

Credit systems for lifelong learning CS3L

Country Background

Denmark

Prepared by Jørgen Ole Larsen
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PROFESSIONSHØJSKOLEN

METROPOL

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1. Framework conditions

1.1 Understanding, purpose and characteristics of VET

Two illustrations are presented below. The first one is a visual overview of the Danish mainstream education system. References will continuously be made to educational programmes and pathways and these overviews can make it easier for the reader to get the full picture and context of the Danish system.

Illustration 1¹:

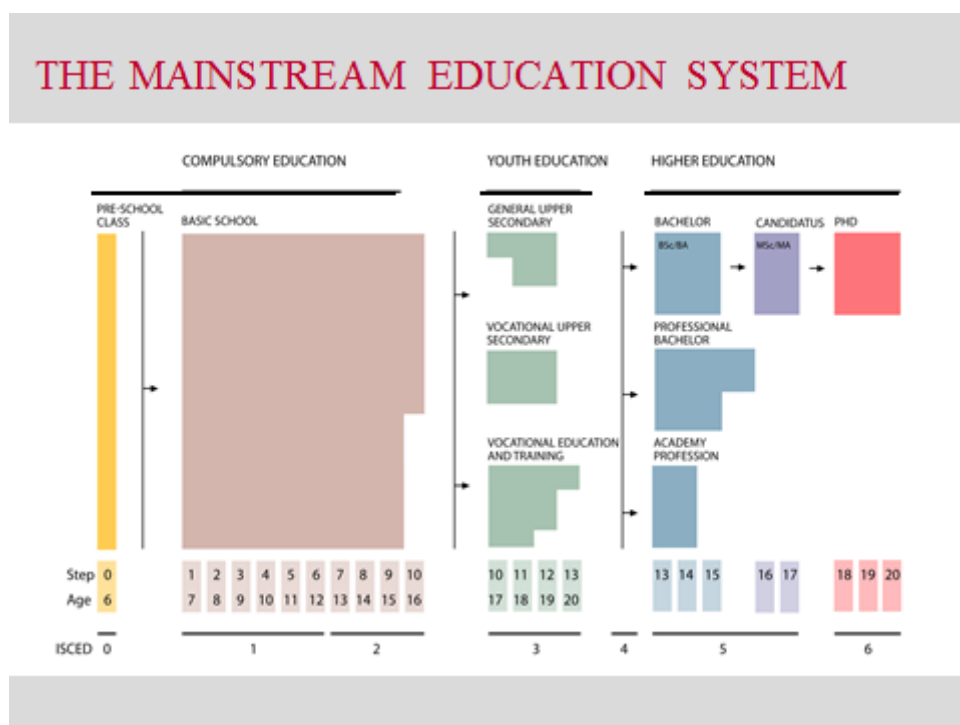


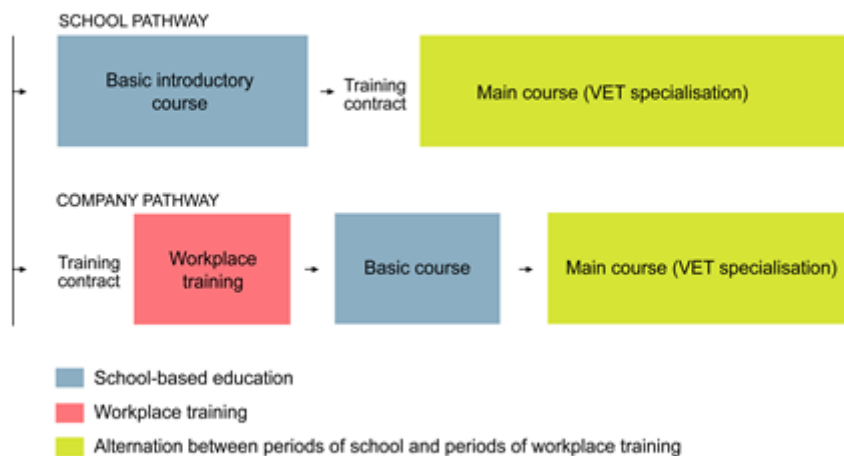
Illustration 2:

IVET programmes alternate between school-based theoretical and practical education (25%) and practical training in a company (75%). The dual training principle ensures that the student acquires theoretical, practical, general and personal skills which are in demand at the labour market. From the moment the training contract is signed, the company has the overall responsibility for appropriate learning.

¹ www.ciriusonline.dk- Presentation of the Danish Education System

THE DUAL TRAINING SYSTEM

- IVET programmes alternate between school-based education and workplace training



1.1.1 The dual training system

As illustration 1 indicates, there are two main education pathways after primary education: Academically oriented general and vocational upper secondary education programmes and vocationally oriented education and training (VET) programmes. The distribution between the two pathways were in 2005: 55% to the VET and 45% to secondary education programmes and with the trend that more and more young students choose the secondary education pathway.

IVET programmes alternate between school-based theoretical and practical education (25%) and practical training in a company (75%). There are two main pathways: the commercial VET and the technical VET. There used to be a strong demarcation line between the technical VET (blue collar workers) and the business VET (white collar workers). This strong separation is slowly softening, a process, which is strengthened by the ongoing mergers between technical and commercial VET colleges and new combined VET programmes.

The dual training principle ensures that the student acquires theoretical, practical, general and personal skills, which are in demand at the labour market. From the moment the training contract is signed, the company has the overall responsibility for the appropriate learning of the student.

As the illustration indicates there are two pathways into the IVET programme, (1) the school pathway and (2) the company pathway. The school pathway begins with a basic introductory course at school. This is how most students enter. The company pathway begins with a training period in a company followed by a shorter basic introductory course followed by the main course.

The duration of the VET programmes varies but is typically 3 to 3,5 years for technical courses and 2 to 3 years for commercial main courses.

Since 2007, Basic Social and Health Care Education Programmes (SOSU) are part of the Danish VET system. The structure of the SOSU programmes is very similar to that of the technical and commercial VET system.

1.2 Political framework – “drivers” and trends

The Danish Government has very ambitious goals for youth education. These are:

- All young people should have a qualifying education. By 2010, At least 85 percent of a youth cohort shall complete a youth education b, and a minimum of 95 percent by 2015.
- The education programmes shall be attractive and of the highest quality.
- The general upper secondary education programmes shall provide pupils with good academic and general competences enabling more youngsters to complete higher education.
- The vocational education and training programmes shall challenge the most talented pupils and provide them with increased possibilities for higher education. At the same time, the programmes must also provide realistic educational and training possibilities for academically weaker pupils.

Education for the last residual group up to the 100% is primarily expected to take place within the VET system and for that purpose flexible and combined programmes need to be set up in order to increase the number of young people with the necessary qualifications to enter initial training (IVET programme). The following means are expected to support these goals:

- ✓ **10th grade of primary education** (not compulsory) can be organized as a combination of VET oriented subjects, inclusive practical training, and traditional primary school subjects and hence improve the readiness and capability of the individual learner to complete an ordinary VET programme.
- ✓ **Basic Vocational Education and Training (EGU)** as preparation for VET or employment EGU is an individualised basic vocational education and training programme that is geared towards both employment and continued education. EGU is an alternating or sandwich-type training programme where practical training is combined with a subject-relevant school-based part in an overall 1Y2-3 year programme in which the school-based part lasts between 20 to 40 weeks. The school-based elements are taken from a number of existing education and training programmes.
- ✓ **Possibility to prolong the duration of the VET programme:** Flexibility in VET is also the possibility to make individual VET pathways that exceed the prescribed duration of a programme. This can be the case for students, who by the VET school are assessed to need more education than the average learner. All students will be assessed no later than 2 weeks after having started on a VET programme.

A standing discussion in VET policy is the capacity of the VET system to attract the most talented students e.g. the above-mentioned goal and at the same time cater for youngsters with learning and motivational problems. The flexible approach, e.g. the individual assessment of each student is expected to reduce problems related to this paradox. Expressed in a simplified way one can claim that the ambitious goal to attract talented students to VET may have same repercussions on the other part of the system, hence making it difficult to include all kinds of student profiles.

1.3 The VET system regarding access and transition

Before explaining the motives for establishing credit systems, it should be highlighted that the Danish VET system for several years has been operating in accordance with the basic principles for outcome based learning.

