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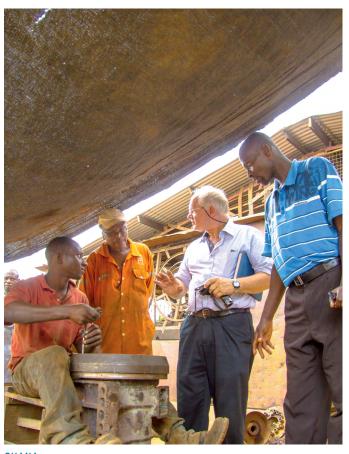
The role and skills development of in-company trainers in development cooperation



THAILAND



MEXICO



GHANA

PREFACE

In its current education strategy, the German Federal Ministry for Economic Cooperation and Development (BMZ) identifies the crucial importance of teachers and trainers for ensuring the quality of technical and vocational education and training. Initial and continuing training for (vocational) teachers and trainers is, therefore, a focus of many projects in cooperation countries. Skills development for in-company trainers and the design of their role represent a particular challenge, because in most countries vocational training takes place primarily within vocational schools.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH's Sector Project Technical and Vocational Education and Training (TVET) has produced this guide to the role and skills development of in-company trainers in development cooperation on behalf of BMZ's division "Education and the Digital World". Its aim is to boost the emphasis placed on in-company trainers in development cooperation projects, including through the added value created by cooperation with other vocational training institutions both locally and in Germany. Actors from the German private sector are also involved in training trainers in developing countries and emerging economies, particularly representatives of the Association of German Chambers of Commerce and Industry (DIHK) and the Worldwide Network of German Chambers of Commerce (AHKs).

This guide has been developed as part of a process initiated and managed jointly by GIZ and Division 3.2 (VET Personnel, Digital Media, Distance Learning) of the German Federal Institute for Vocational Education and Training (BIBB). To share experience and explore the scope for further cooperation, GIZ and BIBB joined forces with the DIHK and the German Confederation of Skilled Crafts (ZDH) under the auspices of BMZ and Germany's Federal Ministry of Education and Research (BMBF) to organise an expert forum on in-company trainers. The forum took place in June 2015, and this guide includes its outcomes. Over the next few years, the organisations involved will continue to share experience and knowledge about potential cooperation in the area of skills development for in-company trainers.

We welcome comments and constructive criticism on this guide and feedback on the role of trainers in general. Please email ausbilder@giz.de or GIZ's contact person, julia.schmidtl@giz.de.

Julia Schmidt Advisor, Sector Project TVET Oliver Haas Head, Sector Project TVET

ABSTRACT

This guide is directed towards practitioners and decision-makers who are concerned with the role, tasks and training of teaching and training staff in the field of development cooperation. Teaching and training staff play a crucial role when it comes to designing labour market-oriented technical and vocational education and training (TVET) and implementing reforms within TVET systems.

In Germany, the state and the private sector cooperate closely in the area of TVET. This dual approach is also reflected in the interaction between schools and companies as places of learning. Correspondingly, there are also two types of teaching and training staff: vocational school teachers who mainly provide the theoretical knowledge required for a given profession, and in-company training staff who provide practical training at companies. Many developing countries take guidance from this dual system and include progressively more company-based training in their TVET systems. Hence in-company training staff play an increasingly important role in those countries too. Along with instructing trainees, the range of tasks handled by in-company trainers comprises the management, planning and organisation of training; process design; involvement in assessment; communication and cooperation with vocational schools; advisory and support functions as well as multiplier functions. The latter are particularly relevant in TVET projects in the field of development cooperation.

Eight examples from Brazil, Egypt, Ghana, Kosovo, Mexico, Pakistan, Saudi Arabia and Thailand illustrate how training and the above range of tasks can be designed and implemented. These examples serve as a basis for identifying strategic and technical prerequisites for training in-company training staff. This includes the increasing involvement of the private sector in training, the corresponding design of communications and cooperation between vocational schools and companies, and the creation of favourable conditions for implementing company-based training. Networking and exchanges between teaching and training staff can also help in this regard.

The guide contains key questions on the basic conditions for company-based training and on the role and training of in-company training staff. This includes the legal foundations for TVET and the recognition of out-of-school training. Other key questions relate to implementing company-based training and the role and training of in-company training staff. For example, there are questions on whether training is already provided at companies, how well-equipped companies are in a given country, how training is organised at vocational schools, and how schools cooperate with companies.

Success factors have been identified for training in-company training staff. These concern the framework conditions, private sector involvement, the implementation of training and the deployment of in-company training staff. The crucial factors are willingness on the part of the private sector to play an active role in shaping TVET; standardising and institutionalising the training of trainers and their activities; and designing cooperation among the places of learning. The guide concludes with notes on implementation and an overview of the actors to be involved.

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EGYPT



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BRAZIL

ABBREVIATIONS

AEV0 Ordinance on Trainer Aptitude

AHK Worldwide Network of German Chamber of Commerce

BIBB Federal Institute for Vocational Education and Training

BMBF German Federal Ministry of Education and Research

BMZ German Federal Ministry for Economic Cooperation and Development

CDG Carl Duisberg Gesellschaft e.V.

CIM Centre for International Migration and Development

Development cooperation

DIHK Association of German Chambers of Commerce and Industry

DSE German Foundation for International Development

GFA GFA Consulting Group

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

HR Human Resource

HWK Chamber of Trade

IHK Chamber of Commerce and Industry

InWEnt Capacity Building International gGmbH

MSMEs Micro-, small and medium-sized enterprises

SMEs Small and medium-sized enterprises

NGO Non-governmental organisation

PAL Stuttgart Chamber of Industry and Commerce's German Assessment and

Teaching Materials Development Centre

TVET Technical and vocational education and training

VET Vocational education and training

ZDH German Confederation of Skilled Crafts

ZWH Central Agency for Continuing Vocational Education and Training in the Skilled Crafts

1 INTRODUCTION AND BACKGROUND

In its current education strategy, the German Federal Ministry for Economic Cooperation and Development (BMZ) identifies the crucial importance of teachers and trainers for ensuring the quality of technical and vocational education and training. Initial and continuing training for (vocational) teachers and trainers is, therefore, a focus of many projects in cooperation countries. Skills development for in-company trainers and the design of their role represent a particular challenge, because in most countries, vocational training takes place primarily within vocational schools.

German Federal Ministry for Economic Cooperation and Development

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The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH's Sector Project TVET

This guide is addressed to practitioners and decision-makers concerned with the role, responsibilities and skills development of teaching and training staff in the field of development cooperation. Teachers and trainers play a crucial role when it comes to designing labour market-oriented technical and vocational education and training (TVET) and implementing reforms within TVET systems.

Teachers and trainers are the key to ensuring the quality of TVET.

In any TVET system, teachers and trainers are the key to ensuring the quality of TVET and to improving it in the long term. Alongside good working conditions and the availability of skilled trainers within the training process, measures to motivate them and to develop their skills are crucial to the delivery of high-quality, labour-market oriented skills development.

BMZ believes that Germany's experience in the area of TVET equips it to make a particular contribution to tackling the shortage of trainers with practical skills in cooperation countries. As it argues in its 2012 position paper 'Vocational Education and Training in German Development Policy', 'Teachers and trainers must themselves be well educated if they are to provide high-quality VET. Teaching staff with sound technical and pedagogical qualifications will be able to communicate training content in an appropriate manner and continually develop the training methods used.'2

¹ See BMZ 2015: BMZ Education Strategy: Creating equitable opportunities for quality education, p. 9, at: http://www.bmz.de/en/publications/type_of_publication/strategies/Strategiepapier355a_07_2015.pdf

² See BMZ 2012: Vocational education and training in German development policy, pp. 17-18, BMZ strategy paper 8 | 2012e.

1

Cooperation between the state and the private sector enables young people in Germany to benefit from training both in vocational schools and within companies to acquire the occupational skills needed for a successful start to their working life. The training they receive is coordinated in organisational and technical terms between in-company trainers and vocational school teachers. In some cases, a third learning venue is also involved, such as a vocational training centre serving a number of companies. Within this distribution of responsibilities, TVET teachers in vocational schools deliver specialised theoretical knowledge, while in-company trainers foster their practical expertise. Trainees' experience in companies in particular is a major factor in easing their transition to working life and in helping them to successfully fulfil their roles in their subsequent employment.

Positive experiences of the dual training system are regarded as bringing advantages both for personal development and for the economic development of a country and have long served as a reference model for German development cooperation in the area of TVET. It is also important to acknowledge and reflect the continual change the skills development models, roles and responsibilities of teaching and training staff are undergoing as a result of globalisation.

In the following sections, we first define some key terms before analysing the relevance of TVET teachers and trainers for development policy and for economic policy. Section 4 presents eight examples illustrating good practice for training trainers, while Section 5 describes the key requirements for the skills development of in-company trainers from a strategic and technical perspective. Section 6 outlines key questions and success factors in relation to the surrounding conditions and to implementation, and finally, Section 7, contains pointers on planning and implementing skills development for in-company trainers.

Cooperation between state and private sector in TVET in Germany

Frame of reference for development cooperation in TVET



EGYPT



THAILAND

2 SYSTEMIC CONTEXT AND DEFINITION OF TERMS

TVET in Germany focuses on developing the technical knowledge, skills and abilities that workers require to carry out formally recognised training occupations, which are subject to regulation at federal level. Under the German Vocational Training Act, Section 5, TVET is based on sets of training regulations (http://www.bibb.de/berufe). Systematic training takes an average of three years to complete and enables trainees to acquire the necessary occupational competences and facilitates their entry into the world of work and their later employment.

