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National Authorities for Apprenticeships:

Policy learning and support promoting apprenticeship under EAFA.

Attachment 3.2

Erasmus+-Project "National Authorities for Apprenticeships: Policy learning and support to promoting apprenticeship systems and VET policy experimentation under the European Alliance for Apprenticeship".

Synthesis report

Draft country report - Denmark

1. Country context

1.1. Economic context

Population development

January 2015, the Danish population was approximately 5.66 million with an increase during the last two decades. A population growth of 4.4% is projected for the coming decade due to immigration and improved fertility rates. Like other EU countries Denmark is impacted by a change in demographics. To offset the negative impact, the government increased the retirement age to 67 years with the 2009 Welfare Agreement.

In 2014, foreign immigrants comprised 11.1 pct. of the Danish population. Of these 54 pct. originate from another western country. Turkey is the most common country of origin, followed by Poland, Germany and Iraq. Providing education and training opportunities to people with a non-Danish ethnic background to ensure their labour market integration continues to be a policy priority. (http://www.uvm.dk/Om-os/Ministeriets-udbud/~media/UVM/Filer/Om%20os/PDF13/Udbud%20helhedsorienteret%20undervisning/130627_Bilag_3_Baggrundsmateriale_Helhedsorienteret_undervisning.ashx or <http://www.uvm.dk/Uddannelser/Gymnasiale-uddannelser/Fakta-om-gymnasiale-uddannelser/Gymnasial-supplering/GIF>)

Working population

In 2014 the workforce was 3.636 million out of which 790.000 received various forms of public benefits and belonging to the category "outside the workforce". The Danish labour market is characterised by a high female participation. In 2014, the employment rate for women in Denmark was 68.3 pct. and 74.3 pct. for men. Unemployment rates are again decreasing after a rise during the financial crisis. In June 2015, the unemployment rate was 6 pct. Youth unemployment was at 10.3 pct. Compared to the rest of EU, unemployment numbers remain well below EU-28 average with figures of respectively 9.6 pct. and 20.7 pct. (Eurostat, June 2015). Labour market reintegration of long-term unemployed- particularly low skilled and activation of the young neither in employment or education is a high policy priority, and in the past years a number of measures have been introduced e.g.



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<http://www.uvm.dk/~media/8CA0364009074CD68D6DDD151234987C.ashx> (Ungepakke 1 og 2).

Labour market

69% of Danish companies are SMEs with less than 5 employees. This group of companies represent 12 pct. of the total number of jobs. Three pct. of the Danish companies constitute 'larger corporations with more than 100 employees'. They employ 65 pct. of the labour force. The large corporations are found in pharmaceuticals, manufacturing and financial services mainly within sectors such as public administration, education and health and placed in larger cities in Denmark. Urbanisation seems to continue with large building projects as the Metro in Copenhagen, Airtrain (Højbanen) in Aarhus and the building of large so-called Super Hospitals in larger towns (Supersygehuse). This is accentuated by a general tendency to polarization in Denmark. Municipalities in the outskirts of Denmark (the islands south of Zealand and North Jutland) are according to The Economic Council of the Labour Movement (Arbejderbevægelsens Erhvervsråd), expected to see a decrease in the workforce by 15-20 pct. within the next 10 years, whereas the larger cities as Copenhagen and Aarhus in the same period are expecting an increase in the workforce by 10 – 20 pct.

The vast majority of the population in Denmark is employed in public administration, education and health (33.9 pct.) and trade and transport (22.5 pct.). These are also areas where a large part of the workforce with a vocational education as highest educational level is employed and it is also here where projections in a prognosis from 2013 from the Economic Council of the Labour Movement are pointing out there will be a shortage of skilled labour with VET qualifications in Denmark in 2020¹. Based on that analysis, the Confederation of Danish Industry (Dansk Industri (DI)) has calculated that the VET institutions already from 2014 are obliged to educate and train 41 pct. more apprentices in trade and 127 pct. more apprentices in the industry to meet the needs of the labour market². There is already a shortage of skilled labour in trade in the Capital Region and a shortage of especially industrial technicians and metalworkers in The North Denmark Region³. One reason is that about 20 to 25 pct. of the skilled labour in the industries are above the age of 55 and are expected to retire within 5-8 years.

To address and solve labour market related problems, the Danish Parliament has recently passed two big reforms: 1) In 2013: a reform of the unemployment benefit system aiming to enhance the provision of labour and 2) January 2014: a social reform have the consequence that unemployed people under the age of 30 who receive social benefits will be obliged to get an education.

¹ http://www.ae.dk/files/dokumenter/analyse/mangel_paa_faglaerte_jern_og_metalarbejdere.pdf

² <http://publikationer.di.dk/dikataloger/56/%20samt%20http://www.kl.dk/menu/Mangel-pafaglaerte-vakker-stor-bekymring-id120144/>

³ (Industriens Uddannelser: Demografi og mangel på arbejdskraft i industrien, Januar 2013)



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1.2. Political and social context: the apprenticeship system

Vocational Education and Training, VET, is under the Ministry of Education's jurisdiction, which maintains close dialogue with the social partners to respond to labour market needs. The Danish VET system is characterised by a high level of stakeholder involvement. Social partners, vocational colleges, teachers and students are all involved in developing VET based on the principles of consensus and shared responsibility. At national level, stakeholders play a key role in advising the Ministry of Education on overall VET policy and determining the structure and general framework for training programmes within their field, by cooperating in national trade committees. At local level, the VET-colleges and the Local Training Committees cooperate in developing local curricula to respond to local labour market needs.

A short history of the apprenticeship system

During history, a number of initiatives and formal acts have formed the apprenticeship system. The roots can be found in the guild system in the Middle Ages and has developed through time to what it is today.

In recent years there have been three major reforms of the VET-system in Denmark:

- Reform 2000 was introduced in 2001. It had a heavy focus on individualisation, flexibility and modularisation of basic courses within the programmes. The reform had only limited success and through the 2000s there was an increase in drop-out rates and a decrease in the number of applicants to VET.
- The second reform was introduced in 2008 trying to structure and reduce the many different vocational pathways into 12 main areas. But the decrease in applicants to VET continued. Of a youth cohort, more than 30% applied for a VET programme in 2000. In 2015 it had decreased to 18.5 pct.
- Consequently, the government had to continue focusing on VET and the third and recent reform "Improving Vocational Education and Training" was passed in Parliament in 2014 with a strong focus on attractiveness, reaching the full potential of students, increased permeability and attractive youth education environment. The reform was followed by a marketing campaign highlighting the urgent societal need for young people with vocational skills, the high professional level at the VET-colleges and the career possibilities beyond the different trades.

