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Improving the quality of company-based learning

Practical guides for the implementation of the European
Quality Strategy



Imprint

Published by:

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Practical guides for the implementation of the European Quality Strategy

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Tailored models from practice – an engine for the European quality process

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Quality and innovation – models for the improvement of vocational education and training in small and medium-sized companies

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Translation:

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(German original: Hemkes, Schemme (Hrsg.), Qualität betrieblichen Lernens verbessern. Handlungshilfen zur Umsetzung der europäischen Qualitätsstrategie, BIBB, Bonn 2013)

Cover:

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Homepage:

www.deqa-vet.de/de/ENIQAB.php

Layout:

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**Practical guides for the implementation of the European
Quality Strategy**

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What is the purpose of the practical guides, and for whom are they intended?

Quality development and quality assurance have gained in significance in vocational education and training over recent years.

The pilot programme “Quality Development and Assurance in in-company VET” comprised ten pilot projects to develop and test innovative quality development pathways emerging from practice with the assistance of academic research support. The results served as a basis for the present recommendations and guidelines. These have also been made accessible to European partners and member states via the project “Europeanisation of the National Pilot Initiative for Quality Development and Assurance in Company-Based Vocational Education and Training (ENIQAB)”.

The European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET) initiated a process to establish quality assurance as a prerequisite for greater mobility and for the recognition of qualifications and to strengthen the trust of member states in one another’s educational systems. EQAVET very much concentrates on fostering the exchange of experiences between educational stakeholders and on facilitating mutual learning via vehicles such as examples of good practice rather than on pursuing rigid stipulations laid down by the EU. Countries, companies and institutions that are involved with the development of new quality approaches or with the adaptation of existing approaches are particularly able to benefit from this exchange.

The focus of the present brochure is on quality processes within the field of company-based training, especially in small and medium-sized enterprises (SMEs).

With regard to the implementation of the European Quality Strategy in Germany (Chapter 1), it becomes clear that quality development and quality assurance in a German-style dual training system requires special and individually adapted approaches compared to the purely school-aligned vocational education and training systems in other EU member states. The (heterogeneously structured) nature of the company as a learning venue creates particu-

lar challenges for training personnel. Although know-how and ideas are available within the company, the step towards established practice requires practicable support in order to enable quality development and quality assurance to be systematically and reliably integrated within the companies and institutions.

The requirements characterising company-based learning during training and the resulting attributes for quality assurance in VET systems and in the company are presented in Chapter 2.

The ten projects that made up the pilot programme investigated in which way the necessary processes can be structured in practice. With the support of evaluation research, this enabled a bottom-up process to be used to develop and test instruments, methods and procedures directly aligned to the conditions governing practice and to the possibilities for action open to the stakeholders at a local level (Chapter 3).

Those wishing to develop quality themselves in their capacity as a trainee or as a participant in training are able to orient themselves towards five fields of activity (Chapter 4). Selected EQAVET indicators and usually two practical guides to offer support for the development of quality in the company are allocated to each field of activity.

The brochure aims to serve as a guide for policy and (societal) research institutions involved with vocational training. Above all, however, it is directed at those responsible for training at companies and at stakeholders who are seeking the (further) development of their quality improvement and company-integrated training elements.



The pilot projects were already presented in 2012 in the brochure “*ENIQAB: Europeanisation of the National Pilot Initiative for Quality Development and Assurance in Company-Based Vocational Education and Training*”. Further information about ENIQAB and the pilot programme is available at www.bibb.de/qualitaet as well as <http://deqa-vet.de/en/ENIQAB.php>.

1. Tailored models from practice – an engine for the European quality process

Although there is a general consensus that high-quality training is an indispensable prerequisite for successful entry into working life by young people and ensures that requirements for skilled workers in trade and industry are fulfilled, how can quality of training be secured and developed further?

In Germany, this question has been addressed by ten pilot projects within the scope of the main funding focus “Quality Development and Assurance in company VET”. These projects developed and tested training innovations emerging from practice with the assistance of academic research support. The pilot projects offer a store of best practice examples that can also be of use for the European quality strategy EQAVET. This publication presents the results of the pilot projects.

1.1 Background – the European Quality Strategy

EQAVET is a jointly developed quality strategy in vocational education and training that aims to contribute towards the establishment of trust in Europe and lead to a common culture of quality improvement.

The foundations for EQAVET were laid by the European Ministers of Education and social partners in conjunction with the European Commission in 2002 in the Copenhagen Declaration (COPENHAGEN DECLARATION 2002). The Declaration agreed European cooperation in the field of initial and continuing training including the creation of joint quality assurance instruments.

Seven years later, the Council set out a new strategic framework for this cooperation in education and training in the form of the work programme “Education and Training 2020” (ET 2020). The second of the four strategic objectives set out is “improving the quality and efficiency of education and training” (ET 2020), something which is viewed as a basic prerequisite for the further prosperity of Europe and the employability of its citizens.

Quality assurance and quality development thus represent one of the main pillars on which the joint European Education Area is based. They also directly correlate with the European Qualifications Framework (EQF) and the European Credit System for Vocational Education and Training (ECVET).

Whereas the aim of the EQF is to guarantee comparability of qualifications and competences, ECVET provides the necessary measurement units to facilitate permeability and mobility in vocational education and training. Comparability and permeability, however, require trust in national VET systems and educational establishments. The aim is to create this trust via jointly agreed systems for quality assurance.

The Recommendation of the European Parliament and of the Council of 18 June 2009 put forward a European Quality Assurance Reference Framework for Vocational Education and Training, EQARF, (RECOMMENDATION 2009) that aimed to use EQAVET as a vehicle for establishing a European quality assurance network in initial and continuing training in the member states.

1.1.1 Indicators and quality cycle

The aim of the European Quality Strategy is to guarantee quality assurance at all reference levels of the EQF and to install this right across the system and in a cross-cutting manner whilst according a high degree of significance to voluntary application (RECOMMENDATION 2009).

Because the educational systems of the member states are extremely heterogeneous and are currently at totally different stages of development ranging from „under construction“ to virtually complete and fully piloted, the EU Recommendation has consciously been kept open and formulated as a reference framework. Although member states are required to establish quality assurance, no defined system is stipulated for this purpose. The intention is for partners to strengthen, modify or introduce

systems, procedures and measures that are in line with their own specific general conditions in order to be able to ensure quality assurance in a clear way at the macro, meso and micro levels.

In EQAVET, the guard rails for this open method are a set of indicators for the identification of aspects relevant to quality and a cyclical process model for quality assurance.

The EQAVET indicators

The following ten EQAVET quality indicators are differentiated:



(RECOMMENDATION 2009)

The EQAVET quality cycle

The cycle corresponds to the Deming cycle, an established instrument in quality management that comprises the four phases *Plan – Do – Check – Act* (and is therefore also referred to as the PDCA Cycle).

Planning: Set up clear, appropriate and measurable goals and objectives in terms of policies, strategies, procedures, tasks and human resources.

Implementation: Establish procedures to ensure the achievement of goals and objectives (e.g. development of partnerships, involvement of stakeholders, allocation of resources and organisational/operational procedures).

Evaluation: Design mechanisms for the evaluation of achievements and outcomes by collecting and processing data in order to make informed assessment.

Review: Develop procedures in order to achieve the targeted outcomes and/or new objectives; after processing feedback, key stakeholders conduct discussion and analysis in order to devise procedures for change. (QUALITY CYCLE)

Figure 1: Quality cycle of the European Quality Assurance Reference Framework for Vocational Education and Training



Quality criteria in the form of so-called descriptors are added to the indicators and the process model. EQAVET encourages the member states to use the cycle and its associated quality criteria to define and apply individually harmonised mechanisms for both internal and external evaluation on the basis of quantitative and qualitative data surveys in accordance with the indicators. This enables effectiveness and areas where improvement is required to be identified and measures to be initiated.



Since 2012, two freely accessible English language online tools have been available via the website www.eqavet.eu. These were developed in the EQAVET working groups and aim to facilitate the practical application of the European reference framework by the member states. The tool for the system level is directed at nations (and sub-units of nations) that wish to improve their quality assurance system or establish a new one. The purpose of the provider tool is to assist VET providers with the introduction or improvement of quality assurance processes (EQAVET, tools).

1.1.2 National implementation and European cooperation

In order to implement this Quality Strategy at a local level, the European Parliament and the Council acted at the same time to give EU member states the task of setting up national reference points. DEQA-VET, the German National Reference Point for Quality Assurance in Vocational Education and Training, was established at the Federal Institute for Vocational Education and Training (BIBB) by the Federal Ministry of Education and Research (BMBF). DEQA-VET forms the interface between the European EQAVET Network (including its national reference points, which now number 27) and the (federally structured) German educational system complete with its numerous institutions and various stakeholder groups. The latter comprise the

social partners, teachers at vocational schools, training personnel at companies, providers and training personnel working in adult education and continuing training, certifying bodies, representatives of federal state and Federal Government educational policy and administration and researchers at VET institutions. The daily work of DEQA-VET ranges from the observation of national and regional activities connected with the topic of quality assurance in the field of vocational education and training to research and analysis of data and facts and extends to encompass the presentation of such information in German and English on the Internet platform www.deqa-vet.de. Examples of successful practice are presented on the website, and users can also obtain information of the latest progress of the European process.

Alongside the national reference points for quality assurance, European cooperation projects were initiated within the scope of the Leonardo da Vinci Programme in order to establish the European Quality Strategy and promote its specific implementation. The aim was to develop instruments and procedures for the educational practice of the member states and to make these available to the community as examples of good practice or blueprints via a European exchange process. Within this context, the “Europeanisation of the National Pilot Initiative for Quality Development and Assurance in Company-Based Vocational Education and Training (ENIQAB)” project was launched in order to allow the results from the national pilot programme “Quality Development and Assurance in in-company VET” to flow into the European process.

1.2 The main foundation – pilot projects for quality Development and Assurance in in-company VET

ENIQAB is based on ten pilot projects set up by the Federal Institute for Vocational Education and Training and financed via funding provided by the Federal Ministry of Education and Research (BMBF). In the projects, innovative instruments, methods and procedures were developed and piloted with the aim of supporting small and medium-sized companies in particular with the further devel-

opment of quality assurance practice. One major aspect is to improve the professionalism and cooperation of the stakeholders responsible for training (Chapter 2).

In launching the pilot programme “Quality Development and Assurance in in-company VET”, the primary intention was to remedy specific quality problems of training in German companies rather than to implement EQAVET in practical terms. ENIQAB represents an attempt to create a bridge between the European Quality Strategy and the German pilot projects at a practical level – companies and training providers.

Although, for example, the ten EQAVET indicators are not explicitly visible in the pilot projects, there is no doubt that they have an implicit presence. In terms of content, they reflect the target categories underlying the results of the projects, i.e. the measures developed. The quality circle, which is viewed as targeted action and regularly monitored for effectiveness as well as being the object of critical reflection and appropriate correction, is also integrated into the pilot projects via procedures specially developed for the company as a learning venue. Analytically, therefore, connections can be created between the results achieved via the bottom-up approach of the pilot projects and EQAVET.

This means that ENIQAB is able to unfurl its activities in two directions. The modules and instruments developed in the pilot projects are honed in order to shape the European process, whilst the basic methods and elements of EQAVET are integrated into company-based training. ENIQAB is a transfer project that, within the context of EQAVET, is based on the results of the pilot projects and communication with the partner countries of Austria, Poland and Portugal and that outlines and explores transfer conditions and opportunities – always against the background of the obstacles provided by the different vocational education and training systems in Europe.



As a contribution towards sustainability, the results of ENIQAB and selected instruments from the ten pilot projects are being successively presented on the Internet platform www.deqa-vet.de (DEQA-VET, Modellversuche/ DEQA-VET, ENIQAB).

ENIQAB is the only project within the framework of EQAVET that focuses on company-based training. Whereas school-based training formed the main object of concentration within the European context, the background of the desolate work situation faced by young people in many European countries has meant that workplace-related, company-based learning has gained considerably more attractiveness and attention. Quality development and assurance play a crucial role within this process both implicitly and explicitly in terms of the upgrading and integration of the company-based part of training (Chapter 3). Considerable significance is attached in this regard to the pilot project results from the main funding focus of “Quality” due to the fact that they emerge from company practice, where the measures have already proved their worth.