The VET systems have regularly been changed in response to changes in labour market demands. Some of the changes have involved the development and deployment of competences linked to an outcome based learning context. This has also been the case for how theory and practice can be merged in a qualification description system. This will be elaborated in chapter

The political focus on setting up credit systems started in the 1990's in response to some major structural problems appearing in the labour market. These caused concerns about the VET system's limited capacity to offer low skilled workers access to qualify for more qualified jobs/professions and the small coherence between the VET and Higher Education System.

Three main motives can explain the Danish quest for establishing credit systems:

1. Response to globalisation
2. Lifelong learning initiatives
3. Improving of transnational mobility

1.3.1 Response to globalisation

The concepts globalisation and internationalisation are often used randomly. Hence, it can be useful to separate them in order to create clarity and a common understanding of how they are applied in this paper/context.

We perceive globalisation as the worldwide and overall societal development mainly driven forward by the market economy. This feature has consequently established some mechanisms, that all countries around the world have to adapt to and try to influence. Internationalisation on the contrary is how the political decision makers relate to globalisation - proactively or reactively.

In Denmark, globalisation has had a huge impact on the labour market and more specifically in relation to job-opportunities for low skilled workers. New technology has during the last decades reduced the job opportunities for this segment and increased the demand for higher educated manpower, the so called skills bias².

In the period 1980 to 2002 the labour force in Denmark has grown from 2,65 million to 2,82 million persons³. The number of working persons without formal education beyond primary/mandatory school has decreased from 1,3 million to hardly 800.00 persons. The number of skilled workers has increased from 850.00 to almost 1,1 million, while the group of persons with a further education has been almost doubled from about 380.000 to over 700.00 persons⁴.

The change of educational requirements for a number of sectors can among either things explain the increase in the employment rate for the group with further education and skilled workers.

It is of course difficult to forecast the speed of Globalisation in the coming years. Still it seems well- founded to foresee that the trends outlined above will continue and thus implicate growing demands for persons with higher education and diminishing demands for low skilled jobs. This will strengthen the need for setting up and implementing credit systems that ease the process for persons, who want to build on their existing education in order to be certified on a higher level

1.3.2 Lifelong learning initiatives require solid credit transfer systems

The Danish Government and parliament has during the last 20 years initiated extensive educational reforms with the overall objective to support economic growth and a flexible development of the educational systems and the labour market.

There are nine immediate objectives in the Danish lifelong learning policy⁵. In this context we will only refer to the ones, which are related to the area of credit transfer:

- A coherent education system from preschool to higher education must provide the opportunity for everyone to acquire excellent basic skills, a qualifying education and a solid foundation for lifelong learning. There must be equal opportunities and room for all.
- Opportunities for guidance and counselling must be improved and ensure the best possible conditions for pupils, students and adults to choose education programmes and to participate in lifelong learning

² Finansministeriet:" Globalisering, skill-bias og arbejdsmarkedet - udviklingstræk og fremtidige udfordringer- 2006

³ Based on survey in week 48 each year

⁴ Based on figures from the Danish Statistical Bureau

⁵ Danmarks strategi for livslang læring. Undervisningsministeriet. April 2007

- All forms of education and learning should be based on and build on the knowledge, skills and competences of individuals. In adult education and continuing training, new and improved opportunities shall be created in order to promote the visibility and recognition of an individual's prior learning.
- Coherent education paths and transparency in the education system shall contribute to target education and lifelong skills upgrading and facilitate the best possible use of public resources

1.3.4 Improvement of transnational mobility

Internationalisation of the educational system is not a new phenomenon. The present globalisation trend was apparent already in the 70's, and the international competition has for a long time been growing. Generally, the Danish educational programmes have during the last decades gone through modifications in order to be more responsive to international cooperation e.g. mobility, EU projects and common credit systems.

This has also materialised in the various educational laws and ministerial orders specifically highlighting that the educational programmes and the implementing institutions shall strengthen the international dimension, e.g. the VET law, the Bachelor programmes and the vocational academy programmes.

According to the Bologna implementation process the EU ministers have set up the ambitious goal that by 2020 at least 20% of the graduates from higher education shall have participated in a study or placement activity as part of their education⁶.

In 2007/08 the proportion of graduates in professional bachelor educations on study or placement visits abroad constituted 7,6% of the population. For academy graduates the equivalent figure was 3,8%. For the master graduates the corresponding figure was noticeable higher, 28,9%.

As to the VET system the proportion of students taking place in visits abroad the percentage is considerably lower compared to students from further education. Out of 70.000 apprentices in the Danish VET system only 234 had placement abroad not including figures from Leonardo mobility programmes. This should additionally be seen in the perspective that the Danish system⁷ provides extensive support for mobility to VET apprentices outside Leonardo, a financial support system, which by other countries is seen as a role model for mobility support.

One of the tools to enhance the mobility is transparent and equivalent accreditation procedures between the Danish and foreign education institutions. Setting up credit-transfer system can support this process.

⁶ Goals set up a Minister summit in Leuven spring 2009

⁷ The AER system, which offers extensive support for companies which provide placement abroad for their apprentices

1.4 The significance of “crediting”

1.4.1 When were the credit systems developed?

Higher education

The history of credit systems within higher education is closely linked to the introduction and implementation of ECTS - The European Credit Transfer and Accumulation System in the late 1980's. Today, it is mandatory for all education programmes within higher education to deploy the ECTS system⁸.

As part of the implementation of the Bologna process for Higher Education, in 1999 the ECTS was included as the basis of the system. In full compliance with the Bologna principles, ECTS plays an essential role as the credit system for Danish higher education.

IVET and adult education

The Law of Recognition of Prior Learning⁹ passed by the Danish parliament in 2007, is by the stakeholders seen as a milestone in the endeavour to promote and encourage individuals to enrol in continuing education courses.

As highlighted and elaborated below this specific law was one of the outcomes of the ambitious political objective to create a coherent system for and code of practices for recognition of prior learning.

Before 2007, Denmark has had a long tradition of individual competency evaluation and credit:

- In 1997, when political initiatives to improve short skill persons' access to acquire formal VET qualification were materialised. This was manifested by the amendments in the existing VET law and by the passing of the law of Vocational Adult Training (AMU). The laws made it possible to transfer credits from one system e.g. AMU – VET to another and hence a possibility to shorten the duration of a specific training programme.
- In 2001, the law on Preparatory Adult Education (FVU)¹⁰ gave access for adult applicants (more than 18 years) to apply for award of credits in specific subjects, mathematics and language in order to improve short skill persons' entry to further education.
- In 2003, an amendment of the VET law introduced and implemented the principles of the individual competence portfolio. According to this each student (both youngsters and adults) shall be provided with a personal educational plan (portfolio). The educational plan will be prepared based on the qualifications of each student held against the educational objectives for his/her VET programme.

⁸ Undervisningsministeriets bekendtgørelse nr. 356 og 867

⁹ Law no.562 - 2007

¹⁰ FVU law 2001

- In 2004, the adult vocational law was passed and implemented. According to the law ICA- individual Competence Assessment was introduced. ICA also includes recognition of informal learning and work placed related competences.

1.4.2 How was the process organised?

In Denmark two Ministries bear the main responsibility for the process:

- The Ministry of Science, Technology and Innovation is the main responsible institution for higher education.
- The Ministry of Education is the main responsible institution for all other education programmes.

The Ministry of Science, Technology and Innovation

was set up in November 2001 following that the former Ministry for IT and Research was extended to include the 8 universities, previously within the authority of The Ministry of Education.

The Bologna process is of course the pivotal point in the process of international accreditation processes. Before Bologna, Denmark was primarily administered by the Ministry of Education, involved in all the preceding international initiatives to promote good practice and improve national and international recognition and understanding of study competences, qualifications, higher education institutions and education systems, e.g. ECTS, UNESCO Recognition Convention, Europass, ENIG (European Network of Information Centres on academic recognition and mobility) and NARIC(National Academic Recognition Information Centres)

The Ministry of Science, Technology and Innovation has the overall authority of the Bologna process. This involves specifically the third, second and first cycle in the EHEA¹¹ context and corresponding to level 8, 7 and 6 in the EQF. The process is taking place in cooperation with the Ministry of Education and the Ministry of Culture.