The German-language version of this guide draws on the specialised German terminology widely used in relation to initial and continuing training and developed largely by BIBB. The term 'trainer' is governed by a standard laid down by the German Ordinance on Trainer Aptitude (AEVO).³ In general, there is no corresponding standard at international level for the diverse occupational profile of in-company trainers, which in Germany is linked to clearly defined roles, skills and qualifications.

Table 1 provides more or less equivalent terms in English, French and Spanish for the German terms used in relation to teaching and training staff. The English equivalents are used in this English-language version of the guide. The reality of TVET in Germany and of the roles and responsibilities of trainers is usually very different from that in most cooperation countries, largely because in many cooperation countries, training takes place predominantly in vocational schools and little, if any, is provided within companies.

TVET in Germany

The Ordinance on Trainer Aptitude (AEVO) is the standard for the diverse occupational profile of in-company trainers.



MEXICO

³ See also Appendix 1: German Vocational Training, Sections 28 and 30, and Ordinance on Trainer Aptitude

2

TABLE 1: OVERVIEW OF INTERNATIONALLY USED TERMS FOR TVET TEACHERS AND IN-COMPANY TRAINERS

German term	English term	French term	Spanish term
Betriebliche Ausbildende ⁴	Training manager		
Betriebliche Ausbilderin/ betriebliche Ausbilder	Trainer (generally without pedagogical training). Also in-company trainer, in-plant trainer, coach, mentor, etc.	Tuteur, médiateur d'apprentissage	Formador, mediador del aprendizaje (formativo), gestor vinculación, tutor
Meisterin/Meister	Master/master craftsman/ master craftsperson	Maître d'apprentissage	
Berufsschullehrerin/ Berufsschullehrer	TVET teacher Also vocational teacher, technical teacher	Formateur	Profesor de formacion profesional
Fachpraxislehrerin/ Fachpraxislehrer	Instructor, assistant, technician, engineer. Also trainer, etc.	Instructeur (not in common use)	Instructor (not in common use)
Ausbildende Fachkräfte Concept unfamiliar in most other countries; denotes skilled workers who train apprentices			

As this table shows, the English, French and Spanish-language concepts only correspond partially with the relevant German-language terms. This means that in development cooperation, participants frequently have to resort to paraphrase and description.

Below, we describe TVET teachers and in-company trainers within the German TVET system in greater detail, focusing on their role and responsibilities. Table 2a considers TVET teachers in vocational schools and vocational training centres in Germany, while Table 2b focuses on in-company trainers.

Teachers and trainers in the German TVET system

⁴ The difference between 'trainer' and 'training manager' is explained in Table 2b.

TABLE 2A: TVET TEACHERS IN VOCATIONAL SCHOOLS IN GERMANY

Term	Berufsschullehrkräfte (TVET teachers)	Fachpraxislehrkräfte (practical instructors)
Alternative terms	Gewerbelehrerin, Gewerbelehrer, Studienrätin, Studienrat an Berufs- schulen	Fachlehrerin, Fachlehrer, Praxis- lehrerin, Praxislehrer, Werkstatt- lehrerin, Werkstattlehrer
Professional requirements	Degree-level education and post- graduate training, culminating in the 'second state examination' or Master's degree with a teaching certificate	Skilled workers with at least five years of relevant practical experience
Role and responsibilities	Responsible for teaching theory	Support TVET teachers with practical instruction in the workshop



SAUDI ARABIA



KOSOVO

TABLE 2B: IN-COMPANY TRAINERS IN GERMANY⁵

Term	Ausbildende/Ausbildender (training manager)	Ausbilderin/Ausbilder (trainer)	Ausbildende Fachkraft (trainer)
Alternative terms		Ausbildungsbeauftragte, Ausbildungsbeauftragter, Lehrmeisterin und Lehr- meister [©] , Instruktorin und Instruktor	Ausbildungsbegleiterin und Ausbildungsbegleiter, Ausbildungshelferin und Ausbildungshelfer
Professional requirements	Individuals who have the necessary personal and technical skills ⁷	Mostly skilled workers with relevant occupational experience; most with certification according to AEVO®	Mostly skilled workers with relevant occupational experience
Roles and responsibilities	Many are not themselves involved in training. 'Training managers' are employers who appoint trainers to carry out training. They receive a trainers' licence (Ausbildungsberechtigung) from the relevant Chamber and are responsible for trainees. They may delegate practical training to trainers.	Many train alongside their main employment. Trainers carry out training on behalf of training managers, who explicitly mandate them to carry out training responsibilities. They receive (only) the training competence certificate (Ausbildungs-befähigung) but not always the trainers' licence (Ausbildungsberechtigung).	Most train alongside their main employment. Most training is carried out by skilled workers without the AEVO and without any pedagogical qualifications. The German Federal Ministry of Education and Research has published a guide for this target group. In some cases, in-service training qualifications are available, for example as an assessed in-service trainer.

⁵ See IHK Frankfurt am Main 2015, at: http://www.frankfurt-main.ihk.de/berufsbildung/ausbildung/ beratung/ausbilderinfos/ausbildungsverantwortliche/

See appendix 2: Meisterprüfung und Meistertitel

⁷ See Berufsbildungsgesetz §30 (1)

⁸ See appendix 1: Berufsbildungsgesetz §28 und Ausbildereignungsverordnung 9 See aevo.de 2014, at: https://www.foraus.de/html/foraus_index.php

 $^{10 \}quad https://www.bmbf.de/pub/Handreichung_fuer_ausbildende_Fachkraefte.pdf$

Germany currently has a labour force of more than 40 million, ¹¹ with over 665,000 trainers and around 130,000 vocational school teachers. ¹² Almost 1.5 million young people complete training in Germany's dual system each year. Trainers in Germany earn an average annual salary of between EUR 20,400 and EUR 27,000, depending on the sector. ¹³

Since the summer of 2015, Germany's TVET system has been facing an additional challenge: the inclusion of young people who have arrived in Germany as refugees, are seeking asylum, and have inadequate, if any, occupational skills. Including them in in-company training will be the responsibility of the in-company training staff. However, this guide does not yet address how in-company training staff can be prepared for this task.





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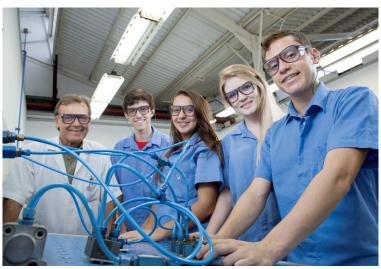
¹¹ See Statistisches Bundesamt 2015, at: https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/ Arbeitsmarkt/Erwerbstaetigkeit/Erwerbstaetigkeit.html

¹² See Statistische Ämter des Bundes und der Länder 2014, at: http://www.statistikportal.de/Statistik-Portal/de_jb04_jahrtab26sch.asp

¹³ See OAK - Online Akademie GmbH & Co. KG 2014, at: http://www.ausbildung-der-ausbilder.eu



GHANA



BRAZIL

3 DEVELOPMENT POLICY AND ECONOMIC POLICY RELEVANCE OF TRAINING STAFF

Developing the skills of trainers is crucial to high-quality training and, in particular, to ensuring labour market relevance. Across the world, the majority of TVET takes place in vocational schools. The importance of well-trained and skilled teachers and trainers of practical skills is often underestimated in cooperation countries. TVET is frequently perceived as being the responsibility of the state, and the private sector does not see itself as having a responsibility to become involved in training. At the same time, there exists a shortage of skilled workers on the labour market. However, to ensure the availability of skilled labour which meets the needs of the labour market an active involvement of companies and the membership organisations is required, representing them in all aspects of TVET: in planning, financing, implementing, assessing and certifying training. There is, moreover, a need for appropriately skilled in-company training staff to provide consistency between training in companies and training in vocational schools.

The active involvement of companies and their membership organisations in planning, financing, implementing, and assessing and certifying TVET is essential.

BMZ recognised the importance of skills development for training staff at an early stage and made it one of the priorities of German cooperation in the area of TVET at the very beginning of development cooperation in the early 1950s. Germany's private sector is also active abroad in initiatives that support skills training. The Worldwide Network of German Chambers of Commerce (AHKs) plays a crucial role here. Both the German Government and the private sector emphasise the importance of close coordination between development policy contributions to skills development and the contributions made by private sector companies.

3.1 DEVELOPMENT POLICY RELEVANCE

There are two reasons why social demand for skills development is growing all the time. First, the population of many developing countries is increasing rapidly, meaning that the proportion of 15- to 24-year olds – the primary target group for TVET – is also rising rapidly. Second, the Education for All (EFA) initiative, which was launched in 2002 and renamed the Global Partnership for Education in 2011, has made major achievements in the area of basic education. As a result, more young people now wish to continue their education beyond the basic level, putting substantial pressure on state TVET systems and their financing.

Social demand for vocational training is growing all the time.

Ensuring that in-company training accounts for a larger proportion of training offers an opportunity to meet this social demand for skills development. It is also a way of improving the labour market relevance of training provision. The priority is both to expand the amount of in-company training provided and to improve its quality. Delivering significant parts of training within companies improves training quality and increases trainees' chances of finding employment. Providing specific periods of training in companies also relieves the pressure on vocational schools, enabling more young people to be trained without having to increase the schools' capacity.

