

Long-term cross-country mobility in apprenticeships

Case Study Report

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Introduction

This country report describes and analyses the situation in Denmark with respect to long-term cross-border mobility of apprentices (CB LTMA). The Danish VET system is a dual system governed by the social partners since more than 100 years, and there is clear and comprehensive regulation around apprenticeships.

Denmark is a small open economy, and hence, extensive relations exist between Danish businesses and the outside world, including with close trading partners within Europe. With globalisation, focus on internationalisation of education, including VET, grew since the 1980s, and in 1992, the PIU programme was launched to support VET students going abroad for (some share of) the company-based part of their education.

Based on the research and interviews undertaken for this research, it can be summarised that the growth in CB LTMA has been slow and uneven, and it is not a policy priority at present. Nevertheless, information gathered through the research provides useful considerations on a range of relevant dimensions across the framework, system and implementation levels. These are discussed in turn below.

CHAPTER 1. State of play

Almost all skilled Danish workers are educated and trained in the Danish dual VET system, which means they spend part of their training in school and part of their training in the workplace. The VET programmes are divided into two main parts, the basic or introductory programme and the main programme. The *basic programme* is school-based, and its duration varies according to sector and to the age and experience of the student, but typically, it lasts one school year (two semesters). During the *main* – dual - part of the programme, the student is employed by employer by means of a training contract, which specifies periods at work and periods at school and sets out training objectives for each period of training and school. The duration of the main programme varies but does not usually exceed 3.5 years. In this part of the programme, the student is remunerated by the employer (including during school periods). The size of the wage is laid down in collective agreements.¹

The share of mobile apprentices is increasing, but numbers are still marginal: in 2017, 71,459 VET students had completed their basic course and were enrolled in the main – dual – part of their VET programme,² while in the same year, 1,601 VET students³ were sent abroad through the PIU programme (PIU: *Praktik I Udlandet* : Apprenticeship Abroad), which accounts for almost all work-based mobility among VET students utilising financial support from the employers' education fund.⁴

Internationalisation of VET has been a political priority for the last decades, and there is a funding scheme in place. However, the implementation is very

¹ Uddannelsesguiden (Guidance portal in Danish). <https://www.ug.dk/uddannelser/artikleromuddannelser/omhvervsuddannelser/strukturen-paa-erhvervsuddannelserne>

² The Ministry for Children and Education, key figures for apprenticeship, <https://uddannelsesstatistik.dk/Pages/Reports/1763.aspx>

³ The Ministry for Higher Education and Science, figures for the take-up of the PIU programme, <https://ufm.dk/aktuelt/nyheder/2018/praktik-i-udlandet-vokser-fortsat-blandt-elever-i-erhvervsuddannelserne>

⁴ Information about the PIU programme (in Danish): <https://ufm.dk/uddannelse/tilskud-til-udveksling-og-internationale-projekter/praktik-i-udlandet-piu>. Information in English for employers: The Ministry of Higher Education and Research: Work placements abroad for apprentices - information for employers. <https://ufm.dk/en/publications/2017/files/work-placements-abroad-for-apprentices-information-for-employers-1.pdf/view>

decentralised, which is most probably one of the reasons why mobility is still relatively low.

In Denmark, only one type of apprenticeship exists in the VET system. Apprentices are employed by companies⁵, and their wages are paid by the employer, even during school based training. This has very positive effects for the apprentices' prospects of employment following apprenticeship, but at the same time, may act as a barrier against mobility in apprenticeship.

In combination with the fact that most apprentices are training in SMEs, the system may work against mobility, since employers may be reluctant to send their apprentice abroad, and hence, have one employee less for a period while also being unsure about what is learnt in the foreign company.

1.1. Framework level

1.1.1. Dimension 1.1. Overall size and training capacity of companies

Almost all skilled Danish workers are educated and trained in the dual VET system, which means they spend part of their training in school and part of their training in the workplace. While 64.3% of the Danish workforce are employed in SMEs of fewer than 250 employees,⁶ Danish SMEs have good training capacity. Every fifth Danish company employs an apprentice. On average, apprentices account for 5.6% of employees in a company, but in enterprises with more than 250 employees this number is just 2.5. Hence, SMEs train a considerable share of the Danish skilled workforce, while large companies train fewer in relative as well as absolute number.⁷ This fact explains why, in 2018, the Danish employers' reimbursement system (*Arbejdsgivernes Uddannelsesbidrag*, AUB) introduced new targets and rewards. Companies that offer a number of apprenticeship places that fulfils a sector-specific target will receive a bonus of DKK 25,000 (EUR 3,345) per signed

⁵ In principle. If a student does not find a training company, work-based training will take place in a training centre, and the student will receive a monthly allowance from The Danish students' Grants and Loans Scheme. This allowance is smaller than the apprentice wage.

⁶ https://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises#Basic_structures:_employment_size_class_breakdown_in_Structural_Business_Statistics

⁷ Pihl, M. D. (2018). *Who takes responsibility for the skilled workforce of the future (Hvem tager ansvar for fremtidens faglærte)*. In Danish. Copenhagen: The Economic Council of the Labour Movement (Arbejdsbevægelsens Erhvervsråd)

training contract. For manufacturing industry, the target is 2.4 apprenticeship years per 100 skilled employees.⁸

According to figures from the Danish Agency for Labour Market and Recruitment (PES)⁹, Denmark is experiencing extensive labour shortages in most skilled occupations, particularly in the building and construction sector, and in manufacturing.¹⁰ Danish employers in these sectors seek to alleviate the severe skills shortages by recruiting skilled workers from other EU countries; in 2017, 97,000 EU citizens were working in Denmark, 33,000 among them in skilled occupations.^{11,12}

This situation would appear to provide favourable conditions for apprentices from other countries who want to take up a contract in a Danish company, but there is no evidence that the situation in the labour market has led to an increase in companies' training of VET students from other European countries. While SMEs have good capacity and a positive attitude towards training of Danish apprentices, this appears to be not so much the case when it comes to apprentices from other countries. This is confirmed by the interviews with social partners and mobility coordinators with hands-on experience who observe that mobility of apprentices – both outgoing and incoming – is a challenge for SMEs. Concerning incoming apprentices, language is frequently mentioned as a barrier for SMEs. In addition, employers are unsure what level of skills they can expect of apprentices from other countries, while they have very clear conceptions of the skill levels of Danish apprentices, and their ability to contribute to the day-to-day running of the company. Regrettably, there is no evidence of the volume of incoming apprentices, but the anecdotal evidence quoted by mobility coordinators and the employers'

⁸ <https://www.danskindustri.dk/di-business/arkiv/nyheder/2018/1/brev-i-indbakken-alle-virksohmeder-far-nu-mal-for-larlange-og-elever/>

⁹ Styrelsen for Arbejdsmarked og Rekruttering (STAR). <https://www.star.dk/en/>

¹⁰ <https://www.star.dk/en/labour-market-monitoring/labour-market-balance/>

¹¹ Source: DST Analyse (2018), *Østeuropæiske indvandrere er i beskæftigelse i næsten lige så høj grad som vesteuropæere* [Eastern European migrants are employed almost as often as migrants from Western Europe], Statistics Denmark., Online, available at <https://www.dst.dk/Site/Dst/Udgivelser/nyt/GetAnalyse.aspx?cid=30609> (In Danish). For comparison, there were 1,144.000 employed persons with a higher secondary education (including IVET) in Denmark in 2017 (Source: Statistics Denmark, <http://statistikbanken.dk/statbank5a/default.asp?w=1920>).

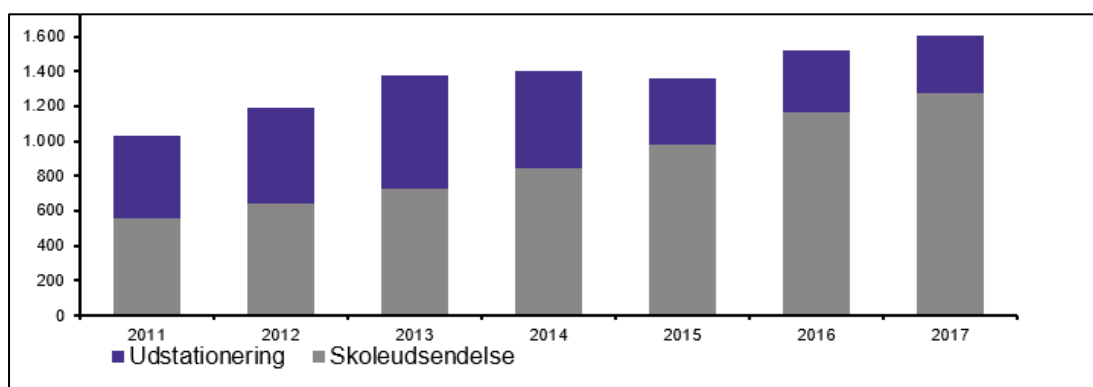
¹² In this context, the (field) research will explore whether employers may be reluctant to allow their apprentices to travel abroad, since they contribute significantly to enhanced production capacity and productivity (e.g. if apprentices may be tempted to stay abroad or return abroad).

associations indicate that the number of European apprentices undertaking part of their apprenticeship in Denmark is very low.