VET-colleges

In Denmark there are around 110 institutions offering VET programmes at upper secondary level under the jurisdiction of the Ministry of Education, these include:

- 26 business colleges
- 21 technical colleges
- 19 combined colleges, e.g. both business and technical department
- 10 agricultural colleges
- 16 basic healthcare colleges
- Several specialised institutions such as hairdressers' school (Ministry of Education, 2014)



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There are 106 vocational education and training programmes, specialising in areas such as:

- Car, airplane and other means of transportation
- Building and construction
- Body and style
- Media production
- Mercantile
- Production and development
- Power, management and IT
- Health, care and pedagogy
- Transport and logistic

Companies with and without apprentices

In 2012, there were 301.000 companies in Denmark. 97.000 of the companies had VET-skilled workers employed, but only 22.000 companies had apprentices - that number further decreased to 21.000 in 2014.

In February 2014, a total of 82.689 students were attending a main course in a VET-college. 74.456 had a training agreement with a company; while 6.681 were doing school based practical training at a Centre of Placement (UVM, 2014).

The division between the different trades was in 2012 the following: 35 pct. were apprentices with a training agreement in trade and transport, 23 pct. in construction, 12,4 pct. in industry, 12 pct. in public administration, education and health, 5.6 pct. in agriculture and 12 pct. in other services.

If we look at the geography, the North Denmark Region and Central Denmark Region have the largest number of apprentices compared to the number of VET skilled workers they have employed. They have 8.9 to 13 apprentices for every 100 VET skilled workers. The Capital Region has the lowest number of apprentices. They hire 4.7 apprentices for every 100 VET skilled workers.

1.3. The overall education system and the VET system

The Ministry of Education has regularly meetings with EU colleagues – not least through the Open Method of Coordination (OMC) which ensures that ministers of education meet, share experience and set-up common goals for the future. Denmark is following and continuing supporting the Copenhagen Process, ET 2020 and the European Tools. The recommendations from EU have a big influence on the Danish educational policy and play a significant role in the development of VET in Denmark.



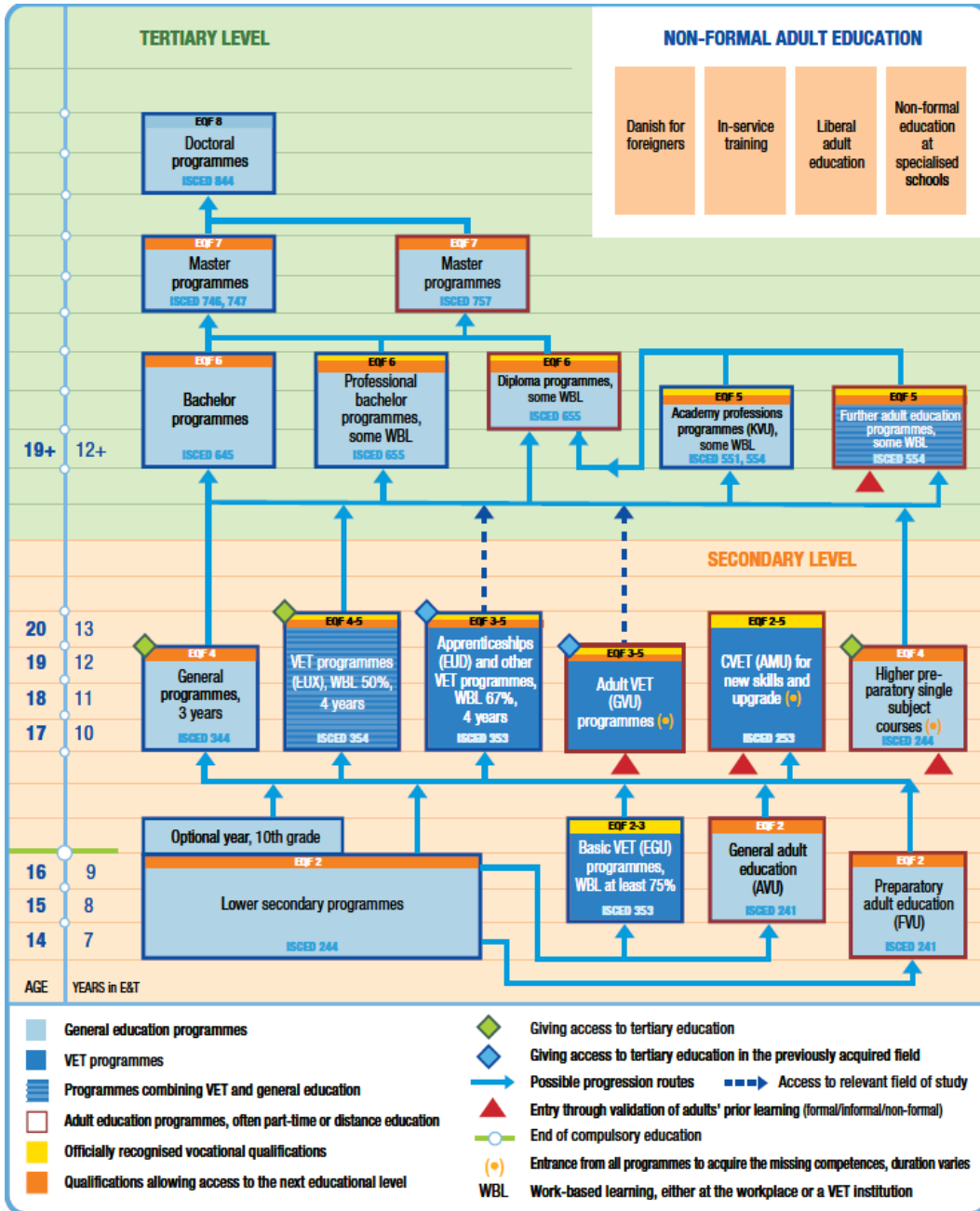
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Cedefop 2015: correction: Adult VET (GVU) has changed name to EUV and has a duration of 3-5 years



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Initial VET is organised in 4 basic subject areas:

- Care, Health and Pedagogy
- Office, Trade and business Service
- Food agriculture and experiences
- Technology, construction and transportation

The main programmes are organised according to the dual principle, alternating between periods of college-based learning and work-based learning (apprenticeship training) in companies. The duration of the main programmes is typically 3 – 3.5 years, but can be shorter or longer for certain programmes (from 1.5 years and up to 5 years). The main programmes vary from EQF-level 3-5. In order to complete a main programme, the student must have a training agreement with an approved company which offers training. In general up to 75 pct. of a VET programmes is taking place in a company. Individual study plans are compiled for all students, with VET-colleges and the Local Training Committees sharing the responsibility for developing curricula to ensure responsiveness to local labour market needs. Qualifications at this level can provide access to relevant fields in academy profession (KVU) programmes or professional bachelor programmes at tertiary level. All programmes⁴ offer an alternative pathway where young people can obtain both general and vocational upper secondary education (EUX), thereby providing full access to both higher education and the skilled labour market.