Advantages of increasing the in-company proportion of training

Where in-company training is implemented effectively, it can also improve employability. In-company training staff plays a key part here in improving the quality of the training provided in companies and – in conjunction with TVET teachers in vocational schools – constituting the link between school and in-company training. Developing their skills is crucial to their ability to carry out such a role effectively.

3.2 ECONOMIC POLICY RELEVANCE

In many cooperation countries, the manufacturing, craft and service sectors face a shortage of well-trained skilled staff.

CASE STUDY: VIET NAM14

To sustain the enormous growth its economy has seen over recent years, Viet Nam aims to boost labour productivity by 50% by 2020. The country urgently needs skilled workers and managers for its manufacturing and service sectors and, in particular, in the business centres of major towns and cities. Half of all Vietnamese companies report difficulty in finding skilled workers and middle managers. The same applies to skilled workers able to train young people.

One reason for the shortage of skilled workers in cooperation countries is that company owners and senior managers do not adequately recognise the importance of well-trained skilled workers and middle managers to complex production processes and critical functions. Companies that do not hire these skilled employees see the quality of their products decrease and maintenance of their plant suffer, but also suffer a decline in the training and human resource (HR) management of their existing skilled workforce. Most small and medium-sized enterprises (SMEs) have no medium-term or long-term HR development strategies.

A second factor is that most companies are unwilling or unable to invest in training their workforce. Many expect the state's training centres to assume full responsibility for training. However, many centres are unable to do this, either because they themselves do not have enough experts to teach practical skills or because the curricula and syllabuses are not adequately tailored to the needs of the private sector. As a result, companies often employ inadequately skilled workers.

In many cooperation countries, the manufacturing, craft and service sectors face a shortage of well-trained skilled staff.

Most companies in cooperation countries are unwilling or unable to invest in training their workforce.

¹⁴ See Breu, M., Dobbs, R., Remes, J., Skilling, D., and Kim, J. 2012: Sustaining Vietnam's growth: The productivity challenge, pp. 4, 11, 20, 32, at

http://www.mckinsey.com/insights/asia-pacific/sustaining_growth_in_Vietnam

¹⁵ See Table 3: Key challenges and their causes in TVET in developing countries

CASE STUDY: SOUTH AFRICA

'In vocational schools, many mentioned [in a survey] that the trainers did not possess the required skills and were missing the on-the-job experience that is required to train students in vocational/technical schools ... Some SETAs [Sector Education and Training Authorities] are bringing employers and training providers together to address this problem. As a result, private sector companies are offering training and mentoring to technical lecturers in technical institutions.'16

While European companies tend to tackle skills shortages on the part of their employees through in-service training,¹⁷ many companies in developing countries are more likely to meet their needs by 'poaching' – recruiting workers from their competitors. The practice of poaching is widespread, so there is a permanent shortage of well-trained and experienced skilled workers and trainers. This affects the manufacturing and 'modern' sectors in many cooperation country economies, but may also affect the informal economy.

In the informal sector, the approach to developing the skills of trainers has to take account of the fact that the skills that need to be taught are not usually as complex as in large and medium-sized industrial companies. The priority is to strengthen existing traditional training structures without making them unnecessarily formal.

CASE STUDY: GHANA¹⁸

Ghana's informal sector provides between 80% and 90% of the country's employment. The Ghana Skills Development Initiative, which is supported by BMZ, has begun work in three pilot regions on providing in-service training for the owners of micro-, small and medium-sized enterprises (MSMEs). Training takes place at private and government training institutions. If these individuals were trained at all, they acquired their skills through traditional apprenticeship. There has long been consensus in the country that the employability of apprentices and workers in the informal economy needs improving, and that improvement should be effected through simplified and adapted formats. The key challenges are improving quality at the lower levels of the TVET system, gearing training to actual needs, and introducing competency-based training.

Skills development for trainers in the informal sector

¹⁶ See Gopaul, S. 2013: Feasibility Study for a Global Business Network on Apprenticeship, p. 36, at: http://www.ilo.org/skills/pubs/WCMS_222180/lang--en/index.htm

¹⁷ See European Commission 2012: European Business Forum on Vocational Training: Challenges and trends in continuing development of skills and career development of the European workforce. Survey Report p. 53, Skill development clearly beats recruitment, at:

http://ec.europa.eu/education/policy/vocational-policy/doc/forum-survey_en.pdf

¹⁸ See Ghana Skills Development Initiative 2013, at: http://www.ghanaskills.org/node/1 See also example 3 in Section 4.

3

To tackle the shortage of skilled workers, many developing countries have over recent decades introduced sophisticated TVET systems. In many countries, initial vocational training is still inadequate, however. In its strategy paper 'One-Stop International Cooperation in Vocational Training'¹⁹ the German Government identifies two key challenges, which are faced by many countries. They are presented in Table 3 below.

Key challenges to vocational education and training in developing countries

TABLE 3: KEY CHALLENGES AND THEIR CAUSES IN TVET IN DEVELOPING COUNTRIES

Challenge	Root causes
Graduates have low levels of practical expertise; companies face a shortage of skilled workers.	 Teachers in state-run vocational schools have inadequate practical experience. There is insufficient practical content in the course of training. The employees carrying out training within companies lack adequate skills to do so: most have no training in how to train, and some lack the relevant technical skills.
The skills taught during vocational training do not match companies' requirements, giving rise to a 'qualification mismatch'.	 There is no institutionalised coordination between the state and the private sector in the area of TVET. Training needs are not asessed. There is insufficient communication and coordination between training centres and companies. Trainers in training centres are not teaching the skills that companies need because they themselves lack these skills.

Table 3 illustrates the strategic importance of teaching and training staff to high-quality TVET. These individuals, their roles and their skills development should be considered systematically as part of development cooperation. The tried and tested multi-level approach can be of use here:

Strategic importance of teaching and training staff to high-quality TVET

- Micro level: planning and implementing skills development for (in-company) trainers
- Meso level: promoting institutionalised cooperation between places of learning (vocational schools and companies) and placing skills development for trainers on an institutional footing
- Macro level: strengthening cooperation between state and private sector and providing a statutory basis for skills development for trainers

¹⁹ See Deutscher Bundestag 2013: Strategiepapier der Bundesregierung zur internationalen Berufsbildungszusammenarbeit, p.2ff., at: https://www.bmbf.de/files/strategiepapier_der_Bundesregierung_zur_internationalen_Berufsbildungszusammenarbeit.pdf (English version available at: https://www.bmbf.de/pub/One_stop_International_Cooperation_in_Vocational_Training.pdf)

A number of skills development projects are currently being implemented as part of both German development cooperation (DC) and international cooperation. Some focus wholly on initial and continuing training for teachers and trainers, while others include it alongside other measures. In this section, we present case studies from Brazil, Egypt, Ghana, Kosovo, Mexico, Pakistan, Saudi Arabia and Thailand. The experience represented by these eight countries is not exhaustive, but provides good insight into the factors underpinning successful skills development for trainers. In future, greater attention should be paid in DC to the training of trainers, and it should be promoted as part of systemic approaches.

CASE STUDY 1: EGYPT

Author: Dr Stefan Wolf, Institute of TVET and Work Theory, Technical University Berlin

In Egypt, a consortium of German training companies and organisations from Germany's craft sector has implemented a pilot project funded by BMBF and led by the Technical University Berlin (WEB-TT).²⁰ Working with Africa's largest private sector construction company, Orascom Construction Industries, the project developed a model for improving the quality of construction work. Employees from the company's top echelon of practical construction work – **foremen** and **supervisors** – were trained as trainers. Their training was carried out by German master craftspersons and by trainers on construction sites in Egypt. It was geared to the quality standards of initial and continuing TVET in Germany. The relevant sections of the AEVO regulations on conducting training were adapted as necessary.

WEB-TT's modification of the AEVO course concerned mostly the delivery of content relating to teaching the technical and vocational skills required for the work, combined with the actual technical skills required by the foremen's tasks on the job. For example, foremen were able to familiarise themselves with the concept of comprehensive skills, problem-based learning and practical tasks. They developed learning content themselves, which they then used to teach other employees. Arabic language documentation was provided for support and digital media developed for preparation and debriefing. Final examinations based on German standards were run by German master craftspersons and in-company trainers and included assessment of practical teaching skills. After the examinations, certificates were presented by the training centre for the relevant occupation, which also organised and conducted the training course.²¹

²⁰ Water-Energy-Building - Training and Transfer (WEB-TT), at: http://web-tt.org/

²¹ See Wolf, S. and Meyser, J. 2014: Policy transfer in technical and vocational education to Egypt – general conditions, concepts and experiences, at: https://opus4.kobv.de/opus4-tuberlin/frontdoor/index/index/docId/5584

CASE STUDY 2: BRAZIL

Author: Dr Bernd dos Santos Mayer, CIM,

Cooperation for Sustainable Development, Brazilian-German Chamber of Commerce and Industry, São Paulo

In Brazil, German Chambers of Commerce (AHKs) and German companies with their own training departments have long played a crucial role in **training in-company trainers for practical skills**. For the past 30 years, the São Paulo AHK has been offering dual training in commercial occupations and is expanding its provision to craft occupations in 2016. Many of the German companies involved receive support from their parent company. There is not as yet an **aptitude test** for trainers, but the São Paulo AHK is planning to introduce such an examination in the near future along with the accompanying training for local companies intending to offer training adapted to the dual system. The main focus will be on training for mechatronics engineers.

