

Engaging the Business Sector in Vocational Education and Training (VET)

Working Tool for the Political Dialogue and Project Design
in Development Cooperation

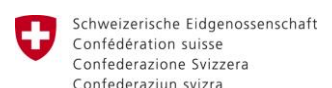
Part 1: STUDY

Part 2: Questionnaire

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The statements in this study are the responsibility of the authors and do not necessarily reflect the opinions of Donor Committee members.



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1 Starting and Target Points

The potential of vocational education and training (VET) to promote economic, social and personal goals is enormous and has not yet been fully exploited in many countries. An effective VET system can help the next generation acquire the skills necessary for qualified employment in the business sector, for responsible participation in society as citizens and for a worthy family life. There is broad consensus that the best way for VET to achieve these goals is if theory and practice, thoughts and actions are combined well in organisational and didactic terms, and if competence development goes beyond functional orientation to narrowly defined company activities.

Forms of dual VET have proven their worth in practice. An essential component of dual training systems is the targeted involvement of the business sector. Alternating school-based and in-company training phases can, in principle, increase the relevance, quality and attractiveness of training (SDC 2016).

Training systems in their various forms have developed historically and correspond more or less closely with the political, social, economic and cultural systems of a country. Against this background, it seems that any transfer of the experiences made in countries with intensive engagement of the business sector is contingent on many factors and constitutes a challenging process. In expert discussions, there is broad agreement that the institutional structures, training cultures and teaching practices found in countries with a pronounced dual training system cannot be transferred one-to-one to other countries (Euler 2013; Dell’Ambrogio 2015). Nevertheless, it is possible to adopt central principles of a dual system and adapt them to the specific frame conditions and objectives of potential transfer countries. In this sense, the experiences gathered in one country serve as an “inspiration” (SDC 2016, 8) for designing VET projects in other countries.

From the above considerations, it can be concluded that the engagement of the business sector in VET must also be discussed and designed against the background of the existing frame conditions and objectives of a country or implementation project. While a national VET system ideally achieves economic, social and personal goals in equal measure, individual implementation projects usually have to focus on specific target groups and objectives. It is important to define and prioritise the objectives of an implementation project because it gives the interventions direction and a basis for evaluation. The objectives also provide a good point of reference for assessing which areas of engagement for the participation of the business sector as set out in chapters 4 and 5 should be taken up and implemented more intensively.

The formulation of the objectives for the development of VET can be based on different levels of abstraction. In more abstract terms, the following goals can be pursued by involving the business sector in VET:

- Economic goals: Qualified skilled workers and increased productivity,
- Social goals: Social integration and
- Personal goals: Employable and responsible personalities.

On a more concrete level, the participation of the business sector would lead to the following goals:

- Higher relevance,
- Better quality and
- Increased attractiveness of training

Other goals are conceivable. It is essential to confirm and concretise the objectives on which an implementation project is based.

The present study and the associated questionnaire are intended to support development cooperation protagonists, so they can structure and implement the dialogue and design process for (increased) engagement of the business sector. The “business sector” is interpreted broadly in this respect. A distinction is made between two reference points:

- (1) All private sector and state-controlled companies which act according to economic principles, and
- (2) umbrella organisations such as business associations, federations, chambers, guilds and employee representatives which, in principle, can fulfil important functions in (the development of) dual VET.

The study is structured as follows:

- In **chapter 2** the frame conditions relevant for VET and the engagement of the business sector are outlined.
- In **chapter 3**, by using a *reference framework*, the conceptual section of this study describes the role of the business sector within the VET system and reveals dependencies on relevant frame conditions. This approach is based on the objective of gradually “dualising” VET, i.e. basically increasing the relevance, quality, attractiveness and thus the performance of training by involving the business sector.
- From the reference framework, possible *areas of engagement* for involving the business sector can be derived. These are explained in **chapters 4 and 5**.
- The areas of engagement need to be designed according to the specific frame conditions of a country and implemented in more or less extensive innovation projects. The necessary planning considerations for the development of an implementation strategy are included in **chapter 6**.
- In **chapter 7** there are references to the questionnaire that is offered parallel to this study (as Part 2).
- Finally, **chapter 8** rounds off the theme with classification and positioning from the perspective of development cooperation.

2 Relevant Frame Conditions

The engagement of the business sector is not unconditional, but takes place under specific frame conditions. The frame conditions are those influencing factors that are defined as given in the short term, but are understood to be at least partially open to influence in the longer term. When planning implementation projects it is essential to raise awareness of the frame factors that are relevant for the engagement of the business sector, and to make these transparent. In a rough classification, a distinction can be made between social/societal, legal/political and economic frame conditions. For the engagement of the business sector, the frame conditions described below have a principle relevance which may vary depending on the country.

2.1 Social/Societal Frame Conditions

The Perspective of Companies

A key social/societal frame condition is the tradition of training in a country. In many countries or sectors, companies do not have a tradition or culture of training qualified skilled labour autonomously (GIZ 2016, 20). Education including VET is defined as a public task there. From this basic definition, it is comprehensible why companies in many countries criticise the quality of a school-based VET system, without seeing themselves responsible for introducing changes (Euler 2015). Accordingly, it would be necessary to start by convincing the companies that taking on an active role in VET will not only strengthen the overall system, but will also be beneficial for them. This applies to many countries with a school-based training system, but also to individual sectors in countries with an established dual system. In addition, the managements in internationally oriented companies also frequently do not understand why they should take the risk of long-term training investments if other forms of staff recruitment and qualification can cover their labour demand faster (shareholder thinking rather than careholder thinking).

The Perspective of Young People and Families

In addition to the perspective of companies, the perspective of young people and their parents is also of great significance because without them it is not possible to establish a training relationship. It needs to be borne in mind that, in many cases, VET does not have a reputation as good as academic education among school graduates and their parents, and is valued less by them. This attitude is ultimately reflected in the educational choice behaviour, with applications for a VET programme only being considered when access to academic education is not possible (any more) (on the factors of educational choice behaviour: Bolli & Rageth 2016, 7; Baethge et al. 2014). The trend towards academisation, which is pronounced in many countries, constitutes a major challenge for the VET system overall but also for gaining companies as training partners. On the one hand, this development further weakens the attractiveness of VET for school graduates. On the other hand, this makes it more difficult to win over companies, which fear they will end up with rather low-performing or “more difficult” young people. Finally, the attractiveness of the business sphere or certain sectors may also be limited among school graduates and their parents, either because of specific critical events (e.g. contentious business practices in individual sectors or companies), or because of society’s view that certain kinds of work are inferior and therefore not very desirable. “China and South Korea, for example, with their strong Confucian cultural heritage think of blue-collar workers such as technicians and laborers as lower class and somehow despised by the general population” (Ratnata, 2013, 2). In order to prevent a failure

in the implementation, the careful selection of sectors and professions to be introduced is as essential as taking the concerns of pupils and parents seriously and including them in the implementation.

2.2 Political and Legal Frame Conditions

One central political frame condition concerns the ownership/governance of VET. This primarily involves the division of responsibility and decision-making power between state protagonists and those from the business sector. Ideal typical, centralist-state and public-private partnership models¹ oppose each other here. Whereas in the former, the state largely regulates and implements VET top-down, the latter includes the delegation of individual tasks from state protagonists to stakeholders from the business sector or civil society. This does not necessarily mean abandoning ultimate political responsibility, but a model of shared responsibility can strengthen the system as a whole.

Financing and Poaching

Questions of ownership and governance in VET are closely connected with financing questions. Depending on the area of engagement, the way in which the financing of such activities is regulated will have a greater or lesser impact on how the business sector is persuaded to commit itself more strongly. The range of possible financing models for VET goes from the extremes of complete financing by the state or the business sector to agreements on the sharing of expenses for specific types of costs (e.g. training allowances, transport costs, insurance, training and further training of training staff). At a more concrete level, the question of financing arises within the groups of protagonists. For example, education expenditure in federal countries is often divided between central entities and sub entities (e.g. federal state/province, canton). As far as the business sector is concerned, efforts are being made to ensure fair sharing of expenditure for training activities in the national economy or within a sector and, for example, to counteract free-rider effects. Different distribution models are practised here, such as the combination of charges and incentives within the framework of a levy grant system, tax relief or a VET fund (GIZ 2018, 33 et seqq.). In addition, voucher programmes and educational loans are occasionally tested on the demand side (Specht 2008, 45 et seqq.).

With the financing of education, it is possible to take up a major challenge connected with companies' motivation to participate in VET, i.e. the fact that trained skilled workers are enticed away by non-training companies (so-called poaching). "*The poaching firm can satisfy its skill demand without own training investments and the poached firm might lose (part of) its training investments. Poaching therefore can lead to an underinvestment in training because firms are hesitant to pay for the acquisition of skills for workers that leave before the training investments are paid off.*" (Mohrenweiser et al. 2013). At the same time, Mohrenweiser et al. (2018) provide the first empirical evidence for the topic of poaching in Germany. They show that the risk of poaching is negligible, affects only a small proportion of mainly larger companies and is rather a temporary problem. However, it remains open to what extent the results can be transferred to the contexts of development cooperation.

VET Legislation

From the viewpoint of VET legislation, the structure of the curricula as well as the regulatory basis can play a decisive role for winning over companies. Thus, the regulatory bases for dual VET in Austria, Germany, Liechtenstein and Switzerland are geared towards the comprehensive competence profile of an occupation that is completed in a programme with a typical duration of two to four years (Bliem et al. 2016). Learners are not awarded a nationally recognised VET qualification until they have completed the entire competence profile. A tiered or partial completion of the entire profile as part of a modular VET structure is only foreseen

¹ "A Public-private partnership (PPP or 3P or P3) is usually a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance." (GIZ 2018, 5).

in these countries as an initial approach or pilot scheme. This rather monolithic structure in the curricula stands in contrast to the modular structure of the VET concepts which are common in many other countries based on a different VET philosophy (such as Australia, UK). Nevertheless, modular concepts have also been implemented in countries which implement dual VET concepts to a significant extent (such as the Netherlands, Luxembourg; cf. Euler 2013, 28 et seqq.; Hövels & Roelofs 2007; Euler & Frank 2011). The state of the regulatory bases can become important for winning over companies if these are perhaps not prepared or able to train the entire job profile, but nevertheless take on individual parts or modules, for example because they see good conditions for implementation in this respect or because these meet their expectations for benefits in a special way. In addition, it needs to be considered that the planning horizon of two to four years for a VET pathway appears unusual for companies in many countries. Curricula with a modular structure would also make it possible to appropriately integrate shorter training phases of a few months up to one year into the structures of a comprehensive training occupation. In this way, several training modules might complement each other step by step to form increasingly more demanding VET programmes, for example, and possibly even interlink with the entry stages of a higher education programme.