CVET consists of a number of different forms of formal and non-formal types of vocationally oriented continuing education e.g. labour market training schemes and continuing professional development for VET teachers. CVET contributes to maintaining and improving the vocational skills and competences of the participants in accordance with the needs on the labour market. It contributes to solve labour market restructuring and adaptation problems in accordance with the needs on the labour market in a short and a long term perspective and it gives adults the possibility of upgrading competences for the labour market as well as personal competences. This can be obtained through formal as well as more informal qualifications within the VET system.

⁴ EUX will be introduced to Social and Healthcare by 2016



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2. Key features (14-16 pages)

2.1. Governance of VET and regulatory framework

Governance

The Danish VET system is organised according to the dual principle, meaning that the social partners play a key role in relation to both content and organisation of VET. It is characterised by a high level of stakeholder involvement where not only the social partners, but vocational colleges, teachers and students are involved in development of VET qualifications based on consensus and shared responsibility.

The stakeholders are⁵:

The Ministry of Education: The Parliament sets out the overall framework for VET which is administrated by the Ministry of Education. The Ministry of Education has overall parliamentary, financial and legal responsibility for VET, laying down the overall objectives of the programmes and providing the legislative framework within which stakeholders, social partners, colleges and companies are able to adapt curricula and methodologies to labour market needs and students.

The Social Partners: The social partners play a central part in the management and development of the VET-system in Denmark. It is to ensure that the training content at any time correspond to the requirements of the labour market and to ensure that the transition from education to employment happens smoothly. All social partners are represented in Advisory Council for Initial Vocational Education and Training (REU) which consist of employers and employees organisations, Regions, Municipalities, Trades and teacher- and students' organisations.

The VET-colleges: The VET-colleges are self-governing institutions and they are led by governing boards with the overall responsibility for the administrative and financial running of the college and educational activities in accordance with the legal framework by the Ministry of Education. They assume everyday responsibilities for teaching and examination.

Regulatory framework

There are four overall objectives for VET.

1. More students must choose to start a VET programme immediately following 9th or 10th grade from compulsory school.
2. The completion rates must be improved from 52 pct. in 2012, to 67 pct. in 2025.
3. VET must challenge all students so they may reach their fullest potential
4. Objective is that the trust and well-being in VET must be strengthened⁶.

The regulatory framework around VET in Denmark consists of the following 4 laws:

- 1. The "Vocational Training Act" (lov om erhvervsuddannelser) sets up the framework of VET including the overall goals, admission rules and structure. It also stipulates the

⁵ Will be describes in more details in 2.2

⁶ Improving Vocational Education and Training, UVM 2014



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roles of the advisory boards, companies, centres of placement etc. In addition, the act states that the minimum wage for apprentices is a question for the collective agreement for the trade (§ 55). The newest revision of the training act has set up the following goals;

- to motivate the choice of a VET education and the possibility to choose between larger numbers of vocational programmes
 - to give VET-students an education that can provide them with the basis for their future working life, including establishment of the opportunity of self-employment
 - to contribute to the future VET-students interest and ability to participate actively in a democratic society and contribute to their personal development
 - to meet the labour markets needs of vocational and general qualifications taking into account the professional and social development, including the development of business structures, labour relations, workplace organisation and technology, as well as an innovative and creative workforce
 - to provide the VET-students with the knowledge of international world of work and relations and the possibility of studying and working abroad
 - to provide the VET-students the basis for further education⁷
- 2. The Act on general upper secondary exam in connection with vocational education and training (EUX)" (Lov om studiekompetencegivende eksamen i forbindelse med erhvervsuddannelse (eux) mv., clarifies the common provisions of teaching at general upper secondary level at VET-colleges and thereby constitutes the framework for EUX.
 - 3. The "Act on Employers' Reimbursements Funds" (lov om Arbejdsgivernes Uddannelsesbidrag) is securing the apprentices wages in the college-based periods of the VET programme
 - 4. The "Act on Institutions of Vocational education and training" (Lov om institutioner for erhvervsrettet uddannelse) is stipulating the framework for the self-governing institutions and the school-boards.

Furthermore, it is stated in the "Vocational Training Act" that apprentices are obliged to have a signed contract with the employers in order to secure the same protection as the rest of the employees. If the apprentice is placed or posted abroad by a Danish company during the placement, then his/her liability insurance is covered by the sending company. But there are still pending issues regarding the liability insurance when it is the VET-institutions that are sending students abroad.

VET-research

The Danish research community within VET is quite fragmented with researchers at most of the universities but only limited coherent research directly aimed at VET going on. Since 2012, it has been possible for the university college sector to do research and there has been

⁷ Bekendtgørelse af lov om erhvervsuddannelser, formålsparagraffen løst oversat



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allocated money to establish research as a mean to strengthen and research base the educational programmes on provision at the university colleges. ([See list of UC here](#) – link to toolbox). The Danish National Centre for the Development of Vocational Education and Training (NCE) at the Metropolitan University College has prioritised to develop a knowledge centre for VET and has since 2013 initiated research projects and employed a number of younger researchers to establish the foundation for the knowledge centre. Besides the universities (notably Roskilde University and Aarhus University), there are also a number of other institutions conducting research in VET. One of them is KORA – Danish Institute for Municipalities and Regions analysis and research (Det Nationale Institut for Kommuner og Regioners Analyse og Forskning) who has been given the task to follow the implementation of the 2014 VET-reform (www.kora.dk). Another one is EVA – The Danish Evaluation Institute (Danmarks Evalueringsinstitut) who is conducting systematic evaluations of education in Denmark (www.eva.dk). The Ministry of Education has also a large statistic database.

2.2. Business, social partners and state cooperation

The responsibility for the content of every individual VET-programme, the duration and the structure of examinations, etc. is divided between the Ministry of Education, The Advisory Council on the Initial Vocational Education and Training, The Trade Committees for the individual programmes and the VET-colleges approved to offer education.