1.3 Transfer conditions and chances of implementation

When transferring the measures developed in the pilot projects to quality development and quality assurance, account needs to be taken of the fact that such measures complement the stipulations within the regulatory framework (macro level). Although they may be supplemented, one example of this being expanding the function of the written records of training, their principle purpose is to vitalise existing standards. The regulations already contained within the vocational education and training system are not replaced. On the contrary, they form a constituent basis, and quality assurance can only be realised on the foundations they provide. This is a point to which attention needs to be constantly drawn with regard to the interdependency between accepted standard-forming stipulations and their implementation in practice rather than to the gener-

ally valid contextual confines of project results. In terms of transfer to other educational and training systems, this means that the implementation of individual modules or instruments needs to be tied in with the respective systemic context and applicable standards.

The European partners perceive a requirement for quality assurance measures for small and medium-sized companies in particular and therefore expect methods and instruments with as low a threshold as possible. Although the pilot projects are able to deliver this, consideration needs to be accorded to the fact that the projects operate within a highly developed system and that the instruments need to be individually adapted for less developed systems and especially for less experienced companies, i.e. broken down once more.

In a similar way to the main funding focus, the European partners attach central significance to the skilled workers providing training. The training of such workers is viewed as an essential prerequisite in order to ensure quality and quality assurance. The diverse range of curricula and instruments aimed at skilled workers providing training developed within the pilot projects therefore met with considerable interest. Another reason for this was the fact that the issue of pedagogical quality is accorded a broad scope in this instance, whereas it has thus far played only a minor role in the debate surrounding EQAVET. On the basis of the experiences gained within the main funding focus, this led the European partners to call for the aspect of pedagogical quality to be added to the existing set of EQAVET indicators.

The participation of stakeholder groups from the very outset is a central factor of the European Quality Strategy. Particularly those European partners whose vocational training has thus far been largely located in a clearly regulated school-based system view the involvement of learners, the interplay between skilled workers providing training and trainees and between school establishments and state supervision as an opportunity to strengthen quality within a context where only limited state control can be exerted – the ‘company’. This is an area in which the projects in the main funding focus, in which

quality is also understood as a social process, deliver innovative models for participation, network formation and cooperation between learning venues.

Specific instruments and curricula can be adapted by individual countries and organisations in the EU to meet their own requirements. Measures which already make it possible to operationalise existing quality standards for the micro levels, which are designed with a low threshold, which support skilled workers providing training and which foster participation offer good transfer prospects. The diverse approaches adopted towards quality development and process design are able to offer particular assistance to those countries currently involved in creating the foundations for closer integration of company-based learning in regulated training. Last but not least, the “pilot project programme type” is welcomed by the European partners as a method for developing and testing innovations in vocational education and training. This method should also be harnessed for projects in the EU or in individual member states.

2. From input to outcome – quality development and quality assurance in company-based learning

A debate on the quality of vocational education and training has emerged worldwide. When states are in an economic crisis and young people lack work prospects, as is currently the case in a number of Mediterranean countries, for example, consideration is given to the introduction of a dual system of vocational education and training (GERMAN FEDERAL GOVERNMENT 2013) – a combination of company-based and school-based VET in the secondary sector, i.e. below the level of higher education. Such a dual VET system exists in the German speaking countries (Germany, Austria, Switzerland) and is associated with a relatively low level of youth unemployment. Even in the USA, which cannot by any

How can the quality of vocational education and training systems be explained? Several levels play a role in this regard: the macro level (VET system level), the meso level (level of individual education and training institutions) and the micro level (level of teaching and learning processes).

At the macro level, quality is realised via such vehicles as laws and ordinances of the state and agreements between the social partners. At the meso level, the way in which companies and schools implement these stipulations or instigate their own quality initiatives plays a part. Although the stipulations are put into effect at the level of teaching and

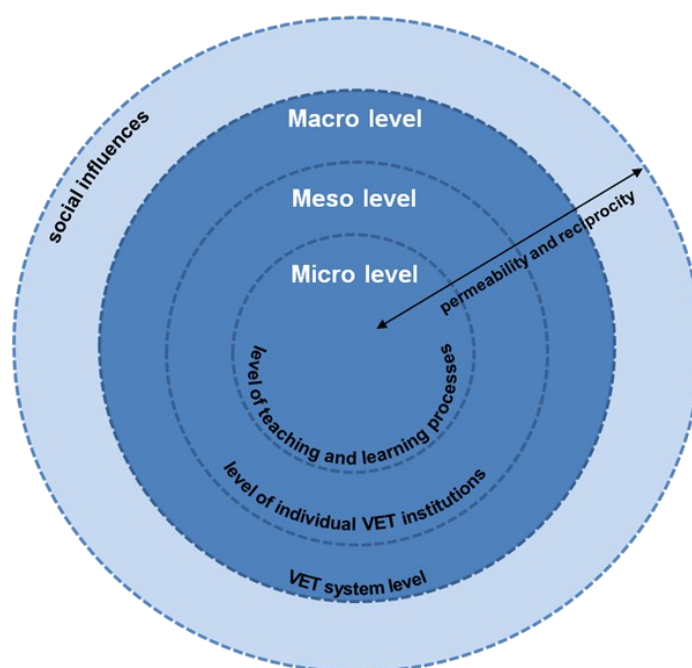


Figure 2: Levels of the realisation of vocational education and training quality

stretch of the imagination be described as a core country for organised vocational education and training, President Obama's State of the Union address of July 2013 extolled the dual system of vocational education and training in Germany. He said: "These German kids are ready for the job the moment they graduate from the training. They've been trained for the jobs that are there." (DIE WELT, AFP/Ks: Obama)

learning processes (micro level), the ensuring of input quality at the macro level (e.g. via laws and ordinances) does not usually automatically create quality at the micro level (in the training behaviour of the company training personnel). For this reason, processes and result variables also need to be included alongside the input quality variables.

This means that, with regard to the analysis and further development of VET quality, account needs to be taken of quality dimensions along the training process (input, process, output and outcome quality) combined with the levels of quality development (micro, meso, macro level).

2.1 Dimensions of quality along the training process

Training processes require certain inputs, such as learning venues with an appropriate technical and human resources infrastructure, training funding, training plans etc. The term input quality is used to describe the quality of these prerequisites. These stipulations are then combined and vitalised in the teaching and learning process with the use of selected didactic elements, thus (more or less) realising the process quality of training in the hope of stimulating an output, i.e. a learning outcome. The output quality then affects this learning outcome, the aim being for such an outcome to be achieved within the scope of a training programme, e.g. the acquisition of occupational competences on the part of the trainee. Outcome means the utilisation of competences acquired in work and on the labour market. Acceptance into a contract of employment that is adequate to training following the end of training is, for example, one of the aspects addressed here. Criteria or questions can be aligned to these quality dimensions to provide a means of more precisely determining input, process, output and outcome quality.

Quality arises as a result of the combined effect of the elements of a vocational education and training system. Account needs to be taken of quality dimensions along the training process.

Input quality: What is the status of the prerequisites for vocational education and training? Is qualified training personnel available? Are there modern training plans? What is the state of the material, human resources and financial infrastructure?

Process quality: Are the available resources actually vitalised in the teaching and learning process? What about the quality with which the teaching material is imparted and the quality of the relationship between trainers and trainees?

Output quality: What kind of direct training result has been achieved – examination result, competences acquired, satisfaction with training etc.?

Outcome quality: How utilisable is the training on the labour market and in work – are trainees given a permanent contract of employment? Are they able to bring their competences to bear in their professional work?

These dimensions of VET quality are realised at the level of teaching/learning processes or training units (micro level), at the level of individual VET institutions such as vocational schools, companies providing training, chambers, inter-company training centres etc. (meso level) and at the VET system level with its statutory provisions, regulatory stipulations and recommendations (macro level).

The indicators of the European Reference Framework EQAVET (Chapter 1.1) also represent an attempt to pursue quality development in a criteria-led and cross-country manner. These are aligned to the respective fields of activity in Chapter 4 and explained on the basis of examples of implementation.

2.2 Company-based learning

Company-based learning is considered to be the key factor for the acquisition of competences required for work and for the transition to the world of work. It is an object of the quality debate in vocational education and training, the main focus of which is on structuring company-based teaching and learning processes in the most effective and sustainable way possible. Company-based learning is also a point of focus with regard to the recognition of competences acquired by informal means. This also addresses one of the difficulties in determining what company-based learning is. It may be a component of formal vocational education and training, as is the case with the German dual system of VET. Company-based learning may, however, also take place outside formal vocational education and training, for example in countries which do not have company-based VET, in a semi-skilled and unskilled status or following a VET programme (FISCHER, BOREHAM, NYHAN 2004).

WHAT is more important than HOW. Company-based learning enables people to acquire competences relevant to their occupation by imparting company phenomena and processes to their previous knowledge and experiences. This concerns the direct processing of the work object, the company work processes and the social interactions within the context of the work. Such experiences cannot be fully anticipated in theoretical terms and can only be acquired via company-based learning. People usually have a better chance of being given a contract of employment after completion of training if the preceding training contained company-based learning processes (BMFSFJ 2013).

Competences acquired by company-based learning are characterised as work process knowledge (BOREHAM, SAMURÇAY, FISCHER (Eds.) 2002). Work process knowledge is knowledge of how a work

task is fulfilled and also includes knowledge of how such a task is integrated into company processes and the social context of the company. Although such knowledge is mostly acquired via learning within the work process, it does not exclude the use of theoretical knowledge. Work process knowledge encompasses a knowledge of the elements of a company action system and the way in which these elements work together (ENGESTRÖM 1987). Company-based learning is not only of significance for the acquisition of directly practical competences. Reflection on company-based learning can also enable the development of ideas for a different structuring of the world of work.

To put it in a nutshell:

- ▶ High-quality company-based learning leads to the acquisition of competences that are difficult to obtain in other ways.
- ▶ This secures the provision of company services even under difficult and changing conditions (introduction of new technologies and organisational concepts).
- ▶ It assists (compared to purely school-based training programmes) with better integration into the labour market.
- ▶ And it facilitates societal orientation and supports co-involvement in the company.

2.3 Company training personnel

Company-based learning can be stimulated, supported and evaluated by company training personnel. There is, therefore, a reason why the European Commission has stated that company training personnel are key stakeholders in terms of promoting lifelong learning and has arranged for an investigation to take place into the working and learning conditions of company training personnel in all EU states including accession countries. The target groups of this study are defined as: “people who stimulate learning and integrate initial and/or continuing training and education functions into their jobs (preferably by actively engaging in carrying out training activities) and who are employed by a private or public enterprise.” (EUROTRAINER CONSORTIUM 2008).

In some countries, the shortage of skilled workers had already instigated a broad debate on the quality of company-based initial and continuing training (e.g. in Finland, Denmark and Austria) and elicited endeavours on the part of companies to use attractive initial and continuing training provision as a vehicle for acquiring skilled workers and retaining such workers for as long a term as possible. In overall terms, however, the results tended to make for sobering reading. The role of company training personnel is very frequently taken on by skilled workers who perform training tasks alongside their normal work and who are under considerable economic pressures meaning that they find it hard to conduct initial and continuing training to a satisfactory quality. This has led to the fact that in some countries it was difficult to identify company training personnel as such at all, this being particularly true in countries in which skilled worker training below the academic level is accorded a lower degree of importance, such as in the United Kingdom and Hungary. This means that much needs to be done to raise awareness in order to establish a culture of quality development in the field of vocational education and training.

There is a sharp contradiction between the importance attached to company training personnel by the EU Commission and the actual continuing training and development opportunities open to such staff. One would think that those who are to impart contemporary knowledge and skills to others would themselves need to receive the chance to receive ongoing continuing training. "For example, courses for trainers will not reach those employees and skilled workers who do not consider themselves as trainers unless management makes them aware of their special role. However, we found that even management may not be aware and supportive of special training requirements, particularly in SMEs. Where no particular requirements are established for companies which offer or implement training, management tends to lack awareness of the particular responsibilities related to providing training. As a consequence, management will not be supportive of enhancing the quality of training the company provides or trainers' competences unless there is some market pressure (such as workforce or skills shortages), which brings the training issue onto the

company's agenda." (EUROTRAINER CONSORTIUM 2008).

The overall picture revealed by the survey showed that three facets of competence are essentially of relevance for company training personnel:

- ▶ **Professional competences:** mastery of work processes,
- ▶ **Pedagogical and social competences:** competences in the imparting of knowledge and skills and in dealing with young people, some of whom may be difficult, and
- ▶ **Organisational competences:** quality monitoring, project coordination, administrative activities and cooperation with various company departments, vocational schools and other external training institutions.