The target group for the basic training programme are young people aged between 14 and 24. Brazilian training for skilled workers involves around 1,200 hours of training. During this time, trainees are confined to training workshops and do not spend time in companies. At the initiative of the companies involved, there is a prospect of expanding the training regime along the lines of the German standard, which involves around 5,500 hours of training. Like their counterparts in the German dual system, Brazilian trainees will then, under Brazilian labour legislation, be able to receive ongoing practical training in companies, which will account for at least 70% of all the training they receive. Those responsible for vocational training within companies are trained employees of the company and teachers, for example from SENAI, the industrial sector's training organisation, or from other training providers involved in continuing training within companies.



BRAZIL

CASE STUDY 3: GHANA

Author: Dr Jeanette Burmester, formerly GFA, team leader, Ghana Skills Development Initiative

Ghana's informal sector, which employs between 80% and 90% of all the country's employees, provides traditional apprentice training. Practical training is given by **master craftspersons** without methodological or pedagogical know-how, and content is not standardised. However, **trade associations** have some influence on the system, because many companies are members of these associations. The trade associations also have oversight of the organisation and conclusion of training.

The Ghana Skills Development Initiative (GSDI) project, which is supported by BMZ, is run jointly with the national vocational training agency (the Council for Technical and Vocational Education and Training, COTVET) and with 10 selected trade associations. Its objective is to improve the employability of workers in the informal sector. The traditional apprenticeship system is being modernised through the introduction of a cooperative approach to training. Training has so far taken place exclusively in companies but is now being expanded to include structured units within a vocational school. Jointly developed occupational standards designed to meet the needs of the private sector are being disseminated. These provide the basis for competency-based training programmes in which around 80% of the training takes place within companies and around 20% within vocational schools. After around three years, these programmes culminate in the award of a state-recognised qualification. Examinations are overseen by an examination board comprising representatives of both companies and schools. General education components - numeracy, literacy and entrepreneurship are also included in these cooperative training programmes.

Individuals who complete traditional apprenticeships — known in Ghana as 'artisans' — are regarded as master craftspersons and acquire the title 'Master' or 'Madam' once they have set up their own company and begin employing their own apprentices. Vocational school-based training plays no part in this system.

As part of the GSDI, master craftspersons in selected craft sectors employing large numbers of workers (electronics, automotive technology, welding, textiles, and hairdressing/beauty treatment) have undertaken preparatory short courses to familiarise themselves with the technical and specialist aspects of the training standards and been trained to deliver competency-based training. During the pilot phase, training advisors nominated by trade associations regularly visit, inspect and advise the trainees, the school-based TVET teachers, and the masters and madams.

A module on **training the trainers** is now being planned to further improve trainer aptitude. Executives from the trade associations are receiving supporting capacity building in the form of training in such areas as human resource management, strategic planning, income generation, book-keeping, entrepreneurship and new technologies. The new initiative is designed to gradually modernise the traditional apprentice-ship system.²²



GHANA

²² See Ghana Skills Development Initiative 2013, at: http://www.ghanaskills.org/

CASE STUDY 4: KOSOVO

Authors: Klaus-Dieter Werthmann and Bernd Techau,

Dortmund Chamber of Trade (HWK)

As part of a **TVET partnership project,**²³ the Dortmund Chamber of Trade (HWK) has been cooperating with the Kosovo Chamber of Commerce since 2006. The HWK is working with vocational schools in Pristina, Prizren and Gjilan on a pilot scheme in which the school in Pristina is becoming a competence centre. In cooperation with GIZ's 'Support for competence centres in the context of vocational education and training reforms in Kosovo' project, vocational standards have been redefined and given official recognition. A set of regulations for the skilled worker examination has been submitted to the Kosovan authorities, and curricular structures are being adapted.

The focus of the project is on in-service training for TVET teachers (work-shop instructors) and staff from partner companies. Training courses are currently under way in 12 specialist areas within the automotive industry. Joint skills development for teachers, company trainers and trainees is designed to promote exchange and mutual learning as well as to build trust between all those involved.

Company participants are nominated by their employers, who also give them time off and pay the participation fee. The **Chamber of Commerce serves as the provider** for these training courses. However, Chamber membership is not compulsory in Kosovo, so companies have to be actively recruited to take part, and the Chamber has to cover their costs in other ways.

Some of those completing the training are subsequently recruited as tutors, taking on the role of **multipliers**. They support those providing the training and assist with specialist courses for company employees and students in the 10th, 11th and 12th grades. Teachers from Albania and Serbia have also taken part in these courses.

So far, the vast majority of training in Kosovo has taken place in vocational schools with compulsory internships. The internships are not, however, adequately structured, do not build on the training provided in the vocational schools, and are not monitored. Once internships have been improved, it is expected that more companies will be seeking in-service training for their trainers. It will then be possible also to offer **courses** to train the trainers.

²³ See BMZ 2015, at: https://www.bmz.de/de/themen/privatwirtschaft/kammern_verbaende/berufsbil-dungspartnerschaften/ (in German)

CASE STUDY 5: MEXICO

Author: Wolfgang Päleke, CIM, head of initial and continuing training of the German-Mexican Chamber of Commerce and Industry (AHK) in Mexico

The shortage of skilled workers in Mexico has become one of the largest obstacles to growth in the manufacturing sector. To cope with this problem, some companies have identified Mexican training partners to support them in training their workforce. Large German companies have already been providing training in the country for many years, based on the German dual model of TVET.

In close cooperation with the national **employers' organisation** COPARMEX, the Government of Mexico has acknowledged that a dual training model is not only an appropriate way of tackling the chronic skills shortage, but also a possible approach to integrating young people in the country in the formal economy.

The AHK Mexico is working closely with BIBB and GIZ to support the introduction of a **Mexican dual training model**, known locally as the MMFD. Advisory services are provided to the Mexican partners, namely the Ministry of Education and the Mexican Employers' Organisation COPARMEX. They are supported by the **Consejo Nacional de Normalizacion y Certificacion de Competencias Laborales** (National Council for the Standardization and Certification of Labour Competency, CONOCER) regarding specific aspects, such as training-of-trainer courses, coordination of competence standards, and certification initiatives.

So far, the following **occupations** have been authorised for MMFD training: tools mechanic, mechatronics technician, electronics technician, mechanic in plastics and rubber processing, industrial mechanic, motor vehicle mechatronics technician, transportation expert, accountant, management assistant, specialist in information and telecommunications technology, and specialist in the hotel business. A total of around 1,100 trainees from 50 vocational schools are being trained in 150 training companies across 11 federal states in Mexico and supported by CO-PARMEX's regional business centres. Each of these business centres has a full-time member of staff who looks after training companies and trainees.

The AHK Mexico has also set up a Spanish-language infrastructure to provide advisory services and evaluation of the German dual model of vocational training in Mexico. In the past two years, around 150 trainees were assessed as mechatronics technicians, tools mechanics and industrial mechanics. They have received training in line with the German system and have followed German training standards, while the trainers have been trained and certified in Spanish in line with the German AEVO. On conclusion of the training course, examinations were conducted based on examinations developed by the German Assessment

and Teaching Materials Development Centre (PAL), which belongs to the Stuttgart Chamber of Industry and Commerce. These examinations were translated into Spanish. Examinations are overseen by trained and independent examination boards. The AHK in Mexico is also able to provide expert partners for delivery of the theoretical aspect of training courses.

CASE STUDY 6: PAKISTAN

Author: Michael Paulo, GIZ, TVET Reform Support Programme, Pakistan

In-service training for trainers and vocational school teachers is an overarching goal in Pakistan and is implemented as part of GIZ's TVET Reform Support Programme. This programme uses a pilot project (the Germany Pakistan Training Initiative) to support reform of cooperative training in Pakistan. It currently involves 86 companies and 5 training institutions in Karachi and Lahore systematically in planning and implementing training courses. Teachers in vocational schools and trainers in companies now have to undertake new and more complex roles, responsibilities and procedures. The TVET Reform Support Programme advises and supports them in making these changes.

The objective is to more closely dovetail theory and practice in training courses so that trainees are better prepared for the demands of the labour market. To this end, the project is providing wide-ranging continuing training for more than 150 vocational school teachers and in-company trainers. This in-service training is intended to equip those taking part to acquire the methodological and pedagogical skills needed to deliver training that promotes learning. Teachers and trainers alike also take part in six-week technical training courses in Germany, where they learn the theoretical and practical skills that ensure a good level of training geared to the needs of the participating companies. So far, the local partners have run six technical courses and three commercial ones, with more than 500 teachers and trainers taking part.²⁴

²⁴ See Pakistan Technical & Vocational Education & Training Reform 2015, at: http://www.tvetreform.org.pk/about

CASE STUDY 7: SAUDI ARABIA

Author: Prof. Werner J. Stueber, GIZ International Services, former Dean, Technical Trainers College Riyadh

The Technical Trainers College Riyadh (TTC), which was run until 2016 by GIZ in cooperation with the umbrella organisation CoE (Colleges of Excellence) and forms part of the Saudi Ministry of Labour, **trains vocational school teachers and in-company trainers**. It is a tertiary-level institution. On successful completion of a three-year course of study with a substantial practical component, students are awarded a Bachelor's degree in Engineering Technology, which is accredited in Germany. Around 1,350 students are currently enrolled at the TTC. The TTC began offering training in 2009, and since then, 92% of all those completing the training have found employment at state-run vocational schools in Saudi Arabia.