The Ministry of Education is responsible for ensuring that VET-programmes have the breadth required for youth education programmes and for allocating resources, as well as setting the framework for the VET-colleges educational, economic and legal management. The Ministry of Education are funding the college part of the VET-education and they are responsible for the quality assurance.

The Advisory Council on the Initial Vocational Education and Training (Rådet for de Grundlæggende Erhvervsrettede Uddannelser (REU)) is a council where all the stakeholders in VET are represented. The Advisory Council has according to the Vocational Training Act the responsibilities on advising the Ministry of Education on principal matters concerning VET. The Advisory Council monitors the developments in the society and highlights trends that are relevant to VET and makes recommendations to the Ministry of Education regarding establishment of new VET programmes, adaptations, amalgamation or discontinuation of other VET-programmes. The Minister of Education is obliged to listen to the Advisory Council about approval of different VET-programmes at VET-colleges and which VET-programmes should be able to provide practical placement at the Centres of Placement and which VET-programmes should have restrictions to access. The Advisory Council consists of one chairman and 31 members from the social partners, employers and employees associations, municipalities, regions and teacher and students associations. ([se link to REU and list in toolbox](#))

The Trade Committees (faglige udvalg) constitute the backbone of the VET system. 56 trade committees are responsible for 106 main courses. The committees are formed by labour market organisations (with parity of membership between employer and employee



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organisations). They are responsible for the main programmes, specialisations, duration, structure, examination, level of competence to entrance the main-programmes etc.

The Local Training Committees are ensuring close contact between the VET-colleges, the local community and the particular local labour market needs.

VET-colleges responsibility is divided into two levels: The governing board and its management. The VET-college enrolls students and receives training agreements from the local companies who have apprentices. In close cooperation between the VET-colleges and the Local Training Committees the specific content of teaching is agreed as well as possible adjustments of the education.

The governing board has the responsibility to decide on the institutions range of programmes, activities and capacity and it is responsible to ensure sound management and approve budget and accounts.

The Management the Head of the VET-college must ensure that it is managed and developed in accordance with the VET-college's objectives and the strategies the governing board has set.

The companies have an overall responsibility to ensure that there is educated skilled labour⁸ according to the labour market's needs. It is the local companies who have a responsibility to take apprentices after the single company's best ability. And when a company has an apprentice it is their responsibility to train the apprentice according to the training agreement.

2.3 Financing of VET/apprenticeships

There are two main actors in the financing of the apprenticeship – the Government and the employer. There are no tuition fees for students.

The school-based part of the vocational education and training programmes is financed by the state on the basis of a taximeter system (pay per student).

The student receives wages from the company for his or her work during the practice placement. The Employers' Reimbursement Fund reimburses the company for the trainee's wages when the student is attending college. All companies, both public and private, contribute a fixed annual amount to this fund for each of their employees. The students are expected to finance their wages through productive work during their placements.

Financial support to VET-colleges

The Danish VET-colleges are self-governing institutions⁹ and the system is a so-called goal and framework system, meaning that VET-colleges are supposed to stick to goals and to work in accordance with the agreed framework. As long as they do that, they have a lot of autonomy. The governing board is in charge and hence responsible for the schools economy, administration, staff, buildings, equipment etc., and they are accountable to the Ministry of Education.

VET-colleges in Denmark are funded by the Ministry of Education by a basic grant for being a VET-college, and by five different taximeters related to the number of students attracted by

⁸ It is a cultural habit and an unwritten rule

⁹ <https://www.retsinformation.dk/forms/r0710.aspx?id=135346>



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the college: 1) student-taximeter, 2) completion-taximeter, 3) common costs-taximeter, 4) building-taximeter 5) the Centre of Placements-taximeter.

The basic grant varies from college to college. The big colleges get more than the small ones. The first four taximeters are allocated in accordance with the number of students. The fifth taximeter is an economic incentive for the colleges so that they receive extra funding through the taximeter system if the centres of placements manage to increase the number of training agreements with companies.

Based on the annexes to the state budget for 2015¹⁰ it is illustrated that there are rather big differences between basic and main programmes (placement), and again major differences between the different educational programmes.

Financial support for apprentices

The Danish system is a dual system. It is based on the idea that employers have an interest in the best possible labour force, and therefore willing to take an active part in the training of apprentices.

The first part of the training is college-based (20-40 weeks), the second part is practice-based and will in principle take place in practice in a company (in most cases three years) – based on a contractual agreement between employer and apprentice.

The employer pays the apprentice a salary in the whole contractual period. According to collective agreements, apprentices' salaries are regulated - as a minimum salary¹¹. This means that the employer can pay more if s/he wants to do so, but not less. The specific salary must be mentioned in the contract between apprentice and employer. It also means that the salary varies from trade to trade due to different collective agreements between trade unions and employers' associations.

Incentives for companies to take on apprentices The Employers Reimbursements Fund

All private and public employers pay to the Employers Reimbursement Fund (AUB) whether they have apprentice or not. The amount is around DKR 3.000 (Euro 400) a year per employee. In periods where the apprentice is attending college, the employer can have large part of the costs for the apprentices salary reimbursed. In that way all companies in Denmark are contributing to the apprenticeship-system

2.4 National Standards - matching supply and demand

In Denmark, there are many mechanisms comparing supply and demand on the labour market and the VET-system as well as forecasting future skills needs. Furthermore, the European Union is conducting a large number of skills and needs analysis and they shape the

¹⁰ <http://www.uvm.dk/Administration/Takstkatalog-og-finanslov/Takstkatalog>

¹¹ See 2.1 Regulatory Framework



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European education agenda and therefore also the Danish approach and policy development within this field.

Assessment/forecasting of skills needs

The process from identification of new skills needs to the introduction of a new qualification is definitely not straightforward – many stakeholders are involved.