Considerable deficits within and on the part of company training personnel were identified in the case of the latter two areas of competence in particular (pedagogical/social competences and organisational competences). With regard to quality development in company-based learning, particularly in small and medium-sized companies, the theoretical considerations and empirical results of investigation stated above imply the following.

High-quality company-based learning is a crucial factor in the acquisition of work process knowledge and of competences relevant to work, in the production of a company's goods and services, in the transition to employment, in vocational orientation and in co-determination in the company.

A study conducted across Europe shows that company training personnel are predominantly not well prepared in terms of initiating, supporting and evaluating learning processes of this kind. The pedagogical, social and organisational competences of training personnel need to be promoted in particular.

For this reason, training provision for company training personnel should be based on the starting point that a culture of quality development in company-based learning needs to be systematically instigated and fostered, particularly in SMEs. The main focus of such provision should be on the ped-

agogical and social structuring of teaching and learning processes, i.e. creating opportunities for communication and encouraging cooperation (between learning venues) and participation. Instruments for the improvement of training quality should be deployable at a low threshold and in a process accompanying manner and introduced in a participative way with the involvement of the skilled workers providing training.

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3. Quality and innovation – models for the improvement of vocational education and training in small and medium-sized companies

In order to enhance the attractiveness of vocational education and training in small and medium-sized companies and to secure future requirements for skilled workers, ten pilot projects across Germany are making a contribution to the further development of quality in company-based VET in the craft trades, in industry and in the service sector, the example here being in the area of geriatric care. Since the beginning of the main funding focus “Quality Development and Quality Assurance in in-company VET” (term November 2011 to November 2013), a wide range of measures have been developed and tested for various occupational fields and branches in regions exhibiting different structures in order to optimise vocational training.

3.1 Fields of research and development

The main starting points for the improvement of training quality within the scope of the funding programme are as follows:

- ▶ Development of instruments for the development and securing of structural or input quality and process and outcome quality,
- ▶ Improvement of communication and cooperation structures – measures and instruments for the intensification of cooperation between learning venues,
- ▶ Development of qualification concepts for training personnel – initial and continuing training concepts and concepts for process-related support for staff (including skilled workers providing training, management).

All the pilot projects apply a different weighting in addressing the three main areas of focus. For this purpose, experienced practitioners are working together with employability-oriented academic researchers who evaluate the projects, secure processes and results and bundle such processes and results in a cross-cutting manner.

Five thematically related forums on relevant core themes are being executed and evaluated by BIBB in order to reflect upon, bundle and secure quality at a programme level. The core themes are the understanding of quality and innovation, methods and procedures for the development and securing of quality, cooperation between practice and academic research, effects and transfer. The work forums facilitate consultancy and the exchange of ideas between colleagues from a range of perspectives regarding content and methodological questions and help serve internal transfer. Four supplementary focus group meetings on the individual programme dimensions (education and training personnel, instruments, cooperation and networking, quality of vocational education and training in the craft trades) are being carried out and documented.

3.2 Results achieved

More than a hundred transferable instruments and differentiated concepts with a high proportion of reflection regarding the professionalisation of staff have been developed and piloted thus far. The focus is on concepts, measures and instruments aimed at the following areas:

- ▶ Raising quality awareness and identifying the status quo,
- ▶ Company understanding and development of quality mission statements,
- ▶ Design concept, analysis, planning and organisation of training,
- ▶ Planning, structuring, evaluation of and reflection on teaching/learning processes.

Parallel to this, it has been possible to expand the network of cooperation arrangements to encompass more than 100 strategic institutions and 400 company consortium and cooperation partners.

3.3 Transfer strategies and information provision

In order to exchange the core elements and process knowledge of “Quality development and assurance in company-based training” between projects and to pass these elements and this knowledge on to third parties, the pilot projects and BIBB have already staged or been involved in around 300 events and have consistently presented their results in committees across Germany. Equal focus is placed on the WHAT and the HOW. This means that, alongside the product-related aspect, the passing on of process and methodological knowledge and a binding establishment and consolidation of the innovations achieved within the organisations play a crucial role in transfer.



Information on the objectives, instruments and measures for the improvement of training quality tested in the pilot projects may be viewed on BIBB's online portal at www.bibb.de/qualitaet. The results achieved are available to interested education and training partners and can be adapted to their own needs. A selection of the quality concepts and instruments can also be found via the BIBB trainers' platform www.foraus.de in the section “News – e-learning/Digital media – Best practice”. As well as instructions for the development of mission statements or company training planning, the platform contains concepts for individual training planning and structuring, proposals for the keeping of holistic records of training, feedback discussions and much more besides. Various curricula and series of workshops have been designed and implemented in the field of training for trainers. Topics addressed include “Acquiring young skilled workers”, “Progression problems”, “Employment orientation and taking charge of learning”, “Structuring work in a way that fosters learning”, “Competence-oriented assessment” and “Managing feedback discussions”.

3.4 Quality as training culture

The pilot project practice shows that things have moved beyond merely speaking about quality. Tangible results and specific improvements are being initiated and achieved and a culture of quality as a binding system is being established from the bottom up. This system, however, “must grow and must not be imposed.” This requires a cooperative, creative and continuous learning and development process with all those involved. The pilot projects have succeeded in bringing discussion on training to small and medium-sized companies. Everyday processes from ‘recruitment’ and planning to preparation for examinations were analysed, given impetus and redesigned in a more professional way with a view both to learners and the companies. A totally simple approach was adopted to successfully piloting instruments for structuring and for the promotion of communication and reflection in and with company-based training in SMEs on the basis of highly ambitious analyses and concepts. The application of the quality cycle plays a particular part within this process.

The characteristic of social innovations is that they are very strongly situation, context and person group or target group related. Nevertheless, it is possible to arrive at generalisations. In all cases, the pilot projects lead via processes of dialogue to a strengthening of the skilled workers providing training, who expand and deepen their pedagogical knowledge and competences. The focus at all times is on achieving a balance between the professional and the pedagogical and organisational sides. An essential quality factor here is the communication between academic research and practice, without which the comparably systematised developments would be scarcely achievable.

The pilot projects vitalise existing quality standards under the more difficult conditions faced by SMEs in the craft trades, industry and the service sector, which require such assistance to a particular degree. “It has borne fruit. We could have come up with it ourselves, but we did not. There is always something else to do. We are often blind to the change that is needed in our company.” Practitioners underline the necessity of looking externally and

emphasise the positive changes. “When the journeymen are sent to a seminar, it is clear to see that something has changed.” “The network that forms via the pilot projects is making itself noticeable.” In this way, numerous changes were put into effect from which both trainees and companies are benefiting.

In addition to this, the supporting ENIQAB project creates a bridge between the national and European system level and their indicators and the pilot projects, which are located at the organisational meso level and the didactic micro level. The intensity of the integrated cooperation with the German National Reference Point for Quality Assurance in Vocational Education and Training (DEQA-VET) and the transnational cooperation within the scope of EQAVET was unprecedented for the pilot projects. Positive responses have been recorded on both sides. Especially with regard to the work process oriented training in SMEs, there is considerable interest in the results and findings of the programme.

4. Practical guides for the implementation of the European Quality Strategy

In which areas can quality be developed?

Five fields of activity

As a result of the pilot programme “*Quality Development and Assurance in in-company VET*”, five thematic areas were identified, so-called fields of activity, in which quality in the company can be improved.

The fields of activity reflect core areas which in the pilot projects have emerged as central to quality development in smaller companies. They are based on national, regional and company requirements which were jointly identified with those responsible for training and learners. They also, however, address topics which are formulated as challenges in the Strategy Paper of the European Commission (EUROPEAN COMMISSION 2012).

Five fields of activity for quality development and quality assurance

1. Fostering a culture of quality development and quality assurance

The development of a culture of quality with the participation of all those involved in the training process wherever possible is both a prerequisite for and the goal of a system of quality development and assurance to which everyone has committed. It is fundamental to structuring the work environment in a way that fosters learning and thus contributes to the success of learning in the company.

2. Qualification of the training personnel

High quality in vocational education and training stands or falls with the skills, competences and knowledge of trainers. This includes professional competences as well as the ability to structure training processes in an appropriate manner. In order to develop these pedagogical competences, suitable concepts and methods are needed.

3. Structuring of the training process

Occupational pathways are much more diverse than was previously the case. Today's world of work is undergoing rapid change, and this is also changing requirements in terms of the skills and competences of learners. New competences that go beyond professional knowledge are required in order to be able to react to the challenges. These competences are developed within the process of training itself. This is an area in which company-based learning in particular can provide many and varied opportunities.

4. Evaluation of learning outcomes as a pedagogical process

The regular evaluation of learning outcomes can provide a good basis to enter into discussions about learning itself as well as about difficulties and wishes. Such an assessment seeks to support learners in their learning rather than taking on a monitoring function.

5. Promoting between learning venues

The ability to act competently in everyday working life requires a mix of various skills, knowledge, experience and motivation. Good cooperation between learning venues should support learners in applying what they have learned and in recognising and gaining a deeper understanding of work correlations. In order for this to take place, it is necessary for the representatives of the various learning venues and other stakeholder groups to view training as a joint task to be structured via mutual agreement.



Information on these and other fields of activity is included in the Strategy Paper “Rethinking education: investing in skills for better socio-economic outcomes”, which is available for download at http://ec.europa.eu/education/news/rethinking_en.htm (status 12.08.2013, title of the document: Communication from the Commission).

- ▶ **Example:** What result may be achieved?
- ▶ **Approach:** How is the practical guide deployed? What needs to be considered? How can it be used successfully in the company?

How and by what means can quality be improved?

Selected EQAVET indicators relevant to quality development in the company are aligned to each of the five fields of activity below. The indicators form part of the EQAVET Reference Framework for the evaluation and qualitative improvement of vocational education and training systems and VET providers. The Reference Framework proposes ten reference indicators at a European level that can help to execute and optimise quality development and quality assurance measures within the national context (cf. Chapter 1.1). The indicators provide a mechanism for obtaining an overview for each field of activity in terms of which aspects are important when seeking to improve quality in the company, which experiences have been gained from the pilot projects and the findings that have emerged.

This is followed by a description of instruments, concepts and procedures that can be transferred without major commitment of resources to small and medium-sized companies in various branches. Depending on requirements and resources, the products and results can be deployed individually or in combination with one another or can be used for shorter or longer phases of practical training. The following is presented for each practical guide.

- ▶ **Aim and content:** What is the purpose of the practical guide? What are the essential contents of the practical guide? What is the expected time frame? Who applies the practical guide?

4.1

Field of activity 1: Fostering a culture of quality development and quality assurance



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Which EQAVET indicators play a role?



Relevance of quality assurance systems for VET providers

The questions that arise in any development process are: What are my aims? And what do I need to achieve these aims? Surveys in the pilot projects show that all those involved already have ideas as to what constitutes good training and how learning can succeed in the training process. Approaches that facilitate communication and reflection on quality rather than listing requirements for “good” training

quality in the form of a “collection of recipes” are particularly suited to this purpose. In the pilot projects, the drawing up and implementation of quality mission statements for training have proved to be a promising strategy for the development of awareness of quality in a participatory fashion. A feasible approach to developing a quality mission statement even when resources are limited is presented below in the form of the practical guide to the drawing up of quality mission statements from the *Graswurzel* pilot project.



Investment in training of teachers and trainers

Quality assurance is not fundamentally new. The professional activity of trainers is already based on the aim of designing training that is “good”. For precisely this reason, it is also important for trainers to be involved in the determination of objectives and in measures for their realisation. In the pilot projects, trainers were actively integrated into the quality process from the identification of requirements all the way to the stipulation of objectives. Information and further practical guides for the qualification of the training personnel is included in field of activity 2.



Schemes used to promote better access to VET

Mission statements on successful learning also promote the external visibility of the company, a special branch or a training occupation. They can offer guidance before the commencement of training or a practical placement. In the pilot projects, concepts were developed that are deployed in various con-

texts (schools, companies, continuing training institutions) and with differing degrees of commitment in terms of time and human resources. They are integrated into more comprehensive quality concepts in order to ensure the further development and form establishment of the exchange.

What can YOU do?

- ▶ Promote responsibility for quality as a task for all employees.
- ▶ Design instruments, methods and procedures for the improvement of quality and work together on their further development.
- ▶ Develop mission statements for the firm establishment and dissemination of a joint understanding of quality.