Labour Law

Labour law regulations can make it difficult to win over companies or can also support such a process. Thus, for example, contractual provisions for the employment of learners of an occupation can constitute a burden from the viewpoint of companies and therefore be a potential obstacle. In contrast, a training relationship in which, rather than the training, the productive work is predominant might have the result that companies avoid payment of market wages.

2.3 Economic Frame Conditions

Macroeconomic Factors

One central frame condition is, first of all, the form of a national economy or, more specifically, of the respective business sectors. The more the national economy or a sector depends on qualified skilled labour to produce its products and services, the more relevant the corresponding development of effective VET becomes. Sectors that are in transition towards high-quality forms of production and sophisticated services may attract particular interest here (Jäger et al. 2016, 58).

Characteristics of Companies

In an economic and legal sense, the business sector is distinguished especially by the ownership structure of a company. In line with this definition, the business sector includes all companies of a national economy or a country which are organised according to private law. One fundamental element of these companies is the commercial principle. They contrast with state-controlled/public enterprises, which are owned or managed by state institutions. But for the involvement of companies in VET it is not expedient to solely define them based on their ownership structure because state-controlled companies also frequently operate in line with economic criteria (such as productivity, efficiency, profitability). In addition, the distinction between the private and state economy is still too vague to be able to develop action strategies for VET in a differentiated form. In concrete terms, based on criteria, it is possible to differentiate as follows between companies in the context of VET (Maurer 2015; SDC 2013):

• Ownership structure:	private versus public
• Size (depending on the number of staff):	small, medium-sized, large
• Economic stability:	robust versus fragile
• Origin:	domestic versus foreign
• Technology/equipment intensity:	high, medium, low
• Sectors:	agriculture, crafts/industry, services, knowledge economy
• Sectoral development intensity:	dynamic-progressive, static, regressive
• Staff recruitment:	local, regional, national, international

Table 1: Criteria to distinguish types of companies

In addition, especially in countries with a pronounced informal economy, forms of the subsistence economy, micro-production and micro-workshops can be found – frequently within family systems. They determine the majority of economic activities in these countries or areas and also serve as a major starting point for the development of a VET system.

Staff Recruitment

From the perspective of business management, alternative forms of staff recruitment may also play a role under some circumstances. Will the graduates, for instance of school or higher education programmes, if necessary, complemented by participation in company-specific induction and trainee measures, meet the qualification requirements satisfactorily? Or would (possible) graduates of a dual VET programme be characterised by specific competences which graduates of school-based education programmes do not have? What will the opportunity costs be for the companies if they decide against a VET pathway when recruiting qualified skilled labour (such as high staff turnover, low work motivation, lower innovative capacity, lower productivity)? Companies will carry out these and other cost-benefit calculations and, if necessary, then become involved in VET if this means they are better able to cover their qualification requirements than they can with existing, alternative forms of staff recruitment and retention.

Company's In-House Work Organisation

Another frame condition concerns the connection between VET and the company's in-house work organisation. The establishment of a dual VET system depends on forms of work organisation where qualified skilled labour plays a key role. In extreme cases, in countries with a polarised work organisation with academically trained staff for planning tasks on the one side and unskilled or semiskilled labour for implementing tasks on the other, graduates of a dual VET pathway would have no place and therefore could not be employed according to their qualifications (Lutz 1976). Most often, however, in countries with such a polarised work organisation the situation is not consistently structured this way. Frequently, contrary to the general trend, there are "enclaves" with different organisation structures in individual sectors or company types, where graduates of a dual VET pathway will not only find a place but are even actively sought.

Umbrella Organisations

As well as companies, umbrella organisations (business membership associations; DCED 2017, 4) such as business associations, federations, chambers, guilds and employee representatives can fulfil major functions in the development of a dual VET system (Renold et al. 2016, 6). These can take on a wide range of tasks and functions. Umbrella organisations can, on the one hand, act as representations of interest for their members, for example as business associations for their affiliated companies or as unions for the organised employees

of an industry. On the other hand, these organisations can be assigned state tasks; the German chambers, for example (as so-called “responsible authorities”), are allocated legally defined tasks in VET (such as carrying out examinations). The organisations can also strengthen the power of representation of VET in the business sector and the public. The extent to which, in a sector, umbrella organisations exist which can be addressed and won over as “transmission belts” and catalysts is therefore important for the engagement of the business sector. The organisations can have very different profiles (cf. for the Asian region GIZ 2018, 109 et seq.). In concrete terms, the extent to which such organisations pursue the qualification of skilled workers in their objectives or even have points of contact in VET would need to be examined. In Switzerland, for example, the professional organisations, as representatives of the sectors, are usually the most important protagonists in the (further) development of curricula for individual occupations (see also chapter 3.2). In addition, it will be possible to use these organisations to find targeted access to basically suitable and motivated companies. However, such organisations are not always unproblematic. They are often not accepted by companies, for example because they are considered too close to the state or too remote from the business sector (Wanklin 2018).

3 Reference Framework

3.1 Introduction

In addition to the frame conditions described above, the existing VET system is an essential starting condition in the efforts to ensure the (increased) participation of the business sector. Activities which aim to lead an existing VET system towards a dual form of training need to focus on specific reference points in the respective countries. In countries with a mainly school-based VET system, it will tend to be a matter of establishing and expanding company-based activities and training stages in order to set up and expand school-based learning experiences with company-based, practical ones. However, in countries where VET is largely limited to learning on the job, developments towards dual training are mainly geared towards standardising company-based qualification practices and supplementing them with school-based, systematic learning experiences.

In a first step, the diversity of possible reference points can be identified by making a distinction between so-called pure types of VET (GIZ 2016, 15 et seqq.).



Figure 1: Pure types of VET

This approach of pure types is still too vague though to enable the planning of specific activities for a particular country or individual economic and labour market segments. For this it is necessary to identify the characteristics of the real form of the respective country and describe it. The real types of a VET system mostly present themselves as mixed forms, meaning that depending on the occupation or economic sector there may, on the one hand, be different forms of pure types. On the other hand, an entire national VET system frequently presents itself as a heterogeneous mixed system (Euler 2013, 35 et seq.; OECD 2016, 372). Thus, for example, in a largely school-based system, company-based practical experiences can be foreseen selectively for individual occupations or sectors. Or, in a learning-on-the-job system that is, in principle, unregulated, there can be recommendations on a voluntary basis for training standards, testing or certification.

Accordingly, dual VET in German-speaking Europe is also first of all a pure type which reveals different characteristics in the respective countries. Thus, for example, the examination system in Switzerland is clearly organised differently than in Germany. Whereas the final examination in Germany is mostly held at a specified point in time at the end of the training, outside the learning places school and company, the “qualification procedure” in Switzerland, for example, provides for a substantial share of the exams to also be held at the learning places and distributed over the training duration.

In the pure types the business sector is positioned differently. In a school-based VET system it remains largely excluded, in a learning-on-the-job system, however, preparation for a company-based activity almost entirely takes place at the company. Dual VET is characterised by joint responsibility of the state and the business sector (Jäger 2016, 10 et seqq.).

Depending on the starting point regarding the predominant pure type, the targeted engagement of the business sector will have a different orientation. The reference point in each case will be (intensified) cooperation in a form of dual VET. For this it will be necessary, first and foremost, to define the constitutive components of dual VET with potential relevance for involving the business sector. These must then be geared, within areas of engagement, towards (intensified) involvement of the business sector.

The following figure shows the connection between the frame conditions, the form of VET system and possible areas of engagement (AEs) which, in principle, can be considered for an intensified engagement of the business sector.² The individual areas of engagement are then explained based on the potential role of the business sector. In the following chapters 4 and 5, the areas of engagement are then analysed in detail. In these considerations, the “why” and “how” questions are included.

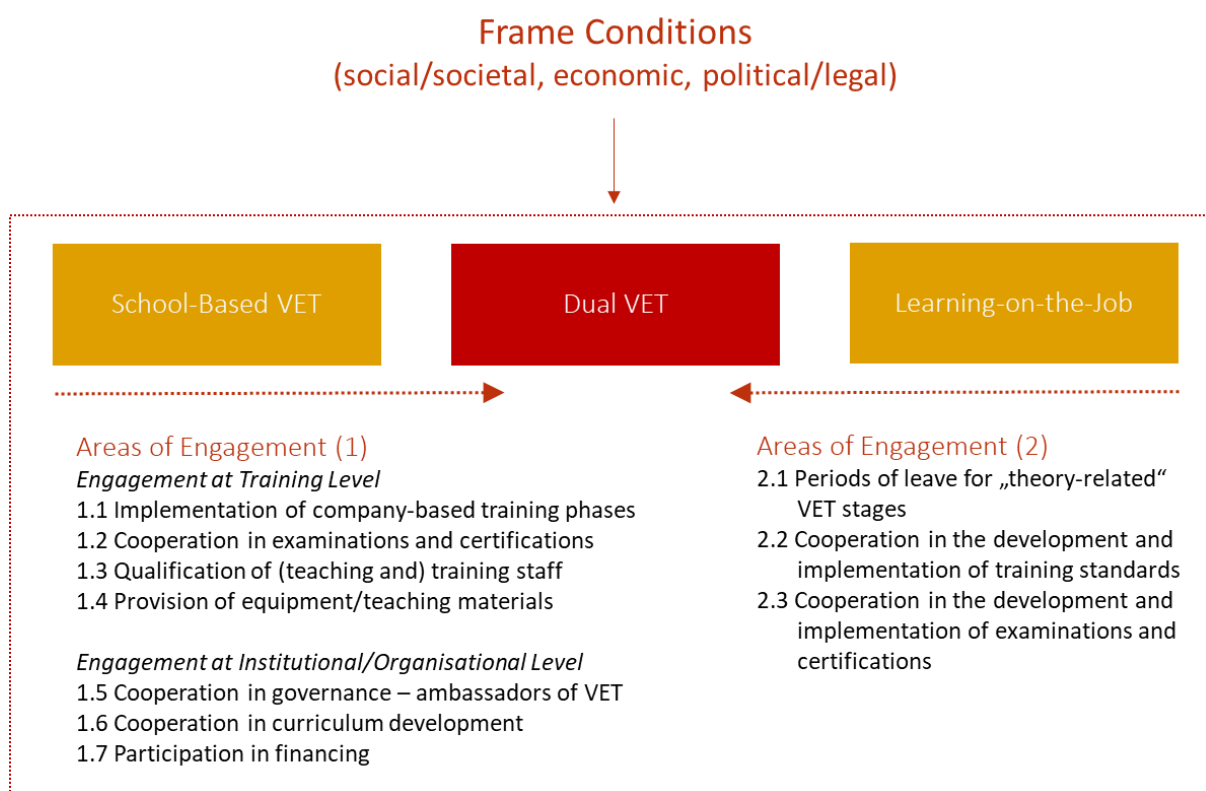


Figure 2: Reference framework for engaging the business sector in developments towards dual VET

² Categorisations and typologies of private sector participation have been presented in a different context by OECD (2016a), the UK Independent Commission for Aid Impact (ICAI) (2015) and the Overseas Development Institute (ODI) (Smith 2013). For summary see DCED (2017, 9 et seq.).