The process is a social partnership arrangement with the following actors:

- The Ministry of Education, responsible for VET programmes. In addition, the Ministry financed from 2009 to 2013 a Central Analysis and Forecasting (CAP) initiative aiming at identifying the future labour market needs for skilled workers in order to shape the VET programmes accordingly
- The Advisory Council for Initial Vocational Education and Training (REU)¹² – advisor to the Ministry of Education. Among other important tasks they supply the Ministry of Education with a yearly statement over request and demand in the labour market.
- The Trade Committees¹³ - mainly responsible for describing the National Curriculum, and for initiating revision and change when necessary. Every Trade Committee produces an annual report about the development needs within their trade
- The Local Training Committees – advisor to the local VET-colleges, and co-writer on Local Curricula

Together they are responsible for the identifying the needs and to shape existing and future VET programmes accordingly. They are supported and informed by different institutions such as:

- The Think Tank DEA, with a special focus on “...intelligent and effective investments in research, education and innovation that contribute to higher growth and productivity”¹⁴.
- Copenhagen Institute for Future Studies¹⁵ gathering data, and publishing results about future trends.
- The Danish Technological Institute¹⁶ with a clear focus on how future trends may influence the Danish VET-sector and the qualifications needs

Statistical data about VET will normally be available on the Ministry of Education’s website¹⁷ and on Statistics Denmark¹⁸

¹² REU represents all relevant stakeholders around the VET-system: Employers’ associations, trade unions, regions and municipalities, teachers’ and school-leaders’ organisations, see 2.2

¹³ One committees per occupational areas, representing 50% representatives from trade unions, 50% from employers, see 2.2

¹⁴ <http://dea.nu/taenketanken-dea/the-think-tank-dea>

¹⁵ <http://www.cifs.dk/en/>

¹⁶ <http://www.dti.dk>

¹⁷ <http://uvm.dk/Service/Statistik/Statistik-om-erhvervsuddannelserne>



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Matching supply and demand

The Danish VET-system is a demand-driven system. The good quantitative balance between supply and demand has to do with the number of apprentices and/or the number of placements available - compared to the demand.

Kommentar [kagr1]: Waiting for a description from Jan regarding Central, regional and school level + special financing for the minor trades (a shadow taximeter)

Many different stakeholders monitor the balance. Regions may look at how the situation is in their part of the country, employers' associations and trade unions how it is in their specific trade, universities how it seems to be as a national phenomenon etc. The main responsible actors for monitoring are the social partners (not least the Trade Committees) and the Ministry of Education. The Danish Agency for Labour Market and Recruitment has a website where they monitor the occupational balance. It shows job opportunities and corporate recruitment situation in the 8 regional labour market areas¹⁹.

If there are too many students applying in some areas, it is possible for the Ministry of Education to set limits for the VET-colleges' intake of new students, if there are too few qualified apprentices available for the companies, new educational programmes must be created. However, one major challenge is that within specific sectors and in some areas there are not sufficient training places available. Many companies are too specialized and therefore not able to provide adequate training for apprentices.

In order to cope with challenges connected to the lack of sufficient training places, centres of placement have been introduced in connection with VET colleges. This may lead to over-production of apprentices in some cases. The Ministry of Education can, therefore, set limits for how many students the centres are allowed to recruit in the individual (specific) trades.

Occupational profiles and curriculum design for training

The structure of occupations reflects the labour market and the labour market organisations (trade unions as well as employers' associations). About 106 different training programmes are provided by the Danish VET-colleges.

Occupational standards and profiles are based on the agreement between the Ministry of Education and the Advisory Council for Initial Vocational Education and Training (REU) and they are described as a National Curriculum, by the Trade Committees.

All National Curricula are described in terms of competence (learning outcomes), by using a specific template, provided by the Ministry of Education. The descriptions are supposed to ensure that all VET-programmes are in accordance with labour market needs and the legislation (including innovation and internationalisation).

Competence-goals for both the school-part and the practical part are described, and so is the duration and structure (including how much time spent in school, how much in practice) for

¹⁸ <http://www.dst.dk/da/Statistik/emner/fuldtidsuddannelser/erhvervsuddannelser>

¹⁹ <http://arbejdsmarkedsbalancen.dk/>



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all educational programmes. The Trade Committees are responsible for this but they are not totally autonomous – curricula must stick to the legislation²⁰.

The National curriculum is delivered at the local level where VET-colleges in cooperation with the Local Training Committees are producing the Local Curriculum (lokal undervisningsplan), which reflects local conditions and ambitions. The Local Curriculum is the basis for what teachers and students must work with in order to give students the qualification in question and it is put into student-plan (elevplan), an electronic national instrument to which teachers, students and companies have access. There may be individualised and personal educational programmes for some students.

The Ministry of Education has a special focus on how, and to what extent, ICT is used. All VET-colleges are expected to describe it as part of the compulsory documentation of quality assurance of the Ministry of Education.

Within the competence-framework set by the Trade Committees, there is space and opportunities to adapt to school-specific and/or local wishes (the Local Curriculum). Schools are supposed to present (to the Ministry of Education) their pedagogical-didactical basis (strategy), in which such things are described.

In-company training plan and school curriculum design

The basis for practice placements is a contract, signed by the employer and the apprentice, registered by the school, and kept there. After registration, student and employer get a copy of the registered contract.

Apprenticeship (school-based as well as company-based) must take place in accordance with the legislation and follow apprenticeship-rules set by the Ministry of Education and decided by the trade committees. The rules must specify the competence goals, described by the Trade Committees, and the work and functions that must be included in the placement programme. The rules must ensure that school-based training and company-based training complement each other and must also include rules for cooperation between school, student and enterprise.

Contents from the alternating periods can be coordinated by using Student-plan (elev-plan) an instrument where the school (first and foremost the teachers) can provide:

- Overview of students programme and the specialities chosen
- The personal student-plan and the local curricula
- Overview of competence goals to be achieved during the placement period
- Overview of students' absence

²⁰ <https://www.retsinformation.dk/Forms/R0710.aspx?id=167575>



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If teachers, students and employer have access to this instrument, and actually use it, coordination is rather effective.

Another instrument used is the Placement Statement (praktikerklæring), containing what the apprentice has been doing and with what results, in a given period.

The statement must be signed and given to the VET-college after each practical period. To make communication and coordination easier, the Trade Committees recommend using a log-book in which the apprentice fills in what activities have been conducted, and the employer fills in an assessment of the apprentice.

By using the log-book, college (teacher), apprentice and employer (trainer) have a good basis for communication and coordination.

Assessment/examination and certification of training

Tests/exams must be seen in relation to the purpose of the programme. Exams therefore, are different from programme to programme. There are different kinds of exams: Oral, written, oral based on projects and a Journeyman's test.

All exams must reflect to what extent the goals/objectives are met. In the Local Curricula it must be stated 1) what kind of exams, 2) the number of exams and 3) what is required to get the qualification.

Tests and exams will normally be organised by the VET-college. The Trade Committee is responsible for the Journeyman's test but the actual test is agreed between Trade Committee and VET-college. The Trade Committee chooses the external examiners, and they also pay all costs related to their participation in the test.

After successful termination of a school-period, participants get a School- certificate (skolebevis). After finishing the whole programme, students get an Education-certificate, including the School-certificate, the Placement certificate (based on the placement Statement and/or log-book) a letter of trade, and, if conducted, the Journeyman's certificate. Papers will in most cases be issued by the VET-college or in some cases by the trade committee. The Education-certificate proves that the apprentice is now a skilled worker, and can be employed accordingly.