The following practical guide can support quality development in this field of activity:

- ▶ *Developing a quality mission statement.*

Practical guide: Developing a quality mission statement



This practical guide was developed in the pilot project *Graswurzel QES – Development, piloting and dissemination of a quality development and quality assurance system integrated into training in company-based vocational education and training*. Information is available at www.gab-muenchen.de.

Aim and content

A quality mission statement allows all those involved in training to reach agreement on the objectives of company-based training, on the necessary prerequisites for the achievement of these objectives and on methodological standards and forms of cooperation in training. It creates a helpful basis and a joint framework for the development of quality in training.

In order to develop and formulate guiding principles for training, between three and six hours are needed depending on the size of the group. If not all those involved in training are able to attend, a further hour should be planned to discuss the mission statement with further employees within the company.

The practical guide is directed at

- ▶ learners,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors),
- ▶ staff and trainee representatives (e.g. workers' council),
- ▶ advisors and quality representatives.

Example: Extract from a quality mission statement

Guiding principles for training at *Elektrotechnik Fritz Meier, GmbH & Co. KG*

Training at *Elektrotechnik Fritz Meier, GmbH & Co. KG* aims to achieve the following main objectives:

- ▶ Learners should pass their training. During training, they should acquire enough knowledge so as to be able to stand on their own two feet when training is completed. This includes, for example, a broad spectrum of basic knowledge and well-founded specialist knowledge in electrical engineering.

▶ ...

In order to fulfil these objectives, we will pay heed to the following during training:

Organisational and other requirements:

- ▶ The company owner and the trainers are aware that training takes time and recognise where it is possible to find such periods of time.
- ▶ Learners and trainers have an overview and an understanding of the order as a whole.
- ▶ ...

Approach

Introduction –providing information and arousing interest

A group representing the workforce works together to draw up the quality mission statement. External persons to chair the process are not necessary. The development of the quality mission statement begins with a brief introduction, in which the following questions should be clarified:

What is a quality mission statement for training?

A quality mission statement makes specific declarations as to how we wish to handle training here in our company and what we judge to be important. It contains assertions on which aims we wish to achieve at the end of training, what we view as important organisational prerequisites, what we are seeking to take into account during training in methodological terms and how we see cooperation in training.

What is the benefit to us?

A quality mission statement helps us to obtain a joint basis for what is important to us in training so that we are all singing from the same hymn sheet. It gives us an opportunity to reach agreement regarding our respective ideas on training and is a good starting point for the further development of the quality of training in our company.

What is our focus today?

The focus today is on jointly drawing up the guiding principles for the quality of our training, concentrating specifically on direct training.

Stage 1 – Stipulation of objectives

The group then draws up its objectives. Objectives describe the expectations of those involved in the results and benefits of training. It is important that all participants have their say. If the impression arises that participants are finding it difficult to come up with answers, the following may be proposed. Both learners and trainers form working groups of two or three persons and consider together what they believe to be important objectives. The objectives are then collated on a flipchart.

Practical tips:

- ▶ Learners in particular should be encouraged to become actively involved. Ask questions.
- ▶ In the case of general objectives such as “acquiring social competence”, ask for specific examples. “What do you mean by that?” “What is important to you in this regard?”
- ▶ Do not lose sight of the focus of “Aims that should be achieved at the end of training.”
- ▶ Pick up on the language used by the participants.
- ▶ Explore and clarify contradictory statements made by the participants.

Stage 2 – Development of criteria

Finally, the question of the prerequisites of the practical placement is clarified, e.g. with regard to organisational requirements, the approach and methods adopted or joint cooperation and dealings with one another. In order to develop these criteria, precisely the same approach as for the drawing up of the objectives can be taken. A collection of criteria could be as follows:

Organisational and other requirements

- ▶ Be aware that training costs time.
- ▶ Recognise where it is possible to find these periods of time.
- ▶ Ensure that learners and trainers have a equal overview of the whole order.
- ▶ ...

After the conclusion of the process, the group documents the results and formulates guiding principles for the finished quality mission statement. The quality mission statement is then presented to all those involved in training. It has also proved useful to provide specific examples to explain individual statements for those unable to be present for the development of the quality mission statement.

Publication can take place in several different forms. The mission statement can be integrated into the company's website to impart an impression to external parties of which aspects are important in the company. It can also be displayed as a poster at a place in the company accessible to all. Consider including photographs of the company and of staff.

To ensure that the contents of the mission statement are not forgotten, you can undertake the following:

- ▶ Discuss the mission statement with the learners at the beginning of the practical placement or training.
- ▶ During the practical placement or training, discuss with the learners which statements from the mission statement are being realised and how this is taking place. Which aims are working well in our case? Which aims are working less well or not at all? What can we change?

In order to keep the mission statement up to date or to use the joint understanding of quality as a basis for developing quality within the company, further elements of joint work on quality need to be added, such as joint steering of the training process and/or a joint quality circle (see Field of activity 2: *Planning and implementation of a quality circle*).

The quality mission statement forms part of a holistic concept that alongside negotiation of the guiding principles of training encompasses further elements and products. Trainers, teachers and learners are supported in increasing the quality of training themselves from the bottom up (*Graswurzel quality development approach*). The main focus here is on fostering dialogue and communication. More detailed information on this approach is available in the brochure published in 2012 within the scope of ENIQAB (ENIQAB 2012).

4.2

Field of activity 2: Qualification of the training personnel



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Which EQAVET indicators play a role?



1 Relevance of quality assurance systems for VET providers

In order to increase the significance of quality development in the training process, it is necessary to give trainers the skills to improve quality. Trainers should be able to use instruments and methods in their everyday working routine and be aware of the benefits of such instruments and methods. *Quality circles* are a method easily integrated into company processes that is suitable to train trainers in the application of instruments, to exchange experiences regarding the use of such instruments in practice and to reflect upon their contribution to the improvement of quality. A practical guide developed and tested in the pilot project Q³ will support you in the planning, implementation and evaluation of quality circles.



2 Investment in training of teachers and trainers

Like quality development, qualification of the training personnel is also a process that needs to take account of constantly changing requirements. For this reason, trainers must be put in a position where they can recognise and further develop their own areas of potential. The pilot projects focus on support concepts designed for the longer term that contain topics affecting the trainers directly. Concepts for learning advice, workshops and quality circles in which practical problems or problems emerging from practice are processed have proved their value in the pilot projects.

Skills and opportunities that foster self-directed (continuing) learning are strengthened in the pilot projects. These include, for example, autonomy, initiative, the ability to communicate and reflect and the trainers' recognition and assessment of their own areas of potential. The main area of focus is on holistic competence development.

In addition to this, methods and settings that foster exchange between trainers have also proved their suitability. The pilot projects have developed and tested a series of provision to support exchange. This ranges from instructions for the application of individual methods such as consultation between colleagues on case studies to the creation of regional and national structures via the vehicles of trainer meetings and quality circles. Stakeholders involved in vocational education and training are put in a position where they are able to recognise and close gaps in their own competence profile and in organisational processes.

High-quality training is measured by the learning outcomes of trainees and places the main emphasis on teaching/learning processes. For this reason, the (further) development of pedagogical skills plays a central role in the pilot projects. The social, didactic and methodological competences of training personnel and the self-perception of training personnel as advisors and shapers of the learning process are particular topics that have a part to play in the training concepts. The *Guide for Quality Development in Training in Craft Trade Companies*, developed in the pilot project *Training Quality in the Craft Trades*, offers a series of easily manageable practical guides in this regard.



Mechanisms to identify training needs in the labour market

Good training should maintain training concepts that display connectivity with the labour market and with the company. This requires regular adaptation of approaches with regard to content and methods. The pilot projects take this into account by developing instruments that keep the quality instruments used in the companies up to date. This includes instruments that generate feedback on methods such as the training workshop. This requirement is also fulfilled by instruments which can be deployed by the trainers themselves to identify the actual status and needs within the company.

As is the case with the *Guide for Quality Development in Training in Craft Trade Companies*, the training concepts are mostly embedded within com-

prehensive quality concepts. This ensures continuous revision and adaptation to meet the respective requirements.

What can YOU do?

- ▶ Acquire pedagogical competences, develop these further and give trainers the skills to act as learning process mentors via longer term professionalisation provision.
- ▶ Give personnel the skills to shape quality via instruments, training concepts and procedures.
- ▶ Create opportunities to exchange experiences in order to support competence acquisition.

The following practical guides can support quality development in this field of activity:

- ▶ *Guide for Quality Development in Training in Craft Trade Companies*
- ▶ *Planning and Implementation of a Quality Circle*

Practical guide:**Quality Development in Training in Craft Trade Companies**

This practical guide was developed in the pilot project *Quality Development in IVET in Skilled-Craft Enterprises*. Further information is available at www.zwh.de.

Aim and content

The aim is to develop quality in various phases of training. Alongside training and advisory provision for staff providing training, practical guides in the form of checklists etc. that can be deployed in practice by the company or trainers were drawn up for this purpose. This enables trainers to analyse training quality in their own company and structure quality in a targeted way.

The guide serves the purpose of realising quality objectives in company-based training, especially in areas in which weaknesses in training quality have emerged as a result of the diagnosis. The instruments integrated into the guide mainly comprise checklists which assist in preparing important training tasks in a systematic manner, structuring processes better, and not forgetting essential elements.

The practical guide is directed at

- ▶ company-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors),
- ▶ advisors.

Contents of the guide

Guide for Quality Development in Training,

Diagnosis sheet to ascertain the status quo of training quality,

Documentation for companies providing training for direct deployment in the companies and relating to the following topics:

- ▶ Advertising for and selecting the young skilled workers of the future,
- ▶ Making effective use of the practical placement,
- ▶ Structuring training in a planned manner,
- ▶ Getting training off to a successful start,
- ▶ Successful probationary period,
- ▶ Successfully integrating trainees into work processes,
- ▶ Self-assessment for trainees,
- ▶ Evaluation report book for trainers,
- ▶ Fit for the examination.

Example:**Figure 3: Extract from a diagnosis sheet**

Company		<div></div>	Fulfilled (no need for action)
Trainer		<div></div>	Only partially fulfilled (action needed)
Date		<div></div>	Not fulfilled (urgent action needed)

1. Training organisation and cooperation between learning venues					
Quality objectives	Starting points/indicators	Evaluation			What are we doing in the company? What already works well?
		<div></div>	<div></div>	<div></div>	
Training has a high significance in the company	My company is known in the region as a good company in terms of providing training, I actively advertise my training (e.g. at trade fairs, on the homepage).				
	Training is discernible in the company (e.g. mission statement, display of training plan, photographs of trainees and trainers etc.).				
	Alongside the working time calculated, my training personnel receive sufficient time for training activities.				
	Trainers and journeymen are happy to take on training tasks.				

Practical guide:

Quality Circle – Mastering challenges in a participation oriented manner



The procedure forming the basis of the practical guide was developed in the pilot project Q³ – *Quality Circles for the Development of a Common Awareness of Quality and the Origination of Quality Standards across All Actors in VET*. Information is available at www.qhoch3.net.

The practical guide is directed at

- ▶ learners,
- ▶ company and school-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors).

Aim and content

Quality circles create structures which enable training stakeholders to pursue continuing training and reach agreement on important topics relating to training on a regular basis and in a solutions-oriented manner. This strengthens the joint awareness of quality in training and enables the initiation of and reflection upon change processes for the improvement of quality by the employees themselves. Quality circles allow personnel to act autonomously in shaping quality, from the selection of main points of focus to the development and testing of proposed solutions. Seven stages are proposed as the basis for the planning and implementation of quality circles. The starting point may be a quality mission statement that has been jointly drawn up.

Quality mission statements may be drawn up with the assistance of the practical guide *Development of a quality mission statement for training* (Field of activity 1).

It is important that quality cycles take place at regular intervals. The implementation of two quality circles per year with a scope of two to three hours per event is an approach that has shown itself to be effective.

Example:**Creating leeway for training**

One example of a topic suitable for processing in quality circles is the ensuring of good and harmonised support above and beyond various learning venues (company, school and other training service providers if relevant) (cf. also Field of activity 5 in this regard). In order to address this theme, quality circles were conducted involving all stakeholder groups of the different learning venues (trainees, employees with training tasks and management staff). Within the framework of these quality circles, specialist content was drawn up, discussed and illustrated on the basis of practical examples (cf. the sample question formulations on the subject of support set out below). Other fixed components are a summary of and reflection on the quality circles, the agreement of work plans and discussion on the themes to be addressed at the following quality circle.