Concerning outgoing mobility, according to the interviews, SMEs may be reluctant to send apprentices abroad, because they have the responsibility to ensure that the training objectives are met, and they lack capacity to oversee and assess the outcome of the lessons learnt by the apprentice while working for an employer abroad. In contrast, large companies that have subsidiaries abroad can more easily send students abroad, since the apprentice remains within the company system and there is no need to draw up a new apprenticeship contract. Large companies can also more easily dedicate one or more employees to supporting apprentices that are not familiar with Danish working culture and language.

This is mirrored by the fact that the majority of Danish VET students going abroad are sent by the VET school, not by a Danish employer, see **Error! Reference s**

Figure 1: Danish apprentices sent abroad using the PIU programme. Apprentices sent by school and by employers, 2017



Source not found..

Note: 'Udstationering' means 'Sent by employer'; 'Skoleudsendelse' means 'Sent by VET school'.

Source: The Ministry of Higher Education and Science.

As the figure shows, the share of mobile apprentices sent by the VET school, i.e. in their first period of work-based training has been steadily increasing as the labour market has become tighter and the employers have been more eager to keep their apprentices within the company rather than sending them abroad. The VET schools do not have well-defined responsibilities with regard to cross country mobilities, but most schools have appointed a counsellor with special insights into international mobility, including apprenticeships, but also exchanges in the school-based parts of the courses.

1.1.2. Dimensions 1.8 Skills shortages in medium-level occupations

With respect to sectoral differences, the abovementioned labour shortages are unevenly distributed across the labour market. According to figures from the Danish Agency for Labour Market and Recruitment (PES)¹³, skilled labour shortages are particularly serious in the building and construction sector, and in manufacturing.¹⁴ This is reflected in the numbers of apprentices sent abroad by employers in these sectors: In 2017, only 20 students in all were sent by manufacturing companies, and only 17 students were sent abroad by companies within building and construction, out of the in all 1,601 mobile apprentices.

1.1.3. 1.2. and 1.3. Sectoral employers' organisations (SEOs) in the national, international and European context and

The main role of the Danish social partners, including the SEOs and trade unions, in promoting mobility is in creating framework conditions that are conducive to mobility. However, when it comes to implementation, the position on mobility of apprentices varies quite significantly from sector to sector, and hence, between the trade committees responsible for VET curricula.

The Confederation of Danish Industry (DI) represents around 11,000 companies in Denmark and can influence the environment for the development of policies on the cross-border long-term mobility of apprentices. DI recognises positive aspects of cross-border mobility of apprentices, such as the exchange of experience and development of competencies. On the other hand, DI is concerned that there are not sufficient apprenticeship placements in Denmark for Danish apprentices. Therefore, DI is not in favour of investing too many resources into attracting apprentices from abroad to complete an apprenticeship of 3-6 months in Denmark, especially because those apprentices tend to leave Denmark afterwards, while Danish apprentices often remain in their training company as valuable employees. DI experiences a limited interest by its members in receiving apprentices from abroad and is adjusting its efforts to support long-term cross-border mobility accordingly.

The trade unions do not have a common shared vision concerning cross-border mobility of apprentices. Among the trade unions interviewed, only HK/Denmark (the Union for Salaried Employees) expressed that cross-border mobility of

¹³ Styrelsen for Arbejdsmarked og Rekruttering (STAR). <https://www.star.dk/en/>

¹⁴ <https://www.star.dk/en/labour-market-monitoring/labour-market-balance/>

apprentices has potential to underpin the internationalisation of Danish enterprises.

However, the trade unions find that the dual system presents a hindrance to mobility due to employers' lack of willingness to let go of their apprentices for a longer period. The Danish employers' association on their side finds it difficult for employers to send their apprentices abroad, since they cannot control the quality of the training that the apprentice receives in the company abroad.

1.1.4. Dimensions 1.4. Intra-EU trade; 1.5. Enterprise foreign affiliates; 1.6. International sourcing

Denmark is a small open economy, and Danish businesses are well connected to Europe and the rest of the world through trade and – to a lesser extent - international sourcing or relocation. The value of the Danish export of goods in 2017 amounted to DKK 747 billion or 50% of GDP, while the import amounted to 47.4% of GDP.^{15,16} More than 20% of companies have moved business functions to other EU Member States to reduce labour (or other) costs.¹⁷

There is no statistical evidence available which could establish a relationship between CB LTMA and international trade, and also, there is no consensus between interviewees regarding the relationship between CB LTMA and intra-EU trade. Some of the respondents argue that there is no apparent pattern linking the level of intra-EU trade or internationalisation of a company and its involvement in CB LTMA. For instance, the respondent from Dansk Industri (DI – the Confederation of Danish Industry) emphasized that motivation for sending apprentices abroad has more to do with the priority given by the company to competence development and less with its extent of internationalisation. In contrast, respondents from trade unions¹⁸ agreed that in their experience, the

¹⁵ Figures from the Statistics Denmark quoted by the Danish Ministry of Foreign Affairs, <https://thetradecouncil.dk/services/eksport/dansk-eksport>

¹⁶ https://ec.europa.eu/eurostat/statistics-explained/index.php/International_sourcing_and_relocation_of_business_functions#international_sourcing_by_broad_economic_activity

¹⁷ https://ec.europa.eu/eurostat/statistics-explained/index.php/International_sourcing_and_relocation_of_business_functions#international_sourcing_by_broad_economic_activity

¹⁸ Fagbevægelsens Hovedorganisation (FH, the Danish Trade Union Confederation), and HK/Denmark (the Union for Salaried Employees)

existence of subsidiaries or affiliates are important for the motivation of Danish companies' to be involved in CB LTMA.

Finally, according to the PIU Secretariat, who primarily manages apprenticeships for students sent by the school, foreign companies offering apprenticeships are both large and small companies, some of which have affiliates in DK, others not. Overall, there does not appear to be a clear correlation between company size or the existence of foreign affiliates on one side and companies' involvement in CB LTMA on the other.

1.1.5. Dimensions 1.7. Intra-EU labour migration for skilled labour; 1.10. Immigration policy

In 2018, approximately 215,000 foreign citizens, corresponding to 9% of those employed, were in full time employment in Denmark. Of these, 63.8% came from EU/EEA, and 28.7% were skilled workers.¹⁹ Following the recovery after the 2008 financial crisis and the subsequent downturn, the Danish employers' associations have continually called for politicians to make it easier to attract qualified labour from other countries. As labour shortages in some sectors have become more pronounced, this position has been advanced with increasing strength. The Confederation of Danish Industry (DI) states that *"Today there is an increasing number of international employees coming to Denmark to work. Global talents bring value, knowledge and growth to Danish companies"*.²⁰

However, it is noteworthy that 'talent' in this discourse does not include apprentices, only fully qualified persons. There is no sign that the skill shortages increase the motivation of Danish companies to take on mobile apprentices from abroad. In the manufacturing sector, DI is aware of only a few companies in sub-sectors of manufacturing with particular high levels of skill shortages within manufacturing or construction, who have expressed an interest in attracting apprentices from abroad. According to the interviewee from DI, companies' interest in taking on apprentices from other countries depends strongly on whether a potential apprentice seem to have particular relevant talents, and also, whether they were prepared to agree to remain in Denmark when their education is completed.

¹⁹ Trolborg, J. (ed.) (2018). *Udenlandsk arbejdskraft på det danske arbejdsmarked* Foreign employees in the Danish labour market – in Danish). Copenhagen: Dansk Arbejdsgiverforening.

²⁰ <https://www.danskindustri.dk/english/advisory/global-talent/>

The situation however varies between other occupational fields. Hence, in trade and administration, where bottlenecks are less pronounced, there is no indication that employers resort to using mobile apprentices to compensate a shortage of skilled labour nor that they are particularly reluctant to send trainees abroad.²¹

Concerning immigration from outside EU, Denmark has a strict immigration policy which requires migrants to have an employment contract with terms of employment and wage corresponding to usual Danish conditions.²² The respondent from FH pointed out that recent legislation restraining immigration to Denmark may in all probability have made it more difficult for mobile apprentices from outside the EU to enter Denmark, but that there are no issues within the EU. There is no evidence either that the image of Denmark created by a strict immigration policy matters much to young people aged 16-25 who are considering taking their internship here. Interviewees were thus uncertain about the impact of labour migration on CB LTMA policy.