2.5 Programmes and pathways in the apprenticeship system

The Danish VET system is part of the overall youth education system and aims at developing general, personal and vocational skills. The system is based on 3 main principles; the dual training-principle, social partner involvement-principle and life-long-learning-principle. The apprenticeship curriculum leads to a formally recognized qualification and it is included in the National and European Qualification Framework on level 3, 4 and 5. It provides a full set of knowledge, skills and competences to give access to a specific occupation that is recognized



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by employers. The overall structure of apprenticeship system is divided into the basic programme and the main programme.

The basic programme

The basic programmes are uniform in structure and length in the four main areas. It consists of two parts each lasting 20 weeks. First part (GF1 – Grundforløb 1) is only offered for young people who access VET directly or the latest in December the same year after finishing compulsory school. The course provides general and broad vocational skills and provides insight into the individual industry and it makes it easier to choose the right training in four main areas:

- Care, health and pedagogy
- Office, trade and business service
- Food, agriculture and experiences
- Technology, construction and transportation

The objectives of the basic course GF1 is the same regardless the choice of direction and the student can repeat it if needed. The basic course Part 2 (GF2) is targeted the selected main programme and provides the student with professional and personal skills to ensure the right competences to complete the main programme. GF2 is compulsory (unless the student is aged 25 and complying with specific conditions).

The main programme

There are 106 different main programmes in VET with more than 300 levels and forms of specialisations. The duration of the main programmes is typically 3 – 3.5 years, but can be shorter or longer for certain programmes (from 1.5 years and up to 5 years). The main programmes vary from EQF-level 3-5. In order to complete a main programme, the student must have a training agreement with an approved company which offers training. In general up to 75 pct. of the main programme is taking place in the company and alternated with school-periods lasting typically 5-10 weeks each.

The main pathways in VET are

- Vocational Upper Secondary Education and Training, which is the “main road” and used by the large majority of students, EUD.
- Vocational Upper Secondary Education and Training for people over the age of 25 years, EUV.
- Combined Vocational and General Upper Secondary Education – the EUX-programme. A relatively new pathway used by highly motivated students aiming at obtaining a double qualification. In the reform from 2014 EUX has a high priority and the popularity of the programme is already evident with many young students applying for this programme in the summer of 2015.



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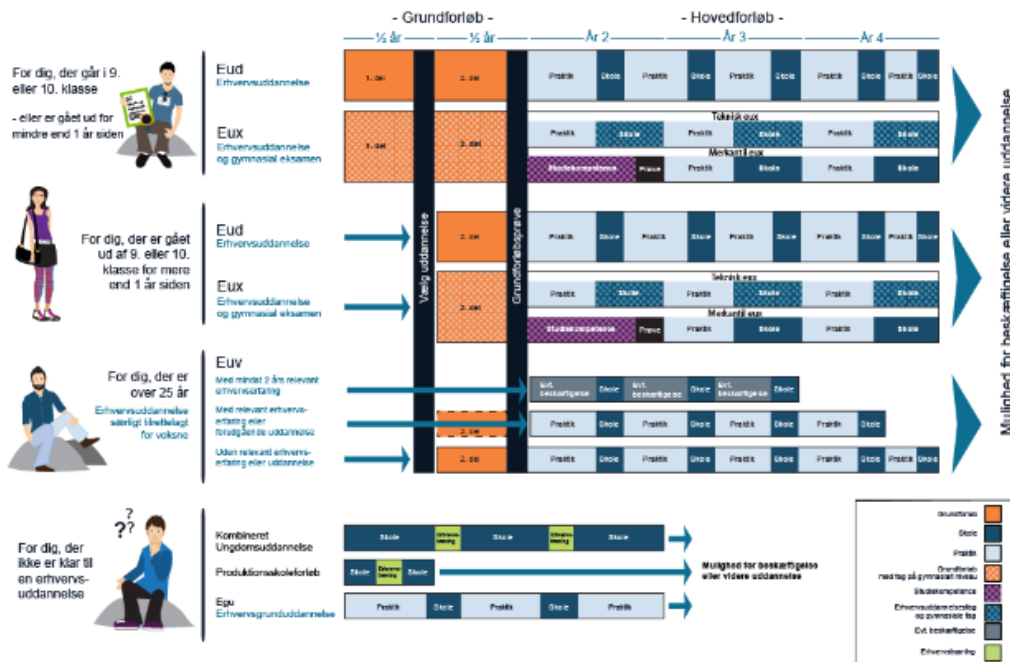
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- 'New Apprenticeship' (ny mesterlære) is used by students with a practical approach to learning.

Erhvervsuddannelser

En typisk erhvervsuddannelse tager 4 år, men uddannelserne er forskellige og kan vare mellem 2 og 5 1/2 år. Der er også forskel på, hvordan praktik og skoleophold er fordelt på de enkelte uddannelser. Mange uddannelser giver mulighed for at vælge et kortere forløb.



Source: UVM 2015

There are 3 exceptions to the dual system in Denmark. 3 out of 106 VET-programmes are entirely college based and the students do not need a signed training agreement with a company: building montage technician, health service secretary and web integrator. It is possible for a number of the VET-programmes to conduct the practical placement at the college in the Centres of Placement. This applies for the following programmes.

Kommentar [kagr2]: Jan provides a list of SKP-VET

Access

Students are required to have the minimum grade of 2 in Danish and in Mathematics from compulsory school or to have a signed training agreement to get accepted at a VET-college. 18.5 pct. of the youth cohort applied for a VET-programme in 2015 and the number of applicants to Eux was 21.1 pct. in 2015 out of the total number of applicants to VET. However, the total number of VET students is higher as a large number of adults enter the VET system



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later in life. According to the Ministry of Education's statistics 54.3 pct. of the students who began an initial VET in the school year 2013/2014 was over the age of 20²¹

Within the first two weeks of the VET programme, the VET-students will be subject to a 'Prior Learning Assessment' (Realkompetencevurdering). The reason is to construct a personal education plan and make sure the student does not have to be taught the same twice. The Prior Learning Assessment can be conducted via conversation, test or practical testing. The assessment can also be made on the basis of the VET-student's previous education, training or employment²².

Pre-VET

There are several initiatives to prepare students to VET-college and to secure that they can achieve the minimum requirements.

Summer school is for pupils who has finished compulsory school but need to lift there average grade in Danish and Math to meet the admission requirements.