3.2 Areas of Engagement in School-Based Training Systems

In countries or sectors where VET tends to be school-based, there is basically a distinction between the following areas of engagement (AEs) for ensuring (intensified) engagement of the business sector:

Implementation of Company-Based VET Phases (AE 1.1)

One core principle of a dual VET system is the duality of theory and practice, reflection and action, systematic learning in school-based learning processes³ and casuistic learning in company-based work processes. Against this background, it is vital for dual VET that one part of the training be held in a company-based work and socialisation environment.

Cooperation in Examinations and Certification (AE 1.2)

The value of a VET qualification is measured, for example, by the significance of an exam, and the certificate which is awarded as a result, for taking up (company-based) employment. Viewed along these lines, examinations and certificates should enable an as differentiated statement as possible about the graduates' competences. Therefore, the business sector should be involved in designing the examinations in order to enhance their significance and be appropriately informed during staff recruitment. This documents the acceptance of (dual) VET by the business sector. Furthermore, this can enhance the social acceptance of VET among school graduates and their parents.

Qualification of (Teaching and) Training Staff (AE 1.3)

The acceptance and prestige of (dual) VET considerably depend on its quality. Generally, there is a risk of fostering a downward dynamic if the young people perceive the company-based training phases only as time serving or wasted time. One key factor is the quality of the teaching and training staff. The companies themselves are responsible for the qualification of the company-based training staff, and in this process, they can, where necessary, make use of external support services. Furthermore, companies can contribute to the qualification of the school-based teaching staff, for example, by offering periods of work placements for teachers, involving teachers selectively in company-based continuing VET programmes or if they employ experts as teachers at least on a part-time basis.

Provision of Equipment and Teaching Materials (AE 1.4)

Particularly in technology-intensive occupations, school-based VET institutions quickly experience excessive financial strain when it comes to using state-of-the-art technology in the training. Here the companies can offer assistance to school-based or non-company-based learning places by providing state-of-the-art technology, practice-relevant materials or practice-oriented teaching materials and, in this way, contribute to improving training quality. In certain areas, however, the situation can also be the opposite. This happens when, for example because of international development projects, training centres or VET schools are better equipped than the average enterprises in the respective sector.

Cooperation in Governance – Ambassadors of VET (AE 1.5)

The governance of a VET system can be defined in broad and narrow terms. In a narrow sense, it is about the representation of the individual organisations (here: especially companies) in umbrella associations (such as chambers, business organisations, federations, employee representatives). In a broad sense, the involvement in political bodies dealing with VET issues would be the focus (such as national VET agencies or regional committees on VET). From the viewpoint of the individual companies, these far-reaching national participation circles are mostly of little relevance. Often, however, there are also participation opportunities

³ "Casuistic learning [...] means the intuitive realisation of the implicit structure of problem cases typical for the occupation as well as of suitable solution processes under the guidance of experienced professionals, who act as mentors [...]" (Lempert 1995, 229).

at the local or regional level, such as participation in school councils. The engagement of the business sector in national, regional and local bodies can enhance the impact and efficacy of VET, strengthen the commitment of companies to assume further tasks and therefore, overall, improve the social acceptance of VET in the country.

Cooperation in Curriculum Development (AE 1.6)

Companies often complain that the learning objectives and contents pursued in school-based VET programmes do not correspond with the requirements of the companies. First of all, this indicates a lack of acceptance, which can have various causes. On the one hand, the corresponding curricula may have been drawn up by committees or by people with only a limited insight into company requirements. On the other hand, the curricula may have been very much designed with a practical orientation but are not implemented accordingly by the school teachers. A way of addressing the first-mentioned cause is to include representatives from the practical field of the business sector in the curriculum development process. Cooperation can be realised with varying levels of participation intensity: from information and consultation on to cooperation with the right to vote in corresponding bodies to prepare the legal foundations or political programmes. For example, individual representatives from practice can be appointed to the corresponding curriculum committees. Or the work of the curriculum committee is supported and complemented by a systematic assessment of the labour market requirements.

Participation in Financing (AE 1.7)

Dual VET systems are financed with a division of expenditure between the state and the business sector. The financial participation of the business sector (beyond indirect financing via taxes) to fund VET programmes is unknown in many other countries. In this respect, initially this point does not seem very well suited for greater participation of the business sector. Nevertheless, the financing aspect is a relevant component for the business sector. On the one hand, to a company every form of involvement is an expense, and in this respect, the offset is a possible benefit. On the other hand, many companies fear that they might lose their employees after the training because these are either enticed away by other companies or go into self-employment (cf. chapter 2.2, poaching). It is therefore essential to deal with the financial side of VET.

3.3 Areas of Engagement in Learning-on-the-Job Systems

In countries or sectors where VET tends to be informal or carried out as part of learning-on-the-job, there is basically a distinction between the following areas of engagement for ensuring (intensified) engagement of the business sector:

Period of Leave for the Learners for Theory-Related VET Phases (AE 2.1)

Enhancing practical VET phases with the integration of relevant theoretical parts either in VET schools or in non-company training facilities, for instance, requires support from the corresponding companies. The learners of an occupation first of all have to be granted leave to attend the corresponding phases. Granting a certain amount of time leads to the question of who covers the “loss of earnings” – does school attendance lead to a salary reduction, or does the company cover this expenditure? School attendance is often connected with additional costs for transport and teaching materials, and in some countries also for school fees. Companies must be convinced that the ‘enhancement’ of the training is also in their interest and therefore justifies their support.

Cooperation in Development and Implementation of Training Standards (AE 2.2)

The informal company-based apprenticeship training with the addition of theory-related training phases has only an unstructured connection to the curriculum in the formal VET system. It therefore does not cover the

entire curriculum as used in the formal VET system leading to a certified qualification. It should be clarified what is relevant for learning the profession and must be developed obligatorily in the supplemented training phases.

Cooperation in Development and Implementation of Examinations and Certifications (AE 2.3)

Another step foresees the integration of apprenticeship training in a certification process. For this, as part of the curricular structure, corresponding competence assessment procedures need to be designed, ideally with the participation of the business sector. The certificates could be awarded by state authorities, or umbrella organisations active in the respective occupational field could also be involved, however. Recognition of prior learning may also be relevant in this context.

4 Areas of Engagement (1): Participation of the Business Sector in School-Based Training Systems

The reference framework introduces seven areas of engagement for economic sectors and occupations where VET is primarily school-based. Activities aiming at the business sector's motivation for (intensified) engagement in dual VET can also draw on these areas of engagement. The explanations in this chapter take up these areas of engagement and concretise them in the following points:

- What could corresponding participation of the business sector look like, i.e. which *forms* could the respective engagement have?
- Which *challenges* may arise during implementation?

4.1 Implementation of Company-Based VET Phases (AE 1.1)

The pure type of VET with the engagement of the business sector can be indicated by the following thesis: the business sector's participation enables didactically high-quality training by combining systematic and casuistic learning, meshing theory and practice, as well as action and reflection at different learning places. It leads to the acquisition of professional competences which, although relevant to the labour market, are not too company-specific.

This ideal describes a dual training in which various learning processes are united. This combination leads to competences that can only be attained in these training forms. The business sector is seen as the ideal designer of the practical competence acquisition. The young people experience systematically structured learning at school and order-based learning in real organisational cultures at the company.⁴ At the workplace, they grow into a company and work culture – with mostly positively assessed consequences on motivation and socialisation. In particular, the divergence between the learning places with their respective learning cultures creates the potential for experiencing discrepancy, tackling mutual questions and broadening the experience horizon. In technologically and economically developed countries, dual VET also has the potential to facilitate familiarity with the corresponding new technological processes due to the proximity to the companies. In technologically less developed countries/sectors, however, the (donor-funded) VET schools or training centres often have much better technological equipment than the average local companies. In such a context, it may occur that, after attending VET schools, the learners are better qualified than many of the employees in companies. This could lead to companies not wanting to be involved in training because of the technology gap. In such cases, companies need to be convinced that they can also benefit from the learners' acquired competence advantage.

Sometimes it is pointed out how practical learning can also be realised at school and theory-based learning at the company. This view is justified, and, in particular, it contradicts the widespread – even though problematic – classification whereby practice is taught at the company and theory at school. However, it

⁴ "Here systematic learning means the acquisition of explicit knowledge of rules and canonised working methods of the occupation under the guidance of professional teachers and full-time trainers; casuistic learning, in contrast, means the intuitive realisation of the implicit structure of problem cases typical for the occupation as well as of suitable solution processes under the guidance of experienced professionals, who act as mentors ... Both forms of learning are essential in order to be ready for employment in modern occupations and become increasingly effective when they are more interconnected. They should therefore always go hand in hand, and only in this case should there be reference to 'dual' training" (Lempert 1995, 229, eigene Übersetzung).

must be taken into consideration that theory and practice orientations at the learning places usually differ from each other. At school, no real situations of company practice are worked on, instead close-to-practice but didactically prepared action situations are simulated. At the company, company-specific and sometimes sector-specific theories are taught, but no overarching theories are transferred into a systematic context (Euler 2015a, 80).

The business sector's engagement in training design therefore has the potential to increase the quality of competence development and also enhance the training's labour market relevance (SDC 2016, 10). Here the engagement can be realised in different (a) organisational forms, (b) levels of intensity and (c) commitment.

(a) Organisational Forms

The company's participation can take on different organisational forms. In addition to the responsibility as a contractual partner in an apprenticeship, companies can also be in charge of a limited number of training modules. Low-threshold forms would be the offer of internships, company visits, practice projects or teaching tasks at school (Gopaul 2013, 6 et seq.). In these selective, low-threshold forms it would be important to ensure suitable reflection on the associated experiences. This can be put into practice, for example, by appropriate preparations and follow-up measures at school, by experience documentation in the form of a portfolio, diary or report and also by the realisation of an exchange at school, underlined with the corresponding learner presentations (according to the didactic principle of "learning by teaching").

