry of Education, the Ministry of Trade and Industry, the Ministry of Information Technology and Research and the Ministry of Labour.

A steering committee has been formed with representatives from each of the four ministries, chaired by the Ministry of Education.

A secretariat (located in the Ministry of Education) is presently (spring/summer 2001) being set up. The staff will include four full-time professionals and four professionals on a part-time basis. The staff members will be recruited from all four ministries.

According to the plan the NCA must be fully developed and ready for permanent implementation by the end of 2003.

## 6 Appendices and references

### Appendices

Appendix 1: Initiatives within the focus area “competence, innovation and entrepreneurs” in .dk21

Appendix 2: LOK scheme initiatives

Appendix 3: Educational councils

Appendix 4: Quality that can be seen, English summary

Appendix 5: The National Human Capital Account, Federation of Trade Unions 1999

Appendix 6: National Council for Competence Report 1999, House of Mandag Morgen 1999

Appendix 7: The National Competence Account 2000, House of Mandag Morgen, Strategic Forum, 2000

Appendix 8: NCA Commission

Appendix 9: Summary of indicator projects etc.

Appendix 10: Quality Work in the Danish VET System

**Note:** In order to reduce the magnitude of this publication, the appendices listed below are not printed here, but can be found in their entirety on DeSeCo’s Web page at [www.deseco.admin.ch](http://www.deseco.admin.ch).

### References

- .dk21 – A new strategy for Denmark’s industrial development policy, Government February 2000
  - Quality that can be seen, Ministry of Education 2000
  - Note: Ministerial committee for .dk21 targets, Ministry of Trade and Industry 21.03.2001
  - [http://www.efs.dk/pls/www1prod/efsdata.efs1?tekst\\_id=0&emne=viden\\_regnskaber\\_videnledelse&produkt=EF Sdk&show=1](http://www.efs.dk/pls/www1prod/efsdata.efs1?tekst_id=0&emne=viden_regnskaber_videnledelse&produkt=EF Sdk&show=1)
- [http://www.mm.dk/engelsk/about\\_hmm.htm](http://www.mm.dk/engelsk/about_hmm.htm)