The Ministry has set up a Bologna coordination group, which is in charge of following up and coordinating the practical implementation of Bologna projects and monitor the international work within the area. The process of promoting and providing information about the Bologna Process is carried out by the Danish Agency for International Education¹².

The Ministry of education

As already mentioned the Ministry of Education is the main responsible for the rest of the Danish education systems and hence the process of setting up credit award systems. This includes the following educational pathways: Basic (mandatory) school, youth education including VET, professional bachelor studies, Academy profession studies, adult education and continuing vocational training.

¹¹ The web-site of the Ministry

¹² The Danish Agency for International Education

Like the area of higher education, the Ministry of Education involves relevant stakeholders in the process of credit-transfer, e.g. schools, colleges and organisations representing the actors within the field.

Specific attention should be given to the part of the credit award system that deals with the national actions for promoting recognition of prior learning. This process and the launching of the prior learning campaign were initiated in close cooperation with the Ministry of Science, Technology and Innovation, the Ministry of Culture and the Ministry of Economic and Business Affairs.

As to the VET system, some important characteristics about the management of the system should be highlighted. The reason is that the Danish VET system is defined by a high degree of stakeholder involvement and decentralisation and these features have an impact on how the credit award systems are being implemented.

The Ministry of Education has delegated responsibility and authority to the social partners and the vocational colleges. Specific attention shall be drawn to the authority distribution between the ministry and the social partners (the trade committees).

The Ministry/the Parliament is responsible for education policies and lays down the overall objectives for the IVET programmes and provides the framework, within which the stakeholders can adapt the curricula and methodologies to the needs of the labour market and the students.

The role of social partners?

The trade committees lay down the detailed content of the education and training programmes within the general framework. This applies to the duration and structure of the programmes, their objectives and assessment, as well as the distribution between practical training and school-based teaching.

As already referred to, the introduction of the ECTS system and the Danish adoption of Bologna process are the major steps within the higher education area.

1.4.3 What were the steps and milestones on the way?

Higher education

As already referred to, the introduction of the ECTS system and the Danish adoption of Bologna process are the major steps within the higher education area.

In addition the following two achievements should be highlighted:

1. 2003 - The first Danish qualification framework based upon the Bologna principles
2. 2007 – Revised national qualification framework for higher education based on experiences from Bologna lessons and responding to EU expectations.

IVET and adult vocational training

Reference has already been made to the Law of recognition of Prior Learning as the foundation for setting credits into a more comprehensive and transparent system. The law was the preliminary final stage of a number of steps leading to this law:

In 1999, a report on the effects of the VET policy and actions within the area of adult and continuous professional training was published. The report was a joint product from a commission consisting of civil servants from the Government and the social partners.

One of the main conclusions was the lack of credit systems to promote and motivate low skilled workers to start on an education pathway leading to a higher educational level.

In 2001, the new government in office transferred all vocational adult training and education from the Ministry of Labour to the Ministry of Education and more specifically to department for VET. The objective of this merger was to create coherence within the total VET area for skilled and unskilled workers and additionally to improve credit systems.

In 2006, a new report from a commission, also with members from the government and the social partners, was prepared. The task of the commission was to analyse and assess the policy of adult professional training and education (CVET - continuous vocational and educational training).

The objectives of the policy were to create the foundation for lifelong learning, skills development for all individual on the Danish labour market. Two important and concrete political outcomes of this process were (1) the Danish Policy Paper on Lifelong Learning and (2) the Law of Recognition of Prior Learning.

1.4.4 Who was involved in the development?

Higher education

As previously referred to, the Ministry of Science, Technology and Innovation has the overall authority of the process of credit systems. In preparing and setting up the Danish National Framework for Further and Higher Education other ministries participated, e.g. the Ministry of Culture and the Ministry of Education.

In all major policy areas, e.g. the Bologna process and the qualification framework cooperation with and inclusion of all relevant stakeholders is taking place. This is done through permanent councils/committees and by setting up reference groups. Stakeholders are:

- The Danish Evaluation Institute¹³
- The Danish Agency for International Education¹⁴
- The Universities
- Student organisations
- Labour Market Organisations
- The Danish conference of Rectors

¹³ www.eva.dk

¹⁴ www.iu.dk

IVET and adult education

The Danish VET system is defined by a high degree of stakeholder involvement and decentralisation and these features have considerable impact on how the credit award systems are implemented.

The Ministry of Education is the main responsible actor. In addition, the social partners are heavily involved in all levels of management and implementation of the VET system, both for initial training and for continuous vocational training for adults. Specific reference shall be made to the National Knowledge Centre for Validation of Prior Learning (VPL), which was set up in 2007¹⁵. The objectives of the centre are to collect, produce and disseminate information and documentation of existing knowledge on VPL.

Other major stakeholders are:

- Other Ministries, e.g. Ministry of Labour
- Council for VET education
- Training committees for VET programmes
- Training committees for continuous professional development within VET
- Labour Market organisations
- VET colleges
- Associations of VET colleges
- Association of VET schools boards
- Student organisations
- The Danish Evaluation Institute
- The Danish Agency for International Education
- Municipality Guidance centres for young people under the age of 25

1.4.5 What additional procedures and processes were necessary to put the credit system into practice?

Higher education

For higher education, the Bologna process has had the following consequences in terms of adding procedures and processes:

- **Consequences for the curricula:**
To describe the objective of the study programmes in outcome terms, e.g. knowledge, skills and competence.
- **Accreditation:**
In future, all existing and new education programmes in higher education have to be assessed against predefined quality criteria as part of an accreditation process.
- **Certification of the qualification framework**
The new qualification framework shall undergo a national self-certification process in order to document that the individual educational programme is compatible with the common European Educational Area, which was adopted in 2005 as an important component in the Bologna process. The aim is to secure genuine comparison and transparency.

¹⁵ www.nvr.nu

IVET and adult education

Denmark has a long tradition for providing individual credit and validation to individual applicants. This was facilitated by clauses in the various educational orders e.g. Law of Vocational and Educational Training and Law of Adult Vocational Training. In that sense there was no need for additional procedures to put the credit system in place.

In line with the increasing focus on Globalisation and the growing risk for marginalisation of low skilled workers more attention was concentrated on systematised credit and validation procedures as means to boost to general educational level in Denmark.

1.4.6 For what purposes does the credit system mainly serve¹⁶?

Below follows the main educational and political motives for setting up credit award systems:

- Serve general labour market objectives to upgrade the skills of the labour force.
- To provide the individual with the best possible conditions to build upon his/her knowledge, skills and competences
- To be able to document and keep record of an individual's formal qualifications and qualifications based on prior learning
- To make better use of public resources and finances in the educational sector.
- To establish a fundament for a better interface between "the world of education" and "the world of work"

¹⁶ Undervisningsministeriet 2007 –Danmarks strategi for livslang læring

2. The study

2.1 Introduction

According to the EU educational strategy VET is expected to play a key role in achieving the ambitious goals for lifelong learning and mobility. Key actions in VET to support lifelong learning and mobility shall focus on:

- flexible “a la carte” concepts to maximize the access to continuing VET delivered by employers, traditional training providers and higher education institutions and coupled with appropriate financial incentives
- genuinely open pathways from VET to HE and development of tertiary VET programs
- high degree of validation of non-formal and informal learning
- integrated guidance and counselling services to facilitate transitions and learning and career choices
- by 2020 systematic use of EQF, ECVET and Europass aimed at transparency of qualifications and portability of learning outcomes
- transnational mobility strategies at the level of VET providers facilitated to become appropriate mobility support structures.

The Danish perception of the main components of a Lifelong Learning strategy and implementation is in harmony with the above highlighted principles. In addition they constituted the fundament for this study and more specifically for the persons selected for interviews.

The scope of this study covered interviews with 15 persons representing different positions and organisations in the Danish educational system. List of persons interviewed is attached as annex 1.

In general terms, the persons interviewed represent two different groups in the Danish educational, primarily VET, system.

1. Stakeholders and decision makers on the political level involved in planning, deciding on and implementing educational policy activities, mainly within the VET area.
2. Persons, counsellor and supervisors, working with actual cases involving recognition and credit awarding procedures for students/learner applying for admittance to academy profession programmes and professional bachelor programmes.

2.2 Interview with key stakeholders and decision makers

The aim of the interview was to get an overview and concrete feedback on how important stakeholders in the Danish educational system, primarily VET related, assess the EU objectives and procedures to promote a common description and understanding of qualification and hence promote mobility, e.g. NQF and ECVET.