1.1.6. Dimension 1.9. Share of job-related non-formal education and training sponsored by employers

The most recent data on in-company training in Denmark stems from the European Continuing Vocational Training Survey (CVTS) from 2015.²³ According to the survey, 94% of Danish enterprises provide educational activities (“courses”) to their employees. 82% provide external courses, but it is not possible to ascertain from the data whether these courses are formal or non-formal. However, a large share of companies provides non-formal and informal learning opportunities (88% provide internal courses, 78% provide employee-to-employee training, and 42% provide job rotation). The exact relationship between corporate training strategies and the willingness to engage in apprentices’ mobility cannot however be easily ascertained, although, according to the interviewee from the industrial employers’ association, companies focussing on internal non-formal education and training are to a greater degree willing to get involved with CB LTMA, since they regard in-

²¹ Interview with representative of HK, the salaried employees’ union.

²² Trolborg, J. (ed.) (2018). *Udenlandsk arbejdskraft på det danske arbejdsmarked* (Foreign employees in the Danish labour market – in Danish). Copenhagen: Dansk Arbejdsgiverforening.

²³ Figures quoted from Statistics Denmark, <https://www.dst.dk/da/Statistik/emner/uddannelse-og-viden/kurser-og-voksenuddannelse/virksomhedernes-efteruddannelse-CVTS>

company placements abroad as a way to strengthen the skills and competences of the apprentices going abroad. The respondent emphasises, however, that the motivation of the individual apprentice to complete an in-company placement abroad matters to an equal extent, regardless of which kind of company she/he is attached to.

1.1.7. Dimension 1.11. International qualifications

The only instance of provision of international qualifications to mobile apprentices is when the apprentice is involved in VET programmes where a dual qualification (general upper secondary leaving certificate giving access to higher education as well as VET qualification²⁴). In these cases, and if the stay abroad includes one or more periods at school, the International Baccalaureate may be awarded. However, in general international qualifications play no role for CB LTMA, and interviewees agree that the prospect of receiving such qualifications would not increase the motivation of VET students.

1.1.8. Dimension 1.12. Tradition regarding cross-border VET and/or labour mobility

Overall, there is a tradition regarding cross-border VET mobility in Denmark - the PIU program was established over 25 years ago (in 1992). Still, the relative volume of mobile VET students is low despite favourable conditions and financial support through the PIU programme. In addition, traditions for going abroad vary considerably between sectors and occupational fields. In some programmes, there is a tradition for going abroad, while in others there is not such a tradition. There is a long-standing tradition in the agricultural sector and the hotel and restaurant sector for apprenticeships in other countries. Also, mainly due to shortage of apprenticeship places in Denmark, students training to be animal keepers and specialised cabinetmakers often go abroad to achieve high-quality company-based training and diverse experiences. In contrast, students in programmes leading to occupations in industry or construction very rarely go abroad for work-based training.

1.1.9. Key enablers and disablers at framework level

As previous sections have indicated, there are several factors that contributed favourable conditions for CB LTMA in Denmark.

²⁴ These programmes are called EUX. See <http://eng.uvm.dk/upper-secondary-education/vocational-education-and-training-in-denmark>

The key enablers at framework level can be summarised as follows:

- The dual VET system, where the governance of VET lies firmly with the social partners facilitates a strong relationship between company training needs and apprenticeship and hence, in principle facilitates CB LTMA.
- The political priority given to internationalisation of VET, embodied in the Act on Vocational education and Training referring to the opportunity for apprentices to complete part of their apprenticeship abroad.
- A well-established programme (PIU) offering support to apprentices, regardless of whether they are sent by the employer or the VET school, and which rewards schools that send VET students without training contracts abroad.
- Skills shortages, particularly in the manufacturing and building and construction sectors could in principle facilitate in-bound mobility of apprentices. All evidence however points to employers having a strong preference for hiring already qualified foreign labour and reluctance to take on apprentices from abroad.
- Many large Danish companies have foreign affiliates, which makes it easier to send apprentices abroad, since the apprentices remains within the administrative and contractual structure of their employer.
- At the sectoral level, tradition plays a crucial role for CB LTMA, determining to a large extent whether or not going abroad is 'the done thing' for VET students to consider. In some sectors the tradition for learning from international experiences is strong, while in others it is weak or non-existent.

Key disablers at framework level include:

- The business structure is dominated by small SMEs. While these employers train most VET students and do have sufficient capacity to train Danish apprentices in their own company, they struggle with managing CB LTMA. Since Danish apprentices are employees and contribute to the daily operation of companies, the employer may find it difficult doing without their Danish apprentice for a prolonged period.
- Concerning inbound mobility, the SMEs have difficulties assessing the potential contribution of an apprentice from another country, and this is often exacerbated by language barriers.
- The degree of decentralisation of the responsibility for VET, which means that the focus on CB LTMA depends on sectoral positions, which may in turn be influenced by current trends or historical political positions.

1.2. System level

1.2.1. Dimension 2.1. Apprenticeship type and 2.3. Apprenticeship function

In Denmark, the entire upper secondary initial vocational education and training system²⁵ (hereafter: Danish VET or just VET unless otherwise specified) is based on a 'dual system'²⁶. Dual VET is offered for skilled occupations across all sectors. The general requirements for VET programmes are laid down in the Vocational Training Act,²⁷ which specifies access requirements, common principles for the structure and contents of VET programmes, governance structure, requirements to companies providing apprenticeship, rules concerning the legal position of apprentices and additional specifics e.g. concerning adult apprentices.

The common structure of Danish VET is illustrated in Figure 2. As the figure indicates, Danish VET programmes consist of a basic programme, with a duration of approximately one year, which is followed by the main, dual programme. The main programme includes a specified alternation between school-based and company-based training in an approved company or organisation.

The exact number and duration of periods of in-company training and school-based education is fixed within each programme but varies across programmes. Typically, the main programme will include 3-4 period of in-company training and 3-5 periods in school. The school periods typically last 7-12 weeks. The total duration of the main programme varies across the programmes, but is usually 2½-3½ years.

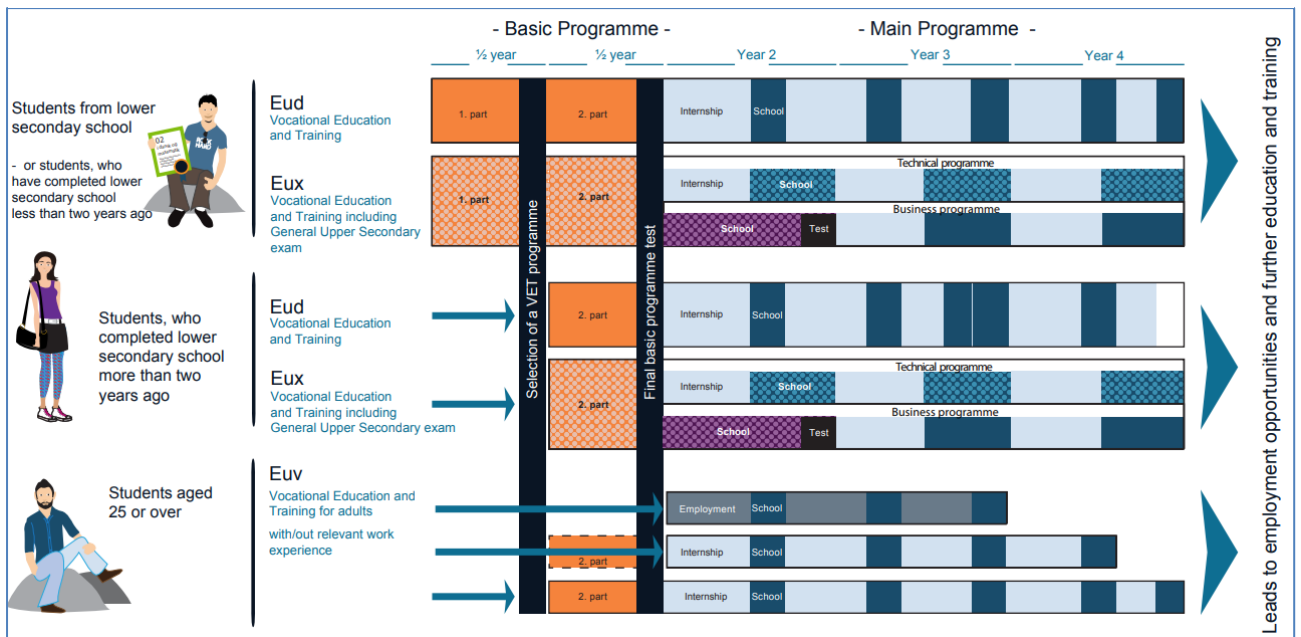
The training programme is based on a contractual relationship between the employer and the apprentice; the latter receiving a salary during in-company training periods. The duration of the alternating periods in school and in the company is defined in the curriculum for each VET course.

