

BRUNO CLEMATIDE (Kubix)

ASTRID DAHL & ANDERS VIND (Danish Confederation of Trade Unions)

CHRISTIAN HELMS JOERGENSEN (Roskilde University)

Challenges for the Danish VET-system – on the path towards a future model

1 Some characteristics of the Danish VET-system

It is the aim of vocational education and training programmes to ensure the labour market has an intake of qualified skilled staff and at the same time give primarily young people (and secondarily adults) an education and training opportunity.

In addition to leading to employment, it is the aim of the vocational education and training programmes that they are to give the graduates access to, and an aspiration for, further education, and at the same time contribute to the students' personal and social development.

In Denmark, the duration of initial vocational education is a minimum of two years or longer for certain professions, the most common period being four years. The system of alternance is characterised by the separation of periods of time spent in the school periods and in the enterprises which may be as long as 20 weeks.

About one third of the content in the technical and commercial colleges, such as languages, and mathematics, is defined by general law on vocational education. The remaining parts – the technical oriented disciplines – are defined by the social partners. For each profession, a committee at the national level governs the content of the education. The social partners – trade unions and employer associations – form the committees. What they decide upon has to be confirmed by the Ministry of Education. These committees actually define the end goal of each profession. Each technical and commercial college has to make local educational plans that specify how to reach the goals that are set up by the committees. These plans have to be confirmed by the local social partners.

A reform with effect from 2001 has modified the technical vocational education and training programmes so that they now have a simplified structure and a more flexible organisation.

The programmes consist of a basic course, which is the introductory part of the programme, and a main course, which makes up the remainder of the programme.

The basic courses are school-based and completed with the award of a certificate documenting the nature of the completed basic course. The certificate lists the subjects and levels completed by the student and constitutes the basis for admission to the main course. The basic course normally consists of a total of 20 weeks of teaching for technical oriented, and 80 weeks for commercial oriented programmes.

The main course consists of both theoretical education at school and practical training. This requires that the student concludes a training agreement with a business enterprise or is admitted to the school-based practical training scheme. The main course begins with a practical training period.

With the reform, the introductory parts of the vocational education and training programmes are merged into a limited number of flexible common access routes. There are a total of seven access routes - six for the technical vocational education and training programmes and one for the commercial programmes. Each of the access routes leads the participant to the basic course of a number of related vocational education and training programmes, which are called:

- Technology and communication
- Building and construction
- Crafts and engineering trades
- From the farm to the fork – agriculture, food production, catering etc.
- Mechanical engineering, transport and logistics
- Service trades
- The commercial area – trade, office and finance.

The same reform of 2001 has introduced the following new principle: All students enrolled in vocational education and training, have their own personal education plan. It is the aim of the education plan to ensure concordance between the student's desires, interests and abilities and the actual course of education. The contents of the individual student's basic course and main course - including the practical training part of the programme - are thus defined in the personal education plan.

The drawing up of the personal education plan must be done in cooperation between the student and the college - and for students who have concluded a training agreement with a business enterprise also in cooperation with the practical training place. In this way, it is underlined that it is the student, who, within the framework of the provisions applying to the chosen programme, determines his or her own course of education. This will, on the one hand, make it possible to meet the student's individual learning needs, and, on the other hand, it will make it possible to develop the personal competency of the student.

In practice this principle of individual education plans has not led to large variety of paths. A typical day at a vocational college will still be characterized by theoretical and workshop based sessions organised in classes that are rather stable for the period of one school block, i.e. five weeks.

1.1 A rough attempt at comparison

When comparing VET-systems in different countries, you may roughly identify three principles according to which you can define the vocational education and training programmes: *market-driven* based in the enterprises; *state-controlled* building on the comprehensive public school; and *occupation-driven* based on high levels of influence from the social partners. In order to illustrate how these principles look like in real life, you can use England (market), France (state), and Germany (occupations) as examples – even though the principles in praxis are to some extent always mixed. The Danish model is closest to the German dual system which also builds on alternating training. The three models are formed by the specific historic conditions in these three countries.