The framework for the interviews focussed on the following four main areas/issues:

1. Educational and labour- market driven forces to introduce NQF – objectives and procedures? Tools to support the process?
2. The interviewees’ assessment of the situation with regards to the implementation of NQF and ECVET? Resources to be deployed in this process?

3. The interviewees' assessment of NQF and other campaigns launched to support lifelong learning and national mobility in the educational systems, e.g. the possibility to increase accreditation and recognition procedures.
4. The interviewees' views on possible NQF perspectives in the context of increased mobility on an international level. Identification of possible impediments for mobility? The need to change procedures and the need for more/special resources to back up the political objectives.

2.2.1. Educational and labour- market driven forces to introduce NQF – objectives and procedures

The stakeholders interviewed take different positions concerning the need to support and implement NQF in Denmark. The positions can be divided into three categories

1. positive attitudes towards the initiatives
2. impartial positions
3. negative stances

Positive attitudes towards the initiatives. The Danish Confederation of Employers (DA) supports the concept and objectives behind the NQF. According to the DA representative EU has to focus more on quality, internationalisation and coordination of international systems. Denmark has a tradition to be reluctant, almost dismissive, to EU initiatives. During the last ten years this attitude has changed to a more positive direction.

Quotation from the interview:” If Denmark wants to attract foreign labour force to the country it requires mutual and cross national recognition of diplomas and certificates.”

2. Impartial positions. The Danish Ministry of Education was, as highlighted below, the main responsible in the process of introducing and implementing NQF in Denmark and this of course reflected in their responses and comments.

The Ministry representative stresses the political objectives and the adamant EU commitment of creating a common qualification framework followed by the individual member states' procedures to implement the system.

The Ministry representative highlighted that Denmark almost managed to comply with the timetable set up by the Commission and mentioned that other countries compared to Denmark were far behind in the implementation process.

The interview with the Ministry representative was also touching the issue of NQF seen as both a labour market instrument and an educational tool for comparing qualifications on international and national scale.

The Interviewee was aware of the present framework for the discussions where the point of departure for and the focus of the discussions primarily have been issues dealing with discussions concerning the understanding and level of the eight levels in EQF framework and with less or almost no attention paid to the labour market aspect, e.g. NQF as a mobility supporting instrument. Still, the interviewee thinks that this perspective will gradually develop.

A representative from the Danish Agency for Universities and Internationalisation (IU) was also interviewed. The institute is the responsible authority for providing assessments of non-Danish degrees, diplomas and certificates and information about international recognition of qualifications.

As a Governmental institution IU is of course supporting the NQF implementing process in Denmark but at the same time the IU representative thinks that the VET system will be skeptical at the whole idea of NQF and especially ECVET.

3. Negative stances were expressed by representatives from the educational trade committees. Representatives from two committees were interviewed. At the same time it should be highlighted that it seems to be a general (negative) view among the Danish educational trade committees.

The interviewees expressed sceptics at the NQF initiatives. They think that the whole system description system is vague and further highlight that this stance originates from the period when the training committees participated in the project of introduce ETCS points in the vocational system.

Quotation: “The question concerning driving factors is funny in the sense that the parties in the labour market neither had the motive nor the incentive to introduce and implement EQF. Simply, it was the Ministry (of Education) which took this decision and afterwards the task was handed over to the social partners which in turn was given the duty to implement it.

2.2.2 The interviewees’ assessment of the situation with regards to the implementation of NQF and ECVET

All person interviewed highlight the Denmark has complied with EU instructions and implemented the NQF almost in time and with a fully-fledged EQF concept description of all educations and modules in the Danish educational system.

Still the arguments differ according to the overall, positive or negative, perception of the how useful NQF will turn out to be.

- “a lot of resources have been deployed in the process and the outcome has been very good” – the Danish Ministry of Education
- it has been implemented because the job had to be done. The resources, available for the process, were insufficient and we (the educational trade committees).

- “it has been done because it was a duty and the persons, who did it (representatives from the trade committees) had the feeling that they were doing it for the benefit of others”. Quotation from the interview with the representative from the Danish Confederation of Trade Unions.

2.2.3 The interviewees’ assessment of NQF and other campaigns launched to support lifelong learning and national mobility in the educational system

As one could expect from the different attitudes to NQF, the feedback from the interviews varied to a great extent.

Persons holding a positive view on NQF are confident that the framework, in the long perspective will contribute to lifelong learning. “NQF can turn out to be the instrument that can enhance the national mobility on the labour market”.

Quotation from the representative from the Danish Confederation of Unions: “ We know that average age for electricians is 34 years and that 70% of the electricians after completion of their vocational training have left their trade and getting employed in other professions, e.g. IT. It could be interesting, with the NQF as a tool, to identify what specific learning outcomes/competences either promote or obstruct a transfer to other trades or to further education.

Representatives from the trade committees don’t think that NQF will have a direct impact on lifelong learning. Quotation: “I actually don’t know to what extent the NQF can promote educational mobility. The VET profession flight mechanics is one of the very few professions on (NQF) level 5 and I don’t think that this fact will increase the likelihood that persons holding this certificate will continue in further or higher education.

In spite of their negative assessment of NQF, one representative from the trade committees although highlight how NQF can be seen as a quality assurance tool. Quotation: “ If I was supposed to start up a new education/VET profession, I actually think that i would apply to NQF matrix. Then I would try to identify the learning outcomes and the point of departure should be the NQF definitions. Hence countries with no or less developed VET systems can take the advantage in using the EQF model as a framework/recipe for the work

2.2.4 The interviewees’ views on possible NQF perspectives in the context of increased mobility on an international level

The representative from the Danish Agency for Universities and Internationalisation is confident that NQF, in the long perspective, will have a positive impact on the transnational mobility. The interview person compares with the ECTS points, which from the outset also was met with scepticism and reluctance.

The representative from the Ministry of Education was confident that NQF will improve and facilitate mobility of both apprentices and artisans. As an example, he referred to the wind mill industry where the huge Danish factory – Vestas – can use the framework when employing new workers.

2.3. Recognition and credit awarding procedures for students and learners applying for admittance to academy profession programmes and professional bachelor programmes

2.3.1 Introduction

The focus in this section will be credit and recognition within the area of higher education and specifically the field of academy profession programs (2 years' duration) and professional bachelor programmes (3,5 years' duration).

The reason for concentrating on this area is that credits awarding and validation of prior learning within the VET areas is thoroughly described in other parts of this report. Another reason for focussing solely on this area is that the interviews conducted in this study can be compared with the findings in a review of procedures and practices in credit awarding in the two said educational pathways.¹⁷. Until now, this is the only Danish evaluation of credit transfers and procedures covering an entire educational sub-sector.

In total, 8 interviews were conducted. Four students and four counsellors. The names and study venues are attached in annex 1.

The interviews with counsellors focused on the following issues:

- In which area is the counsellor working?
- What is the typical story of a student applying for credit transfer to the new study?
- Opportunities for awarding credits?
- Obstructions for awarding credits?
- Recommendation for changes in the awarding system.

The interviews with the students focussed on the following issues:

- The study/educational pathway where the interviewee has applied for credit transfer?
- Documents, copies of diploma and other documentation that the applicant shall provide?
- Opportunities for awarding credits?
- Obstructions for awarding credits?

The issues highlighted below represent the essence of the interviews, which at the same time are in full correspondence with the findings in the scientific review already referred to:

¹⁷ EVA – 2010 – Merit på erhvervsakademiuddannelser og professions bachelor uddannelser. 2010

- **Credits are given in the big majority of cases.**
The review documents that credits, to some extent, are awarded in 95% of the cases where application are submitted. This is also in compliance with the 8 interviews conducted in this survey.
- **There is room for improvement**
Interviews with both students and counsellors highlight that the practice and procedures change from institution to institution and from counsellor to counsellor. The institutions interpret the laws and evaluate credit matters differently.
- **Decentralised management**
The lack of a uniform system is mainly explained by the decentralised management of credit transfer procedures.
- **Different interpretation in academic assessments**
The review and the interviews also show that the academic assessments based on different interpretations of what preconditions must be met in order award credits.
- **Different understandings of what requirement to set up in order to obtain the necessary credits**
Both the students interviewed in this study and findings in the scientific evaluation highlight that the applicants now and then are met with two understandings/answers to the same/specific question concerning award of credit for an explicit topic.
- **Students' rights are jeopardised**
When credit procedures and practices are based on varying assumptions and understandings the students' legal rights are under threat which again can lead to inappropriate outcomes and understandings of the concept of credit awards.