Question formulations for the development of the work topic:

1. What is “good” support and what is “bad” support?
2. What kind of assistance do I need to provide good support – a) from my line managers, b) from the trainees?
3. How can I provide assistance myself – a) to my line managers, b) to the trainees?
4. What can I contribute myself to improving support?

Results from question formulation 2: What kind of assistance do I need to provide good support...

... from my line managers?	... from my trainees?
<ul style="list-style-type: none"> ◆ Opportunity for continuing training ◆ Good human resources planning ◆ Clarification of areas of responsibility ◆ Time for training 	<ul style="list-style-type: none"> ◆ Feedback ◆ Willingness to communicate ◆ Interest ◆ Trust

Approach

Stage 1 – Formulation of the problem and task

The first task of the quality circle is to formulate the problem to be solved and the resulting task.

For the example described above, the problem of sub-optimal support for learners at the various learning venues, the following tasks could arise:

- ▶ How can communication be improved between the learning venues of the company, school and training services provider?
- ▶ What opportunities for organisational harmonisation are there or which such opportunities need to be established?
- ▶ How can the esteem for such harmonisation processes be increased amongst trainees, trainers and management staff and how can the necessary time flexibility be created?

Stage 2 – Stipulation of the framework

To begin with, working groups are formed if necessary in which staff with a common basis of experience and/or a common interest in solutions come together at regular intervals. Participation is voluntary. The duration of the work, the intervals between meetings and the chairs of the meetings are stipulated.

Stage 3 – Description of the current status

All participants describe their experiences of the object of the quality circle and present the benefits and drawbacks from their point of view.

Stage 4 – Drawing up of the target status

Wishes as to what the nature of the target status can be are then collated (cf. the example “Results from question formulation 2”). All contributions made by the participants are discussed. Possible solutions are sought and evaluated. A decision is made as to which solution will be realised.

Stage 5 – Stipulation of the approach to be adopted

This serves as a basis for determining how the quality circle will progress. This includes reaching agreement on methods, areas of responsibility and main work focuses of the exchange. These provide the main thread for further cooperation.

Stage 6 – Documentation, distribution and presentation of the results

The group summarises the results in a suitable form. The results of the work can thus be presented to line managers or the chair of the quality circle. The chair may only alter the formulations of the final report in exceptional cases. All those affected in the company or at the school are notified of the result or of the implementation of the result. Proposed solutions drawn up are realised by the group itself if possible. Otherwise, relevant proposals are forwarded to management.

Stage 7 – Evaluation of feedback, initiation of improvement

All participants reflect upon proposed solutions. A productive approach is to bundle feedback. A representative can be nominated for this purpose. At the end of the practical phase, a decision is taken on the basis of experiences gained as to which changes are to be introduced.

In the pilot project, the quality circles form part of a five-stage quality development model. On the basis of an analysis of the starting situation, the development and firm establishment of quality standards takes place via the vocational education and training stakeholders. Further information is available in the brochure published in 2012 within the scope of ENIQAB (ENIQAB 2012).

Quality circles represent a form of work which is often new for staff and something to which they are unaccustomed. These tips may help make quality circles in the organisation interesting:

- ▶ Participation in the quality circle is voluntary. In order to offer potential participants good reasons for learning, the topics addressed should be relevant to this target group. For this reason, the recommended approach is to survey requirements and problem situations in the company in advance via instruments such as questionnaires or in workshops.
- ▶ Structuring quality circles along the lines of individual topics and the target group specific adaptation of such topics is more promising than target group specific implementation. Such an approach means that staff are able to expand their professional skills in a targeted manner and in accordance with their requirements. Cross-cutting competences are developed within the process.

For organisations with little experience with quality assurance systems, a quality circle is a suitable procedure for raising employee awareness of the topic of quality at all levels. This represents a step towards establishing a culture of quality improvement (Field of activity 1).

4.3

Field of activity 3: Structuring of the training process



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Which EQAVET indicators play a role?

Experiences from the pilot projects have shown that appropriate planning and structuring of training are particularly crucial in terms of quality. This also affects areas such as the joint drawing up of standards and criteria for “good” quality. Particular significance is accorded to the perspective of the learners within this process.



Investment in training of teachers and trainers

There are numerous occasions for learning in everyday working life at companies. These need to be recognised, structured and supported. Trainers have a particular responsibility in this regard. They ensure that sufficient attention is given to learning within the work process and thus shape the general conditions under which learning can occur.

The pilot projects aim to provide trainers with the skills they need to support learners and their learning process. This includes encouraging the insight that learners are effective shapers of their learning processes. The practical guides *Developing and conducting learning situations* and *Route map for training contents* foster this activity and the (co-) responsibility of learners. They strengthen trainers in their role as supporters in this process. The instruments were developed in the pilot projects QUESAP and ML-QuES.



Prevalence of vulnerable groups

Transition from school to company-based training or work often represents a hurdle that is not easy for all young people to overcome. Those without optimum prior learning or who represent minorities in their occupation or branch are particularly affected. The pilot projects developed practical guides which support trainers in being able to structure

applicant selection and the learners' first few days in the company in a good manner. This includes checklists and information folders for trainers and learners for the start of training. These instruct trainers on how to recognise areas of potential displayed by the learners.

In the training process, the *Learning situations* and *Route map* help to structure training and align it to the prior knowledge, learning status and requirements of the learners, both in terms of content and methodologically. Experiences from the piloting phase show that learning itself becomes a greater object of focus and can be fostered.

What can YOU do?

- ▶ Place the focus on learners, their requirements and the learning process,
- ▶ Structure and plan training for and with all those involved,
- ▶ Stipulate learning stages and objectives jointly and reflect upon these,
- ▶ Ensure broad competence development rather than narrow training.

The following practical guides can support quality development in this field of activity.

- ▶ *Learning stage by stage – Developing and conducting learning situations,*
- ▶ *Route map for learning contents.*

Practical guide:

Learning stage by stage – Developing and conducting learning situations



This practical guide was developed in the pilot project *QUESAP – Quality development and assurance in practical training, intensification of cooperation between learning venues and adaptation of concepts of vocational teacher training for practical instructions in geriatric care*. Information is available at www.igfberlin.de or www.quesap.net.

The practical guide is directed at

- ▶ company-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors),
- ▶ advisors.

Aim and content

The aim of the practical guide is to structure and reflect upon learning in the workplace, both by learners and trainers. With the help of learning situations, learners are able to acquire key competences on the basis of typical occupational activities. They are encouraged to try things out and to reflect upon their own actions and the actions of others.

Learning situations address specific situations from practice and separate them into small stages via which learners are able to act autonomously in completing work assignments within the work process. The practical guide facilitates the planning and textualisation of a learning assignment in four stages. Learning situations support learners in:

- ▶ deploying and freshening up their current professional knowledge,
- ▶ developing possible solutions (in accordance with the principle of the self-contained activity),
- ▶ making well-founded decisions for possible action in the selected situations,
- ▶ carrying out the activity in a professional manner,
- ▶ being consciously aware of their occupational actions and being capable of reflecting upon them.

Example:**Figure 4: Learning situation**

Topic: Change in the nutritional condition of persons in old people's homes in need of care

Formulating an occupational activity situation	<p>During a handover, the trainer passes on the following information.</p> <ul style="list-style-type: none"> • Mrs. Smith is continually losing weight. ■ Although she eats breakfast, she consumes very little at the other mealtimes ...
Contents and learning fields	<ul style="list-style-type: none"> ■ Recognise, identify and evaluate the care situation ■ Provide instructions, advise and conduct discussions ...
Formulation of occupational competences	<p>The learner</p> <ul style="list-style-type: none"> ■ is familiar with methods for identifying the nutritional condition and can apply these methods, ■ is able to plan, carry out and reflect upon suitable individual measures.
Activity assignments and tasks	<ul style="list-style-type: none"> ■ Freshen up your theoretical knowledge. Carry out research for this purpose ... ■ Match this knowledge against the approach taken in your institution.
Reflection and evaluation by trainees	<p>Reflect on your learning process in dealing with this learning situation:</p> <ul style="list-style-type: none"> ■ Assess your growth in employability skills with regard to your personal strengths and weaknesses that you have displayed in processing the activity assignments.

Approach

Stage 1 – Formulation of the everyday occupational situation

The first stage is to select and describe a typical situation from occupational practice. This should be a real work situation, not an abstract problem. It is important that the situation represents a challenge and therefore instigates action.

Stage 2 – Development of learning contents

A didactic analysis of the occupational situation is required in order to develop learning contents from it. In this stage, the focus is on:

- ▶ developing abstract professional contents,
- ▶ matching these against school-based learning contents,
- ▶ thereby creating a link between theoretical and practical training and
- ▶ subdividing the professional contents developed in accordance with the status of training.

Stage 3 – Formulation of learning objectives

This stage identifies which occupational competences need to be in place or need to be acquired in order to be able to deal with the situation described in a professional manner. At the same time, this addresses the question of the aims of the learning situation. Which occupational competences do learners need to resolve the situation described in a professional way?

These competence formulations may be aligned to the dimensions of professional, methodological and social competence.

Stage 4 – Development of activity assignments

The last stage involves stipulating the methodological structuring of the learning situation and formulating targeted work and activity assignments for the learners. The aim here is that, in completing these work and activity assignments, the learner acquires

the occupational competences described in point three on a step-by-step basis. Subsequent self-reflection represents the completion of the work assignments from the learning situation.

This practical guide forms part of the quality module “vocational teaching methods”, one of six quality modules addressed in the *QUESAP* pilot project (the others being training concept, cooperation between learning venues, company and individual training plan, competence-oriented evaluation of successful learning and the learning diary for trainees).

- ▶ The development of learning situations involves a one-off commitment of resources and is not easy initially. In order to avoid duplicate work and to achieve positive learning outcomes, attention should be paid to the following. For the development of learning situations, it is worthwhile forming working groups in which trainers work together to collect ideas.
- ▶ The learning situations developed by the trainers should be collated centrally and made accessible to all in order to avoid duplicate commitment of resources.
- ▶ The pool of learning activities thus created should be reviewed annually in working groups in order to identify theoretical gaps and replace obsolete or unsuitable working situations.



Alongside the use of learning situations, there are many other possibilities to structure company-based training. Some of these, such as the so-called *planned instruction* or *thinking assignments*, are described in the handbook *Practical geriatric care training – a handbook produced by the Service Network for Geriatric Care training for Out-Patient and In-Patient Geriatric Care Institutions* (BMFSFJ 2010) and was successfully used within the framework of the QUESAP pilot project. Examples are available at <http://www.quesap.net/methoden> (status: 12.08.2013).

Practical guide:

Route map for learning contents



This practical guide was developed in the pilot project *ML-QuES – Quality Development and Assurance in the IVET Process in Skilled-Craft Painting and Varnishing SMEs in Hamburg*. Further information is available at www.ml-ques.de.

Aim and content

The aim of the practical guide is to structure learning in the work process via clear deployment planning and explicit work instructions. The route map serves to orient trainers and trainees in respect of the next stages of work and learning contents. This means that it can assist in linking the contents of the training regulations and general training plan with company deployment planning.

For all training occupations in Germany, which number approximately 350, there are training regulations that stipulate in a binding fashion what must be learned within the respective occupation. The general training plan is a component of the training regulations and offers trainers an overview of training contents and the training process.

On the route map, those responsible for training note separately for each individual trainee which activities need to be processed within a certain period of time (e.g. a working week/a working day) at a particular place (e.g. construction site/specific department in the company). Depending on learning status, the tasks may be described in greater or lesser detail. The route map is distributed both to trainees and to the skilled workers providing training at the site in question. This ensures that all persons involved in training know which training contents or activities the trainees are to carry out within the rel-

evant time period. The objective is to guarantee that trainees receive diverse training in accordance with their respective requirements and that they are able to make good use of their training time.

One example of the structuring of such a route map for the painting and varnishing craft trade is presented below. This is adaptable to the specific needs of a company or branch without a major commitment of resources and then offers an opportunity to structure the learning process in an appropriate manner. It can also be used to reflect upon the learning outcomes (cf. also Field of activity 4 in this regard). Sufficient time should be planned for the purpose.

The practical guide is directed at

- ▶ learners,
- ▶ company-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors).