Labour market-oriented needs for trained skills workers are determined in consultation with the Ministry of Labour. A **three-month 'company field practice' component** in the industrial sector is an integral part of the training offered at the TTC, and students also carry out observation at a local vocational school. To date, a total of around 400 companies, including German businesses, have signed up as partners.

The TVET teachers, instructors and workshop teachers employed at the TTC in Riyadh were to a large extent **skilled workers trained in Germany**. The TTC also recruits **trainee lecturers** from among the best qualified and most suitable graduates, trains them in-house, and gradually deploys them to teach, enabling compliance with the requirement to recruit a minimum number of national staff rather than exclusively foreign staff.

The fully integrated curriculum ensures that the input of the instructors and workshop teachers is coordinated with the theoretical but project-oriented teaching delivered by the vocational school teachers. A particular feature of the curriculum is the 'teaching practice' component, which teaches methodological and pedagogical knowledge and skills that the students need for their later teaching practice. The TTC institutionalises evaluation of teachers and of trainers, accompanied by specific measures for improvement under the oversight of the TTC's Department of Vocational Pedagogy and of the Office of Quality Assurance. Amendments are also made on behalf of the CoE, which helps ensure institutional standards.

The TTC took guidance from the requirements of the German Central Evaluation and Accreditation Agency (ZEvA), based in Hannover, and complies with the new Saudi Skills Standards, ensuring that training is largely in line with the needs of the labour market.²⁵

²⁵ See GIZ 2015, at: https://www.giz.de/en/worldwide/18371.html. See also http://www.ttcollege.edu.sa//

CASE STUDY 8: THAILAND

Author: Christian Stüer, GIZ, head of the 'Effective In-Company Vocational Training in the Mekong Region' regional project

Technical standards and curricula for trainer training are being developed as part of the 'Effective In-Company Vocational Training in the Mekong Region' regional project. A further focus is on developing and piloting approaches to promoting in-company initial and continuing training.

- 1. A regional minimum standard for the skills profile of trainers is being developed with partners from the private sector and the state.
- The resulting measures to promote in-company initial and continuing training will be implemented jointly with a range of partners. This will include translating the regional minimum standard into national approaches.
- 3. The national approaches will then be piloted in specific **training measures**. At the same time, a sustainable structure for training provision is established (e.g. training centres).

The new standard includes a description of the **general requirements** and necessary skills, the role and responsibilities of in-company training staff, and the training course curriculum. Future in-company trainers receive instruction in four areas (modules), each comprising between three and five competences. These **modules** include:

- · Analysing roles and defining learning requirements
- · Planning and preparing training courses
- Carrying out training courses
- · Evaluation and further training (on the basis of completed training courses)

The planned training course – including planning, curriculum development, etc. – is expected to take 80 hours. The roadmap for the initiative in 2015 included three workshops and three pilot initiatives (courses for trainers).

In addition to Thailand, the following countries are involved in the initiative: Cambodia, Laos, Myanmar, the Philippines and Viet Nam, which together are represented by 60 TVET experts. Of all the participating countries, Thailand is currently the most advanced in terms of developing standards and is setting the pace for other countries.²⁶

Below, we set out the technical and strategic requirements for skills development for trainers and the success factors involved on the basis of the experience of selected DC projects. We also evaluate the experience and results of programmes run by the German Foundation for International Development (DSE) and/or Carl Duisberg Gesellschaft e.V. (CDG) and their successor institutions, InWEnt and GIZ's Academy for International Cooperation over the last 10 years.

²⁶ See Effective In-company Vocational Training Mekong Region 2015, at http://www.in-company-training-mekong.com/index.php





GERMANY

5 REQUIREMENTS FOR THE SKILLS DEVELOPMENT OF IN-COMPANY TRAINING STAFF

5.1 STRATEGIC REQUIREMENTS

In most cooperation countries, trainees are taught in training venues – usually vocational schools – by TVET teachers, who deliver both theory and practice. It is rare to find theory and practice taught by separate specific staff, i.e. teachers and trainers, as is case with the tried and tested approach taken by Germany's 'dual' vocational training system. This approach is most likely to be found in pilot projects involving German companies.

Separating the functions of teaching theory and practice

There is substantial controversy in international expert debate on TVET regarding the separation of theoretical training (which takes place in vocational schools) from the practical training that takes place in companies or training workshops – a separation that is standard practice in a 'dual' training system – and the resulting separation of teaching staff into theory teachers and practice trainers. Some argue that this separation creates undesirable division between classes of teacher and also jeopardises pay levels for TVET teachers. Many countries do not have the formal role of 'trainer' with its diverse responsibilities, so skilled workers, and managers from both public and private sector institutions cannot imagine that in-company training staff could enjoy a good reputation in the private sector and in society more broadly and be appropriately paid, as is the case in Germany.

International expert debate on the separation of teaching staff into theory teachers and practice trainers

German DC provides advisory services to its partners in many countries on ways of boosting private sector involvement in TVET, including by extending and improving in-company phases of training and enhancing the skills of trainers. This task requires sensitive and intensive campaigning work at all levels of the TVET system. In this context, pilot measures in selected companies can be useful in demonstrating a potential positive return on investment in human capital for companies and, ultimately, the entire private sector.

Convincing companies of the benefits of in-company training

However, it is not easy to encourage company owners to invest in training, since timescales are particularly short in relation to such investments. This is especially true of small and medium-sized enterprises, during periods of economic uncertainty, and more generally when economic growth is poor. Often, account is not taken of the fact that the cost of investing in training is recouped during the training period or even generates benefits. Moreover, the cost of developing the skills of trainers can be degressive in the long term, or may be partially offset on a pay-as-you-go basis. In discussions with partners on this question, German experience of the funding of in-company training and of measures to develop the skills of trainers can be useful (see, for example, http://www.foraus.de, in German).

Cooperation with German and local companies

Skills development measures for in-company training staff are easiest to implement when medium-sized and large companies and, where appropriate, networks lay the groundwork and run pilot measures. A range of German DC projects have, therefore, been cooperating successfully with German and local companies. The AHKs in a given country can play an important part in communication and coordination with the private sector.

As well as their primary role in delivering training, trainers are important intermediaries between vocational schools and companies and can contribute significantly towards ensuring that training is tailored to the needs of companies. However, even in countries in which in-company trainers are already established, this role is not adequately recognised or utilised either by employers or by vocational school staff. Teachers and training staff themselves are also often unaware of the importance of their function or underestimate it. If they are to fulfil the role of serving as a link between schools and companies, trainers should also be empowered to be able to lead relevant technical discussions with middle managers and training managers. They require preparation for this task through appropriate in-service training.

Trainers as intermediaries between vocational schools and companies

The case studies in Section 4 illustrate the extent to which good skills development for training staff depends on the conditions in a given country. Good skills development delivers the practical skills that companies need as well as pedagogical and methodological skills. In many partner countries, there is a question as to the extent to which the relevant state institutions and the private sector recognise the need for demand-oriented sustainable initial and continuing training for trainers and to which they are willing to enhance the status of these key staff within the TVET system. This also requires appropriate social acceptance and recognition.

5.2 TECHNICAL REQUIREMENTS

The responsibilities of trainers in modern companies often extend beyond the direct supervision and hands-on training of trainees to encompass also roles in training management, coordination and planning. At the same time they are, and remain, first and foremost mentors for their trainees. Trainers need to be appropriately prepared for these diverse roles. In-company training staff fulfil a crucial role in developing countries as multipliers for training of trainers, for example in recruitment for in-company training and in the organisation of model training processes. They also ensure cooperation with vocational schools, something that is not yet on an institutional footing in many countries. These aspects need to be considered as part of the planning and implementation of skills development measures. They also have to be coordinated between state institutions and private sector associations.

The role and responsibilities of in-company training staff

The table below illustrates the diverse range of tasks that trainers are required to carry out. The 'multiplier' function is a crucial success factor in ensuring wide impact and sustainability in DC initiatives.

TABLE 4: RANGE OF TASKS CARRIED OUT BY IN-COMPANY TRAINERS

Company owners as training managers (especially in (M)SMEs and the informal sector)

Trainers and ausbildende Fachkräfte

Range of tasks required of those carrying out practical training within companies:

- Training
- · Training management
- · Training planning
- · Training organisation
- · Process design and planning
- · Training coordination
- · Advisory and support function (coaching)
- Examining
- Communication and cooperation with vocational schools
- Multiplier function

Trainers who are training future experts are required not only to have good knowledge of company procedures and good technical skills but also to assume direct responsibility for training and to ensure optimal internal working and learning processes within their area of work. As coaches or mentors, they are the personal contacts for trainees and take responsibility for creating appropriate learning conditions and keeping trainees safe.

The increasing use of digital media and of participatory training methods around the world are subject to changes within vocational training processes; this is also impacting on the activities of trainers. Teachers and trainers must, therefore, undergo regular technical and pedagogical in-service training.

Need for regular in-service training for teachers and trainers

There is a risk that company owners will not take a wholly positive view of training employees to act as trainers for a number of reasons:

- Scepticism and, in some cases, envy on the part of line managers with regard to trainers emerging as a new 'function' in the day-to-day running of the company, and their perception of these individuals as rivals, whose role is difficult to understand and who may be paid better.
- Concern on the part of line managers and entrepreneurs that skilled workers receiving such training may subsequently change employers on completion of their training (poaching).