Companies can act as partners for VET schools, and also as training partners for higher education establishments. In many countries, VET is not perceived as very attractive compared to academic education, therefore VET often finds it difficult to fight against this cultural gravity. In this respect, the extent to which new models are developed together with the academic educational institutions, rather than against them, would need to be considered. One approach is a greater permeability between VET and higher education (cf. the example of Thailand in Chana 2009, 83). Another approach is the greater integration of academic education and VET phases as part of dual studies (cf. first indications in Phung Quang Huy 2009, 30).

A somewhat different organisational form would be a training alliance under the responsibility of the business sector. One version is the so-called "enterprise-owned TVET institutes" like in Vietnam (Specht & Aipperspach 2009, 5; cf. also Gopaul 2013, 24). Based on some agreed curricula, the institutes organise a VET programme which is implemented partly at the educational institution and partly at the related companies. The financing is usually shared between participating companies and the state. Similar are examples from Thailand, where foreign companies such as Toyota and Honda established private schools/colleges to provide basic and further training for their staff (Chana 2009, 83). A modification of the training alliance is the commercial operation of educational establishments as an investment of companies. VET offers are designed by vocational training centres with a commercial intention, usually with the direct interests of company customers in mind (Pompa 2013, 20).

(b) Level of Frequency and Intensity

Within the various organisational forms, work-based learning can be at different levels of frequency and intensity. Thus, work-based learning can take place once, occasionally when opportunities present themselves, or regularly and systematically in an educational programme. Here Eraut (2007) distinguishes between three forms and allocates different learning activities to each of them:

Work processes with learning as by-product (1)	Learning activities located within work or learning processes (2)	Learning processes at or near the workplace (3)
Participation in group processes	Asking questions	Being supervised
Working alongside others	Getting information	Being coached
Consultation	Locating resource people	Being mentored
Tackling challenging tasks and roles	Listening and observing	Shadowing
Problem solving	Reflecting	Visiting other sites
Trying things out	Learning from mistakes	Conferences
Consolidating, extending and refining skills	Giving and receiving feedback	Short courses
Working with clients	Use of mediating artefacts	Working for a qualification
		Independent study

Table 2: Levels of intensity when designing work-based learning (Eraut 2007)

The table shows that the shares of learning and working can be weighted differently in work-based learning. At one extreme, the design of work-based learning can be limited to assigning the learners to work situations with a high learning potential (1). However, the learning itself is not monitored or actively supported. At the other extreme, targeted support is provided by trainers, coaches or even media (3).

(c) Level of Commitment

Finally, in different organisational forms a company's training activities can take on different levels of commitment. The following gradations must be distinguished (decreasing level of commitment):

- Activities on the basis of standardised training schemes valid across different companies.
- Activities on the basis of training plans coordinated individually with the company.
- Training activities are documented and are comprehensible for outsiders.
- Lack of connection to previous planning bases/implementation documentation.

Furthermore, the respective level of commitment becomes apparent in the learner's formal status. The highest level of commitment comes with a formally binding training agreement which lays down the rights and obligations of both contracting partners. In this case, the learner is formally an employee of the company, but has a special status because of the training components. Compared to these formalised relationships with a high level of commitment, forms are possible in which companies, for example, are obliged to release their qualified employees to a defined extent as part of a learning-on-the-job training programme at a VET school. Depending on the contractual arrangement, the learners have the status of an employee or a learner.

Challenges AE 1.1

When implementing this area of engagement, the following *challenges* may arise:

- The implementation quality of the company-based training phases remains below the participants' expectations and strengthens criticism of increased involvement of the business sector.
- Teachers in VET schools fear a cutback in school-based VET and balk at the increased engagement of the business sector and cooperation with companies.
- Companies limit their activities to teaching only tasks and skills which are demanded in the short term at the companies.

- Not enough companies can be convinced to join the cooperation.
- Employees and superiors (in particular of micro and small enterprises in the informal economy) can feel challenged and jeopardised in their authority by the well-trained young people.

4.2 Cooperation in Examinations and Certifications (AE 1.2)

From an economic point of view, one key objective lies in designing VET with examinations and awarded certificates that have a high level of significance. In order to achieve this objective, care must be taken to ensure that examinations test the competences relevant to practice, for instance, and that the relevant quality standards are implemented (e.g. validity, objectivity, reliability, economy). These criteria can be clearly formulated in their requirements; in practice, however, there is often tension between some of them. For example, multiple choice tests may have a high degree of objectivity, but they only cover the part of the learning objectives that can be tested with the help of this test form. Conversely, the validity of the examination can be increased, but at the same time the objectivity decreases.

The business sector can cooperate to help to strengthen this significance in the following variants:

- Basically, companies can cooperate in the design of state-approved examinations which are then carried out by the school or a non-company institution (e.g. chambers). Additionally, in-company examinations could be conceivable or a work recognition for the learner in the form of reports or certificates. The relevance of the different certificate forms depends on the reputation/credibility of the issuing body. If, for example, state institutions do not have a high reputation in the country, additional reports or certificates may become significant.
- According to the present examination system, the participation of the business sector can take place within centralised or decentralised examination structures. The examination systems in Switzerland and Germany provide models for both options. While in Germany the business sector/companies participate in the examination committees for a centrally implemented final examination by the “competent authority” (chamber), in Switzerland companies directly assume responsibility for individual exam parts during the training. The overarching quality assurance, which is decisive for the national recognition of qualifications, is ensured, for example, by having the practical final examinations held by experts from other companies who also train learners.
- The cooperation of the business sector can have different reference points and intensity levels. Relevant reference points would be: task development; validation of task proposals; decision on task selection; examination of practical training parts in the operational context; evaluation/assessment of examinations.

Challenges AE 1.2

When implementing this area of engagement, the following *challenges* may arise:

- Required competence in examining is lacking among the examiners from business practice.
- Examination of learners in one’s own company can (to the advantage or disadvantage of the learner) be (excessively) influenced by non-performance-related factors.
- Examiners from business practice themselves require a high level of expertise and are therefore also a scarce resource in companies. This limits the willingness of companies to release especially people with a high level of expertise for external examining activities.

4.3 Qualification of Teaching and Training Staff (AE 1.3)

The quality of a training system essentially depends on the competence, motivation and commitment of those who implement it daily in a teaching or management function. As a result, the qualification of the teaching and training staff can become a bottleneck when establishing a high-quality VET system. This applies

both to school-based VET and also to company-based VET. Numerous studies document significant gaps in this area (Euler 2015b; GIZ 2016). With regard to the teaching staff at VET schools, there is criticism of the fact that in their preparation there are rarely practical teaching or company-based phases (Paryono 2015; Marope et al. 2015, 115). Correspondingly, many teachers at VET schools in the partner countries of development cooperation teach without concrete experiences about the professional and social structures in the respective occupational field. In many countries the low status, the unattractive working conditions and also the limited opportunities for advancement contribute to a low motivation of school-based teaching staff and company-based training staff equally (UNESCO-UNEVOC 2012, 6, 21).

While some initiatives and programmes in different countries aim to improve the qualification of teaching staff at schools, the training of company-based training staff is still very much at an early stage. As a rule, trainers in companies are not prepared for their role, instead the training function is often delegated to a more or less suitable employee in addition to his/her professional and operational tasks.

Strengthening company-based training would be a key requirement for VET to keep pace with the rapid technological, economic and social developments in many economic sectors. How can the greater participation of the business sector contribute to an improvement of the outlined situation?

- *Practical experience for teachers:* Companies could provide opportunities for school teachers to gather company-based work and practical experience as part of teacher training and also further training (e.g. work placements, company visits). If necessary, corresponding offers could be coordinated and supported via umbrella organisations. For the participating companies, this could result in an indirect quality effect as the practical experience will have an impact on teaching and competence development of the learners in VET schools. Companies will be able to recruit practically trained VET graduates.
- *Qualification of in-company trainers:* In addition to the learner's instruction on an occupation as part of various VET phases, companies often also provide informal induction programmes for new employees (Jäger et al. 2016, 190). Measures for the qualification of company training staff could be linked to these or similar instruction activities and overall lead to an optimisation or quality improvement of various introductory and training tasks.
- *Training programmes for in-company trainers:* Umbrella organisations (e.g. chambers, sectoral associations, business organisations) can provide a modular and flexible qualification for employees from companies who carry out training and instruction tasks. The offers could be more attractive if the targeted competences also promise possible application beyond the training (e.g. interaction competences). There are already generic competence profiles as a basis for generating corresponding offers (GIZ 2016); these can be adapted to the specific conditions in the country or sector in question. In addition, around 60 experts from six ASEAN countries have developed standards for company-based training staff (GIZ 2018, 63).

Challenges AE 1.3

When implementing this area of engagement, the following *challenges* may arise:

- If the company's training staff's tasks additional to their professional ones are not rewarded by the company through appropriate salary and development prospects, it can have a negative effect on the motivation of the employees entrusted with training tasks.
- The induction and training activities as part of quality-oriented HR development measures often require a lot of convincing at the management level. In many sectors and countries, the HR development is carried out within relatively short decision-making periods (GIZ 2016, 31).
- Companies are concerned that skilled workers with further training will be enticed away after the end of the qualification process (for poaching, see chapter 2.2, and GIZ 2016, 33). In this context, it also has to

be taken into consideration that well-trained teachers in VET schools or training centres can be enticed away by companies or public authorities. In this respect, the poaching problem has several facets.

4.4 Provision of Equipment and Teaching Materials (AE 1.4)

A high-quality training infrastructure includes the material aspect as well as the personnel aspect. On the one hand, this means the technological equipment required for practice-oriented training (e.g. production and information technologies), and on the other hand also teaching materials that are conducive for learning (e.g. textbooks, problems and tasks with relevance to practice). If company-based phases are integrated into the training, basically the equipment utilised in the company can be used. However, if this is not the case and, as part of a technology-intensive training programme, the school or non-company training centres do not have the financial means to have the particular modern technology available, the question arises how the business sector can help with the provision of modern equipment and practice-oriented teaching materials.

- *Cooperation between learning places:* With regard to technology-intensive training contents, respective units could be included in a cooperation between learning places. The necessary technical foundation would be acquired at the VET school, which would then be applied in a learning project in selected companies with the available equipment. This experience would illustrate how implementation within the company could look in reality. Such a project requires careful preparation between teachers and employees. As a side effect, both sides could learn from each other during the project. In addition, teaching materials with an orientation towards practical problems could be developed, which could also be used, for example, in school-based education and training.
- *Internships:* For the development of practice-related teaching materials, teachers could conduct interviews and discussions in companies as part of an internship or even with a lower threshold as a focused project in order to understand tasks and problems with relevance to practice and to transfer these into corresponding materials.

Challenges AE 1.4

When implementing this area of engagement, the following challenges may arise:

- Companies could be reluctant to make expensive equipment available for other purposes than productive operational activities.
- Companies have to be convinced that the development of projects and teaching materials can also be indirectly beneficial for them.