3. Terminology

3.1 Introduction

The educational system in Denmark is in general based on the principle and objective of learning outcomes. Laws, departmental orders and guidelines regulating the educational system generally describe qualifications by learning outcomes or competence objectives. The Danish concept of learning outcome describes what a person with a specific qualification is expected to know and be able to do, and not the learning input such as syllabus. However, the descriptions are often divided by subject, meaning that there is not always a comprehensive presentation of the overall learning outcome for the entire qualification.

For example, in general upper secondary education a reform came into force in 2005 in which a key element was a change in the course descriptions from content to learning outcomes and competence objectives. In vocational education and training, the student must comply with both defined learning outcomes and competence objectives in order to gain admission to the main course after the basic course, as well as to be awarded the certificates for the VET-programmes.

3.2 Credit transfer – Recognition procedures

Credit transfer – in Danish “merit” – means that parts of a student’s learner’s previous qualification are accredited towards replacing part of a new education programme.

Credit transfer takes places in all educational systems beyond primary school¹⁸, see illustration 1. In this paper focus will be on credit transfer in IVET and CVET.

Credit transfer in IVET

All students/apprentices, who start at a VET school, are obliged to/have a right to get their competences assessed within their first two weeks of school period.

Teachers at vocational schools must ensure that the competence assessments focus on every student's qualifications. The assessment can lead to either exemption from specific subjects/modules or extra training. The objective is to make the competence assessment realistic and relevant for each student and hence securing that the student can be provided with an educational pathway in compliance with learning outcomes specified in VET competence instructions.

¹⁸ In general secondary school credit transfer is very seldom

Credit transfer for adults starting on IVET

Adult workers/employees can be awarded transfer of credit when he/she:

- possess relevant working place experiences and/or
- can document relevant training and/or
- has relevant courses within a specific trade and/or
- other relevant courses/training

Adults who want to get transfer of credits shall apply at the VET school, which also has the authority to award exemptions for theory modules/courses. The training trade committee responsible for VET profession is responsible for awarding exemption for parts of the practical training of the whole apprentice period.

3.3 Recognition of prior learning

Recognition of prior learning builds on the basic notion that an individual should not be made to learn the same thing twice, but should have the opportunity to use and build on his or her competences, irrespective of where and how they were acquired.

Since 2007, legislation relating to the recognition of prior learning has applied to the educational sectors: vocational education and training, single course subject; general adult education; general upper secondary education; basic adult education; adult vocational training programmes; academy profession degrees and diploma degrees in adult and further education.

The Danish concept for the recognition of prior learning - among other things - departs from the principle of learning outcomes, where the individual's competences are tested and assessed in relation to the learning outcomes of a particular programme. It is based on the principle that the individual's competences should be recognised, irrespective of where and how they were acquired, but without compromising the quality/standard of the education and training qualifications. The methods used must ensure a reliable assessment to secure confidence in the outcome, and the result of the assessment should be documented by issuing a certificate.

In the vocational education and training system, testing and assessing the student's prior learning is compulsory for all students within the first 14 days of all programmes. In the other educational sectors, the students have the right to ask an educational institution to assess their prior learning in order to obtain recognition for their competences. The legislation has also ensured that an individual can appeal against certain prior learning recognition decisions to the Qualifications Board.

The result of a prior learning assessment has to be documented by issuing 'documentation of admission', 'documentation of competence' or 'documentation of education'. 'Documentation of admission' can be used for basic adult education (GVU), academy profession degrees and diploma programmes.

'Documentation of competence' can be issued for all six education areas (vocational education and training, single course subject; general adult education; general upper secondary education; basic adult education; adult vocational training programmes; academy profession degrees and diploma degrees in adult and further education), while 'documentation of education' can be issued for all areas apart from general adult education and general upper secondary subjects.

The recognition of prior learning gives the individual the following opportunities:

- to qualify for entering educational programmes at a higher level;
- to tailor educational programmes to take account of what they already know and are able to do or receive credit for certain classes;
- to obtain 'documentation of competence' if the skills are the same as those obtained by completing part of an educational programme;
- to obtain a 'programme certificate' if the skills are the same as those obtained by completing an entire educational programme.

3.4 Interface – VET and higher education

One of the Governments high profiled objectives is that 60% of a youth cohort shall complete a further education. With the growing search for secondary schools it is now almost 54% of a cohort that is expected to achieve a higher education. But at the same time, it must be ensured that a proportion of those, who complete a tertiary education, has working experiences from the labour market. If Denmark shall maintain workplaces within production it is crucial that more young people starting on a VET pathway are motivated to continue learning and studying after completion of VET.

On this background, much focus has been put on how VET can attract more students and especially skilled youngster committed and motivated to further education after finishing VET. The VET system has a flexible framework and a set-up which makes it possible to offer education on different levels and hence cater for applicants with different academic backgrounds.

In theory, it should be possible for the blacksmith to become an engineer and that an administrative assistant can study to become a finance controller or for the social health care assistant to build on her/his existing education and end up as a nurse (in DK the nurse education is part of further education – bachelor). But the transfer from VET to further education is still very low.

Below follows the main findings and conclusions from a recently published survey concerning opportunities and barriers for further education among young people holding a VET degree/journeyman's test¹⁹:

¹⁹ AKF rapport: Muligheder og barrierer for videregående uddannelse blandt unge med en erhvervsuddannelse (EUD)-2012

- In 2001 601 VET graduates entered a higher education within a period of 27 months after completion of their VET pathway. In 2007 the corresponding figure was only 479. This is a very small share 1.6 % of a cohort. On the contrary, 7% of the continuous growing secondary school cohorts embark on a short academy professional study pathway.
- Among the young persons, who were covered by the survey, 3% of the cohort started on a short further education, mainly academy professions programs, within a period of 5 years after completion of a VET profession.
- 5,4 % of the cohort started on medium cycle further education (bachelor), pre-school and primary school teacher nurse educational pathways. The big majority in this segment is represented by young women.
- The preferred further educational medium cycle/bachelor pathways for young men are building technician and short cycle engineering studies.
- 20 % of the youngsters, who in the period 2001-2006 completed a VET profession, had already completed a general secondary education. This is double- education trend among young persons has for a long period constituted a both structural and economic expensive problem in DK. The young person with this double education background has at the same time the highest inclination to embark on further education.
- The transfer percentages from VET to further education differ among the various VET pathways. The biggest transfer ratio to further education is observed in the VET family “Technology and Communication”, e.g. electricians, who continue on further education. The transfer to further education is also high within the VET families “Cooking and catering”, “Craft and Technique and “Service”

3.5 Strategies and means to improve to transfer from VET to higher education

Reference to the political objective of increasing the transfer from VET to further educations has been highlighted above. The survey, from which the above transfer figures have been presented, highlight that the following strategies/means should be observed in the Danish educational system

More equity among the VET pathways: The VET professions differ to a large extent in terms of transfer ratios to further education. Hence, there seems to be a need for considerations on how to motivate youngsters on the low ratio professions to embark on further education.

In addition, the stakeholders should scrutinize the possibilities to establish further – short cycle/bachelor pathways which build upon a specific VET profession/family.

Improve the recruitment to and the reputation of VET: If the transfer ratio from VET to higher education shall be increased there is an urgent need to change the educational hierarchy among youngsters and their family. The general secondary school, gymnasium, is seen as the best choice following primary school and this tradition and pattern of preference has to be changed.

Improve the awareness of possibilities within the VET system: Pupils in primary school should to a much larger extent be informed about the fact that a VET pathway can lead to much more than a specific profession.

Decisive to motivate the youngsters in choosing alternative educational pathways: The students at the VET schools/colleges have limited knowledge about the different opportunities a VET certificate can lead to. Hence, there is a huge need to extend and monitor information campaigns in order to focus on VET further education.

It is essential to continue studies after VET: Young people starting on a VET pathway are first and foremost motivated by the possibilities their training provides them with. On this ground, VET graduates can be motivated for further education when this is related to possibilities on the labour market, achieved by further education. The conclusions in the survey highlight that presentation of role models could be part of a motivation strategy.