²⁵ The "EUD system" (EUD is short for Erhvervsuddannelse = Vocational Education)

²⁶ Type A according to Cedefop (2018).

²⁷ Lov om Erhvervsuddannelser,
<https://www.retsinformation.dk/Forms/R0710.aspx?id=210275>

Figure 2: Overview of the Danish VET system



Source: Ministry of Children and Education (2019). Vocational education and training in Denmark. [Online]. <http://eng.uvm.dk/upper-secondary-education/vocational-education-and-training-in-denmark>

In addition to the mainstream VET programme, and as indicated in the figure, a new pathway called ‘EUX’ was introduced in 2011, which allows students to obtain a general qualification at upper secondary level in addition to a VET qualification. The new pathway gives direct access to higher education for a wider range of programmes than the traditional VET programmes.²⁸ This requires a longer period at school, but otherwise, the main programmes are identical to those of mainstream IVET.

Overall, the apprenticeship type (dimension 2.1, dual system) with its clear division of responsibilities between school and company, contractual basis and clear specification of learning objectives for each period at work and at school, is an enabler of mobility. The system makes it clear to all stakeholders what is expected of them in relation to the mobility, both with respect to contract, pay etc. and with respect to the learning outcomes. For students, who have not managed to secure

²⁸ Ministry of Children and Education (2019). Vocational education and training in Denmark. [Online]. <http://eng.uvm.dk/upper-secondary-education/vocational-education-and-training-in-denmark>

a training contract at the end of the basic programme, mobility is an opportunity to obtain work-based learning in a company. The clear structure (combined with the existence of the PIU programme and access to guidance) makes it easier for these students to be mobile in the in-company part of the programme.²⁹

The function of apprenticeships (dimension 2.3) may however act as a disabler of mobility. When a student enters a training contract with a company (see more in section 1.2.6 below), they become an employee of the training company and receive an apprenticeship salary determined by collective agreements in the sector for the entire duration of the main programme. Hence, the apprentice is factored into the workforce of the company and letting them leave for a period may be difficult for the employer, even though they will not have to pay salary when the apprentice is abroad, since this will be the responsibility of the company in the other country.

This was confirmed by the interviews. About half the interviewed PIU coordinators report that they are sometimes approached by students who are motivated to go abroad, but where the person responsible for training in the company (the Master) will not agree to the mobility.

1.2.2. Dimensions 2.2. Share of VET students in apprenticeship schemes

The enrolment in Danish IVET has been steadily declining, and in 2018, the number of students enrolled in VET programmes had dropped by 2% in relation to the 2017 figure. Out of the total enrolment in upper secondary education in 2018, 41% attended vocational programmes.³⁰

The main reason for the decline in the number of students pursuing VET has long been associated with the uncertainty associated with an insufficient supply of apprenticeship places. In principle, all Danish VET students are in apprenticeship schemes. In practice, a sizeable share (in 2018, 11%) of VET students fail to find an apprenticeship place in a Danish company,³¹ and as a consequence, may choose between receiving the work-based training in apprenticeship centres

²⁹ Exchanges or internships during school based parts of the VET programme are also possible, but not covered here.

³⁰ Statistics from the Ministry for Children and Education, <https://uddannelsesstatistik.dk/Pages/Reports/1838.aspx>

³¹ In August 2018, there was a deficit of 9,443 places, according to the Ministry for Children and Education. <https://fagbladet3f.dk/artikel/unge-dropper-skolepraktik>

equipped with workshops and relevant technological setups, or go abroad for (part of or the entire) work-based training.

Students in the apprenticeship training centres do not get apprenticeship wages, since they are not under contract to an employer. Instead, they receive grants from the State Educational Grant and Loan Scheme.³² This grant is considerably lower than the salaries that students with a training agreement receive. In addition, a comprehensive evaluation indicates that the employment outcomes of training in an apprenticeship centre are below those of regular apprenticeship.³³

To improve this situation, in 2017, the Danish government and the social partners signed a tripartite agreement to increase the offer of apprenticeships each year by increasing the bonus to companies offering apprenticeship to DKR 25,000 per completed apprenticeship.³⁴

As long as the situation with respect to shortages of training companies persists, there is however a clear incentive for VET students who have not managed to secure a training agreement to go abroad to get work experience and being paid a wage. According to the interviews with the Ministries and the PIU coordinators working in the VET schools, this incentive is important and serves to explain why so many of the mobile students are sent by the schools. The coordinators explained that the number of apprenticeship places offered is uneven across sectors and occupations, and that the offer and quality of places in some occupations is insufficient in view of the number of VET students completing the basic course. The occupations quoted most often in this respect are *animal keeper* and *cabinet maker*, but the supply is also not sufficient in some occupations in retail and trade.

³² <https://www.su.dk/english/>

³³ Danmarks Evalueringsinstitut (2012). *Resultater af Skolepraktik ('Results of apprenticeship training in apprenticeship centres')*[Online] <https://www.eva.dk/sites/eva/files/2017-07/Resultater%20af%20skolepraktik.pdf>

³⁴ Source: the Danish Ministry of Education, <https://www.uvm.dk/trepart/trepartsaftale-om-tilstraekkelig-og-kvalificeret-arbejdskraft-og-praktikpladser/aftalens-maalsaetninger-og-implementering>

1.2.3. Dimension 2.4. Apprenticeship governance

The Danish apprenticeship system is characterised by multi-level governance involving the social partners and the public authorities in tripartite fora at all levels.³⁵ At national level, the national advisory council on vocational upper secondary education and training (REU, Rådet for de grundlæggende Erhvervsrettede Uddannelser) advises the Ministry of Education on principal matters concerning VET. At the level of VET programmes, each of the approximately 100 VET programmes are governed by a Trade Committee with representatives from employers' associations and trade unions from within the relevant labour market. Finally, at local level a local educational committee for each programme comprised of representatives of the social partners advise VET schools on the local implementation of the VET curricula, aiming to ensure that VET provision is in line with the needs of the labour market.³⁶

The position of REU on internationalisation, including mobility in apprenticeships is clear: many more VET students should be encouraged to go abroad, including for their company-based learning, and this will require that VET schools make mobility a strategic priority.³⁷

However, at the level of the trade committees and local educational committees, the positions are less clear. According to the Ministry for Higher Education and Research, who manages the PIU programme, the attitude towards mobility in apprenticeships varies considerably across the committees, with some being very actively engaged in internationalisation, while for others, the priority is securing a well-educated (Danish) workforce for the local or sectoral labour market. Similar observations are made by the PIU coordinators at the VET schools. In their experience, as a rule neither trade committees nor local educational committees play any role for mobility in apprenticeships.

³⁵ Andersen, Ole Dibbern & Helms, Niels Henrik (2019). *Vocational education and training in Europe: Denmark*. Cedefop ReferNet VET in Europe reports (2018). http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Denmark_2018_Cedefop_ReferNet.pdf

³⁶ Ministeriet for Børn og Uddannelse, *Faglige udvalg og lokale uddannelsesudvalg*. [Online] <https://www.uvm.dk/erhvervsuddannelser/ansvar-og-aktoerer/raad-og-udvalg/faglige-udvalg-og-lokale-uddannelsesudvalg>

³⁷ According to an interview with the chairperson of REU, Stina Vrang Elias, reported on the website of the Ministry for Higher Education and Research, dated 15 August 2019. <https://ufm.dk/uddannelse/tilskud-til-udveksling-og-internationale-projekter/erasmusplus/erhvervsrettet-grund-og-efteruddannelse/inspiration-og-projektexempler-erhvervsrettet-grund-og-efteruddannelse/eud/elever-pa-erhvervsuddannelser-skal-ud-i-europa>

1.2.4. Dimension 2.5. Funding of the in-company training

As mentioned above, the Act on VET requires the employer to pay the apprenticeship wages set out in collective agreements. The employer, having paid the apprentice their salary, can apply for a refund from the employers' reimbursement system (AUB, Arbejdsgivernes Uddannelsesbidrag).