Table 1: **Three VET-models**

	<i>a) Market-driven</i>	<i>b) State-controlled</i>	<i>c) Occupation-driven</i>
Rationale	Production logics	School logics	Occupational logics
Political culture	Liberalistic competitive oriented	Centralistic state-centred (étatist)	Neo-corporative Social consensus
The framework of the education programmes	Business and individuals	The subject of the education and the citizen	The vocational occupation
Content	The needs of the individual enterprise: - Utility-oriented - short term and specific skills	Politically determined with focus on: - Generalknowledge - Course-oriented - Academic school knowledge	Determined by the organisations: - Occupational relevance - Traditions
Labour markets VET relates to:	Internal labour markets	Occupational and internal labour markets	Occupational labour markets
Strengths	Flexible Cheap for the state Close to the needs of production	Strong linkage to the general educations No problems with lack of training places	Broad vocational educations With status equal to general education
Weaknesses	Under-investment in training and education	Weak linkage to the labour market	Inertia in the institutions

In Denmark and Germany, the traditional apprenticeship was modernized with the advent of industrialism, and the guilds' autonomy was carried on in the modern system with committees of the social partners and the dual system. In this model the state leaves part of the control of the vocational education programmes to the social partners. This implies that all three actors - the state, the enterprises, and the employees (via the organisations) – influence and share the responsibility for the vocational education being provided. Vocational education is the institutional framework within which the different interests can be part of the interplay

transcending the limits of these interests. With the alternance system, the school and the enterprise become closely linked because they enter into joint education and training efforts for which they are both responsible. This means that this system adequately bridges school and labour market and makes it easier for young people with a vocational education to get a job. The weakness of the model is that the organisations may cultivate their specific interests, e.g. in relation to protect demarcations and secure the monopoly of the profession.

The Danish system resembles the German system, even though there are differences. For instance, more young people in Germany receive a vocational education, and the unions have less influence than in Denmark. Furthermore, the Danish system is based on a mix of state control of specifically the school-based education, market-driven supply of practical training places, and the social partners' influence on the content of the vocational education and training programmes.

Each model has its strengths and its weaknesses. The issue is whether the Danish (and the German) model has a future in a world where, on the one hand, the need of enterprise specific training and, on the other hand, the need for more general education become still more important. In short, vocational education and training is drawn in two directions at the same time. On the one hand, vocational education and training programmes are drawn towards a modular structure, flexible intake and finalization, variable length and a free choice – a development more like the English model. On the other hand, vocational education and training is drawn towards general education, pursuing the increased emphasis on knowledge acquired at school and maintaining the possibility of continuing into higher education – a development more like the French model. But there is also a possibility of a reform which further develops the Danish model.

This short description and comparison tells about two main characteristics of the Danish VET-system that are important for the understanding of the following arguments in this paper:

- The Danish VET-system is a dual system building on the alternance between the two learning arenas: the vocational college and the enterprise.
- The social partners have a high degree of influence on the content and the end goals of each curriculum/ professional scheme – within the framework of the national law on vocational education. This has to be seen against the background of the fact that the Danish labour market is characterised by a very high degree of organisation, both for employers and employees.

2 The interests of the trade unions

Being one of the social partners, it is obvious that the trade unions have a strong interest in the question of the future model for vocational education and training. This is due not only to the fact that education and training is part of the organisations' fight for members and field of

action but, more importantly, is the mentioned implications of vocational education on the functioning of the labour market, the division of work and the social structure of society.

A market-driven model contributes to a more polarized labour market, which means that it becomes more difficult for the trade union to act as a representative for all employees. It becomes more difficult for the trade unions to combine the task of being a service organ for the strong members and a safety net for the weak groups. The high degree of unionization and the unitary trade union system in Denmark result from the relatively homogenous labour market and the trade unions' historical connection to the vocational education and training system. In the two other models, vocational training is closely linked to the enterprises which further company loyalty rather than professional solidarity. Thus, the education system is, in part, decisive to the possibility of trade unions acting as a unified movement and as a partner at societal level.

Furthermore, the organized labour market contributes to promote cooperation in the enterprises and fewer social tensions in society. The presence of a strong trade union tends to make the employers regard the labour force as an asset which has to be involved in decision-making, because the opposite solution – exclusively regarding the labour force as costs – is blocked. The institutional context on the labour market in Denmark furthers an organisational development at enterprise level characterized by mutual trust, responsibility and cooperation. The very fact that vocational education and training is defined as a task for the social partners makes the organisations more involved in the development of the professions, the technology and the enterprises, than it is the case in the market-model which furthers a more traditional conflict culture.

These circumstances indicate that the design of the vocational education and training has considerable impact on the labour market's way of functioning. The future development of vocational education and training has potentially far-reaching implications for both the relations of production, and the form of cooperation on the labour market.