Example:**Figure 5: Route map for training processes**

Name of the trainee	A.N. Other	
Period	1 December to 15 December	
Place(s) of deployment	A: Major construction site, Residential Block A, Hamburg B: Private apartment, Elbchaussee No. xy	
Assignment	A: Interior works, floor 2	
Stages of work		Completed
Paint kitchen	Tape up windows	✓
	Cover floor	✓
	Mix paint etc.	✓
Paint hallway	...	
Assignment	B: Varnish windows on first floor	
Stages of work		Completed
Sand down	Manual sand down	✓
Tape up	...	
Painting	First coat	
	Second coat	
	Final coat	

Approach

General tips for preparing the route map:

- ▶ The contents of the route map should be integrated into a learning process wherever possible rather than not presenting any context for learners. Consider the following questions. What has already been learned? What can this be linked in with? What is being taught at school? What interests the learners?
- ▶ The formulation of indications of work processes and contents requires trainers to “think ahead” with regard to the assignment. The following questions may help with formulating indications for the route map. What should the learner be able to do upon completion of the task? How can this goal be achieved?
- ▶ Trainers need to have an overview of the learning status of the learners. Talk to the learners to find out what they can already do, where their interests lie and what goals they have set themselves for the practical training.

should also be addressed – if yes, how, and if not, why not. The practical guide *Communication with the help of the written record of training* (Field of activity 4) may assist with the planning of regular meetings to discuss training.

The route map may be used as a basis for regular feedback and meetings to reflect upon training. In Field of activity 4, two procedures are described for how such meetings may be planned and carried out and for which points need to be taken into account.

Stage 1 – Stipulation of learning venues, periods of time and the assignment

Those responsible for training stipulate for each learner in which areas of work he or she is to be deployed for a certain time period. Selection of learning venues may take place on the basis of requirements or the status of learning of the learner and may be for shorter or longer periods of training.

Stage 2 – Formulation of activities and stages of work

Those responsible for training then describe activities that are to be completed by the learners at the respective learning venues. Depending on the training status of the learners, individual stages or work may be described or cross-cutting tasks formulated.

Stage 3 – Discussion of learning progress

Learners and those responsible for training discuss the route map on a regular basis. The topic of whether all activities listed have been performed

4.4

Field of activity 4: Evaluation of learning outcomes as a pedagogical process



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Which EQAVET indicators play a role?

Results from the pilot projects show that a pedagogical perspective on quality can help with the integration and further development of quality processes and instruments in the company. The focus is much more on making the evaluation of learning outcomes a basis for joint reflection on learning contents and processes and thus using this in the interests of all those involved for the further training process rather than on the comparison of learning outcomes with company standards or standards typical of the branch. The emphasis is both on the development of cross-cutting competences on the part of the learners and on learning support from the trainers.



Relevance of quality assurance systems for VET providers

Particularly in shorter phases of work-integrated

learning such as within the scope of practical placements, although also in training courses extending over several years, it is important to make effective use of the time available. This means that both sides, the company and the learners, can derive a benefit from the learning process. The pilot projects have shown the value of creating structures and occasions within which learners themselves can work together with trainers in a regular and active way to co-determine contents and the process of training management within the scope of curricula. In the quality cycle (plan-do-check-act), this stage encompasses the latter two stages, i.e. the joint evaluation and (re-)alignment of the teaching/learning process.

The aim is to foster communication *about* training, reflection on the learning process and the conditions that promote and hinder this process and the joint steering of the training process. One practical guide for discussions on the evaluation of knowl-

edge and skills is the *Traffic light table*. Ideas as to where and how such discussions can be systematically integrated into training are provided by the practical guide *Communication with the help of the written record of training*. Both practical guides are results of the pilot project *ML-QuES*.



Investment in training of teachers and trainers

An open culture of communication and feedback during training contributes to the qualitative improvement of teaching and learning at all levels. Interaction between trainers and learners is central within this context.

One major focus of the pilot projects was to improve the prerequisites for trusting communication and regular mutual feedback in order to make these a fixed component of the training process. Training modules for training personnel were developed and piloted for this purpose. Topics include giving and receiving feedback, dealing with problems and closer integration of learners into the structuring of the training process.



Completion rate in VET programmes



Prevalence of vulnerable groups



Schemes used to promote better access to VET

The pilot projects are based on an understanding that learners themselves are experts in their own learning. In particular, the requirements of groups which represent a minority in their area of training or of further disadvantaged groups, whether school-based or company-based, are not intuitively identifiable and therefore need to be rendered transparent by other means.

Within this context, the pilot projects pursue the approach of structuring general conditions in such a way so as to enable regular feedback to take place. Areas of activity encompass the professionalisation of training personnel with regard to the topic of discussion as well as the structuring and documenta-

tion of meetings. This gave rise to individual tools aligned to the requirements of the companies and supporting structured and regular communication. This makes the relation to Indicator 4 (*Completion rate in VET programmes*) clear. In particular, regular discussions that provide learners with orientation and in which problems can be openly addressed and resolved are an essential approach in terms of reducing training or practical placement dropouts.

What can YOU do?

- ▶ Create occasions for discussions,
- ▶ Give and receive feedback on a regular basis, evaluate yourself and others,
- ▶ Use this as a basis for jointly steering the training process.

The following practical guides can support quality development in this field of activity:

- ▶ *The traffic light table,*
- ▶ *Communication with the help of the written record of training.*

Practical guide: the traffic light table



This practical guide was developed in the pilot project *ML-QuES – Quality Development and Assurance in the IVET Process in Skilled-Craft Painting and Varnishing SMEs in Hamburg*. Further information is available at www.ml-ques.de.

for self-evaluations and external evaluations of knowledge and skills to be learned in training. Individual school-based and/or company-based training contents are separately selected for the learners and listed in tabular form. Both learners and trainers evaluate the performance of the learners and categorise these in terms of colours (red, amber, green). The various perspectives are explored and discussed in a joint meeting. The traffic light table is filled out before the meeting. This means that the time requirement is aligned towards the frequency and duration of meetings.

Aim and content

The aim of the practical guide is a systematised and structured harmonisation of self-evaluations and external evaluations of learners and trainers on the learning contents and objectives of training or the stage of training.

The traffic light table serves as a basis of discussion

The practical guide is directed at

- ▶ learners,
- ▶ company-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors).

Example

Figure 6: Traffic light table, extract

Skills up to 01.12.2011	Further remarks	Evaluation learner	Evaluation trainer
Motivation /initiative			
Forms of conduct of the trainee			
Communication etc.			
Work processes up to 01.12.2011	Further remarks	Evaluation learner	Evaluation trainer
Treat surfaces			
Apply base coats, patch, smooth and fill			

Approach

How?

Learners and trainers both give separate evaluations of the status of performance of the learners with regard to the training contents listed and categorise the status of performance as red, amber or green.

- ▶ Red means: “considerable improvement still needed”.
- ▶ Amber means: “acceptable”.
- ▶ Green means: “in order”.

In the best case scenario, the criteria for self-evaluation or external evaluation are stipulated individually for the trainees and the company requirements. The external evaluations should be formulated clearly and in a way that fosters development, and examples should be included. The discussion situation should also allow the trainees to present their self-evaluation openly.

Why?

The opportunity to submit separate evaluations of training contents or trainee conduct enables various perspectives to be revealed. The evaluations are discussed in a feedback meeting. These meetings help foster mutual understanding and build up trust.

Tips for using the traffic light table

- ▶ Use of and discussions with the traffic light table should take place regularly at pre-stipulated times.
- ▶ The table is filled in at the separate responsibility of learners and trainers in order to take both perspectives into account.
- ▶ The meeting takes place in a trusting and constructive atmosphere.
- ▶ The discussions foster development.
- ▶ All areas of training that are relevant for learners depending on training status at the time of the meeting and in the future should be included.

The traffic light table may be used as a basis for discussions on training (*Strengthening communication with the help of the written record of training* – Field of activity 4) or generally in discussions relating to the learning status. Depending on the length of the phase of training, it is useful to archive the traffic light tables in order to be able to monitor changes in the status of performance and in the self-evaluations and external evaluations.

Practical guide:

Strengthening communication with the help of the written record of training



This practical guide was developed in the pilot project *ML-QuES – Quality Development and Assurance in the IVET Process in Skilled-Craft Painting and Varnishing SMEs in Hamburg*. Further information is available at www.ml-ques.de.

Aim and content

The practical guide assists with the planning of regular discussions on training oriented towards the company. In order to do this, it brings together the essential issues the response to which is of relevance for the systematisation and structuring of discussions on company-based training. In the pilot project *ML-QuES*, discussion of the written record of training showed itself to be a practical opportunity to enter into conversation given the fact that written records of training are kept by all trainees and should be discussed with those responsible for training.

In Germany, the written record of training (report book) provides professional evidence of training and the training process and is stipulated in the training regulations. It must be kept by the trainee and regularly signed by the trainer. Regular completion of the report book is a prerequisite for admission to the final examination and enables both the trainees and the company providing training to monitor and reflect upon learning contents and the training process on a regular basis.

the basis of the written record of training.

The practical guide is directed at

- ▶ learners,
- ▶ company-based training personnel,
- ▶ employees with training tasks,
- ▶ management staff (e.g. heads of department, executive management, school directors).

The practical guides *Learning situations* or the *Route map for learning contents* presented in Field of activity 3 can be used as the basis for regular feedback and reflection meetings. If learning is regularly organised across learning venues, the *Cooperative exploratory assignment* (Field of activity 5) is also a suitable basis for discussion.

There is a one-off commitment of time resources for considerations regarding the occasions on which discussions should regularly take place, such as on

Approach

In terms of content, the following recommendations are aligned to the questions of *when* communication can be strengthened and *who*, *how* and *what* can strengthen it. Implementation is presented using the written record of training as an example.

When?

The written record of training should be regularly discussed (weekly, monthly) at a fixed time. It is further recommended that specific appointments should be arranged for future discussions and that the trainees should be notified of these in writing.

Who?

Discussions of the written record of training are conducted with the trainees by those responsible for training. Those responsible for training may be managing directors, trainers or others with (co-) responsibility in this area.

How?

Discussions on the written record of training are normally individual discussions. Group meetings are also possible if required.

An ideal discussion atmosphere is characterised by friendliness and an atmosphere of esteem in which trust is built up. The discussion should tend to be conducted on the basis of questions. Agreements reached in the discussion are binding for all those involved. They should be recorded in writing.

What?

In general terms, discussions on the written record of training can cover all task areas connected with training: training activities in the company, school contents, personal matters etc. Although negative experiences and problems may be addressed, it is also necessary that successes, positive experiences and good performances or marks are included in the meeting. Praise and constructive criticism for learners from those responsible for training are very important in general terms.

During the discussions on the written record of training, a comparison of external evaluations and self-evaluations can take place. The *Traffic light table* (Field of activity 4) is available as a tool for this purpose. The criteria for self-evaluation or external evaluation should be stipulated individually for the trainees and the company requirements.

A further stage may involve the development of discussion guides or forms which can be used to structure the meetings themselves. The sample form presented below separates discussion topics into the areas of the learning venues of the company providing training, the vocational school and the inter-company training centre, adds an area for personal matters and assists with the structuring and documentation of the meeting.

Example:

Figure 7: Sample for the preparation of a training discussion

Training discussion of			
Trainer			
Trainee			
Training semester			
Marks: 1-6			
Company providing training	Vocational school	Inter-company training	Personal
1. Circumstances	7. Circumstances	13. Circumstances	19. ...
2. Performance	8. Performance	14. Performance	
3. Journeymen	9. Teaching staff	15. Master sweep	
4. Written record of training	10. School office	16. Inter-company training office	
5. Trainers	11. Pupils	17. Trainees	
6. Training status	12. Training status	18. Training status	
1.			
2.			

The following summary may be made of discussions about training:

- ▶ Meetings take place regularly at previously arranged times.
- ▶ They are conducted by trainees and those responsible for training.
- ▶ They are conducted in a trusting and constructive atmosphere.
- ▶ All areas of training are included.
- ▶ Target-oriented, written and binding agreements are jointly reached.
- ▶ Specific further steps may be agreed.

4.5

Field of activity 5: Promoting cooperation between learning venues



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Which EQAVET indicators play a role?



Relevance of quality assurance systems for VET providers

It is necessary for those involved in training to agree on its aims and contents, particularly when such training takes place at different learning venues. This also includes a joint understanding of quality. This is an area where there is an opportunity to link in with existing quality procedures (such as those of the schools). The pilot projects proved the value of strategies which assist with the development of quality mission statements or the creation of new forms of cooperation. These also encompass quality mission statements and quality circles that extend across learning venues (cf. Fields of

activity 1 and 2).