The funds in the scheme come from employers, who pay an annual contribution to AUB of 2,702.00 DKK (ca. 360 EUR) per full-time employee. When training an apprentice, the employer can claim reimbursement of the apprentice's salary up to a certain limit.³⁸ Every year, employers who are covered by the 'Praktikplads-AUB-schene'³⁹ receive a target for how many trainees they need to hire before the end of the year.

Employers who exceed their targets for hiring trainees are eligible for a bonus. Employers who do not meet their targets must pay an extra contribution (a fine) to Praktikplads-AUB.⁴⁰

The funding system is seen by the interviewed stakeholders as being overall neutral for mobility, since mobilities do not lead to financial losses, neither for VET schools nor for employers.

1.2.5. Dimensions 2.6. Duration of the whole apprenticeship period; 2.7 Duration of in-company placements; and 2.8. Alternance

The duration of the whole apprenticeship period (the main programme) differs between VET programmes, but typically lasts 3-3 ½ years, of which school periods amount to 7-10 weeks/year.⁴¹ According to PIU coordinators the duration of the whole apprenticeship period facilitates mobility, since in their experience, employers in the receiving countries prefer the longer apprenticeship periods to shorter ones. It takes considerable effort for the apprentice to learn how to navigate in a foreign language and a foreign work culture, and while this is a learning

³⁸ Arbejdsgivernes Uddannelsesbidrag (English version). <https://indberet.virk.dk/arbejdsgivernes-uddannelsesbidrag-english/contribution-rates>

³⁹ Praktikplads-AUB is mandatory for all employers who have reported full supplementary pension contributions (ATP-bidrag) for more than one full-time, vocationally trained employee in the previous year.

⁴⁰ https://indberet.virk.dk/sites/default/files/2017_breve_aub_brochure_a0053_english_draft_v1.pdf

⁴¹ <http://eng.uvm.dk/upper-secondary-education/vocational-education-and-training-in-denmark>

process, their progress towards the learning objectives in the curriculum may be slow during the first month of the stay. One trade union representative suggested that apprenticeships abroad ought to last approximately 3 months to enable students to get to know properly the organisational processes, culture and language.

Concerning the alternance between school and company, the Danish system immediately appears more conducive to mobility than systems where alternance takes part on a weekly basis. The relatively long periods of in-company training allow the student to travel to another country and settle down properly before the next school period. Some programmes even offer distance learning, so that apprentices who want to stay abroad for more than one in-company period can do so without having to travel home. On the other hand, coordinators emphasise that the school periods offer an opportunity for the student and the school to touch base and ensure that the student is on track and everything progresses as it should. But as regards incoming mobility of apprentices to Denmark, the system may prove a barrier due to differences in the structure of alternance.

1.2.6. Dimensions 2.9. Type of contract; 2.10. Status of apprentices; 2.11. Remuneration; 2.12. Occupational health & safety standards and social insurance

Apprenticeships are regulated through apprenticeship contracts ('Uddannelsesaftale' = Training Agreement) between the apprentice and an employer. The agreement details the apprenticeship programme, the legal status of the apprentice and the wage paid to the apprentice. It is signed by the apprentice and the employer and approved by the VET school (in principle, the trade committee approves the contracts, but this authority has been delegated to the VET schools. The training agreement is accompanied by a training plan, specifying learning objectives for each period of the apprenticeship.

In February 2019, approximately 90%, of the VET students had signed a training agreement with an employer.⁴² The student receives a salary during the entire education. Apprenticeship salary amounts are laid down in collective agreements.⁴³

⁴² <https://uvm.dk/statistik/erhvervsuddannelserne/praktikpladsstatistik/maanedlig-praktikpladsstatistik>

⁴³ <https://www.ug.dk/6til10klasse/su-og-elevloenungsuddannelse/elevloen>

There are different assessments of the relationship between the Danish system of training agreements and CB LTMA. On the one hand, the training agreement ensures that the rights and obligations of company and student are clearly defined, and the educational plan describes the learning outcomes that must be achieved. The agreement contains an educational plan, which may include an agreement concerning a stay abroad. On the other hand, companies may be reluctant to send apprentices abroad because they cannot be sure that the student will receive the necessary training to achieve their learning objectives.

'Apprentice' is a legal status in Denmark, but as already described above in section 1.2.1, apprentices are in practical terms employees as much as learners and in many cases, this influences negatively on the willingness of employers to engage in mobility.

As already described, the remuneration of apprentices is determined in collective agreements. While the salary is lower than the salary for skilled workers, it is still high compared to the European average.⁴⁴ According to several interviewees, the relatively high level of Danish wages, including apprenticeship salaries, is an obstacle to mobility. The Danish Act on VET requires that the receiving company pays a salary to the apprentice, but this salary is rarely competitive seen from a Danish perspective. If a Danish employer tops up the salary to the Danish level, it may apply for reimbursement from the employers' reimbursement scheme, but this rarely happens. As a special case, the interviewee from PIU Secretariat pointed out that virtually no Danish apprentices go to France due to the French labour regulations, which require employers to pay the same level of wages to apprentices as to fully educated employees, making employers highly reluctant to take on foreign students for shorter periods of time.

In Denmark, apprentices are covered by the public social and health insurance and the general occupational health and safety standards. While regulation and standards in these areas vary considerably across Europe, there is no indication that these differences play any role in facilitating or hindering CB LTMA. However, the respondent from the PIU Secretariat noted that one of the reasons why Germany is the country receiving the most Danish mobile apprentices is that the Danish and German governments have concluded an agreement whereby Danish apprentices are covered by the Danish national health insurance for 12 months while in Germany, which makes them attractive to German employers. Otherwise,

⁴⁴ The average monthly wage for apprentices in their first year currently varies between DKK 9,500 and 12,500 (EUR 1,270 – EUR 1,670)

there is no evidence that differences in social insurance or occupational health and safety play any role when VET students consider to which country they want to go as part of their apprenticeship.

1.2.7. Dimensions 2.13. Curriculum training standard; 2.14. Use of validation

The Danish VET curricula are designed in terms of learning outcomes since 2001. Learning outcomes are not set out in the Act on VET, but in government orders for each VET programme. The government order for a programme sets out the learning outcomes that should be achieved in the basic programme as well as those that should be achieved in the main programme. The learning outcomes are proposed by the trade committee for the programme, who are responsible for creation and renewal of the curriculum. The proposal of a trade committee for renewal of a curriculum must be accompanied by analysis justifying the proposal with reference to current and/or future labour market needs.⁴⁵

At local level, the learning outcomes are translated into learning objectives for each of the alternating periods in the main programme by the VET school and the local education committee. Finally, the individual educational plan for each student specifies the learning objectives in more detail.

Outcome-based curricula in principle strongly facilitate mobility, since there is flexibility to adjust plans to concrete work tasks at the employer's workplace as long as the training objectives are met at the end of the apprenticeship. VET providers confirm this and emphasise that the flexibility of the curriculum gives ample opportunities for catching up on specific occupationally related objectives, while the students always take home non-curricular skills like language, culture, and self-understanding. One of the VET providers however points out that translating and communicating training objectives to employers in other countries can be challenging, since employers in other countries sometimes have difficulties understanding the concept of outcome-based training. Finally, the receiving companies cannot be expected to have HR capacity to oversee that the training is in bearing with the objectives, which puts the responsibility for the relevance of the learning activities on students themselves.

Validation of the work-based learning plays a pivotal role in the PIU programme. Before a student embarks upon a school period, their competences are evaluated

⁴⁵ Cedefop (2018). *Country Report Denmark*. [Online] https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Denmark_2018_Cedefop_ReferNet.pdf

to ensure that they are in bearing with the learning objectives. If the student is posted by a company, the company is responsible for the evaluation. An example of how the flexibility of the process works out was given by a VET school: If a period of company based training lasts e.g. 12 months, and there are seven learning objectives for the period, the in-company trainer (the Master) and the student can work to ensure that the seven objectives are fulfilled in a shorter time, e.g. 10 months, which leaves 2 months for a stay in a company abroad where neither the student, the foreign company nor the Danish host company has to provide evidence for actual learning outcomes.

1.2.8. Dimension 2.15 Legal basis for apprenticeships and integration of mobility

Mobility during apprenticeship is inscribed in the Danish VET legislation as a possibility. The Act on VET states that the company-based part of VET programmes can be wholly or partly based in a company in another country.⁴⁶

However, only paid employment as an apprentice can entitle to admission to school periods and to the final examination – unpaid stays cannot be approved as part of the curriculum. Part of the salary may take the form of board and lodging, but students need to be able to make a decent living in the country based on the salary.