3 On the path towards a new model

As just mentioned above, Danish trade unions have a huge interest in a well functioning VET-system. The Danish Confederation of Trade Unions, LO, has just launched a process aimed at the development of a new model for the Danish VET-system. Generally spoken LO seeks VET-solutions that in the long term are able to secure the demand for skilled employees in all public and private business sectors, and solutions that at the same time contribute to a good start for young people and re-entry possibilities for employees occupied in sectors undergoing structural change.

LO wants to develop a new VET-model regarding structure, content and educational principles. The model building process involves several trade unions, researchers and consultants and, of course, LO itself.

We think that the process of development as such could be interesting for the audience at www.bwpat.de.

The actors are as follows:

- LO itself as both initiator and participant in the process
- Representatives from about ten trade unions collected in the so-called Development Forum 2014
- Researchers from Roskilde University and the Danish University of Education
- Consultants from the Danish Technological Institute, New Insight and Kubix

The process was launched as a joint seminar, a 'workshop on problems', where representatives from trade unions pointed out what they considered the main problems and challenges for the Danish VET-system.

A couple of research projects, initiated by LO and linked to the process, presented their main themes as well:

- A study of two emerging service sectors: wellness and media
- A study on specific IT-related issues
- A study on professional identity
- A study on educational aspects of alternance in two specific sectors
- A study on the Danish VET-model in a comparative perspective

All these studies have their own value, and at the same time they are expected to reveal general insights that can contribute to the model building process.

At the seminar, the problems new VET-models are expected to solve were listed. More specifically questions that have to be answered during this model building process are as follows: Shall all curricula have the same structure of alternance? How shall new business areas, i.e. the growing wellbeing sector, be covered by initial vocational education – how can it be avoided that different trade unions fight each other regarding these new areas? How can future VET-models cover both youngsters leaving public school and adults who want to or are forced to change occupational field? Are there better principles of alternance than the existing ones facing the fact that fewer and fewer enterprises are able to cover the whole spectrum of a profession? How can the principle of alternance become real for the learners?

The still ongoing process has included a series of meetings between the actors mentioned earlier. At present we are in the phase of turning from the listing of problems and inputs from the research studies towards pointing at solutions. Researchers and consultants will have working sessions that will result in a debating paper describing future VET-models. After that a more political process will follow, involving all trade unions that are members of LO, and

time will show how the other two main actors, employers and the state, will participate in the discussion of the presented models.

In this paper we will concentrate on two main issues that the VET-model building will address:

- How to secure the practical training part of the dual system?
- How shall new emerging industry sectors be covered in a VET-system with high degree of influence by the social partners?

4 How to secure the practical training part of the dual system?

Apparently there is a major problem in all the countries with dual systems. There is a lack of adequate training places. Philip Gonon mentions this in his paper on the Swiss VET-system. German debates are discussing it as well. Without enough training places of sufficient quality the principle of alternance will turn out to be meaningless. In the following a number of causative factors are pointed out: Specializing, technologizing, increased demands on quality, increased speed of change, and efficiency improvement based on a more short-sighted bottom-line thinking.

1. With a simplified description you can say that historically the private enterprises have developed from being part of the local community to increasingly becoming integrated in a global market. This is typically the case for the sectors that are rooted in a specific craft and have developed into an industrial production which is now more and more characterised by specialized knowledge work. This also applies to the many enterprises which via acquisition and mergers become part of transnational corporations. This development influences enterprises' capacity to contribute to vocational education and training. In order to train young people an enterprise has to encompass a number of a trade's common work tasks. The tendency has been to split up the production chain from raw material to end product, implying that the enterprises *specialize* in exactly that part of the value chain where they have most expertise and the best return. This means that the single enterprise has a reduced capacity to offer the professional breadth that a vocational education demands.
2. Especially the enterprises within the manufacturing sector are becoming increasingly more *technology intensive*. Every single workplace costs ever more to establish, and the investments have to be recouped through round-the-clock-production. The production must not come to a standstill, and there is little room for mistakes and experiments as part of the training of young people. In addition, the automation implies that there are fewer possibilities for direct hands on experience in the production process. As work becomes more abstract the contact with the production takes place indirectly through symbols, displays and keyboard and offers reduced possibilities for learning, if you do not have considerable preceding theoretical knowledge.