4.5 Cooperation in Governance – VET Ambassadors (AE 1.5)

In many countries, the business sector sees itself as a customer for graduates of the (vocational) education and training system but not as co-responsible for the design of the system. This distanced attitude then often leads to criticism or complaints against the state protagonists and VET schools and training centres. The step towards overcoming this suboptimal situation for all involved parties is, in principle, easy to formulate but because of the cultural anchoring the practical implementation is not easy, however. As a guideline for change the following can be formulated: the business sector is engaged in designing and implementing VET, so it can identify better with it, integrate VET graduates in its personnel recruitment and increase the appreciation and reputation of VET in society with verbal and practical support. This, in turn, can have a positive effect on school graduates and their parents in the transition from school to training and employment.

How can appropriate forms of participation and support be designed?

- *Legislation:* Participation can, in principle, take place at different levels: at the national level, the business sector can be involved in the development of legal regulations for the organisation of vocational training. On the one hand, this can concern the development of a new Vocational Training Act, including subordinate regulations. On the other hand, participation involves all forms of standardisation, such as the competencies of the teaching and training staff or the quality of education in the learning places.
- *Umbrella organisations:* Leading figures and companies with credibility and influence within a sector are visibly engaged in umbrella organisations and bodies with relevance for VET (e.g. trade associations, chambers, sectoral skills councils).
- *VET agencies:* Cooperation of the business sector is also possible in national VET agencies (GIZ 2015, with examples from three countries). In certain countries, these agencies form a hinge between the public-law task of VET and the private-sector interests. Particularly in countries where the business sector regards state organisations with scepticism and distance, VET agencies can provide a focus for VET initiatives and, at the same time, provide a place for business sector engagement.
- *Supervisory and advisory bodies:* At a local level, the participation of the companies could also be extended to cooperation in supervisory and advisory bodies of VET schools.
- *Public relations:* In addition to their content-related participation in relevant committees and the management of corresponding tasks, these leaders can strengthen the representation power of VET in politics and the public through their presence and their partisanship. This function could be described as that of a public VET ambassador. The so-called “Apprenticeship Ambassadors Network (AAN)” could serve as a model: *“The AAN is a group of senior business leaders from Financial Times Stock Exchange (FTSE) 100/250 businesses and small and medium-sized enterprises across the public and private sectors, which are committed to working together to increase and advocate for apprenticeships throughout the UK. Companies share their stories (case studies) on how apprenticeships programmes have contributed to their increased effectiveness in business, and this is published on the AAN website”*⁵ (Gopaul 2013, 23).
- *Quality label:* Winning over committed companies could also be supported by the recognition and public distinction of “good” companies. It is conceivable, for example, to award a “seal” for companies that have been training for a while, which receive good assessments from the learner’s point of view, or whose learners complete the final examination with good results. However, care must be taken not to award the seal too exclusively because if only a handful of companies are given the award, it could be regarded as an affront to the majority of other companies and be rather counterproductive.

Challenges AE 1.5

When implementing this area of engagement, the following challenges may arise:

- Winning over leading figures from the business sector with broad acceptance and credibility can become a balancing act if other candidates possibly feel neglected.
- Awarding a seal requires an infrastructure with transparent criteria and an independent awarding body in order to counteract possible abuse.

4.6 Cooperation in Curriculum Development (AE 1.6)

A key element to increase the relevance of training content is the design of curricula. In a curriculum, the objectives and contents of a training programme are defined. And to some extent, too, the duration, the chronological sequence and also methodological guiding principles and implementation instructions for teachers are recorded (SDC 2013, 12). Curricula aim at the definition of a standard in order to safeguard the (minimum) quality of a training programme and to increase the transparency for the business sector as a customer and recipient of VET.

⁵ <https://www.gov.uk/government/groups/apprenticeship-ambassador-network>

Curricula in VET can follow various structural models. A traditional form is educational programmes formed as a monolithic entity which, over a duration of approximately three years, lead to the development of a defined competence profile. A variation of this structural model is achieved by the inclusion of elective modules which can be completed optionally – as yet within a fixed overall timeframe – but still lead to a standardised qualification. By contrast, a modular structure with certified modules which lead to partial qualifications is possible. An overall qualification is only possible after gradual completion of all modules (Euler & Severing 2006; cf. also chapter 3.4).

The engagement of the business sector in curriculum development can contribute significantly to ensuring that the relevance and topicality of a VET curriculum are maintained. How can such engagement look in concrete terms?

- *Recipients of engagement:* One essential initial question concerns the addressees of the cooperation. Within a sector, different companies can be organised with quite conflicting interests. Sometimes there is bias, for example when large companies are involved in curriculum development but primarily represent the interests of their own company type. Smaller companies can then complain that their points of view are not taken sufficiently into consideration. One way out of this dilemma could be that representatives from umbrella organisations (e.g. chambers, federations) try to integrate the spectrum of the economic sector into curriculum development.
- *Type and extent of engagement:* Another question relates to the nature and extent of cooperation, e.g. articulation of the qualification requirements of economic practice; opinion on developed proposals; agreement on the final version of the curriculum; participation in curriculum evaluations.
- *Scope of engagement:* Related to the above is often also the scope of engagement. Do the business representatives have a consultative role, can they make initiatives or proposals themselves, do they have the veto right, do they have a vote when agreeing and deciding on the curriculum?

Challenges AE 1.6

When implementing this area of engagement, the following challenges may arise:

- Caves & Renold (2016) argue that the participation of individual companies in curriculum development would not give them any competitive advantage because uninvolved (without expenses) companies would benefit from the participation of those who are active. This objection is based on the premise that the qualification requirements in companies are homogeneous and, accordingly, the curricular contributions of a company are equally relevant for all other companies in the sector. When looked at more closely, the active companies should nevertheless be able to benefit from their cooperation, however, because – at least within limits – heterogeneous requirements, needs, interests and relevance can be assumed between the companies of a sector.
- In VET, too, curriculum development faces the challenge of preparing for an unknown future. Personnel and qualification planning in companies in the partner countries of development cooperation rarely has a medium-term or long-term focus. Too much emphasis on the companies' voices can therefore lead to overemphasis of current qualification requirements as opposed to the future ones.

4.7 Participation in Financing (AE 1.7)

For the business sector, many participation forms outlined above are associated with expenses for personnel and/or services. In this respect, every engagement can also implicitly be associated with participation in VET financing. This raises two main questions:

- *Cost-benefit analysis:* What benefits are there in relation with the costs? – And connected to that:

- *Free-rider and poaching problem*: How can it be prevented that those not participating benefit from the engagement of others?

Moreover, in the context of the financing of VET, it should be borne in mind that, in many countries, there is no tradition of financial participation by the business sector. Companies may be prepared to invest time, personnel and equipment to design training. However, many do not want to pay a training allowance or participate in the health or accident insurance and the transport costs of learners.

The financing of training is a major challenge in many countries. In the context of the planning of implementation projects, it is therefore included again as a separate focus in chapter 6 (Planning and Execution of Implementation Projects).

Cost-Benefit Analysis

In terms of the cost-benefit analysis, numerous factors are indicated which do not always quantify the benefit precisely but, as a whole, make a strong case for the participation in VET. Which of these factors are, in each case, relevant and substantial, and what balance they form to the arising costs, depend on the type and scope of the company's engagement. The following are the main economic benefit factors (cf. GTZ 2009; Euler 2015a, 29; Dustmann & Schönberg 2012):

- Earnings from the learners' productive work.
- Avoidance of recruitment and induction costs in the event of the learner's continued employment.
- Reduced drop-out risk and higher employee retention with subsequent employment as a result of previous screening during the training.
- Higher productivity from trained skilled workers.

Poaching Problem

The prevention of poaching behaviour by companies that abstain from training engagement requires precautions which cannot be fully influenced by a training company. The training company can certainly attempt to keep a qualified employee by creating attractive salary, development and working conditions. However, this does not compensate for the cost disadvantage that a training company may have in comparison to a non-training company. It is also possible to plan the training in such a way that the benefits (e.g. productive contribution of the trainee) already outweigh the costs during the training. If this is not possible, intercompany measures can be applied at the level of sectoral associations or the state:

- The cost of company training engagement can be distributed across all companies of a sector through the design of financing funds. Experiences with various fund models provide sufficient reference points for the development of suitable models in the respective country/sector (Specht 2008; GTZ 2009).
- To deal with the poaching problem, binding labour-law clauses can be agreed, according to which, for example, training graduates are obliged to either work in the company for a defined period or to pay back a part of the costs incurred. However, it should be noted that such binding clauses are prohibited under labour law in many countries.

Challenges AE 1.7

When implementing this area of engagement, the following challenges may arise:

- Companies point to additional training costs, but do not sufficiently recognise the benefits, some of which cannot be calculated precisely.
- There is often a tradition of state financing of (vocational) education and training that must be overcome through targeted financing and incentive structures.
- It may be necessary to introduce legally permissible incentive models to prevent skilled workers trained by companies being enticed away after their training.

5 Areas of Engagement (2): Participation of the Business Sector in Learning-on-the-Job Systems

In many countries, the preparation for employment means learning-on-the-job. This can be done by assigning the new employee to an experienced one, or the preparation is carried out particularly in the trade and craft sector as part of a traditional, informal apprenticeship. *“Apprentices in micro- and small businesses learn technical skills from master craftspersons and practitioners at the workplace and are inducted into a business culture and a business network which makes it easier for them to find jobs or start businesses. Training in the enterprise-based apprenticeship system is cost-effective because it is integrated into the production process. The training investment is shared between the master craftsperson and the apprentice, providing access to training even for poor young people. Although typically not a part of the formal education system, informal apprenticeships are not unorganized: they are embedded in social rules, norms and local traditions that provide a conducive framework for training to take place.”* (ILO 2012b, III). Such training can last for several years but usually does not lead to a state-recognised qualification. Within the training, the apprentices are gradually introduced to the practical requirements of the company. In addition to the orientation towards the specific present requirements in the company, the training usually includes pronounced in-company socialisation. After the training, they either remain in the training company or go into business for themselves. In many countries, such apprenticeships are sought after, even though an apprenticeship fee often has to be paid (Jäger et al. 2016, 103).⁶

In addition to the informal apprenticeship system in the country there is often school-based VET. However, while formal, school-based VET covers only a small percentage of school graduates, the majority of them are either prepared in the informal sector or end up unemployed or in casual employment.