While several interviewees emphasise the importance of the legal basis in conveying to students the understanding that mobility is their legitimate right, the representative from the Confederation of Danish Industry (DI) stressed that a formal (mandatory) inclusion of mobility in the Danish VET-system is not among the priorities of the Confederation, since, according to the representative, priority should always be given to ensuring that apprentices acquire the learning outcomes that they need to enter the Danish labour market and contribute to growth in the training company in Denmark.

Hence, while the legal basis in the shape of the Act on VET can be seen to facilitate mobility in apprenticeships, there is also a certain level of political unwillingness among employers' representatives to extend the students' right to mobility further.

⁴⁶ The Act on vocational education and training (in Danish): <https://www.retsinformation.dk/Forms/R0710.aspx?id=210275>

1.2.9. Key enablers and disablers at system level

As previous sections have indicated, several factors at system level contribute to favourable conditions for CB LTMA in Denmark.

The key enablers at system level can be summarised as follows:

- The dual system requires students to complete parts of their education as company-based training. In combination with legislation training in other countries, this ensures the legitimacy of the mobility.
- The structure of alternance in the Danish VET programmes with relatively long periods of company-based training interspersed by shorter periods of school-based learning facilitates CB LTMA, since longer stays abroad can easily be accommodated in the alternance structure.
- The fact that curricula are outcome-based, so that the content of training is not laid down in detail means that concrete pathways may vary considerably, and that mobility can be accommodated as long as the objectives are met.
- The funding of in-company training is in principle an enabler of mobility, since the reimbursement system allows for placements abroad. However, the fact that employers pay a salary to apprentices may serve to strengthen the employee-status of the apprentice, and while this may otherwise be positive for future employment opportunities, it may work against mobility.
- The existence of a standard contract specifying the duties of the employer and the apprentice, and accompanied by a training plan clearly enables mobility, since it facilitates the agreement about terms for the apprenticeship with the employer in the receiving country.
- The structure of curricula where the duration of periods at school and in the company as well as the training objectives for each period is clearly specified can serve as guidelines for employers.
- The use of validation of learning at the end of a stay abroad ensures that students' learning progress is kept on track.
- The legal base setting out the basic requirements for apprenticeship clearly facilitates mobility, since it serves as a basis for negotiation and provides a clear basis for deciding whether an offer from an employer should be considered relevant.

Key disablers at system level include:

- The function of apprenticeship as a source of employment may act against mobility, especially in SMEs where it may be difficult to do without the apprentice for a prolonged period of time.

- The governance of the VET system where the main responsibilities lay with the social partners creates a situation where fluctuations in sectoral labour markets may influence CB LTMA positively or negatively. Where labour markets are tight, the social partners tend to want to restrain mobility of apprentices.
- The relatively high Danish apprenticeship salary may work against mobility, since it makes it less attractive in economic terms for students to go abroad.
- However, only paid employment as an apprentice can entitle to admission to school periods and to the final examination – unpaid stays, while they can be accommodated in the overall training plan, cannot be approved as part of the curriculum contributing to the learning objectives.

1.3. Implementation level

1.3.1. Dimension 3.1. Governance of apprenticeship implementation

Apprenticeship implementation (individual apprenticeships) is governed in principle by the local education committees, however, in practice, the apprenticeships are managed in a collaboration between the VET school and the employer. The VET schools employ apprenticeship coordinators, and the training companies are obliged to name a person who will be legally responsible for the education (the training manager)⁴⁷. In addition, the company may name one or more persons as daily trainers. These trainers must be craftsmen, hold a VET qualification and have work experience.⁴⁸ They must have completed a VET programme for which they have received a 'journeyman's certificate' and have work experience. Since the training plans for the work-based training are not laid down in training regulations, but agreed between the school, the training manager and the student, the implementation hinges very much on the initiative and engagement of these individuals and their mutual relationship.

1.3.2. Dimension 3.2. Age of apprentices at enrolment

In spite of the Danish VET programme being initial upper secondary education, less than half the students that enter the programme directly after compulsory education: about 60% of Danish VET students are more than 20 years old when

⁴⁷ Uddannelsesansvarlig in Danish.

⁴⁸ Andersen, Ole Dibbern & Helms, Niels Henrik (2019). Vocational education and training in Europe: Denmark. Cedefop ReferNet VET in Europe reports (2018). [Online] https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Denmark_2018_Cedefop_ReferNet.pdf

enrolling.⁴⁹ All interviewed stakeholders agree that this is positive for the volume of mobile apprentices, since the youngest students, who are 15-18 years old are often not sufficiently mature. According to the PIU secretariat, which supports mobilities for students in VET programmes in retail and administration, 90-95% of their “customers” that want to undertake apprenticeship abroad have completed upper secondary general education *before* enrolling in a VET course. Hence, they are typically 18-20 years old. The support of parents is still immensely important. Often the apprentices come from families where one or both parents work internationally, and these apprentices tend to do better than others that enjoy less understanding and/or general support.

According to the PIU coordinators at the VET schools, the mobile students tend to be between 18 and 23-25 years old. Students who are older than 23-25 years more often have family obligations preventing them from going abroad for a prolonged period.

1.3.3. Dimension 3.3. Employers’ attitude towards apprenticeship

Officially, employers do not express any particular negative or positive attitude towards mobility of apprentices, and it is difficult to find evidence supporting the existence of a position on the topic shared widely among employers. Some employers are very supportive, others not so much, according to the interviews with PIU coordinators. However, the representative from the Confederation of Danish Industry, individual employers’ attitude may be affected by negatively by financial difficulties and/or skill shortages. Regarding incoming mobility, Danish companies are not in principle uninterested, but may not be able to invest the resources needed to host an apprentice from abroad (using manpower on integration, finding accommodation and sorting out social security and other administrative tasks).

1.3.4. Dimensions 3.4 and 3.5 (Long-term) mobility national strategies or initiatives; 3.15 Pilot projects for (long-term) mobility

In Denmark, the national strategy for long-term apprentice cross-border mobility is implemented since the early 1990s mainly through the PIU Programme (‘Praktik I Udlandet’: Apprenticeship abroad, see Box 1).

⁴⁹ Danske Erhvervsskoler og Gymnasier (2019). Faktaark vedr. Aldersfordeling på erhvervsuddannelserne (eud). (Facts about the age distribution of upper secondary IVET students)[online] https://deg.dk/fileadmin/3._Uddannelser/Erhvervsskolen_i_tal_2018/180807_Faktaark_vedr._aldersfordeling_paa_eud.pdf

Box 1. The PIU Programme

The PIU programme was launched in 1992. It has two main objectives:

- to ensure that apprenticeship abroad is recognised and accredited as part of the formal vocational education in Denmark; and
- to provide financial support to companies sending apprentice abroad to a hosting company.

PIU hence offers a framework and financial support to apprentices to complete part of their apprenticeship abroad and to Danish employers or VET schools who send apprentices abroad. Any private or public employer in Denmark can use financial support from the PIU scheme to send apprentices abroad for a shorter or longer period with financial support from AUB, the Employers' reimbursement scheme (see section 1.2.4).

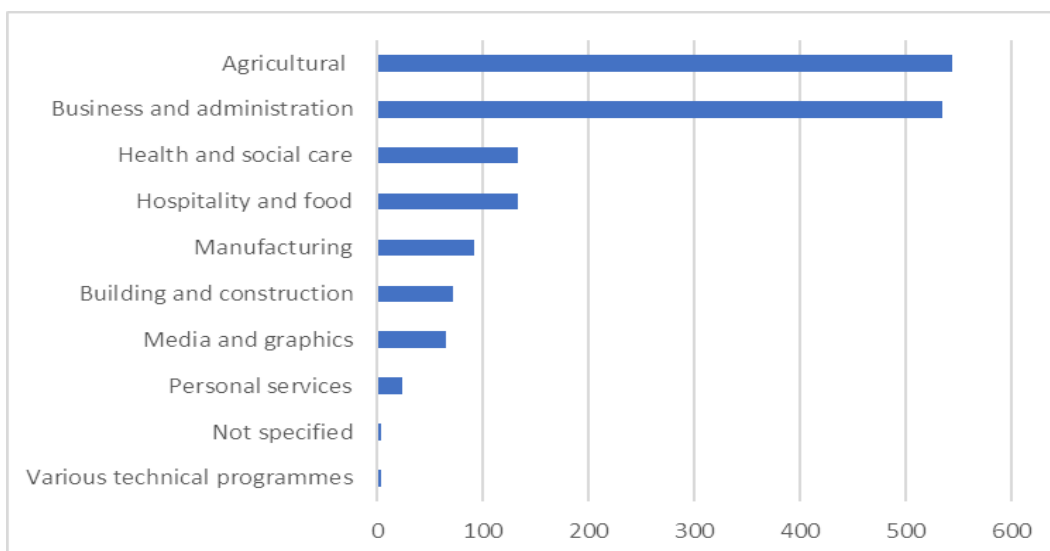
About 1600 students a year use the PIU scheme to support mobility. PIU only supports placement in enterprises, and it is a condition that a training contract exists and that the apprentice receives a salary. If these conditions apply, and the student meets the training objectives for the placement, it is recognised as part of the apprenticeship. The assessment involved follow-up reports by students and host enterprises, an assessment at the end of the placement by the host enterprise, and validation and recognition by the vet school in Denmark.