Scepticism in cooperation countries about employee skills development

Skills development for in-company trainers should take account of the following dimensions:

- 1. Technical skills: trainers' knowledge must be up to date in technical and technological terms so that they are able to provide high-quality training. The maintenance of machinery and equipment plays an important part here: trainers are responsible for ensuring that technical systems, machinery, equipment and tools are functional and that their value is preserved. Hence they must also provide training in these aspects.
- 2. Pedagogical skills: trainers must have the skills, knowledge and aptitude to teach trainees to work appropriately and also to foster their personal development. Both aspects are crucial to their ability to carry out the full range of responsibilities.
- **3. Health and safety skills:** trainers must ensure health and safety within their area of work in the company. They must instruct trainees in this area and ensure compliance with regulations.

To ensure that in-company training staff is able to fulfil the wide range of responsibilities associated with their roles and responsibilities, there is a need for an appropriate framework to ensure sustainability and effectiveness. This framework differs from country to country, and in some cases is only partly open to influence. Time is an important factor here – that is, persistence and considered action. Skills development can only be successful if the role of trainer is seen as more prestigious and better appreciated.

Network-building and platforms for sharing and exchange, both for trainers themselves and between trainers and their counterparts in vocational schools, are vital to the recognition, sustainability and quality of in-company training. 'Trainer days' may be useful in promoting networking between trainers, making cooperation between vocational schools and companies more visible, and involving the local private sector, civil society and alumni. Online platforms such as foraus.de, the trainer forum hosted by BIBB (only in German), can also help to promote network-building and exchanges of views and experiences between trainers.

Dimensions of skills development for in-company trainers

Network-building and platforms for sharing and exchange

6 KEY QUESTIONS AND SUCCESS FACTORS

Where the state and the private sector are willing to be involved in TVET, a suitable framework must be created to facilitate good practice in vocational training, to promote skills development for in-company trainers, and to tailor the skills taught by training staff to long-term needs. The conditions in partner countries, including the (socio-)economic, statutory and institutional framework, are not always appropriate for a systematic introduction of skills development for trainers.

The prospects of success are greater in partner countries with a market-liberal orientation that are willing to innovate in the area of TVET and have a society – and especially, a private sector – open to such innovation. It is also important that there is a substantial shortage of skilled labour, both current and projected. Where the private sector is already actively involved in planning, implementing, evaluating and – where appropriate – financing vocational training, it is easier to influence in-company training and the appropriate skills development and roles of in-company trainers than in cooperation countries where these conditions are not met.

Factors involved in the sustainable provision of skills development for trainers

6.1 KEY QUESTIONS ON THE FRAMEWORK FOR IN-COMPANY TRAINING AND ON THE ROLE AND SKILLS DEVELOPMENT OF IN-COMPANY TRAINERS

Trainers are key actors in implementing changes in TVET systems and are vital links between vocational schools and companies (and, where appropriate, other training venues). The following set of key questions illustrates the conditions that are decisive in securing an appropriate and demand-oriented definition of the role and provision of skills development for in-company training staff.



BRAZIL

General framework

- Are there bodies or institutions that provide a framework for the state and public sector to share knowledge and experience in the area of TVET, e.g. TVET councils or agencies?
- Are the responsible ministries or their agencies willing to strengthen in-company training and to develop and implement the relevant legislation and regulations?
- Is training provided within companies in the country? If so, in which types of companies? And to what extent? The informal sector should also be taken into consideration in answering this question.
- Is in-company training regulated by the state? If so, how?
- How is out-of-school training recognised (e.g. though examination outside the place of learning or arrangements for accreditation of prior learning)?
- Is there systematic cooperation between learning venues, for example through internships?
- How else is practical skills training provided in the partner country?
- Have standards already been developed for skills development for trainers?
- Are there model initiatives for skills development for trainers?
- Are partners, especially the local private sector, willing in general to use skilled workers as trainers?

(Socio-) economic framework

- Are there specific regions (e.g. urban areas, economic zones or development corridors) in which companies are more likely to be willing to make a commitment to TVET?
- Does the cooperation country have reliable assessments of the number and technical profile of trainers needed? If so, have these surveys also accounted for the needs of existing trained and currently active trainers for further skills development?
- What are the key skills in crucial sectors of both the formal and the informal economy?
- What are TVET teachers and, where appropriate, in-company trainers paid? What status does society attach to the occupation of TVET teacher or trainer?
- Are the partners willing to increase the value attached to the role of trainer with job descriptions, appropriate remuneration, social benefits, and provision for in-service training?
- What types of companies are primarily involved in skills development (for trainers) - MSMEs, large companies and/or international companies?
- To what extent is it possible and sensible to cooperate with companies that already have business ties with Germany or in which German companies invest?

- Are German companies locally already involved in skills development for trainers? To what extent are they willing to involve local businesses, especially MSMEs, e.g. as part of collaborative training arrangements?
- Are AHKs and national trade associations represented in the partner country? Is it meaningful to both sides to initiate cooperation arrangements with them?

Statutory framework

- Is there legislation governing TVET? Does it specify the role and responsibilities of teachers and trainers?
- Are there further legislation or regulations on in-company training and on skills development for in-company trainers?
- Does the partner country have an accredited certification system for in-company trainers (e.g. regulations along the lines of the German AEVO)? If so, who has the authority to award certificates?
- What is the legal status of TVET teachers in the partner country?
 Are there statutory requirements governing the work of in-company trainers?
- Are there publicly agreed occupational profiles or standards for in-company trainers? If not, how could they be developed?
- Does the cooperation country have any experience with dual (bilateral) qualifications, such as certification that combines a national qualification with a German or European one?

Institutional framework

- Is it possible to build skills development for trainers on existing TVET systems that are already providing practical – and, ideally, in-company – training?
- Does the cooperation country have institutions or bodies that are concerned with the role of trainers as intermediaries between companies and vocational schools?
- What are the prospects for working with employers' associations, Chambers of Commerce and Industry, and other networks to create such bodies and to involve them in a cooperative TVET system?
- Do vocational schools have trained staff responsible for communications and coordination with the private sector or who could take on this role?
- To what extent is there a local willingness to provide in-service training and tasks for in-company trainers? To what extent is there a willingness to support school-based teachers in pedagogical, methodological and technical terms and to enable them to cooperate with in-company trainers?
- Is there recognition of the diversity of trainers' roles and responsibilities? What measures can be taken to adequately shape the diverse occupational profile of this group?

6.2 KEY QUESTIONS ON THE IMPLEMENTATION OF IN-COMPANY TRAINING AND ON THE ROLE AND SKILLS DEVELOPMENT OF IN-COMPANY TRAINERS

The advantages of appropriately designed and implemented in-company training are a greater practical orientation and the fact that trainees are able to learn in actual working processes. Also, the more training takes place within companies, the less pressure there is on state TVET systems, because capacity is freed up within vocational schools. However, sustainable skills development within companies requires the appropriate human resources and infrastructure conditions to be in place.

Skilled trainers have a crucial role to play here, so models should be developed for skills development for trainers which are adapted to the local context. The German Ordinance on Trainer Aptitude (AEVO) may be useful as a model here. The key questions below may also help to analyse the situation in the partner country before measures to develop the skills of in-company trainers are designed.

Company-related success factors

- Are there existing in-company trainers whose knowledge and experience could serve as a basis for future measures?
- What competences and experiences does this group have (knowledge, skills and abilities)?
- Is their role as trainer their primary role or simply an additional role that attracts little status and is not separately recognised?
- How do existing in-company trainers go about implementing training in their company?
- Which additional activities should/could in-company trainers carry out alongside their training activities?
- Are the companies involved adequately equipped for training and skills development for trainers? What could be done to improve the situation where appropriate?
- Do trainers base their activities on company training plans?
- Is the company appropriate in terms of type of company and equipment to develop the skills of trainers (with regard to human resources and infrastructure)?

Vocational school-related success factors

- What type of school is involved in TVET vocational schools, secondary schools and/or private schools?
- Which staff teaches practical skills in vocational schools?
- How has this group acquired its skills in teaching and training through academic study, specialist training, TVET or practical experience? What careers are most prominent among teaching and training staff?
- Do vocational schools have in-service training plans for their teaching and training staff? Are these plans actually implemented, and what are lessons learnt?
- Do TVET teachers in vocational schools base their teaching on technical curricula which ensure that teaching is practical and action-oriented?
- Do vocational schools teach along the lines of traditional subjects, or are their approaches based on the learning field approach in which case studies from in-company practice are considered?
- Do vocational schools also provide in-service training for trainers, or is this role assumed by other bodies? If it is assumed by other bodies, which bodies are these?
- Is the technological infrastructure within vocational schools (workshops, laboratories, rooms for practical exercises, IT equipment, etc.) appropriate for providing practical initial and continuing training?