For the question of the business sector’s engagement, these initial circumstances provide the possibility of a step-by-step approach. Depending on the initial situation, the following three options can be pursued:

- Period of leave for the learners of informal apprenticeships for theory-related VET phases in a VET school or a training centre.
- Cooperation in the development and implementation of training standards based on the existing informal training contents.
- Cooperation in the development and implementation of examinations and certificates.

Between the three options, the binding nature for the companies’ participation gradually increases.

5.1 Period of Leave for Theory-Related VET Phases (AE 2.1)

The basic idea within this area of engagement is simple: two existing pillars of the VET system in the country – formal VET in VET schools and informal training in companies – are combined to form dual VET. In the simplest form, the apprentices additionally attend VET school and acquire primarily theoretical training contents, while company-based training remains largely unchanged. In addition to vocational and entrepreneurial knowledge, the school-based education can also include topics of general education. In the

⁶ Examples of this form of VET can be found in the following countries: Afghanistan (Euler & Reier 2017 with further examples and country studies), Ghana (GIZ 2015, 40 - 45; GIZ 2016, 21, 25), Burkina Faso and Mali (reference in Jäger et al. 2016, 103).

ideal case, the training is raised to a higher level: the apprentices acquire not only operationally relevant skills for the specific company in their field of activity, but also the related theoretical understandings and foundations. This qualification enhancement can, in turn, have a positive effect on the company as the apprentices apply their extended competences in the company and pass these on to the other employees.

The companies have to be convinced to enhance practical VET phases with the integration of relevant theoretical contents since they must, on the one hand, approve the period of leave for their apprentices to attend either VET schools or non-company training facilities. On the other hand, with school attendance additional costs arise, for example for transport or teaching materials. Companies have to be convinced that the “enhancement” of the training can also be in their interest and therefore justifies support.

If a formal training system exists in the respective occupations, the infrastructure of the VET schools (such as teachers, curricula, classes) can in principle be used as a basis. If this is not the case, curricula would have to be developed for the respective professions and educational programmes should be set up.

Challenges AE 2.1

Many questions arise during implementation which must be addressed and clarified in detail. The questions stem from the evaluation of a corresponding project in Afghanistan, which revealed many difficulties also relevant for similar projects (OEDA 2016; Euler & Reier 2017). The questions/challenges can be divided into the following three groups.

Queries to the Companies

- *Minimum requirements for the participating apprentices:* The (school-based) educational prerequisites of the apprentices in practical training are often very heterogeneous. It may be necessary to define a minimum requirement in order not to overwhelm the apprentices when attending school. At first, apprentices who do not fulfil this minimum requirement should, in addition to the company-based training, be prepared so they can obtain a corresponding school qualification.
- *Periods of leave:* The extent and the modalities for the period of leave for school attendance need to be fully clarified.
- *Regulation of expenditure:* Possible expenses in the form of transport costs, costs for teaching materials and also a possible salary cut by the company also need to be clarified beforehand.
- *Fear of poaching:* Companies sometimes worry that the now more broadly and better trained apprentices can be enticed away more quickly.

Framework Stabilisation

- *Connection to an umbrella organisation:* Although an initiative ultimately relies on the support of companies, it requires a sustainable structure. In traditional crafts sectors and trades, there are often umbrella organisations (e.g. guilds and trade associations) in which the companies are organised. These should ideally take responsibility for leading the project but at least support it. In this context, they could participate in winning over companies, make the selection of companies and apprentices and ensure that the modalities for the period of leave and support are implemented.
- *Ownership:* If an umbrella organisation is involved, the question of ownership arises. Is it an initiative of the state with the state-owned VET schools, or does the ownership fall to the respective umbrella organisation? Possibly a shared ownership can also be agreed, and in this case it is necessary to clarify who is in charge for which areas of responsibility.
- *Cooperation between school and companies:* Potentials for improving the network could also be used by forms of low-threshold cooperation (mutual information). This could be achieved with limited expenditure through occasional offers of experience exchange.

Adaptations in School-Based Training

- *Support of the VET school:* Even if the curricula are comparable between informal VET and formal, school-based VET, the different learning conditions of the apprentices, particularly for practical experiences, can create new challenges for the VET school. At the initial stage of a project it would be desirable if the school could rely on appropriate support.
- *Formation of school classes:* When forming mixed school classes in existing VET schools, care must be taken to meet the different needs of full-time pupils as well as those from the dual-model and participating companies.
- *Qualification of teachers:* A critical point is the qualification of teachers – as is often the case already in formal VET. In view of their practical experience, the apprentices ask questions which individual teachers cannot answer because of their lack of practical work experience. This constellation can subjectively call into question the authority of the teachers. Teachers therefore have to be prepared for this challenge.
- *Provision of teaching material:* In addition to the question of costs, the question of possible adaptations of teaching materials emerges particularly in the area of vocational knowledge. For the apprentices, there is the difficulty of being able to recognise their company-based experiences in the school-based tasks. Teachers must therefore be enabled – supported, if necessary, by practice-related teaching materials – to take up the practical experiences of the apprentices to a greater extent.

5.2 Cooperation in the Development and Implementation of Training Standards (AE 2.2)

The procedure described in the previous chapter assumes that the informal training activities in the companies, usually not bound to specific standards, are complemented by theory-based VET phases in existing VET schools or training centres. These training contents generally do not complete a curriculum, as is the case when formal VET is based on a respective occupation which, in the end, leads to a certified qualification. At this point, there can be an extension of the concept in an advanced form. The idea is to modularise based on a “complete” curriculum of an occupation. Certain modules can be completed within an informal company-based apprenticeship training programme complemented by theory-related VET phases, and the acquired competences can be documented by corresponding examinations. As a result, credits can be awarded for the competences developed during learning-on-the-job and, with possible additions, it can lead to a “complete” vocational qualification. The implementation of this idea requires curriculum development activities as described fundamentally in chapter 4.6. At best, the companies and ideally also the involved umbrella organisation would be engaged in this development. For the companies, this work could result in documents that support them in their apprenticeship training. However, the actual development work could also initially be carried out without companies. The companies would then be included selectively with regard to the relevance of the content, the priority in company-based training, the assessed requirement level, etc. Regardless of company support, the modular curricula could provide schools with a good foundation for the organisation and structuring of teaching.

However, training standards cover not only the curricular standards but also those relating to the legal and organisational framework of the training. For example, in many countries with a high proportion of informal training, agreements are concluded orally. In such a framework, the completeness of the agreements, for instance, is then of interest (cf. also ILO 2012b, 99).

Challenges AE 2.2

When implementing this area of engagement, the following challenges may arise:

- How can companies be involved in determining competences that are offered, in addition to the in-company teaching, in VET schools or training centres?
- How can training standards be made binding and implemented? The following questions, for instance, may be significant: have the essential clarifications been made about the contract (e.g. concerning salary, duration of training, probation period, working hours and leave, accident insurance)? Do the agreements comply with the existing legal framework (e.g. with regard to minimum age or working conditions) (cf. also ILO 2012b, p. 68 et seqq.)? Is the duration of training appropriate for teaching VET qualifications?

5.3 Cooperation in Development and Implementation of Examinations and Certifications (AE 2.3)

In a further step the informal apprenticeship training, extended by theory-related VET phases, can be linked to certification. For this purpose – if necessary related to individual training modules – forms of competence assessment would have to be introduced that allow corresponding certificates to be awarded.

Challenges AE 2.3

- Challenges lie in the implementation of a practicable model of competence assessment. It is fundamental for the implementation of this step to link the curricular standards with competence and therefore examination requirements. With regard to the examination form, a broad range of existing approaches could be used. It appears to be as significant as it is difficult to include the competences acquired during company-based training. In this area, it is possible to build on the experience in the field of recognition of informally acquired competences, for instance.
- One consideration in this area also concerns the question of who issues the certificates. In principle, this would be a state institution. However, it would also be conceivable for the companies' umbrella organisation active in the respective occupational field to be involved here, possibly in cooperation with public or governmental institutions.

6 Planning and Execution of Implementation Projects

6.1 Overview

The previous chapters outlined why and under which frame conditions the business sector is engaged in VET and which areas of engagement can be used for this in principle. This scope of possibilities must be geared towards the country-specific and sector-specific frame conditions and transformed into a concrete execution strategy for implementation projects (GIZ 2018, 38). The explanations in this chapter are intended to structure this transformation process and thus support the planning and execution of implementation projects. The following figure gives an overview of the key planning steps:

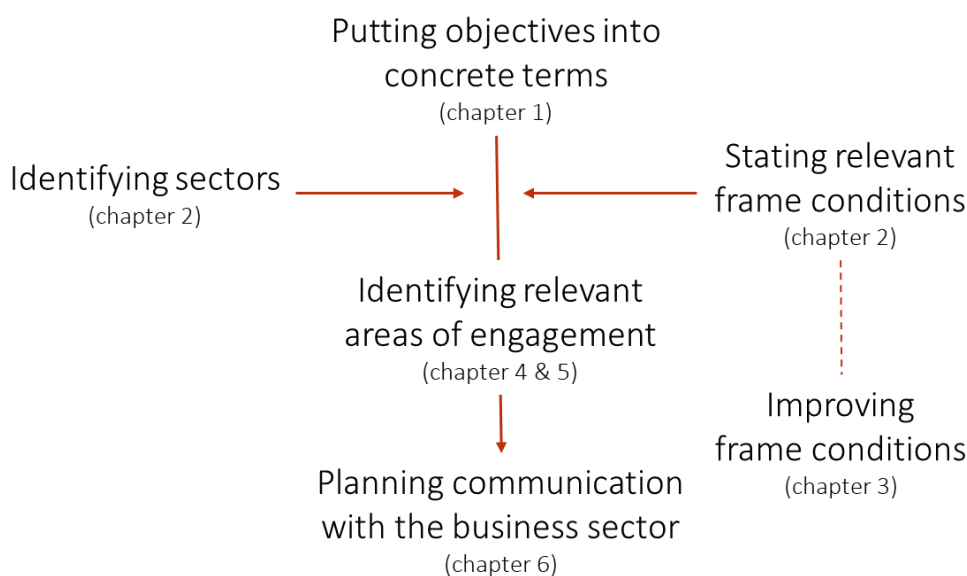


Figure 3: Steps for planning an implementation project

The specification of objectives forms an essential cornerstone for the selection of business sectors and companies, the identification of the relevant frame conditions in the selected sectors as well as the relevant areas of engagement. The engagement of the business sector will necessarily be selective because the resources for such implementation projects are usually limited. The selection process can take place in the following three steps:

- Selection of priority business sectors
- Selection of suitable companies in the respective business sectors
- Clarification of expectations in terms of the depth and intensity of the business sector's engagement.