There are no geographical restrictions. The average length of stays are 6-7 months.

Sources: The PIU homepage, <https://ufm.dk/uddannelse/tilskud-til-udveksling-og-internationale-projekter/praktik-i-udlandet-piu>; Kristensen, S. (2018). *The PIU-scheme. Long-term mobility as an integral part of IVET in Denmark*. Presentation at the ECVET Annual Forum in Sofia, 2018.

In 2017, the mobile students were distributed on occupational groupings of VET programmes as shown in Figure 3.

Figure 3: Number of students in the PIU programme by sectoral groupings of VET programmes, 2017



In addition to the PIU programme, students may get support from the DK/USA Programme, a collaboration between Denmark and USA within vocational education.⁵⁰ The partnership involves American community colleges and Danish vocational colleges. The partnership was formed in 2000. The DK/USA Programme provides financial support for cross-country mobility activities. To apply for funding, the student must have a written agreement with an American company prior to the work placement. The stay overseas must be at least four weeks long.

Besides PIU, no national initiatives with relevance for apprentices' mobility have been recorded since 2009 when the advisory council on vocational upper secondary education and training (REU, Rådet for de grundlæggende Erhvervsrettede Uddannelser) published a strategy for internalisation of VET.⁵¹ Initiatives in the field rest on the international strategies at the level of VET schools, while the national level provides financing instruments and legislation. However, According to the Ministry of Education, EU initiatives in this field are more important

⁵⁰ <https://ufm.dk/uddannelse/tilskud-til-udveksling-og-internationale-projekter/dk-usa-programmet>

⁵¹ REU (2009). *Erhvervsuddannelser med internationalt perspektiv*. [Online] <https://ufm.dk/publikationer/2009/erhvervsuddannelser-med-internationalt-perspektiv>.

drivers than the Danish government, for example, Erasmus Pro offers new opportunities. The political initiatives and tools however provide only a framework. The prime initiative to individual mobilities come from individual students, possibly prompted by counsellors or international coordinators at the school, while initiative rarely or never comes from the employer.

1.3.5. Dimension 3.6. Flexibility of curriculum to include learning from mobility

At local level, the learning outcomes of each VET programme are translated into learning objectives for each of the alternating periods in the main programme by the VET school and the local education committee. Finally, the individual educational plan for each student specifies the learning objectives in more detail.

1.3.6. Dimension 3.7. Methodologies and guidelines

The overall methodology employed in Denmark with respect to mobility in apprenticeship consists in leaving as much initiative to students as possible. This requires access to information, and there is no lack of information available about mobility in apprenticeship for students and companies.

The Ministry for Higher Education and Research, who is responsible for the PIU programme, offers information on its website under the following headings (in Danish): 'Who may go abroad for apprenticeship? Where and for how long? How does the student get to go abroad? Who pays for the apprenticeship? How to prepare the student for a PIU mobility? PIU students' stories.'⁵² Under the headlines, information is given, for example on working permits, social and health insurance etc. On the AUB website, employers can find detailed information about reimbursement rules.

With regard to incoming mobility, students and receiving companies may find information (in Danish) on the portal Ny i Danmark ('New in Denmark').⁵³

⁵² <https://ufm.dk/uddannelse/tilskud-til-udveksling-og-internationale-projekter/praktik-i-udlandet-piu>

⁵³ https://www.nyidanmark.dk/Templates/SubPage.aspx?NRMODE=Published&NRNODEGUID=%7B62573BAC-53B5-4D34-86AD-AFE2D8FDCCCE%7D&NRORIGINALURL=%2Fda-dk%2FOphold%2Fpraktikanter%2F%3Fwbc_purpose%3DBasicSearchDecisions%2EhtmSearchLaws%2Ehtm&NRCACHEHINT=NoModifyGuest&wbc_purpose=BasicSearchDecisions.htmSearchLaws.htm

In addition to these sources of information, VET schools employ international coordinators with the role of coordinating mobility programmes, fundraising, establishing partnerships, informing the students about their options, for example through leaflets produced by the Danish Agency for Research and Higher Education or by individual schools with links to the aforementioned sources of information. The coordinators however emphasised that the most effective method is 1-1 counselling. However, they also offered the insight that if they take over tasks from the student with respect to research, contact and communication from the student, it increases the risk that the student is not sufficiently prepared and ends up terminating the placement early.

The flip side of this approach is that authorities and schools, while actively promoting mobility, do not set targets for the awareness among students nor for the volume of mobility created as a result of the awareness raising. Hence, if students are not aware of their options, the number of mobilities is less than it could otherwise have been. And indeed, the coordinators informed us that they are surprised about the (low) level of awareness about apprenticeship abroad among students as well as employers, in spite of all their efforts to raise this level through info-days, visits to classrooms, and open doors for guidance.

A specific approach is found in the agricultural sector, where the programme Travel to Farm (T2F) offers support to both outgoing and incoming apprenticeships in the sector. T2F is a not-for-profit exchange organisation created and supported by the sectoral social partners and the educational institutions in the sector. Together with partners in a number of countries, they arrange travel, insurance and contact to employers. Potential apprentices pay for these costs but get a salary while abroad.⁵⁴

1.3.7. Dimensions 3.8. Authorities promoting long-term mobility of apprentices; 3.9. Involvement of intermediary organisations and structures;

The Danish Agency for Science and Higher Education and Research is responsible for the PIU programme as well as for the DK/USA Programme and Erasmus+. The ministry promotes the programme through information meetings for schools at regular intervals, and the coordinator in the ministry is available to answer questions from the coordinators at the VET schools.

⁵⁴ <https://t2f.dk/>

One of the VET providers emphasizes that the Danish Agency for Science and Higher Education does a tremendous job. The agency conducts conferences and seminars and arranges 'contact seminars' abroad for VET schools across the EU about opportunities. The agency also runs a network for PIU coordinators.

The PIU Secretariat, acts as a sort of intermediary. The name of the secretariat is quite misleading, as it would indicate that their activities cover all VET programmes and schools. This is however not the case. The secretariat only provides its services to 31 VET schools and upper secondary education colleges that offer programmes within business school subjects (e.g. retail and economics). Instead of having local PIU coordinators, these schools have pooled their resources in one secretariat with three full-time staff. The secretariat in addition to providing individual guidance to students also develop information materials, including a leaflet in English and German to prospective host companies abroad. In addition, the secretariat it has built up a portfolio of partner companies, most of them in Germany, who have agreed to host Danish apprentices.

Pooling the resources of schools in other types of VET programmes would probably make a difference but has not yet taken place, and some PIU coordinators indicated that the schools want to keep their networks to themselves, once they have put in the efforts of establishing them. In this respect, they indicated that SEOs and employers' associations could make a difference, for instance by using their network to promote Danish VET students abroad, by supporting campaigns etc.

1.3.8. Dimension 3.10. Role and capacity of VET providers in implementing mobility

VET providers are given no earmarked resources for promoting mobility or for internationalisation in general. As already noted, most schools have dedicated at least one person to coordinate these activities in the expectation that funds raised from exchange and collaboration programmes covers the cost of employing the coordinator. In the PIU programme, there is a bonus of DKK 25,000 (to schools for each student who has completed a mobility).

According to the respondents it varies a lot to what extent the VET providers have the capacity (human resources, know-how, international links) for the implementation of CB LTMA policy. In some schools, students get help to apprenticeship searching and in others they do not. According to the respondent from the PIU Secretariat the main challenge for mobility is finding good host companies. For the students, it is a huge task, and for the coordinators as well.

1.3.9. Dimension 3.11. Funding of long-term mobility

Mobile students can apply for a grant from the Danish Employers' reimbursement system (AUB). However, a condition for the grant is that the host employer pays the apprentice's salary. In some countries (southern Europe) the salary offered is unrealistically low, and the apprentice cannot pay for board and lodging out of the salary.

According to the interviews, the AUB funding is effective in enabling mobility, but the same time, that the amounts paid to students are barely sufficient. The respondent from DI emphasizes that it could be helpful to set up some kind of organisation or agency that matches apprentices with in-company placements, deals with accommodation, social security and residence permits. If companies were to receive more support in hosting apprentices, they may be more likely to get involved in CB LTMA.