4. Operation

4.1. Introduction

Below follow a number examples featuring a number of procedures involving crediting process and procedures for persons, who want to either go abroad in order to work or study or want to start on a new educational pathway and for that purpose would like to know to what extent prior learning either achieved from working experiences or from theoretical (school) courses can lead to transfer of credits and hence exemption from parts/modules in the new study.

The examples are fictitious but reflect actual situations which are taking place in reality.

4.2 The case of Hassan

Hassan is 22 years old and lives in Denmark since three years. How can his learning abroad be recognised?

Hassan shall address The Danish Agency for Universities and Internationalisation. It provides assessments of non-Danish degrees, diplomas and certificates and information about international recognition of qualifications.

If Hassan wants to get admission to a VET school he shall observe the following procedures: Admission to a vocational education and training (VET) programme requires a minimum of 9 years of schooling equivalent to the Danish *folkeskole*.

Hassan may enter VET either at a vocational college or in the company where the practical, on-the-job training is to take place. He must have signed a training agreement with a business enterprise before on-the-job training begins.

Before admission, foreigners can take a Danish test at the college. In addition a counselor at the VET school will take Hassan through a competence clarification in order to assess if Hassan can get exemptions for modules or practical learning at a workplace.

If Hassan wants to study on a further educational institution, he shall meet the following requirements.

His foreign certificate must be on a level with a Danish upper secondary school leaving certificate. For admission to an Academy Profession degree programme (short-cycle professional higher education) it may be sufficient that his foreign certificate is on a level with a relevant Danish vocational qualification.

The Agency has a special page where Hassan can find out whether the level of his foreign certificate satisfies the general entry requirements: "Foreign qualifications for entry to higher education".

For upper secondary certificates from some countries, entry to Danish higher education requires that Hassan completes one year (or, in a certain cases two years) of higher education or equivalent supplementary studies in addition to the certificate.

If the information that Hassan want is not available under Foreign qualifications for entry to higher education, he can ask the educational institution where he wishes to apply or the Danish Agency for Universities and Internationalisation. If necessary, the Danish Agency for Universities and Internationalisation can make an assessment of Hassan's qualification.

Specific entry requirements: Like applicants with Danish qualifications, Hassan must meet the specific entry requirements that apply to the individual study programme. Specific requirements typically include the level of the subjects passed, marks (grades) obtained in individual subjects and the overall average of marks (grade point average). Hassan is advised to ask the educational institution where he wishes to apply whether he fulfils the specific entry requirements. The educational institution may require that he takes supplementary courses

Language requirements: For programmes taught in Danish, Hassan must be able to document sufficient oral and written proficiency in Danish. He must meet such requirements by the beginning of the study programme.

4.3. The case of Pia

Pia is 19 years old. For two years she has been working on a voluntarily basis in a zoo and now she wants to be admitted in a VET college in order to become an animal keeper.

Animal keeper is a VET profession and as such a combination between theory at the school and practical training at a workplace.

Pia can address one of the VET schools providing the VET animal keeper profession. All young people, who start on a VET pathway, are obliged to go through a competence assessment during the first 14 days of the school period. This will also apply for Pia. The competence test is supposed to identify the skills of the student and clarify the educational needs and conditions of the applicant.

The student's prior school certificates, theoretical test and employment combined with an interview and a practical test is included in the assessment.

Based on the outcome of the assessment the school will make a plan for Pia. The plan can imply exemptions from some of the theoretical courses if the school counselors assess that Pia's prior learning and experiences from the zoo can justify this. Exemption from parts of the practical training, e.g. shortening of the period at the workplace is up to the educational trade committee to decide. The decision is based on the substance of work Pia has delivered in volunteer working period.

4.4 The case of John

For ten years John has been working as a skilled plumber (VET profession certificate acquired). He wants to start his own business and for that purpose he needs to qualify as an authorized plumber, heating and sanitary engineer.

He addresses a counsellor at the local/regional VET college and receives information about a two year engineer education and specifications on how the duration of the programme can be shortened.

Collection and documentation of prior learning outcomes

The applicant collects:

- Education and training certificates from former schooling, education and continuous professional courses.
- Description and documentation of working experience and skills and competences within the plumbing sector
- Documentation for taking part in a management course arranged by a local sports club.

Application for admission to the sanitary engineer education

- Application for shortening of the education period
- Fill in skills/competence assessment scheme with documentation of qualifications and learning outcomes
- Guidance interview and skills assessment - 1 day duration
- Examination of assessment scheme and documentation materials
- Test in quality assurance, management and calculation
- Concluding conversation between counsellor and applicant

Recognition of John's prior learning outcomes

Validation and recognition of:

- IT -driver's licence (basic IT skills)
- Completed courses in the diploma course: organisation
- Working experiences and competences within the field of tendering, quality assurance and accounting
- Completed management course in the local sports club.

Outcome of validation process:

John has to pay for these services, estimate 150 Euro. John will be awarded credits for specific subjects in the sanitary education equivalent to a shortening of 20 weeks of the total study period.

4.5 The case of Maja

Maja is 29 years old. For the last 9 years she used to work as skilled chemical laboratory Cthere mechanisms in the systems helping her to get her learning and experience credited towards studies?

In Denmark a chemical laboratory education is labelled a short further education belonging to the category: "Academy Profession Programmes" and the duration of the programme is 2,5 years, with theory and practical training.

Maja can expect to get credits for the theory in her former education but no credits for the practical experiences both during her studies and from her employment.

There are no standard rules or procedures for the process of awarding credits from Academy Profession Programs and more specifically the chemistry diploma which Maja holds.

It will be the specific university, where Maja wants to get admitted, that decides to which extent she will get credits for theory modules from her former study.

4.6 The case of Curth

Curth is 23 years. At the stage of 16 he started training in order to become a mechanic. After 9 months of training he dropped out. Now he has decided to continue with VET. He wants to start training as a mechatronic – a qualification which is quite close to the mechanic – qualification. Does he have to start from the very beginning?

Curth can expect to get credit from his nine months' mechanic training. He is supposed to address one of the VET schools providing the VET mechatronic profession. All young people and adults, who start on a VET pathway, are obliged to go through a competence assessment during the first 14 days of the school period. This will also apply for Curth. The competence test is supposed to identify the skills of the students and clarify the educational needs and condition of the applicant.

The student's prior school certificates, theoretical test and employment combined with an interview and a practical test is included in the assessment. Curth can also expect to demonstrate his practical skills and competences in a workplace and conducted as a practical test.

Based on the outcome of the assessment the school will make a plan for Curth. The plan can lead to exemptions from some of the theoretical courses if the school counselors assess that Curth's prior learning and experiences from his mechanic training can justify this.

Exemption from parts of the practical training, e.g. shortening of the period at the workplace is up to the educational trade committee to decide. The decision is based on the substance of the work Curth has been doing, when he was a mechanic apprentice.

4.7 The case of Susan

Susan is 17 years. She lives in a structurally weak region where training places are scarce. There she has started a vocational training preparation measure in the field of "service, health and care". Though placements in a youth center and in a community center she has gained first experiences and now she wants to become a house keeper (a person who is managing the service and the catering of big public or private centers). Does she have to start from the very beginning with the training although she gained some experiences?

Susan can embark on one of two educational pathways:

1. VET in nutrition
2. Profession bachelor in nutrition

1 - VET in nutrition. Susan can apply for admittance to VET center offering the VET profession. All young people who start on a VET pathway are obliged to go through a competence assessment during the first 14 days of the school period. This will also apply for Susan. The competence test is supposed to identify the skills of the students and clarify the educational needs and condition of the applicant

Susan's prior school certificates, theoretical test and employment combined with an interview and a practical test is included in the assessment. Based on the outcome of the assessment the school will make a plan for Susan. The plan can lead to exemptions from some of the theoretical courses if the school counselors assess that Susan's prior learning and experiences from the placement are equivalent to similar modules/courses in the VET nutrition profession.

Exemption from parts of the practical training, e.g. shortening of the period at the workplace is up to the educational trade committee to decide. The decision is based on the substance of work Susan has delivered in her working periods. Most likely, Susan will not be awarded with a shortening of the practical part of the VET training.