The selection of priority business sectors is, ideally, the result of an extensive sectoral analysis. This highly complex procedure is often made easier by a so-called quick and simplified sector analysis with the following two steps (GIZ 2018, 10):

- Identification of business sectors that are already designated as priority development sectors in the country (possibly from a different side). In particular, available documents on economic development

are evaluated and discussions are held with experts from ministries, cross-sectoral business organisations and the academic sphere (cf. GIZ 2018, 12 et seqq.). If necessary, external consultants will be commissioned to carry out this task. The result is a longlist with possible sectors.

- Processing of the longlist with a series of key questions to determine how the sectors are to be prioritised. The result is a shortlist with a ranking of sectors to be followed up on for the implementation project.

In addition, the targeted and expected depth and intensity of the business sector's engagement must be clarified. Based on the DCED (2017), Wanklin proposes the following heuristic:



Figure 4: Heuristic on the structuring of dialogue with the private sector (Wanklin 2018, 25)

The heuristic can be applied at the national level between state and business bodies, but also at the regional level, for example between VET schools and companies. In the minimum case, the engagement of the business sector aims at providing mutual information. The engagement will be more intensive in cases of consultation (i.e. gathering feedback) and selective participation. An already intensive form of participation arises in coordination and cooperation, in which the business sector plays a defined, active role in the design. At the highest intensity level, empowerment, tasks are carried out by the business sector at its own responsibility.

Interventions for (increased) participation of the business sector in the design of VET are, in principle, carried out at two levels.

- Indirectly, the frame conditions need to be stabilised in favour of a corresponding engagement and – if necessary – changed. Even if these medium-term and long-term interventions cannot take centre stage in every implementation project, they must nevertheless be kept in mind by means of appropriate indications.
- Companies and umbrella organisations need to be persuaded directly to become (more) involved in one or more areas of engagement. A key challenge here is the design of communication with the business sector.

By linking the two levels, systemic and selective strategies can be combined in a country's VET development. Both areas of focus are discussed in the following subchapters.

6.2 Stabilisation and Longer-Term Change of Frame Conditions

In the following there is an outline of some of the key fields for the design of favourable frame conditions. It would be possible to provide each of them with detailed explanations and implementation examples. An outline will have to suffice here.

Building Trust and Promoting Cooperation

The link between protagonists from the state and the business sector is often not very strong in VET. In the negative extreme, communication takes place via and towards each other, only rarely does cooperation take place within the framework of consolidated collaborations. In many countries there tends to be mutual distrust, extending up to "finger-pointing blame games" (Wanklin 2018, 57).

Trust cannot be decreed in the personal and political spheres. Rather, it must build on and consolidate concrete experiences. To this end, opportunities must be created to gain relevant experience. One form is platforms for dialogue between the state and the private sector on topics of common interest at national, regional and local level (GIZ 2018, 26 et seqq.). In this context, moderators who are familiar with the

language, argumentation and practices of the business sector (business relationship specialists or linkage coordinators (GIZ 2018, 52)) can be used to provide support.

The considerations are based on the assumption that fundamental changes or innovations require sufficient time. The decision to adopt a change is at the end of a process which Rogers divides into the following phases (Rogers 2003, 168 et seqq.):

- Awareness and Information Phase
- Interest and Conviction Phase
- Decision and Trial Phase
- Evaluation, Implementation and Integration Phase
- Confirmation and Consolidation Phase

These phases provide important information for the planning of implementation initiatives. This means different business sector protagonists or companies selected for the initiative may be, even though at the same point in time, at different process stages and therefore must be addressed in different ways. For each of the phases, action strategies need to be developed and operationalised.

For the conviction phase Rogers describes the key factors to distinguish an innovation in terms of its required power of persuasion. He argues that the probability and the speed of an innovation adoption increases the more subjectively beneficial, the more compatible with the existing beliefs, the less complex, the more testable and the more tangible and observable the innovation appears to the user (Rogers 2003, 219 et seqq.). These factors provide the initial criteria for addressing representatives from the business sector and companies. The considerations are put in more concrete terms in chapter 6.3.

Development of Forms of a Public-Private Partnership

Public-private partnerships (PPPs) are forms of longer-term, formally safeguarded cooperation in which state tasks and services are carried out by private sector entities. This safeguarding is generally based on a legal or contractual agreement. The role of PPPs includes more efficient fulfilment of genuinely public tasks. This usually comes about when both sides can benefit from the cooperation.

PPPs can have different forms in VET. The forms in the German-speaking countries of Europe can be used as a reference model. Here, the business sector assumes responsibility for tasks such as curriculum development and the implementation of examinations via organisations such as chambers and professional organisations. In addition, there are bodies and committees where the business sector is represented and cooperates with state protagonists.

Selecting representatives from the business sector for responsible participation can be difficult if there is a heterogeneous diversity of representatives and interests. For example, in some circumstances business associations, chambers or trade unions may compete with each other regionally or sectorally.

On the one hand, PPPs must be formally safeguarded. On the other hand, it may be necessary and useful to strengthen the capacities and competences of organisations and protagonists in the business sector in VET issues (GIZ 2018, 47 et seqq.).

Qualification of Teaching and Training Staff

It is evident that the quality of VET in the learning places largely depends on the qualifications of the teaching and training staff. Against this background, improving the skills of teachers and trainers is an ongoing task. Teaching and training staff comprise teachers, trainers and school and training directors in schools and companies who are entrusted with teaching and management tasks.

In addition to individual competence development, the frame conditions of teaching and training activities are of relevance and are therefore the subject of possible design measures. Relevant studies (cf. Euler 2017)

document, for example, the following points of criticism, which can be used as a basis for corresponding design considerations:

- The training and further training of teachers is geared only weakly towards the requirements of the employment system (Marope et al. 2015, 115). Teachers therefore have no ideas, or only rudimentary ideas, about the requirements in the companies. *“Many national systems which require a pedagogical foundation for TVET practitioners continue to derive this from teacher training rooted in general education contexts. Also the demand for more learner-centred approaches in vocational contexts calls for more specific and applied TVET knowledge which is not always served well by current approaches. Universities in most cases lack the application and workplace experience to respond effectively. The challenge is to combine the world of work and the world of education and consequently different fields of science.”* (Nielsen 2011, 19)
- Another point of criticism is the quality of the teaching methodology and the teaching materials (ADB 2014, 29). Contrary to the widespread rhetoric of the high significance of learner-centred didactics, the majority of teaching takes place in directive forms of presentation. Teaching materials are often outdated and only geared to a limited extent to the practical requirements of a profession (ILO 2010, 21).
- The working conditions of teaching and training staff are often not very attractive to those concerned. The earning and promotion opportunities are limited compared to other employment options.

Securing the Financing Basis

The financing of VET is of central importance for the business sector’s increased involvement in VET. From the perspective of the business sector, increased engagement means that additional time and, therefore, money are required. If, in a country, education – and thus also the financing of education – is seen as a task of the state, the question arises of how the resulting expenses of the business sector are covered by forms of state financing. In addition, companies fear that their training efforts may not be worthwhile because the trained skilled workers are enticed away by companies without a commitment to training (cf. chapter 2.2, poaching). While individual companies provide training, non-training companies externalise their qualification expenditure and, in this sense, behave as free riders. Against this background, the question of financing is associated with the question of the distribution of expenses.

In countries such as Austria, Germany, Liechtenstein and Switzerland, companies that provide VET sometimes have considerable training costs and set these against the benefit. Direct expenses include items such as training allowances, teaching materials and possibly work clothing. In addition, there are indirect expenses, such as personnel costs for the training staff and room costs for the provision of workplaces. This is offset by benefit factors, such as the profits from productive work carried out during training. The consideration of further benefit factors depends, for instance, on whether the learner remains in the company after completing training and whether his or her qualifications can actually be used by the company. In this context, factors of the so-called “opportunity benefit” are also cited, which, however, derive their power of persuasion not so much from clear yield figures but rather from the subjectively more or less highly valued relevance for personnel policy design objectives. In detail, the following factors are cited as possible opportunity benefits of dual training: low induction time and costs; lower costs for personnel recruitment; avoidance of erroneous appointments; avoidance of staff turnover expenses; higher company loyalty; better working atmosphere; reputation in the region (demonstration of social responsibility); better understanding of company cultures and relationships on the part of graduates.

In countries without this culture of companies financing training, the focus is primarily on expenditure, while the benefit factors are not taken into account because they are more difficult to quantify (GIZ 2018, 29).

Against this background, VET initially appears to be a financial burden that must be offset by state financing. In practice, various financing models have been developed which are outlined below.

One comprehensive model is the *levy grant system*. It is used in more than 50 countries (UNESCO 2018, 20). The state or an authorised organisation (e.g. a chamber) imposes a levy on companies, and the resulting financial volume is used specifically to cover in-company or also intercompany training expenses. In effect, all companies contribute to the financing of training, while those active in training are reimbursed for their expenses. This basic model can be designed in many different ways (GIZ 2018, 33). For example, it may be limited to certain business sectors, and reimbursements may cover part, all or more than 100 percent of expenditure. In addition, the collection basis (e.g. payroll total, profit) and the amount of the levy can be varied. There is criticism of the fact that although good use can be made of the levy grant system in the formal economy, it is difficult to cater for the needs of companies from the informal economy in the system. It is also claimed that introducing the levy could make companies feel less responsible for providing training: by paying the levy, they would see their obligation as being fulfilled. It is also stated that the distribution of financial resources in particular is at risk of abuse and corruption. Furthermore, there is the danger that funding will only reach companies that are already carrying out training and will thus “go up in smoke”. If funding is intended as a stimulus, it must also be borne in mind that, in the long term, it may be difficult to abolish funding once it has been introduced.

Training funds are a related form of VET financing (Specht 2008, 38 et seqq.; GIZ 2018, 35). While the income is not collected from the companies through a levy but rather comes from state or international sources, the funds are intended to be used for financing training activities. Funds are often used selectively, for example to support disadvantaged target groups, regions or business sectors. This instrument can also have many different forms and can be used in many different ways.

The effect of *tax exemption* models is similar. In such models, companies can have their training costs exempt from tax, thus reducing their tax burden. Depending on the specific model, different expenses will be recognised and different tax reductions will be determined. In Thailand, for example, companies can assess their training costs as double in this way (i.e. 200%) (GIZ 2018, 34). This model primarily works for companies in the formal economy that report profits.

While the outlined models concern the supply side, approaches such as *voucher programmes* and *training loans* attempt to generate an effect on the demand side. Vouchers are a form of credit that can be used so that the recipients can partially or fully finance specific education offers (e.g. dual training). Vouchers give users the choice of which services they purchase from whom (Specht 2008, 45 et seqq.). The system is subject to a high risk of abuse and therefore requires a considerable amount of monitoring and administration. Training loans function in a similar way to vouchers, but must be repaid in full or in part by the applicants (Specht 2008, 51 et seqq.).