3. The increasing demands for *quality* and *on-time delivery* imply less possibilities for trainees to participate directly in production. The customers expect that the product meets the agreed demands and is delivered on time – and this may be difficult when trainees take part in the production. Similarly in service sector jobs customers, citizens and clients are increasingly unwilling to be the guinea pigs for trainees' attempts to learn how to do the job correctly.
4. The still increasing *speed of change* questions the role of the enterprises in vocational education, because the education will lag behind the demands of production. The speed of change can make it difficult for the enterprises to sign up for a 3-year contract with a trainee. Many things may have changed within just one year. In addition, the rapidly changing tasks in the enterprise do not necessarily match the educational content that the schools and the social partners' joint committees have defined. The traditional lines of demarcations and work areas are removed in many enterprises and the tasks are performed in inter-disciplinary work groups. The tendency is therefore that the enterprises are both demanding more specific and customized competences – while at the same time they want broad and flexible education profiles.
5. Finally, the production is subject to a still increasing *efficiency improvement* based on new management concepts and market economy calculations. The shareholder economy where the enterprises are constantly weighed and evaluated on the stock market, imply a tendency towards a more short-term, bottom-line thinking in many enterprises. Over a period of years it has grown in popularity to work with lean production that eliminates what is unnecessary and which does not contribute to increasing the surplus of the enterprise. This does limit the enterprises' interest in contributing to the education of the future generations of employees.

It seems clear – due to the tendencies mentioned above - that there will be a continuing lack of adequate training places. That is why we in the on-going model building process are trying to find alternative solutions of how to organize the practical part of the vocational education. Without a practical part of high standard, the principle of alternance will turn out to be obsolete. We are in search of solutions that resemble real workplaces as much as possible. They must not be school-like, but need to have the characteristics of a normal workplace, e.g. that there are not teachers but managers and colleagues of different age groups etc, or, in broader terms, the alternative solutions also have to contribute to the workplace socialisation as one of the important ingredients of practical training. We stress this aspect because of experiences from recent years when vocational colleges have organised the practical training for those apprentices who did not find a practical training place in an enterprise. These compensating initiatives actually had rather good results regarding the development of technical skills, but failed in the end because the employers regarded it as an absolute second rate solution because it was too much like school and not like real life.

5 How shall new emerging industry sectors be covered in a VET-system with high degree of influence by the social partners?

As mentioned earlier, the influence of the social partners is a pillar of the Danish System. And there is actually nobody who really questions this principle. Of course there will always be minor struggles between the national authorities and the social partners, and among the social partners themselves about how much the different parties should have to say, but at a level of principle there is consensus on that.

The social partners' influence is much more questioned when new business sectors emerge, especially sectors where there is a low degree of organisation, both on the employees' side and on the employers' side. The study on the well-being industry – conducted by New Insight - has pointed at this problem very clearly.

The enterprises in this emerging business sectors are normally not organised in employers' associations, and only a few of the employees are members of trade unions. There is not really a legitimate voice which can talk for both the interests of employers and employees. Consequently it will be difficult to define adequate VET-schemes for both sides of the alternance arrangement.

At the same time the study concludes that this emerging sector really needs people with certified vocational knowledge and skills. It cannot continue to develop only on the basis of enthusiasm and private initiative. And customers in the sector demand professional service. Finally, also here there is a need of nationally recognised vocational education in order to secure mobility in the labour market. But who takes the responsibility for defining national VET-schemes - either nobody or everybody? In a country where the membership of unions is defined by trades implying that there are several trade unions in the same 'play-ground', there is considerable risk of a struggle between the trade unions regarding the question who will take possession of this new area?

If there is a solution to this question there is a still unsolved and even bigger problem: that the employers in those emerging sectors are not organised at all. Consequently there is a big risk for not having any counterpart from the employers' side to join the social partners' joint committees.

Most important, however, is the risk that the existing joint committees do not discover emerging sectors at all, resulting in no provision of any vocational education for the employees in these new sectors.

A preliminary option could be to establish monitoring fora that are able to discover new business sectors, or to point at the necessity of merging or combining existing professions/VET-schemes. If insight from these monitoring activities is made available for the social partners there should be a fair chance that action regarding the development of new VET-schemes will be taken.

6 Epilogue

While this contribution is written, the process of model building is still on-going. We hope and are confident that we will be able to find some interesting answers to the mentioned challenges. An update early summer might present stage two of this story.