EUD10 is a vocational oriented form of level 10 to prepare motivated pupils for VET, so that they meet the admission requirements.

Combined post-compulsory education is an offer for people age 15-24 who do not possess the necessary vocational, social or personal skills to complete a VET or an upper secondary education.

Production Schools are independent institution which main objective is to strengthen the personal development of the participants and improve their chances in the educational system and the ordinary labour marked.

Centre of Placements

In 2013 the Centres of Placements²³ were introduced. Students, who are not able to get a contract with an employer after the school-period, can apply for school-based placement at the Centres of Placement, and finish the practical training there. A centre is part of a VET-college but the idea is that most of the training organised by the centres takes place in companies (as part of the school-based training) or take place as part-time placements, based on contracts between one or more companies and the student. The centres are responsible for organising the training and ensure, that the student obtains the curriculum that is required at the practical part of the VET-programme so that the student can obtain the education certificate and become a skilled worker Part-time placements are like ordinary placements where the employer is responsible for training, and pays a salary to the apprentice.

²¹ <http://admsys.stil.dk/EASY-A/Dokumenter/Skrivelser-fra-UVM/Statistik?smarturl404=true>

²² <https://www.ug.dk/flereomraader/realkompetence/realkompuddannelsesvis/eud-erhvervsuddannelsesomraadet>

²³ http://uvm.dk/Aktuelt/~/_UVM-DK/Content/News/Udd/Erhvervs/2013/Aug/130821-50-nye-praktikcentre-aabner-over-hele-landet



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Youth Guidance Centres (Ungdommens Uddannelsesvejledning UU)

Local authorities must ensure that guidance is provided in order to qualify the choice of youth education and career. There are 51 municipal youth guidance centers to represent 98 local authorities in Denmark. The centers focus on guidance in relation to transition from compulsory to upper secondary education or, alternatively, to the labour market. The main focus is pupils in compulsory school (seventh to tenth grade) where the guidance centres conduct an 'educational readiness assessment' and give individual guidance to the pupils from eight grade who are evaluated as being not ready for an upper secondary education.²⁴ The rest of the pupils are given comprehensive guidance where they are presented with all the different educational pathways including VET.

Permeability

EUX is a possibility for students to obtain both general and vocational upper secondary qualification simultaneously and thereby providing them with full access to both higher education and the skilled labour market. This is one way of securing more permeability in VET. It is also a possibility of obtaining higher level of the different subject while conducting the college part of VET.

Academy programmes (Kort Videregaende Uddannelse, KVVU) lasting 2-2.5 years are offered by the nine business and technical academies (erhvervsakademier) resulting in an academy profession degree at EQF-level 5 ([link 28 KVVU-programmer - TB](#)).

Professional bachelor programmes lasting three to four years are generally offered by seven University Colleges and award professional bachelor's degrees at EQF-level 6 ([list 80 professions bachelor programme TB](#)). Admission requirements for academy profession and professional bachelor programmes are either relevant vocational upper secondary education and training (EUD) or general upper secondary education combined with relevant labour market experience. There can be more specific requirements regarding certain attainment levels within particular general subjects for some programmes (applicants with a VET background may have to supplement with additional general education qualifications). KVVU can provide access to a supplementary diploma degree programmes. The latter allows graduates to build on an academy profession degree to a bachelor-equivalent level in the same field. A professional bachelor's degree, meanwhile, can provide access to certain university-based master's programmes. VET does not provide direct access to university-based bachelor programmes, unless with an EUX qualification.

2.6 Company training and teaching at schools

The majority of the students beginning their education at a VET-college do not have a training agreement beforehand. During the first 20 to 40 weeks the search for a company is going on and must be in place before the start of the main programme.

²⁴ Vejledningsloven, 2014



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Learning in companies

All companies, approved by the Trade Committee, can recruit apprentices. The training environment must be an appropriate training location, with the adequate facilities and qualified trainers available.

Employers can get support from the relevant Trade Committee, the Local Training Committee or the local VET-college. In practice the sector-specific Local Training Committees will be the de-facto decision-makers in the approval process because they know the companies and the local area better than the Trade Committees do.

Companies can get support about almost everything, related to the arrangement (the recruitment process, handling legal aspects, translating occupational standards for the company part of the training related to the internship etc.). Supporters are normally either the VET-college or the Local Training Committee – or their own employers' associations.

It is possible for companies to share an apprentice – either as part of ordinary placement (Combination-agreements) or as part of an arrangement in which the Centres of Placement organise and maybe take care of some training, and two or more companies do the rest (Short-agreements and/or Residual-agreements).

The legal basis for apprenticeship is the contract signed by apprentice and employer, registered by the VET-college. The contract contains the agreement of content (name of qualification), duration, salary and what kind of agreement is made. The apprentice is supposed to be a learner; s/he is paid a salary according to the collective agreement, is entitled to vacation and must take part in school-periods during the placement. The contract cannot be cancelled unless one of the two parties breaches part of the contract.

Integrating learning at work and at school:

Coherence between the two learning venues can be supported in different ways. A better relationship between what happens in school and what happens in practice is part of the Ministry of Education's ambitions. VET-colleges are therefore recommended to focus on it, to include it in their pedagogical-didactical strategy, and to document it in the annual quality-reports (handleplaner for øget gennemførelse) to the Ministry of Education. Teachers are supposed to visit companies and to cooperate with in-company trainers – even to take part in some on-the-job learning schemes in a company for a period of time.

The two sides (Ministry of Education and Trade Committees) are both interested in the best thinkable coherence between theory and practice. Part of that ambition is that the Ministry of Education oversees the VET-colleges by using quality supervision. The Trade Committees oversee the employers' side. VET-colleges produce annual reports (part of quality-assurance practice) to the ministry about the progress in achieving national goals and the agreed action plans. The most concrete part of the intended close relationship between the two arenas is to



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use the instruments invented for better coordination and communication: Student-plan (elevplan), and the log-book in which apprentices report on the actions taken, and the evaluation of the apprentice's progress.

Pedagogical methods (didactical approaches):

All VET-colleges must work strategically with a common pedagogical and didactic base that is to be formulated at the college and shown to the Ministry of Education. In addition, all levels of management have the compulsory requirement to complete a module in pedagogical management (10 ECTS) at EQF level 6. The pedagogical thoughts and initiatives must be reflected in the colleges' action plans.

Qualifications are described in learning outcomes by the Trade Committees – very much inspired by the European Qualifications Framework (EQF), and included in the National Qualifications Framework (den danske kvalifikationsramme) with eight levels like the EQF.