2- Profession bachelor in nutrition: Susan can also chose to apply for admission to a university college offering the nutrition study. The study programme is 3,5 years and lead to a bachelor status.

To be admitted to a university college the applicant should either have a secondary high school diploma or a VET profession with equivalent content to the nutrition bachelor. Hence, Susan will most likely be admitted, maybe she has to pass some general subjects to qualify for admittance. Susan will not get any credits once admitted to this study.

4.8 The case of Marita

Marita is 39 years. At the age of 21 she completed a nurse education. She stopped work as a nurse 23 years old when she gave birth to her first child. Marita's husband is an artisan, skilled carpenter running his own company with three employees and an apprentice.

During the last 16 years Marita has supported the company by doing book keeping and other administrative office work. Are there opportunities for Marita to get her experiences recognised?

Marita shall address a VET centres providing training/education within the commercial and administrative area in order to go through a validation/recognition test. Marita has to pay for these services, estimate 150 Euro.

Before addressing the VET centre Marita shall, thoroughly, describe her working experiences and with specification of what subjects/topics she has been working with. Part of the validation process can be a practical test, e.g. demonstrate skills within book keeping. Marita shall also bring documentation for completed courses, if any, during the period she has worked for her husband.

Based on the validation of Marita's working experiences and proofs of successful tests within relevant subjects, the VET centre/counsellor can decide to provide her with exemptions-credits if she decides to start on a VET profession within accounting or similar topics.

5. European discussion/specific contexts/perspectives

5.1 Introduction to NQF implementation in Denmark

In March 2005, it was decided to develop a National Qualification Framework in Denmark based on the Bologna Process. Hence, this part of the qualification framework identifies and describes the five levels, which can be achieved within the Danish system for further education. This process is taking place and in alignment with the general European Bologna framework for further education as well as the EQF.

By the middle of 2010 all public recognised degrees and education and training certificates in the Danish educational system should be classified in a national qualification framework (NQF). This has been achieved.

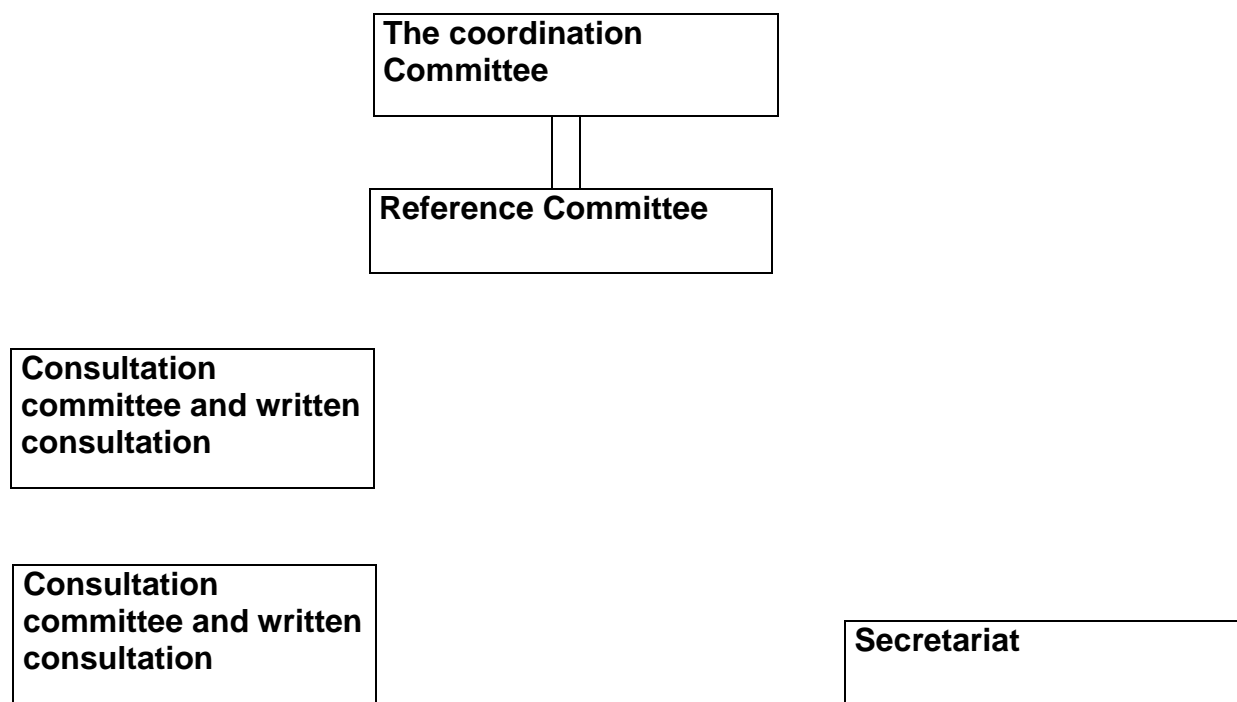
As to VET, a proposal for a qualification framework with a view of supporting categorisation and enhance recognition of vocational education was prepared in 2006. This took part as a follow up of the launching of the Danish strategy for globalisation. Here it was recommended that further activities concerning setting up qualification levels within VET should be coordinated and integrated with the on-going process of setting up a national (Danish) qualification framework.

The EU conceptual framework for the initiatives is based on the fact that the implementation of ECVET is subject to voluntarily principles and reflecting that EU countries have different approaches of defining, naming and describing their qualifications. Hence EQF and ECVET shall be perceived and utilised as instruments to support transparency and mobility.

Denmark has chosen to set up a national qualification framework for lifelong learning parallel to the framework for further education. Consequently all the levels of EQF 1-8 will be included in the Danish framework for Lifelong Learning.

On behalf of the ministries comprising the coordinating committee of the NQF, the Ministry of Education initiated the NQF referencing process to the EQF and formally requested the Danish Evaluation Institute (EVA) to organise and facilitate the process.

The referencing process in Denmark was organised in five tiers:



The coordinating committee, with representatives from the relevant ministries, held overall responsibility for the NQF referencing process. The ministries in question are:

- Ministry of Education
- Ministry of Science, Technology and Innovation
- Ministry of Culture
- Ministry of Economic and Business Affairs

The national referencing process was conducted by a referencing committee. The main task of this committee was to verify how the NQF refers to the EQF. The referencing committee consisted of representatives from the relevant national authorities and agencies, as well as two international experts.

A consultation committee, comprised of key Danish stakeholders, was set up to engage stakeholders in the referencing process and to ensure co-responsibility for the referencing of the NQF and the EQF.

The consultation committee participated in a seminar where they were informed about the basis for the referencing process, and their input was integrated into the referencing process. To widen the engagement in the referencing process, the report was sent in written consultation to a broader audience of stakeholders.

A **national coordination point (NCP)** was established under the auspices of the Danish Agency for International Education by the four ministries (the national qualification authorities) represented in the NQF-coordinating committee. The tasks of the NCP, as foreseen in the EQF-recommendation, have in Denmark been divided between the coordinating committee and the NCP.

The Danish Evaluation Institute served as a **secretariat** to the referencing committee and has drafted the final report.

5.2 Principles for NQF implementation

The Danish qualification framework for lifelong learning is meant to serve as a tool for description of both existing and new qualifications developed in the Danish educational system. Hence, the composition of the qualification framework takes the point of departure in the qualification structures, description models and pathways of the educational system. Against this background the NQF shall:

- **Include all public recognised qualifications**
Qualifications in the framework shall be awarded pursuant to a law or a bylaw and subject to quality assurance by a public authority in the Danish educational system. Consequently, the framework will only include qualifications that are public recognised and hence subjected to a public recognised quality assurance system.
- **Take into consideration the diversities and development of the educational system**
The Danish educational system includes a variety of educational programmes, institutions and stakeholders. Different objectives reflect different management systems and pedagogical procedures and shall be embraced by the qualification framework. The skills demands in the labour market and the educational structure change continuously and the framework should be able to adapt to this development.
- **Describe learning outcomes and pathways to achieve this**
The qualifications on a specific level shall be described by learning outcomes. Each level describes the grades or certificates/diplomas that can be acquired and the general or specific entry requirements for the educational programme. By this the qualification framework will draw attention to educational pathways and options for lifelong learning and additionally support assessment and recognition of prior learning.
- **Correspond to the EQF, the qualification framework for further education and description systems in other educational programmes**
In order to strengthen the transnational mobility the NQF shall refer to the European Qualification Framework. In addition, there shall be coherence with the qualification framework for Higher Education and to the description systems in other Danish educational programmes.
- **Allocate for comparison of qualifications across national educational programmes**
The fabric of the framework shall make it possible to categorise a qualification irrespective of in which part of the educational system the qualification has been acquired. This means, that the levels of the qualification framework should be defined/described in a simple and systematic way and at the same time covering all Danish educational pathways.