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Success factors in the area of cooperation between learning venues

- Is there cooperation between vocational schools, companies and, where appropriate, other learning venues?
- What sort of cooperation is there between these institutions and how could it be improved? What is the role of the teaching and training staff regarding cooperation?
- Are TVET teachers and in-company trainers already sharing expertise
 with each other? If so, what form does exchange take and what
 scope is there for improving it (e.g. frequency and intensity of exchange, themes, need for coordination, etc.)?
- Do school-based teachers and in-company trainers collaborate on improving curricula and designing practical modules and areas of learning (curriculum coordination, curricula and syllabuses)?
- Are there existing (virtual or physical) platforms allowing training staff to share expertise and experience with each other and/or teachers?
- Is cooperation between learning venues monitored? If so, who is responsible for this (e.g. Chambers of Commerce and Industry, specialist bodies, associations, etc.)? What measures are appropriate and meaningful in the area of monitoring and management (e.g. coordination meetings, internal audits, assessment of curricula, assessing the suitability of companies and trainers, etc.)?

Success factors linked to vocational pedagogy

- Does skills development for trainers exist?
- If so, is it compulsory? Who implements it? How many companies are using these qualified staff to conduct their training?
- What is the duration of skills development courses for trainers?
 What areas are included (e.g. didactic competence, specialist knowledge and educational theory)?
- Is there regular planning and review of these courses?
- What need is there for further development of existing courses and study materials for trainers?
- In skills development for trainers, what attention is paid to ensuring that future trainers acquire appropriate, action-oriented training methods (e.g. use of practical case studies, participatory methods, training in facilitation, activating forms of learning, ways of motivating trainees, etc.)?
- Is use made of digital communications platforms to develop the skills of trainers?
- Are personal skills needs addressed, e.g. face-to-face instruction or individual support?
- Where skills development for trainers is not routinely provided, what qualifications do in-company trainers have?

6.3 SUCCESS FACTORS IN THE SKILLS DEVELOPMENT OF IN-COMPANY TRAINERS

The following success factors were identified with regard to the framework for the deployment and skills development of in-company trainers:

- Bodies already exist in which the state and the private sector discuss TVET.
 These may serve as centres for exchange on initiatives relating to skills development for trainers.
- There is a statutory basis for cooperation between learning venues and involvement of companies in TVET.
- Development partners are aware of the importance of developing the skills of in-company trainers.
- The involvement of the private sector is crucial: companies and associations
 are interested and willing to become involved in training and in developing
 the skills of trainers.
- Standardisation of skills development for trainers and of their role helps ensure sustainability. This includes institutions providing accreditation, certification and regulation along the lines of Germany's AEVO, and recognised standards.
- There is a system of national standards into which standards for skills development for trainers may be integrated.
- Labour market information is available on the demand for skilled workers in the private sector and, where appropriate, in individual priority sectors.
- German private sector businesses are represented locally and are willing to contribute to pilot measures in in-company training and skills development for trainers.
- There are institutions that take responsibility for in-service training for teaching and training staff.
- There are institutions that are adequately equipped in terms of human resources and infrastructure to provide in-service training for teaching and training staff. These may include vocational schools.

Greater involvement by companies in training and in skills development for trainers can particularly be achieved where:

- The state bodies, vocational training institutions and the private sector that is, national and international employers are keen on cooperation and this cooperation is supported and regulated.
- Incentives are created for school management teams and teachers in those training centres that work with companies and their training staff.
- Employers acknowledge the added value achieved by cooperation between learning venues and are willing, in the interests of their companies, to invest in training and skills development.

Preconditions for the deployment and skills development of in-company trainers

Success factors for greater company involvement in training and skills development for trainers The following success factors enhance the implementation of measures relating to the deployment and skills development of in-company trainers:

- Where training is already being implemented systematically in individual sectors, corresponding good practice can constitute the basis for roll-out at national level.
- Individual companies or groups of companies are already involved in cooperation between learning venues. These may also serve as models for further cooperation between learning venues.
- A large number of companies is adequately equipped to play a systematic part in cooperation between learning venues (human resources and infrastructure).
- Individual vocational schools or all vocational schools already have experience
 in cooperation between learning venues. Designated staff is responsible
 for implementing cooperation and for recruiting further companies as potential cooperation partners.
- Curricula include practical training phases based in companies.
- In vocational schools, teaching is not solely teacher-led, but also studentoriented methods are being applied.
- Vocational schools have boards or similar bodies on which the private sector is represented and through which it can play an active part.

In-company trainers play a key role in cooperation between vocational schools and companies. They are also vital to ensuring the quality of in-company training. Their skills development should, therefore, be accorded greater importance within the TVET system. To ensure sustainable planning and implementation of skills development for in-company trainers, measures need to be taken at all levels of the TVET system.

At the macro level of management and regulation of TVET, the responsible ministries, agencies and associations should receive advice regarding:

- Statutory regulation of skills development for trainers
- Where necessary, integration of TVET into existing legislation and other regulations
- Development of standards for skills development for trainers and their integration into qualifications frameworks
- Evaluation of existing initiatives and pilot projects with respect to lessons learned and, where appropriate, necessary adjustments to existing structures and processes.

Success factors for implementing measures relating to the deployment and skills development of in-company trainers

Macro level measures relating to the management and regulation of TVET At the meso level of institutions, advice should be given regarding:

- Strengthening cooperation between state institutions and companies, Chambers of Commerce and Industry, and trade association in relation to skills development for in-company trainers
- Motivating companies and employers' associations (where appropriate in selected sectors or regions) to become more involved in planning and carrying out TVET
- Creating a system of skills development for trainers that is fully integrated in the TVET system, including
 - · developing job profiles and skills standards for trainers and appropriate examination and certification mechanisms (for example, based on Germany's AEVO)
 - identifying possible institutions and groups of individuals to carry out skills development for in-company training staff
- Identifying responsibilities in skills development for trainers
- Strengthening vocational schools in relation to their cooperation with companies as learning venues
- Developing mechanisms for regular exchange between school-based teachers and in-company training staff
- Planning and implementing pilot projects or model projects.

Measures at meso level (institutions)





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7 PLANNING AND IMPLEMENTING SKILLS DEVELOPMENT FOR IN-COMPANY TRAINERS

Promoting cooperation between vocational schools and companies is most effective where the institutional interests of both sides are taken into account. It is, therefore, important as part of capacity building for trainers to promote initiatives that

Promoting cooperation between vocational schools and companies

- support both high-quality training and the profitability of the company (e.g. through holistic advice for companies);
- represent added value for their companies in terms of development and certification of trainers' skills as a 'seal of quality';
- make vocational schools a more attractive place to learn by introducing demand-oriented provision and practice-based training, ideally incorporating phases of in-company training.

In many cooperation countries, there is little, if any, tradition of cooperation between the state and the private sector, so experience of the German dual system and synergies between German and international partners locally can be used to boost the willingness of both sides to foster cooperation between companies and vocational schools. It may be meaningful to initiate cooperation with AHKs and their member companies.

At the micro level of planning and carrying out skills development measures for in-company training staff, the following aspects should be taken into consideration:

- Efforts should be made to ensure adequate involvement by the private sector.
- Action-oriented methods should be used that facilitate maximum effectiveness of in-service training.
- From the perspective of institutional managers, priority should be given to training in the areas of management skills and social competencies.
- Individuals should be identified who have responsibility for systematic follow-up, to ensure that measures are sustainable.
- Appropriate financing models should be developed with involvement from the private sector.
- Skills development measures should be established on an institutional footing to maximise sustainability.
- Homogeneity of learning groups should be established in terms of prior levels of technical and language skills.
- Attention should be paid to ensuring a gender balance.

Experience shows that skills development measures are more likely to be sustainable where:

- target groups for measures are clearly defined;
- programmes are geared to both the needs and interests of target groups as well as the needs of companies and/or training institutions;
- in-service training is planned in collaboration with participants' home institutions and evaluated systematically on completion;

Measures at the micro level of planning and carrying out skills development measures

Factors for sustainability of skills development measures for trainers

- participants and partner institutions are adequately involved in planning and monitoring skills development measures and are able to assume ownership;
- programmes are geared towards the labour market;
- human resource development plans are in place in partner institutions;
- line managers make strategic use of training provision and use it for organisational development and change management purposes with a view to making positive change in the organisational and institutional framework, e.g. remuneration, scope for decision-making, managerial responsibility and participation in training matters.²⁷

The table below presents additional pointers on implementing skills development measures for in-company training staff.

TABLE 5: POINTERS FOR IMPLEMENTING SKILLS DEVELOPMENT MEASURES FOR IN-COMPANY TRAINING STAFF

Planning preparation	Identify and involve potential actors, e.g. national and inter- national private sector companies	Assess the needs, willingness and attitudes of potential partner institutions and companies	Carry out and evaluate feasibility studies for skills development for trainers	Select learning venues in consultation with partners
Implementation	Devise, coordinate and develop technical curricula for skills development for in-company trainers including internships in companies; draft appropriate examination and certification mechanisms	Devise and structure the in-company aspects of skills development measures (design of modules, clarification of responsibilities)	Pilot and roll out modern, learner-centred and activating teaching and instruction methods (e.g. facilitation methods and learning support)	Plan, conduct and monitor courses and training events for in-company trainers
	Develop in-service training strategies for in-company staff and for teaching and training staff	Establish the extent to which third learning venues should be involved (e.g. intercompany centres for initial and continuing training); where appropriate, involve these venues	Assess and introduce measures to improve the skills development infrastructure in schools and companies (laboratories, workshops, classrooms, etc.)	Promote digital learning and systematic exchange between trainers
	Make trainers aware of additional roles as part of their work (mentoring, support, supervision and coordi- nation) (see Table 4)	Select and train multipliers	Involve trainers in planning and imple- menting cooperation between learning venues	Ensure appropriate certification of skills development courses for trainers

²⁷ See InWEnt/GIZ 2008: Evaluierung Förderung nachhaltigen Wirtschaftens im Nahen und Mittleren Osten durch Technologiekooperation, Dr. Fromme International Consulting, Essen. p. 6

Key questions

- Has adequate consideration been given to the social concerns of trainers in relation to their skills development?
- Do disadvantaged groups have access to skills development measures for teachers and trainers?
- Are the planned learning outcomes for courses and training events designed to ensure sustainability?
- Are the competences that participants acquire sufficiently geared to practice and day-to-day working life?
- Are measures to promote employability of the training staff to be trained appropriate and fit for purpose?
- Can pilot courses or model courses be multiplied? If so, what needs to be done to achieve this?
- · Has appropriate account been taken of the informal economy?