The Local Curriculum (lokale undervisningsplan) contains the same competence goals as the National Curriculum. The goals, on the other hand, are rather broad and not necessarily easy to understand for neither teachers nor students. Therefore, it is in most cases necessary for teachers and students to make the goals more precise and more understandable by using so-called learning-objectives, including success-criteria. Learning objectives may be set either by the teacher, by the students or by both.

The goals are used to tell the students where to go, and by using feedback to tell them where they are now, and find out how to achieve the end-goal.

Key competences are included in curricula – they may vary a bit from school to school - due to different strategies (and a different pedagogical-didactical basis).

Teacher and trainer workforce

The in-company trainer must have a qualification as a skilled worker (or equivalent) within the trade in question. The trainer is supposed to have some years practical experience but not necessarily any trainer-qualification in terms of pedagogics.

Teachers are recruited by the VET-colleges based on their qualifications and competence. They are supposed to be skilled workers and if subject-teachers a qualification at level 6 in the National Qualifications Framework. The board of governors formally employ all staff-members but in practice it is done by the school-leadership, based on delegation of authority from the school board.

After employment, teachers must go through a consecutive pedagogical programme at diploma/bachelor's level (60 ECTS points). The programme is alternating with periods at school and periods at the workplace where the teachers can try out their new competences. These programmes will usually be provided at university colleges all over Denmark. No later



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than four years after employment, the programme must be successfully passed in order to achieve permanent employment.

Trainers are normally recruited from the company and appointed by the leader in charge of company or department.

In 2014, it was decided that all VET-teachers, without the diploma mentioned above, should complete at least one module from a similar programme (10 ECTS points) before the end of 2020 as a part of a major systematic CVET initiative deriving from the VET reform from 2015.

It is worth noticing, that there is no requirements for the in-company trainers to undergo any pedagogical education. The AMU-system (Adult vocational training programmes) does have some courses to train the in-company trainers in how to work and educate young people and some trades are using them. [\(link AMU-kurser TB\)](#)

2.7 VET excellence/Image and marketing of apprenticeship

There are four overall objectives for VET:

- More students must choose to start a VET immediately following form level 9 or 10.
- More people must complete a VET programme.
- VETs must challenge all students so they may reach their fullest potential.
- The trust and well-being in the VETs must be strengthened.

The key elements for promoting attractiveness and excellence in VET are following:

1. An attractive youth education environment including a one year basic programmes for students coming from compulsory school.
2. Clear and higher admission requirements for students.
3. A more transparent and simplified structure including 4 new broad basic programmes instead of 12 leading to main programmes (dual).
4. Program specific transition requirements to access main programmes.
5. More and better teaching including more lessons in basic skills improving student proficiency.
6. New opportunities to acquire general and vocational subjects at higher levels in all programmes. All VET programmes on NQF level 3+4 to give access to higher education on NQF level 5.
7. Programmes offering a double qualification (VET and upper secondary general) are being extended to far more sectors.
8. Talent tracks including high level specialised subjects in all relevant programmes to be extended by 2016.
9. Better interplay between school based and work based learning promoting student performance on applied knowledge, skills and competences.



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10. Pathways from VET to professional - and university bachelor programmes (NQF 5 and 6) to be promoted.

In 2014, a reform of the compulsory school was implemented. Two developments in the reform have influence on VET. The “Improved final years of compulsory schooling and transition to post compulsory education” and “The open school” both have a clear angel on how to introduce VET-skills in the compulsory school and introduce the pupils to the world of work²⁵ e.g. visits at companies, municipalities, associations to introduce the pupils to work and public living. Another close connection between compulsory school and VET is the “New Vocational Oriented Form of Level 10 (eud10). The 10th optional year of the “compulsory” school is created to prepare the pupils for VET and to ensure that they meet the requirements.

Campaigns

At any given time, there is a number of initiatives and campaigns initiated or underway in order to promote the attractiveness of VET e.g.:

- The Ministry of Education launched a campaign “Possibilities in reality” (muligheder i virkeligheden) to promote attractiveness of VET-programmes(2014) <http://erhvervsudd.dk/>
- Confederation of Danish Industry (Dansk Industri (DI)) has a new initiative with 40 staff members taking direct contact to membership companies and asking them to hire more apprentices (2015)
- DI and The Danish Industry Foundation are financing a large scale project “Centre of Excellence” at 4 large VET-colleges to ensure highly skilled students at the VET-colleges. <http://foreninger.di.dk/coe/Pages/forside.aspx>
- DI, 3F, HK, Dansk Metal and Teknisk Landsforbund has launched the campaign “Hands-on – there is a future in the industries”(2015) <http://hands-on.dk/>
- In 2014 the Danish government launched a plan for growth (Vækstplan.dk). One of the targets is to create 1000 new apprenticeships per year. This initiative aims to strengthen the dual system and enhance the number of young people completing VET
- In addition, there is an increased focus on World Skills in Denmark and the yearly competition in DK skills in January 2015 had 68.000 visitors and there were competitions in 36 different VET-skills. <http://skillsdenmark.dk/forside/>

Prospects for skilled workers

The employment rate for skilled workers in Denmark is relatively high. This is also reflected in the clear objectives in the VET-reform, that the goal is to maintain the high employment rate for new graduates. Statistics show that people with a VET-education have an employment rate from 2002 to 2013 between 72 pct. and 79 pct. The Economic Council of the Labour Movement (Arbejderbevægelsens Erhvervsråd) has conducted a study that shows that an average unskilled worker have 22.2 years full-time employment throughout life, while those

²⁵http://eng.uvm.dk/~media/UVM/Filer/English/PDF/131007%20folkeskolereformaftale_ENG_RED.pdf



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with professional qualifications have 35-37 years full-time employment, that is to say 13-15 years more. An average unskilled worker earns 10.3 million DKR after tax through life. Skilled workers earn an average of nearly 13 million DKR, while those with Academy degree stands at just over 15 million DKR and Professional bachelors just under 16 million DKR. People with a university background earn an average of 22 million DKR through life after tax²⁶.

Recent developments

The VET-reform has a general objective that “VET must challenge all students so they may reach their fullest potential”. Therefore all VET-colleges shall provide the opportunity for all VET-students to obtain subjects at level that exceeds the compulsory minimum. Many VET-colleges has already for years offered special elite and talent-tracks in parallel or integrated part of the general VET-education (talentvejen, internationalt spor – flere eksempler til toolbox)

²⁶ http://www.ae.dk/files/dokumenter/analyse/ae_uddannelse-giver-et-markant-laengere-arbejdsliv.pdf



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