6.3 Design of Communication with the Business Sector

For the concrete implementation it is essential how the communication with the business sector is structured. Even if this process can only be planned to a limited extent, some basic considerations can be revealed and core arguments prepared. The considerations in this chapter address the following questions:

- What are the prerequisites regarding the willingness to innovate that can be met by approaching discussion partners?
- Which arguments can be relevant when addressing protagonists from the business sector?
- How can agreements be formally safeguarded?

Willingness to Innovate

One challenge when selecting dialogue partners for VET projects is to identify those protagonists in an enterprise or umbrella organisation who are basically open to innovation or willing to innovate. Relevant studies show that the willingness of organisation members to innovate differs in principle. On this point, ministries, schools and business enterprises, for example, are not fundamentally different. In long-term empirical studies, Rogers (2003) identified some key factors which may be relevant for assessing and influencing the people's willingness to innovate in organisations. One result of the research is the differentiation of innovation adopter categories (Rogers 2003, 281).

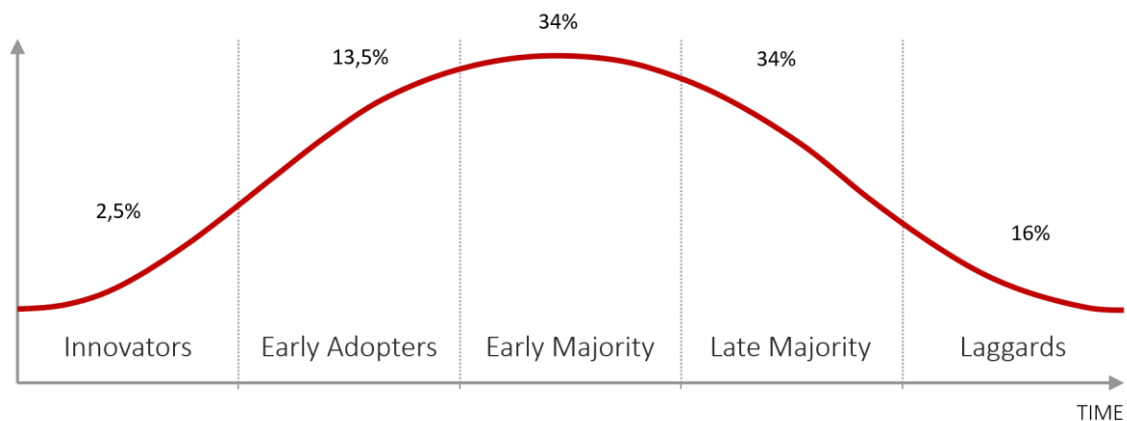


Figure 5: Innovation adopter categories (Rogers 2003, 281)

Rogers distinguishes between the willingness to adopt a possible innovation across five categories. Although Rogers refers to individuals, the differentiations can, in principle, also be applied to groups and organisations. In detail:

- “Innovators” are the first to present and implement new ideas, approaches and proposals. Their status as pioneers of a change points them out, but simultaneously identifies them as somewhat unusual. To win them over for a VET initiative is helpful. At the same time, it should be kept in mind that they are not representative of most companies and therefore experiences made with them is only transferable to a limited extent.
- “Early Adopters” are very well integrated in their organisation and enjoy a high level of credibility and opinion leadership in their circle. When they argue for the acceptance of an innovation, this has an influence on the other members of the organisation. For the implementation of a VET initiative it is essential to identify them in an organisation and to gain their support.
- The “Early Majority” takes innovation positively when the opinion leaders in the organisation express their support. They do not usually belong to the prominent representatives in the organisation, but due to their number, they contribute to reaching a critical mass, necessary for the innovation to be spread.
- The “Late Majority” includes the members of the organisation who recognise at a late stage that there is no way around the innovation. They can be convinced about an innovation's usefulness but need some insistence from the other organisation members.
- “Laggards” do not adopt an innovation until they see no other option. Their support is fragile, there is always the possibility that they will withdraw it or turn to silent forms of resistance.

From the findings outlined above, two essential insights can be derived for the planning of implementation projects: (1) If possible, the so-called "Early Adopters" in an organisation (or sector) should be identified – people (or companies) with a high level of credibility but without the need to be convinced that an innovation makes sense. (2) No resources should be used for those protagonists who overtly or covertly avoid or even fight against the project.

List of Arguments

Companies and the business sector will weigh up potential or intensified engagement in VET in particular under the cost-benefit criteria. For this conviction process, possible arguments are to be prepared. Generally, the arguments must be formulated “in simple business language” (Gopaul 2013, 8) and they must emphasise the utilisation of potential rather than compensating for deficits. Below is a list of arguments which can be incorporated in this process and adapted to the respective discussion partners:

- *Cost-benefit argument:* Over the entire duration of the training, the expenses can be offset by the productive achievements of the apprentices. Studies in Germany, Austria and Switzerland (cf. Schönfeld et al. 2016; Strupler & Wolter 2012; Moretti et al. 2017) demonstrate a net profit at the end of the training for many professions.
- *Productivity argument:* Qualified skilled workers contribute to increased productivity, quality and growth. This argument is at the fore in sectors with a strong or increasing orientation towards a quality competition.
- *Investment argument:* The training of future skilled workers is an investment in the future of the company. It establishes the precondition for a sound economic development and competitive advantages; it leads to a return on investment in the medium term.
- *Screening argument:* In the course of training, potential future employees can be monitored and assessed in terms of their performance, before those employees who have proved themselves are accepted.
- *Relevance argument:* Through the participation in VET, the business sector is in the position to increase the relevance of the training and, subsequently, to recruit employees who better match the economic requirements.
- *Employee retention argument:* Often it is difficult to recruit qualified and loyal employees on the labour market. During the training, the company gets to know the new employees and can decide who it wants to employ afterwards.
- *Reputation argument:* The training can contribute to a positive image for the company or a sector. Visible engagement in the training can help the company to be perceived as an organisation that is concerned with the quality of its staff (and thus with its performance level).
- *Social responsibility argument:* The company/sector can present itself as socially responsible through its engagement in training and can indirectly contribute to further increasing its brand.
- *Stability argument:* Through the participation in VET, the business sector contributes to increasing social and economic stability in the country. Indirectly this promotes possibilities for the establishment and expansion of economic activities.

The outlined arguments can be used in two ways: on the one hand, they can be proactively introduced into corresponding discussions. On the other hand, they offer possible points of reference for objections on the part of the business sector, which can be taken up and “turned around”. Example: Training is expensive and causes costs! – The costs are offset by benefits and earnings that have to be weighed against each other.

Safeguarding the Agreement

The results of consultations with protagonists from the business sector can lead to agreements that can be safeguarded with varying degrees of binding force. Any oral agreements remain highly informal, and may be accompanied by a more or less detailed protocol. At the other end of the spectrum are contractual agreements with detailed specifications and a high degree of binding force. In between are forms such as memoranda of understanding or memoranda of agreement, which, although they can document more or less detailed operational objectives and actions, do not generally contain legally binding enforcement components.

7 Questionnaire for Planning and Reflecting Own Projects

This study provides a comprehensive reference framework for reflecting on and planning VET projects in development cooperation. It is written for a wide range of purposes, so the application of the basic considerations requires a “translation” to the pursued objectives and the specific conditions of each country. This necessary translation process is supported by a questionnaire offered parallel to this study (as Part 2). The study and the questionnaire are available on the DC dVET website. Furthermore, by the end of 2018 the questionnaire is also available as online tool.

The questionnaire pursues several goals:

- *Reflection on existing experiences:* With the help of the questionnaire, existing experiences, practices and implementations in a country can be systematically recorded, analysed, critically reflected on and presented in a structured form. New developments often grow on the basis of existing ones, so the inventory of existing starting points is valuable for the development of suitable ideas.
- *Exploration of new possibilities:* While reflection on existing experiences is geared towards determining what already exists, the tool can also be used to discover new possibilities and ideas and to weigh them up for possible implementation. Even if it is not always possible to implement options for action in the short term, the process of discussing them already inspires new ideas.
- *Exchange of experiences:* The questionnaire can structure exchange and, in this way, encourage dialogue. The exchange can take place within a project or programme team, it can take place with partners from ministries, umbrella organisations or companies or between donors and projects.
- *Documentation of good examples:* The tool provides a basis for ascertaining and documenting good implementation examples in the various areas of engagement. Along structural components such as: objectives pursued; methods used; effective incentives; support services used and implementation experience, a collection of documented experiences can emerge that can be made available to a broad range of users.
- *Identification of effective design principles:* Finally, different examples and interventions can be evaluated to determine which principles of action are effective in the respective contexts.

8 Conclusion

The development of dual VET is not possible without the engagement of the business sector/companies. In this respect, there is no question of the necessity to win over the business sector/companies. At the same time, the cooperation of the business sector can be in conflict with interests of other actors in the country. For example, teachers' associations in a country with primarily school-based training may fear that the jobs of their members are at risk. Furthermore, it is not unlikely that there are employees in the ministries and authorities who are not interested in changing the status quo because, subjectively, they do not derive any benefit from this or even fear the loss of existing privileges. It is also possible that the objective of the training and employment of young people is in contradiction to the goal of state efforts in the field of labour legislation, such as minimum wages and regulations on working hours.

From the perspective of development cooperation, it is important to ensure that in a country's specific implementation projects priority is given to the sectors of the economy that promise the highest level of goal compatibility under the respective development policy criteria. In concrete terms, this shows that a corresponding perspective comparison cannot take place in general but in each case only on a time-related and country-specific basis. The goals of the business protagonists are often heterogeneous, and the focus and objectives of development cooperation can change over time (cf. for Switzerland, for example: Jäger et al. 2016, 113 et seq.).

An overarching issue here is how the engagement of the business sector, as a focus of this study, can be integrated in the overall perspective of a system design. Meaning that projects to increase engagement of the business sector in VET do not remain isolated solutions but rather can be extended and institutionalised beyond the duration of a project.

Finally, it should be noted that VET in general and the initiatives for greater engagement of the business sector in particular should not be overburdened. Occasionally VET is claimed as a solution for a wide range of social problems, especially in the context of development cooperation. Certainly, VET can indirectly contribute to, for example, the reduction of youth unemployment, youth violence and poverty, but the mechanisms of action are not monocausal and are usually difficult to reconstruct. Efforts aiming at a greater business sector engagement in VET should furthermore not lose sight of the fact that the business sector is mainly driven by economic rationality. While in some cases aspects of corporate social responsibility may also come into the picture, ultimately questions of staff recruitment, development and retention are decided under economic criteria.



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