1.3.10. Dimensions 3.12. Employers' interest in receiving apprentices from abroad on long-term mobility; 3.13. Employers' interest in letting apprentices go abroad on long-term mobility; 3.14. Apprentices and their families' interest in long-term mobility

As already mentioned, interviewees assess that there is limited interest among employers in receiving apprentices from abroad, since employers assess that the resources needed to host apprentices from other countries exceed the value created by having them in the company. There are sectoral differences, however, since Travel to Farm is successful in placing foreign students in Danish farms, while manufacturing appears to have very few foreign apprentices.⁵⁵ It has also been mentioned already that some Danish employers are reluctant to send apprentices abroad, as they as training companies are responsible for the students' achievements. The representative from the Confederation of Danish Industry noted a paradox: In the beginning of the main programme, apprentices incur the highest cost and contribute least value to their training company, and hence, the employer may be willing to send them abroad to obtain work experience in a foreign company, but at that stage, they are often too young and inexperienced to be willing to go abroad (cf. section 1.3.2 above). On the other hand, once they have completed two or three periods of company-based learning, and have become somewhat older, the students may be more motivated for

⁵⁵ According to anecdotal evidence from social partners and VET schools, figures are not available.

mobility, but since they now contribute substantial value to the employer, the employer may be reluctant to send them abroad.

1.3.11. Key enablers and disablers at implementation level

As previous sections have indicated, factors at implementation level can be identified that facilitate CB LTMA while other factors act as barriers.

The key enablers at implementation level can be summarised as follows:

- The existence of internationalisation/PIU coordinators at school level provides an enabler, since students can address a concrete knowledgeable person on campus for support and answers to questions with relevance for mobility.
- The coordinators work to promote the opportunities for mobility and are constantly kept up to date in the context of the network supported by the Danish Agency for Research and Higher Education.
- The fact that Danish VET students are quite mature when enrolling in a VET programme facilitates mobility, since at this age, the students tend to be personally more robust and also more courageous than younger students.
- The outcome based curriculum with its extensive opportunities for students, training companies and schools to draw up individual pathways enables mobility even in cases where foreign companies are not able to provide the exact learning outcomes scheduled for the relevant in-company period.
- The easy access to clear guidelines for schools, students, and employers facilitate CB LTMA since most questions can be answered through a simple internet search.
- The more elaborate method used by Travel to Farm, where the organisation acts as a combined travel agency and guidance body in particular serves to enable CB LTMA in the agricultural sector.

Key disablers at implementation level include:

- The strong reliance on the ability and initiative of individual students in establishing a contract with an employer in another country with only light guidance and factual assistance from the PIU coordinators may deter many students from CB LTMA
- The expectation that an apprentice should contribute positively to the productivity and growth in the training company, while in general very positive for employers' attitudes towards apprenticeship, is a potential

barrier for CB LMTA, since employers expect to get the full use of their apprentice throughout the entire main programme.

- The light involvement of national authorities in promoting mobility entails that promotion is to a large extent left to those of the social partners who have an interest in the topic and to the individual VET schools, and the result is that the intensity of promotion activities is very uneven across sectors and geography.
- Evidence suggests that employers, in particular in the manufacturing sector, are quite reluctant to receive mobile apprentices from other countries.
- Companies that would like to host an apprentice do not have easy access to an organisation or agency supporting the actual matching of apprentices with host companies and dealing with practical issues like accommodation, residence and work permits and social security.

CHAPTER 2. Latest and future developments

There are currently no plans to change the PIU programme or the AUB reimbursement rules, so the support to mobile Danish VET students can be expected to be the same as currently going forward. With respect to the distribution of mobile apprentices across the VET programme fields, no change can be expected, since there is no evidence of sectoral initiatives that could change the current picture. Considering the volume of mobility, its future size can be influenced positively or negatively by up- or downturns in the business cycle, but past trends indicate that the overall volume of mobile students going abroad from Denmark can be expected to grow at a slow, but steady pace.

No forward-looking work or foresights have been carried out with direct relevance to CB LMTA in Denmark in recent years. Focus of policy efforts has been narrowly on securing a sufficient supply of apprenticeship places in Denmark for Danish VET students, cf. the aforementioned tripartite agreement (see section 1.2.2).

Conclusions

The Danish dual VET system in many respects facilitate CB LTMA. At the framework level, legislation is conducive to mobility, and in some sectors, there is a long-standing tradition for mobility. The regulatory instruments are well-gearred to mobility, notably by requiring that host employers pay a salary to mobile apprentices, hence ensuring that students' costs of board and lodging are taken care of without putting burdens on the Danish employer or the VET school.

At system level, mobility is aided by a funding scheme (the PIU programme) reimbursing some of the costs for students as well as employers. The duration of the apprenticeship period and the alternance structure characterised by relatively long unbroken in-company periods, opens up opportunities for timing of mobilities combining the needs of the student and the host company and – where relevant – the sending employer. This is further enhanced by the outcome-based curricula that provide flexibility in cases where the tasks available for apprentices in the host company do not match perfectly with the learning objectives for the specific in-company training period.

Finally, at the implementation level, mobility is enhanced by students' access to general information on a variety of platforms, to personal guidance by knowledgeable coordinators in the VET schools, to host employers where the coordinators have built networks of employers in receiving countries, and - in the case of Travel to Farm - to the services of an intermediary arranging contacts and travel.

Taking these factors into account, the share of mobile apprentices in Denmark may seem very low, at around 2%. The low uptake can however at least in part be explained by looking at factors that work against mobility.

At the framework level the Danish business structure dominated by small SMEs is probably the greatest barrier for mobility, in particular of apprentices into Denmark, but also to some extent, outgoing mobility.

At system level, while the dual apprenticeship system in Denmark has strong features facilitating mobility, it cannot be viewed in isolation, since mobility always involved two countries, and thus, two apprenticeship systems. It may be difficult to reconcile the requirements to apprentices where the systems differ fundamentally. This goes some way to explain why the majority of mobile apprentices go to

Germany, where the system is also dual. However, this is not the only explanation, since other countries with dual systems (Austria and the Netherlands) receive negligible numbers of Danish apprentices.⁵⁶ However, the relative proximity of Germany and the PIU secretariat's efforts to establish a network of German host companies most probably adds to the popularity of Germany as the top destination of mobile apprentices.

Further, the function of Danish apprentices as 'employees in learning' in companies, while strongly enhancing the apprenticeship system as such, is a powerful force working against mobility, because employers have a strong interest in keeping talented apprentices working in their own company which may overshadow their motivation for contributing to the apprentices' international outlook.

Finally, at implementation level, the decentralised governance and the amount of initiative left to individuals give rise to a somewhat uneven uptake of mobility programmes, where results in terms of mobility depend on local conditions, the interest of sectoral social partners, and the international outlook of VET schools.

⁵⁶ Exact figures for the distribution on countries are not available, but the top ten countries are: Germany (with approximately ¼ of all apprentices participating in PIU), the UK, Norway, Iceland, Spain, Australia, Tanzania, Sweden, the US, New Zealand. <https://ufm.dk/aktuelt/nyheder/2018/praktik-i-udlandet-vokser-fortsat-blandt-elever-i-erhvervsuddannelserne>

Annex 1. Interview partners

The following interviewees gave their written and signed consent to their names appearing in this list. In addition, we interviewed one person from an employer organisation who did not want the name of themselves or the organisation listed.

Stakeholder group	Name of organization	Interviewee
Ministries and governmental representatives	Ministry of Higher Education and Science	Lars Møller Bentsen (international adviser)
	Ministry of Education	Torben Schuster (chief consultant, international office)
Social partners at national and/or sectoral level	FH (Fagbevægelsens Hovedorganisation) / Danish Trade Union Confederation	Morten Smistrup (educational policy consultant)
	HK / Danish union for salaried employees	Claus Agø Hansen (educational policy consultant)
	Dansk Industri / The Confederation of Danish Industry	Anja Trier Wang (senior chief consultant)
Organisations representing VET providers	PIU Secretariat	Mie Harder Nielsen (secretariat director)
	Aarhus TECH	Flemming Olesen (international coordinator)
	next (Copenhagen)	Katrine Kruse (head of department, Next LAB)
	Hotel- og Restaurantskole	Tea Holmgård Danquah (international coordinator)
	Roskilde Tekniske Skole	Pernille Bjerre - Tværgående international koordinator
Organisations representing apprentices, learners and youth	Erhvervsskolernes Elevorganisation (EEO) /	Peter Hybsmann

	Vocational colleges' student association	
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