Completion rate in VET programmes

Ongoing cooperation and communication between those responsible for training at the learning venues can help maintain an overview of performance status and learning successes as well as of the problems and difficulties faced by learners across learning venues. Successful cooperation between learning venues can also therefore reduce the likelihood of training dropouts. The pilot projects pursued the (further) development of instruments in which learners document their learning outcomes at the various learning venues and subsequently jointly reflect on such learning outcomes with trainers. These include, for example, summaries of marks, learning

diaries and written records of training. This enables trainers to receive an overview of the progress of learning, whereas the instruments improve orientation and transparency in training for learners.



Mechanisms to identify training needs in the labour market

In a time of rapid upheavals, the focus also needs to be on reacting to changes in labour market requirements in a timely manner. Alongside the professionalisation of training personnel (Field of activity 2), participation by further stakeholder groups is also central in this regard. For this reason, the pilot projects strengthen autonomy, reflection and harmonisation at all levels of vocational education and training. Company-based stakeholders (learners, trainers, management staff) and those responsible for training at the schools, at the chambers and on behalf of the social partners are all involved.

The pilot projects make easily manageable instruments and methods available in order to shape the interfaces between the stakeholder groups. The focus is on improved cooperation and agreement between the learning venues important to training and those responsible for training. Planning of and reflection upon learning and work tasks forms the object of the *Cooperative exploratory assignment* developed in the pilot project Q³. The practical guide *Learning venue cooperation*, developed in the QUESAP pilot project, is a grid for the evaluation and monitoring of the current status of cooperation between learning venues. These projects are capable of deployment for variable periods of time and are also suitable for short practical placements.

Learners take on a central role within the process. They are often responsible themselves for documenting their performances at all learning venues. This enables them to perceive gaps in their learning process and to discuss these together with school-based or company-based training personnel.



Schemes used to promote better access to VET

The underlying assumption of the pilot projects is that quality originates from the interplay of all participants. For this reason, quality development that pays due regard to the requirements of learners within the scope of the curricula cannot be restricted to the company or school context only. The pilot projects developed structures and instruments that initiate and maintain exchange across learning venues. This includes the development of cross-cutting quality mission statements, joint professionalisation of training personnel by the school and by the company and the promotion of exchange within the scope of quality circles (see also Fields of activity 1 and 2 in this regard).

What can YOU do?

- ▶ Encourage cooperation and agreement between the learning venues.
- ▶ Prompt the learning venues to exchange views on the conduct and successes of learners on a regular basis.
- ▶ Develop a joint understanding of quality.

The following practical guides can support quality development in this field of activity.

- ▶ *Cooperative exploratory assignment*
- ▶ *Learning venue cooperation*

Practical guide:

Cooperative exploratory assignment



This practical guide was developed in the pilot project Q³ – *Quality Circles for the Development of a Common Awareness of Quality and the Origination of Quality Standards across All Actors in VET*. Information is available at www.qhoch3.net.

Aim and content

The practical guide enables learners to act autonomously in carrying out complex work tasks and subsequently to reflect upon these tasks with trainers at the school or company. The aim is to give learners the skills they need to link school and company curricula themselves via an assignment that extends across learning venues.

The practical guide contains information on the planning, execution and evaluation of an exploratory assignment.

Exploratory assignments are special learning and work tasks that are processed by learners under their own responsibility and can be deployed between learning venues. They are, however, also suitable for the practice of and reflection upon learning contents in the school or in the company only. Their use is particularly recommended at the beginning of training and for induction into new learning contents or work areas.

The formulation of a cooperative exploratory assignment requires a one-off commitment of resources. It is worthwhile creating a collection of assignments in order to avoid duplicate commitment of resources.

The practical guide is directed at

- ▶ learners,
- ▶ company-based and school-based training personnel,
- ▶ employees with training tasks.

Example

Figure 8: Exploration

Surname, first name:	<i>Other, A.N.</i>
Place of exploration:	<i>Oxigonal GmbH, Any Street 27, Zwickau</i>
Period of exploration	<i>01.10.2013 – 30.11.2013</i>

1. Please briefly describe your exploratory assignment!

My task is to determine the costs arising in my company for the manufacture of one of the typical products of my company. The product I am investigating is the DN6-X2 safety valve used in cryogenic engineering.

2. What are the objectives of the exploration? What do you expect the exploration to show?

My aim is to find out which material resources, operating and auxiliary materials, machines and tools are required for the manufacture of the DN&-X2 safety valve and which costs are incurred in the production process...

Approach

Stage 1 – Formulation of the exploration

Explorations can be carried out on numerous topics. They may be proposed both by trainers and learners for the following reasons:

- ▶ Introduction of a new thematic area,
- ▶ More detailed treatment and illustration of topics already covered,
- ▶ Conclusion of a thematic area.

Exploratory topics often arise from current results that interest trainees. The general conditions (premises, time, contact partner, cooperation arrangements) are then stipulated and methods for the execution of the assignment selected.

Stage 2 – Preparation of the exploration

The assignment is then agreed with the learner. Before the exploratory phase begins, the learner is inducted into the technical, organisational and methodological basic principles and the process is explained.

Stage 3 – Execution and documentation of the exploration

The learners now act autonomously in executing and documenting the exploration on a step-by-step basis. A contact partner should always be available if required.

Stage 4 – Presentation of and reflection upon the exploration

Once the exploration has been finished, conclusions are drawn. For this purpose, the results are presented and reflected upon jointly with the learners by company-based and/or school-based trainers. Both areas of success and aspects where improvements could be made are discussed.

The following summary may be made of cooperative exploratory assignments:

- ▶ The work assignments should ask neither too much nor too little of learners. Work together

to stipulate a challenging but realistic learning objective.

- ▶ Help learners to recognise their strengths. This encourages self-confidence.
- ▶ Transfer responsibility for the exploratory assignment to the learners and enable them to work autonomously.
- ▶ Always be a role model for learners. Address conflicts and work jointly to find a solution.
- ▶ Always try to conduct evaluations on the basis of objective criteria. Clear criteria offer learners a good opportunity to learn how to assess themselves.

Further instruments can be deployed in training contexts in which curricula stipulate learning contents and objectives. These often encompass the whole of the period of training. The *Integral Job Report*, developed in the pilot project of the same name, links the written record of training with school and company curricula. In addition, learners are encouraged to reflect upon their own performances. Further information is available at <http://www.foraus.de/html/4143.php>.

Practical guide:

Learning venue cooperation



This practical guide was developed in the pilot project *QUESAP – Quality development and assurance in practical training, intensification of cooperation between learning venues and adaptation of concepts of vocational teacher training for practical instructions in geriatric care*. Information is available at www.igfberlin.de or www.quesap.net.

Aim and content

This practical guide facilitates the identification of the status of cooperation between the learning venues at which training takes place and the planning and initiation of specific measures to bring about improvement in individual elements of cooperation

between learning venues.

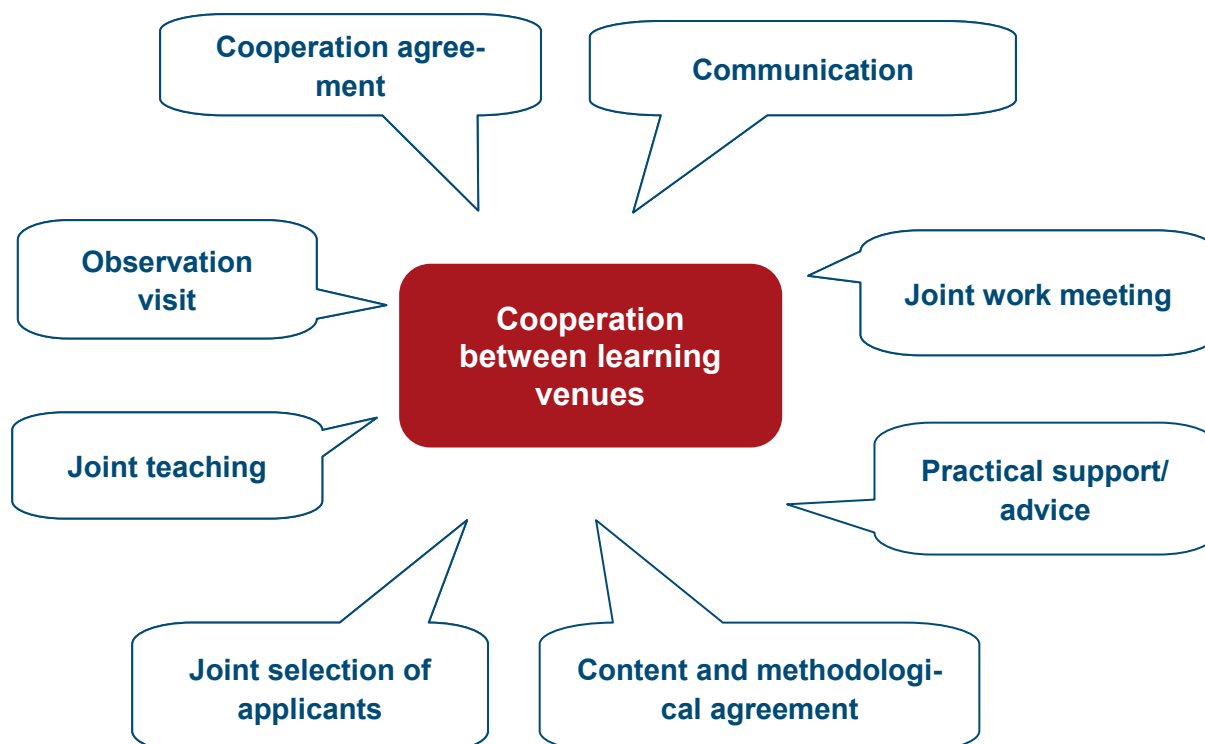
The practical guide states eight structural elements that may be of importance to the evaluation and monitoring of the status of cooperation between learning venues. Assistance is provided in the form of recommendations as to how successful cooperation between learning venues can take place.

These elements should be viewed as initial suggestions that may be selected or supplemented by the company. Many companies bring about continuous improvement in cooperation between learning venues without major commitment of resources by working their way through the elements on a step-by-step basis.

The practical guide is directed at

- ▶ company-based and school-based training personnel,
- ▶ other staff involved in training.

Figure 9: Elements of successful cooperation between learning venues



Example: Practical guide “Learning venue cooperation”**Figure 10: Learning situation**

	Status	Priority	Responsible	With whom?	Recommendations	Measures	By when?	Completed
Communication								
Contact partners are named and can be reached as agreed.					Who should be informed of what and when is stipulated.			
Information relevant to training is passed on in the manner agreed.								

Approach**When is it useful to deploy the practical guide?**

- ▶ When a company decides to offer training or practical placements,
- ▶ As the basis for drawing up a cooperation agreement,
- ▶ In the case of areas of unclarity between the company and the school,
- ▶ As a basis for work meeting,
- ▶ After/when a change in personnel takes place.

Stage 1 – Selection of elements

Each learning venue should initially reach agreement internally on the basic aspects of training, such as the understanding of training, the necessary general organisational conditions, training contents and methodological approaches, in order to develop an idea of what the nature of training in their own institution can and should be. This can provide a foundation for the targeted improvement of cooperation between learning venues.

Quality mission statements can be helpful in developing such a jointly shared understanding of quality. The practical guide *Development of a quality mission statement for training* (Field of activity 1) can be used for this purpose.

Possible contents and recommendations are offered for each of the eight elements of successful cooperation between learning venues. These may be selected and also supplemented by the respective institutions. The contents and recommendations should be viewed as proposals which have, in the course of the pilot projects, constantly shown themselves to be practical training topics requiring regulation.

Stage 2 – Documentation of cooperation between learning venues, planning of measures

In the further columns of the practical guide, status of implementation, priorities and areas of responsibility can be identified and measures and the

scheduling of measures stipulated for each structural element content. An indication can be provided in the last column as to whether measures have already been completed or are still pending.

4.6

General tips for application and further indications

The following points provide an overview of the most important requirements that characterise successful quality approaches. In the pilot projects, these requirements have emerged as central to the development of quality.

Create opportunities for communication

The pilot projects have shown that the quality of cooperation between trainers and learners exerts an influence on the quality of training and thus also on the results of training. Especially in small and medium-sized companies, this is often lost from view in daily work. The practical guides create occasions to enter into conversation on training. Using this opportunity will pay off.