Where fundamental agreement has been reached regarding role and qualification of in-company training staff with state institutions and trade associations, and Further pointers on implementing skills development for trainers

where there is a statutory basis for institutionalising this agreement, and where responsibilities and institutions for planning, implementation and monitoring have been defined and identified, the following steps to implementation may be sensible:

- Recruiting potential partners
 - Producing information and briefing materials for companies, associations, schools and civil society
 - Planning and implementing information events for relevant actors and target groups
 - Conducting discussions with interested companies and recruiting further potential companies
 - Clarifying the roles and responsibilities of new cooperation partners
 - Concluding formal agreements with cooperation partners
- Developing the basis for skills development for trainers
 - Devising standards for skills development for trainers
 - Planning training programmes, including curricula and teaching and learning materials
 - Designing examinations (responsibilities, formats, questions and certificates)

- Running pilot schemes
 - Identifying and developing the skills of potential trainers to deliver skills development measures (technical and pedagogical)
 - Implementing skills development measures for in-company trainers
 - · Conducting examination and certification
- Monitoring and evaluation
 - Where appropriate, adapting skills development measures and examinations
 - Conducting tracer studies on skilled in-company trainers (e.g. two years after skills development)
 - Regularly adapting to changed requirements and responsibilities at sector or national level



THAILAND



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8 ACTORS

It is crucial that there is cooperation between a wide range of actors in the area of skills development for trainers. The following actors should be involved in planning and implementing skills development measures for in-company trainers:

Private and public sector/state bodies Ministries

- · Subordinate agencies
- Universities
- · Vocational training institutions and bodies
- Institutions providing initial and continuing training for TVET teachers and, where appropriate, for in-company trainers

Companies

- Locally-based German companies
- International businesses
- · National companies
 - · Large companies
 - (M)SMEs
 - Businesses in the informal sector

Vocational schools

- state
- private

Civil society, NGOs

German and International funding institutions

- DC bodies
- Foundations
- NGOs

Chambers and trade associations

- Chambers
- Trade associations
- Employers' associations
- AHKs

German institutions with responsibility for TVET

- · Chambers of Crafts
- · Chambers of Commerce and Industry
- DIHK, DIHK vocational training organization (DIHK-Gesellschaft für berufliche Bildung)
- · ZDH, ZWH
- Providers of teaching and assessment materials
- BIBB

Employee bodies

- Trade unions
- Advocacy and membership organisations

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APPENDICES

A.1 GERMAN VOCATIONAL TRAINING ACT, SECTIONS 28 AND 30, AND GERMAN ORDINANCE ON TRAINER APTITUDE

Vocational Training Act, Section 28: Suitability of Training Employers and Instructors²⁸

- (1) Trainees may only be engaged by training employers who have the necessary personal and technical qualifications. Trainees may only be trained by persons who have the necessary personal and technical qualifications.
- (2) Training employers who do not have the necessary technical qualifications or do not provide the initial training themselves may only engage trainees if they appoint instructors with the necessary personal and technical qualifications to directly impart the essential initial training content in a responsible manner on the training premises.
- (3) Under the responsibility of the instructor, persons may also participate in the provision of initial training who are not themselves instructors but, notwithstanding the special prerequisites set out in Section 30, possess the vocational skills, knowledge and qualifications as well as the personal qualifications necessary to impart subject matter covered by initial training.

Vocational Training Act, Section 30: Technical Qualifications

(1) Persons shall be deemed to have the necessary technical qualifications if they possess the vocational skills, knowledge and qualifications as well as the teaching skills, knowledge and qualifications required to give initial training in the occupation and processes required.

Ordinance on Trainer Aptitude (AEVO)29

The Ordinance on Trainer Aptitude (AEVO) is an examined award of German Chambers. It stipulates the conditions under which an individual may be recognised as a trainer under the Vocational Training Act and defines in detail the technical and teaching skills and aptitude a trainer needs.

Overview of amendments to the AEVO from 1 August 2009

Amendments to the AEVO entered into force on 1 August 2009. The revised legislation sets out the following four fields of activity as the basis for the work of trainers:

²⁸ See German Vocational Training Act, at https://www.bibb.de/dokumente/pdf/bmbf_berufsbildungsreformgesetz_en.pdf

²⁹ See Ausbildereignungsverordung, at: http://www.bibb.de/dokumente/pdf/ausbilder_eignungsverordnung.pdf

- 1. Assess whether the prerequisites for conducting initial vocational training are met and plan initial vocational training
- 2. Prepare initial vocational training, taking into account organisational and legal factors, and participate in trainee recruitment
- 3. Foster task-oriented independent learning in work processes and business processes that are typical of the relevant occupation
- 4. Bring initial vocational training to a successful conclusion and show trainees options for their professional development.



SAUDI ARABIA

A.2 THE MODEL FOR SKILLS DEVELOPMENT FOR TRAINERS ('TRAINING THE TRAINERS – INTERNATIONAL') DEVISED BY THE ASSOCIATION OF GERMAN CHAMBERS OF COMMERCE AND INDUSTRY (DIHK)

Authors: RA Steffen Gunnar Bayer, Director Vocational Education and Training Abroad

Yorck Sievers, Director AHK Vocational Education and Training Projects at DIHK

As promoters of foreign trade, the Worldwide Network of German Chambers of Commerce (AHKs) coordinated by the DIHK, is representend in 130 locations and 90 countries, in some of which for more than 100 years. Many of them are increasingly involved in vocational training and seek to contribute to securing the supply of skilled employees locally as company service providers. AHKs take inspiration and leadership from the Chambers of Commerce and Industry, which regulate vocational education and training in Germany. They support companies throughout the training process in ensuring that the quality indicators of the dual training system are met.

The DIHK identifies three different quality categories in the role of AHKs:

- German dual vocational education and training (VET)
- Local dual VET in line with the German model
- Local dual training with elements of the German system

In all three categories, the models used are dual ones that require the deployment of skilled in-company trainers. These trainers are the bedrock of top-quality vocational training. Trainers must have excellent technical skills and the pedagogical training to enthuse young people for a specific occupation and to teach the skills needed for it in a professional way.

One of the wide range of vocational training services provided by AHKs focuses, therefore, on in-company trainers and their skills development. With regard to the technical and pedagogical requirements, AHKs provide a model developed by the DIHK called 'Training the trainers – international', also known by its German acronym 'AdA International'. This model is based on the standards laid down by the Ordinance on Trainer Aptitude and is also tailored to the particularities of each country.

Companies may choose between two versions of skills development for trainers. The basic version covers technical and pedagogical skills. The second full version expands this to include country-specific characteristics. The basic version meets the needs of the quality category 'Local dual VET in line with the German model', while the full version meets the criteria for the quality category 'German dual vocational education and training'.

The training courses, which are not necessarily run by the AHK, are adapted to be country-specific. They lead to a country-specific AHK examination and AHK certification.

18 AHKs in Europe, North America and Asia are now successfully certifying 'AdA International' courses for trainers on the basis of the German model.

For further information, please go to:

http://www.dihk.de/personal/steffen-gunnar-bayer http://www.dihk.de/personal/yorck-sievers



MEXICO



SAUDI ARABIA

A.3 SKILLS DEVELOPMENT FOR VET TRAINERS PROVIDED BY BIBB

Author: Michael Härtel, BIBB, Head of Division 3.2, 'Digital Media, Distance Learning, VET Personnel'

The German Vocational Training Act (BBiG) entrusts BIBB with representing the government in international cooperation in TVET, among other roles within the German Government's vocational training policy. As part of the representative role, BIBB supports cooperation in the areas of higher education and research, policy and practice, promotes the involvement of the private sector and of social partners, and cooperates worldwide with more than 30 partner institutions. Outside Europe, BIBB is currently especially active in the area of TVET in India, Mexico, the Philippines, Russia and South Africa.³⁰

In Germany, amongst its other duties, BIBB is involved in producing demandoriented concepts and materials to brief and train in-company trainers. In this role, it draws on the findings of its research and development projects and experience from other areas of innovation in TVET. On the basis of BIBB's expertise in designing and developing in-company training practice, its activities include broad-impact information, networking and provision of further training for in-company trainers via its online platform for teachers and trainers www.foraus.de.

www.foraus.de is an information, communication, participation and application forum for BIBB's expert community in the area of supporting VET trainers in Germany. It enables users to access the latest information and exchange experiences about in-company training where and when they choose to use them in their day-to-day training activities.

Further information on foraus.de is available (in German only) at: http://www.foraus.de (as at 11 January 2016)



30 See BIBB 2013: Berufsbildungsbericht 2013, at https://www.foraus.de/html/foraus_index.php

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