5.3 Levels in the Danish Qualification Framework for Lifelong learning:

In alignment with EQF the Danish Framework uses 8 reference levels. Like in EQF, the key concept of the levels is the introduction of learning outcomes defined in terms of **knowledge, skills and competences**. This approach shifts the focus from input (lengths of a learning experience, type of institution) to the particular qualifications of a person and for what he/she is able to do (output).

Methodology for level descriptions

Knowledge	Skills	Competences
Nature and complexity Consider if the knowledge is based upon theory or practice? Specify if it is knowledge within a subject, subject area or a trade? How complex is this knowledge?	Nature Consider if the skills are practical, creative or communicative?	Space for action In what kind of working-related or study context can knowledge and skills be activated?
Understanding To what extent can the knowledge be put into a context?	Problem solving The extent of the level's complexity in relation to the ability to assess and select knowledge?	Cooperation and responsibility To what extent can one be responsible for both own and others' work? The complexity of working relations that one can enter into?
	Communication Which target groups can be reached In terms of communication and what is the complexity of the communication and what means are applied to in the communication process?	

5.3.1 The concepts of "full-fit-principle" and "best-fit-principle"

Two principles are adhered to when qualifications are categorized in the Danish Qualification Framework for Lifelong Learning vis-a-vis EQF categorisations:

- " The full-fit-principle"

And

- "The best-fit-principle"

The full-fit-principle

The framework for lifelong learning operates with both the terms degrees and education/training certificates. "The full-fit-principle" refers to degrees within the area of further education and is defined in the general Danish framework for further education and the degrees included are Academy Profession Degrees, Bachelor, Master and PhD. In addition, these educations are included in the Danish system for accreditation and quality assurance and are directly transferred to levels 5-8. As to level 5 this is a kind of grey zone area between the "full-fit-principle" and "the best-fit-principle". See more below.

The best-fit-principle refers to education/training certificates and applies to the rest of the educational system. The classifying of education/training certificates is based on the principle that full match between the outcome of the specific qualification/profession and the general principles for the level specification in the framework is not necessarily in place. "The Best-fit-principle" is also used when certificates for supplementary qualifications achieved by continuing education.

5.4 The classification of the Danish Vocational System

All public recognised degrees and education and training certificates in the Danish educational system should be classified before the end of 2010. The VET programmes are part of the implementation and the stakeholders have completed the classification process of the approximately 125 programmes.

The process took place within the overall management framework of the Danish VET system – the dual system – which involves distribution of authority between the Ministry of Education and the social partners (trade committees). More specifically the Ministry was responsible for the general framework e.g. management, structure and objectives of the programmes and the trade committees lay down the detailed content of their specific education and training programme.

This set-up obviously called for a close cooperation between the Ministry of Education and the trade committees, a cooperation which is deeply rooted, long lasting and effective, and thus well suited for the implementation of the NQF and the ECVET activities to come. Although the long tradition for cooperation, this process was not seen so positive by all stakeholders, especially the educational trade committees, as referred to above in section 2.

The trade committees for the various trades have finalised the process of classifying the VET programs with the following three tasks:

1. Classify the VET programme in the NQF framework
2. Describe the programme
3. Change the certificates for the journeyman test to assure that NQF levels are included in the description.

It is already mentioned that concept of competence is perceived and used in different ways in the NQF and in the VET programmes. This challenge is dealt with by using the "**best-fit-principle**" (as referred to above) and in accordance with the following two assumptions:

All professions and their specialisations are expressed as final learning outcomes achieved by the combination of school education and workplace training. The NQF level shall be decided by breaking down the final learning outcomes into: knowledge, skills or competences and in way that a learning outcome can include more than one of the three specifications.

The approach is demonstrated below by using a few of the many competence areas/objectives (NQF) - learning outcomes (EQF) from a VET profession mentioned above – the Joiner/cabinetmaker

Learning outcome/competence area – joiner/cabinetmaker	NQF level
1. Set up, operate and maintain commonly used hand-tools, electrical tools and standard machines either in, the workplace or on the construction site	Level 3 Skills
2. Carry out measurement, assembling and erection of pre-fabricated indoor staircases in building of apartments in compliance with environmental procedures	Level 4 Skills
3. In cooperation with others solve problems linked to sketching, documentation and planning of production of a seat-furniture	Level 4 Competence
4. In cooperation with others solve problems linked to sketching, documentation and planning of production of a seat-furniture	Level 4 Skills/knowledge
5. Use and understand a foreign language in work and societal relations	Level 4 Skills
6. Make analyses by using electronic drawings and calculation and carry out design works taking into consideration relevant topics within the trade and including styles from craft, architecture and industrial design.	Level 5 Skills

The above extracts document only a part of the total scheme for all competence areas/learning outcomes in the Danish VET joiner/cabinetmaker profession and by making use of the "Best-fit- principle".

The expression best-fit implicates that discretion to some extent will take place when the classification takes place and that the definitions in the true sense – as defined in the EQF/NQF terms – not necessarily will be the case in the transfer of VET qualifications.

As one can see from the extract above level 3, 4 and 5 are represented. As the Trade Committees have just started the process of applying their competence framework to the NQF context, there is no general overview of the situation. Still it is expected that the VET professions in general will score high on "skills" and "competences" while "knowledge" in some cases will obtain a lower score.

Additionally it was foreseen that the majority of the "scores" will be on level 4, some on level 3 and few on level 5 as indicated in the scheme above. This has also turned out to be the case.

Following the classification of the VET professions, the trade committees have included the NQF levels in the certificates.

Specific attention should be paid to the journeyman's test which is the final examination for all the technical trades in Denmark. The test is designed to determine whether or not an individual possesses the knowledge, skills and competences necessary to work as a certified craftsman within the specific trade. Besides being the final test it also involves assessors from the trade itself, usually one representative from labour organisations and one from employers' organisation. This certificate shall also be labelled according to the NQF.

5.5 ECVET in Denmark

First of all it should be emphasized that the ECVET implementation in Denmark is still in an embryonic phase. As outlined above, the Danish Educational Trade Committees supported by the Ministry of Education have just finalised the process of categorising and grading the learning outcomes into the NQF template.

Most likely the ECVET implementation will speed up when all the VET professions have finalised the NQF categorisation. Up till now Danish ECVET experiences have been achieved via participation in some/few of the many EU Leonardo ECVET pilot projects.

Specific reference shall be made to one of the projects "Painting skills comparison. The project had partners from Denmark, Germany, Italy, Norway, UK and Spain. Like in other projects the partners encountered problems and challenges in comparing and recognising the other countries' systems and approaches. In spite of this, the project succeeded in setting up common EQF descriptors for the painting trade and a proposal on how the ECVET can be integrated into the painting trade. Still the project faced some problems in using the ECVET credit points and hence invented its own point system

Annex 1: List of persons interviewed:

Benedikte Sølberg – Senior Consultant	Industriens Uddannelser – Secretariat for educational VET professions within the industry
Benny Mølgaard – Counsellor	VET college Aarhus
Henning Gade – Vice- director	Danish Confederation of Danish Employers
Eva Bruselius - Counsellor	University college Metropol
Jan Reitz Jørgensen – Chief Consultant	The Ministry of Education
Lea Clausen - Counsellor	VET college Copenhagen
Louise - Student	Student at University College Metropol
Martina Andersen - Student	Student at the Syddansk University
Nils Kruse – Senior Consultant	Ministry of Science, Innovation and higher education
Niels Håkonson - President	Danish confederation of painters
Morten Smistrup – Senior Consultant	Danish Confederation of unions
Ole Draborg - Manager	Employers Association for painters
Per Clausen – Head of unit	The secretariat for educational training committees with in the commercial area.
Poul Monggaard- President	President for the hairdressers' union in Denmark
Søren Hansen – Counsellor	TEC – Copenhagen – VET College