Structuring the cooperation of all those involved in training

The aim of some of the practical guides is to improve cooperation between staff and/or learning venues. They foster this cooperation in a way that is easy to manage and readily combinable with the everyday work and learning routine, including within the scope of a practical placement.

Encourage participation

The practical guides encourage the participation of all staff involved in training and the improvement of training. They particularly support learners and training personnel in taking an active part in helping to shape and steer the process. Wishes, learning requirements and objectives should be a particular object of enquiry in practical placements where trainers get to know learners for the first time.

Securing continuity and sustainability in the company

Developing quality requires a rethink to take place in the company. The practical guides can provide the impetus for this. The pilot projects have shown the value of integrating the instruments, concepts and procedures into comprehensive quality approaches. This ensures that quality development is

pursued in a holistic and sustainable manner. Combinations of more than one instrument are frequently deployed.

The main focuses of the concepts vary depending on the needs of the region, branch and company. The emphasis may, for example, be on interaction between trainers and learners or on assistance for lower ability young people.

Together with the practical guides, these suggestions can assist with the introduction and support of quality approaches in the company. The procedures have proved their worth in motivating small and medium-sized companies in particular to improve their quality.

Useful Internet portals:

Information on the pilot project programme is available on the website of the Federal Institute for Vocational Education and Training at www.bibb.de/qualitaet.

Further information on the instruments, concepts and procedures described here and on other such instruments, concepts and procedures developed in the pilot programme can be obtained by visiting www.foraus.de/html.

Information and products relating to the European Quality Strategy (EQAVET) and national implementation in Germany (DEQA-VET) are available at www.deqa-vet.de or www.eqavet.eu.

More detailed information and products relating to the ENIQAB project are provided at www.deqavet.de/eniqab.

About ENIQAB

The Leonardo da Vinci project “Europeanisation of the National Pilot Initiative for Quality Development and Assurance in Company-Based Vocational Education and Training” (ENIQAB) was launched at the beginning of March 2011. In line with the Bruges-Copenhagen process ENIQAB contributes to creating a European education area and to embed a culture of European cooperation amongst educational institutions.

The project was carried out by partners from Germany, Austria, Poland and Portugal and coordinated by the Federal Institute for Vocational Education and Training (BIBB). ENIQAB links the European Quality Assurance in Vocational Education and Training (EQAVET) initiative with the National Pilot Projects focusing on quality assurance and quality development. The latter was being promoted by BIBB using funding made available by the Federal Ministry of Education and Research (BMBF).

The work which the partner countries carry out within the German pilot projects provides an opportunity for them to gain impulses for corresponding measures within their own national context and to transfer such measures to their countries. At the same time, experiences are exchanged with the pilot projects in Germany and prospects are discussed.

Table 1: European Project Partners

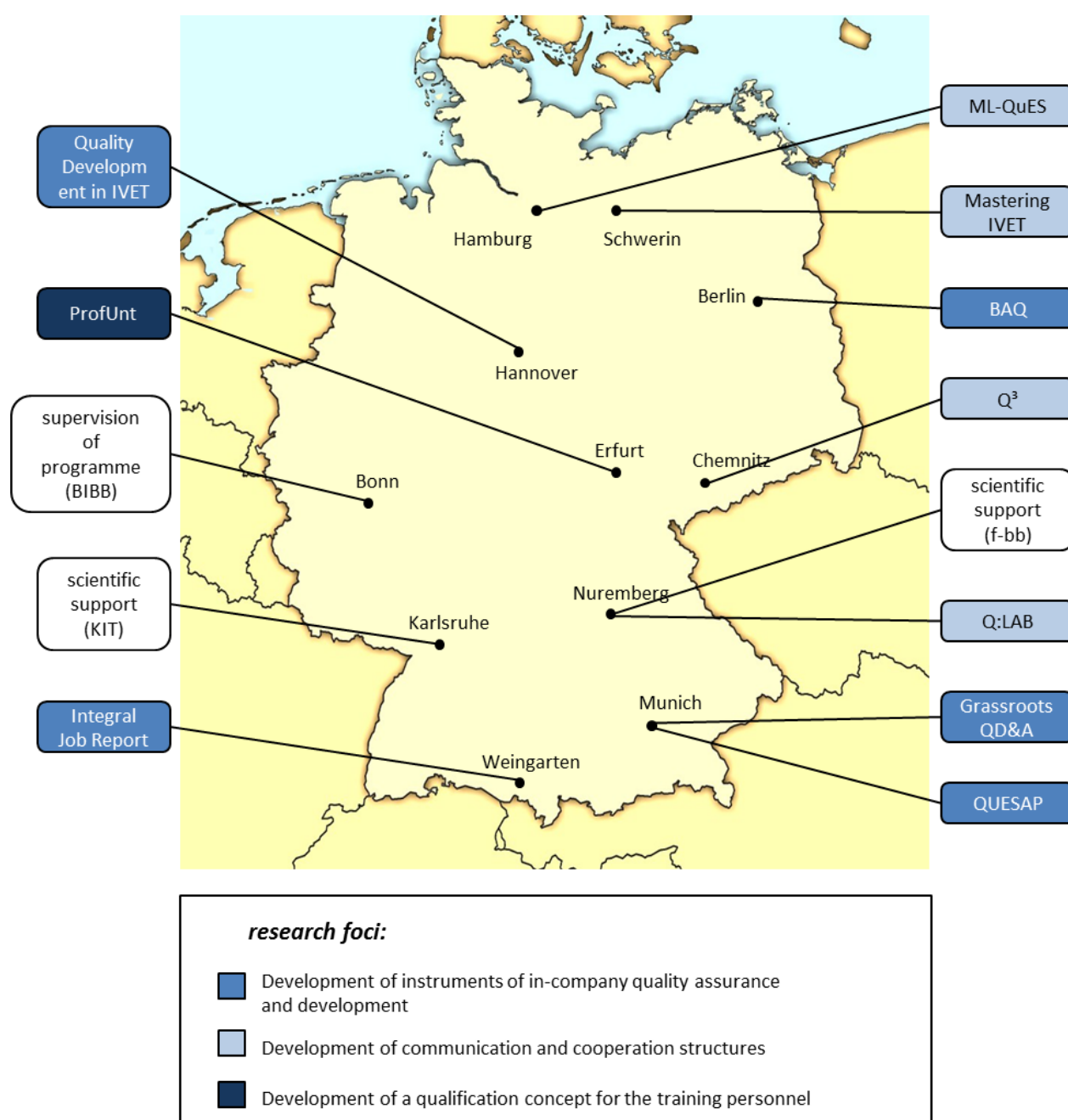
Federal Institute for Vocational Education and Training (BIBB) www.bibb.de	 <p>Federal Institute for Vocational Education and Training</p> <p>BIBB</p> <ul style="list-style-type: none"> ▶ Researching ▶ Advising ▶ Shaping the future
Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH) www.oead.de	 <p>oead</p> <p>OeAD-GmbH</p>
Foundation for the Development of the Education System (frse) www.frse.org.pl	 <p>frse</p> <p>Fundacja Rozwoju Systemu Edukacji</p>
Directorate General for Employment and Industrial Relations (DGERT) www.dgert.mtss.gov.pt	 <p>DGERT</p> <p>Direcção-Geral do Emprego e das Relações de Trabalho</p>

An Advisory Group comprising representatives from the Federal Government, the federal states and the social partners (see below) acted as a vehicle for linking the project to national developments/debates relating to the topic of quality in VET.

The project was financed by the EU via the Lifelong Learning/LEONARDO DA VINCI Programme. Alongside ENIQAB, funding was provided for four further European projects aimed at bringing about an improvement of quality assurance in initial and continuing vocational education and training within the scope of EQAVET. The project term was two years (ENIQAB 2012).

Pilot Projects at a Glance

Figure 11: The Pilot Projects at a Glance – Arranged According to Key Aspects



The projects all assign to one of the three key aspects. However, most of the actors point out the difficulties of a clear classification. To reach an overarching objective a close interlocking of the key aspects is required (ENIQAB 2012).

Table 2: Pilot Projects – funding priority: “Quality Development and Assurance in in-company VET”

Project	Project Management	Cooperation and Associated Partners*
AusbildungsMEISTER - Mastering IVET in the Skilled Crafts in Western Mecklenburg – Quality and Networks for the Future www.kreishandwerkerschaft-schwerin.de/ausbildungsmeister www.itf-schwerin.de/index.php/projekte/nationale-projekte/ausbildungsmeister	itf – Innovation Transfer and Research Institute, Schwerin	Schwerin District Association of Craftspeople
Berlin IVET Quality in Training Networks BAQ www.kos-qualitaet.de/baq.html	k.o.s GmbH, Berlin	ABB Training Center GmbH & Co. KG, Berlin
Integral Job Report www.weingarten.ihk.de	Chamber of Industries and Commerce at Lake Constance – Upper Swabia, Weingarten	50 companies from the region Lake Constance – Upper Swabia
Graswurzel QES [Grassroots Quality Development and Assurance Grassroots QD&A] www.gab-muenchen.de	GAB – Association for Research and Development in Vocational Training and Occupations, Munich	AOK Rheinland-Palatinate/ Saarland – Die Gesundheitskasse (provider of Statutory Health Insurance) CVET Centre Alanus Werkhaus gGmbH
Quality Development and Assurance in the IVET Process in Skilled-Craft Painting and Varnishing SMEs in Hamburg ML-QuES www.ml-ques.de	Helmut Schmidt University, University of the Federal Armed Forces Hamburg	Painters and Varnishers Guild Hamburg

Project	Project Management	Cooperation and Associated Partners*
ProfUnt – Professionalisation of IVET Actors in Thuringian Companies www.profunt.eu	University of Erfurt, Department of Vocational Pedagogy and Continuing Education, Erfurt	Eichenbaum GmbH, Erfurt TIBOR EDV-Consulting GmbH, Erfurt Metal and Electrical Industry Association in Thuringia e.V., Erfurt
Q³ - Quality Circles for the Development of a Common Awareness of Quality and the Origination of Quality Standards across All Actors in Vocational Education and Training www.qhoch3.net	faw – Academy of continuing Education of Economy, Chemnitz	ATB Work, Technology and Education GmbH, Chemnitz
Integrated Quality Management System in Learning-Oriented IVET Q:LAB www.berufsbildung-qualitaet.de	Grundig Academy of Economics and Technology, Nuremberg	Industrial Metal Workers' Trade Union (IG Metall), Department of Fundamental Issues and Social Policy at the Executive Committee of the IG Metall, Frankfurt Project Office for Innovative VET, Human Resources and Organizational Development, Heidenheim/Brenz
Quality Development in IVET in Skilled-Craft Enterprises: Development Instruments and Qualification Concepts www.zwh.de	ZWH – Central Agency for CVET in the Skilled Crafts, Düsseldorf (Head of the Network)	Chamber of Crafts Hannover
QUESAP - Quality Development in IVET for Geriatric Care www.quesap.net	IGF - Institute for Gerontological Research e.V., Berlin (Headquarters Munich)	24 Care Facilities and 6 Nursing Care Schools in the model regions Bavaria, Brandenburg and North Rhine-Westphalia

* Cooperation resp. network partners are institutions and organizations which have concluded a cooperation agreement in the context of the model programme.

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List of abbreviations

BIBB: Federal Institute for Vocational Education and Training

BMBF: Federal Ministry of Education and Research

DEQA-VET: German Reference Point for Quality Assurance in Vocational Education and Training

ECVET: European Credit System for Vocational Education and Training

ENIQAB: Europeanisation of the National Pilot Initiative for Quality Development and Assurance in Company-Based Vocational Education and Training

EQARF: European Quality Assurance Reference Framework for Vocational Education and Training

EQAVET: European Quality Assurance in Vocational Education and Training

EQF: European Qualifications Framework

ET 2020: Education and Training 2020

PDCA cycle: Plan-Do-Check-Act (four-phase quality cycle, developed by Edward Deming)

SMEs: Small and medium-sized enterprises

Although there is a general consensus that high-quality training is an indispensable prerequisite for successful entry into working life by young people and ensures that requirements for skilled workers in trade and industry are fulfilled, how can quality of training be secured and developed further?

In Germany, this question has been addressed by ten pilot projects within the scope of the funding priority “Quality Development and Assurance in in-company vocational education and training”. These projects developed and tested training innovations emerging from practice with the assistance of academic research support. The pilot projects offer a store of best practice examples that can also be of use for the European quality strategy EQA-VET. This publication presents the results of the pilot projects.