

# MODULE 6

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## UNDERSTANDING QUALITY ASSURANCE

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# 1. Approach

Building an integrated qualification and skill system requires clear linkages between industry needs and skills outcomes for individuals. In VET systems, the quality assurance framework is likely to have four key objectives:

- Improve employability of the workforce ( both potential and actual)
- Better matching between training supply and demand
- Better access to VET, in particular to vulnerable or disengaged groups
- Raising the status of VET ( bringing some equity with academic/general education)

Quality assurance has proved to be a decisive tool for both modernising and improving the performance and status of VET systems in Europe and elsewhere. In order to ensure VET systems are responsive to labour market skills needs, outcomes must match demand and this requires the supply side of VET systems to be closely linked to industry and to deliver what industry needs through training programmes and qualifications (see box 8: Why focus on quality?).

A common QA framework needs to:

- Cover all aspects of planning, implementing, evaluating and reviewing VET at all levels in the system
- Have an appropriate way of reviewing performance, including self-assessment; and feeding this back into the system in order to ensure continuous improvement
- Include monitoring ( external) at both national and state level

## Box 11: What is Quality

- Quality is not an easily and well defined concept:
- In general terms, a service or a product is considered of high quality, if it fulfills or even surpasses our expectations ie: is it fit for purpose?
- Different stakeholders with different interests and expectations perceive quality in different way
- In skills systems around the world quality is defined, understood and measured in different ways
- Skill systems make choices about the indicators used to measure their efforts to achieve quality and what relative priority will be placed on the different chosen indicators

- Provide the appropriate measuring tools so that states and providers can monitor and evaluate their performance

# 2. What is Quality Assurance?

Technical Vocational Education and Training (TVET) equips people with knowledge, skills and/or competences required in particular occupations or more broadly in the labour market that are recognized as indispensable for meaningful participation in work and life. **Quality assurance** is a component of quality management and is 'focused on providing confidence that quality requirements will be fulfilled' ( ISO 9000:2006 norms specifies Quality management systems fundamentals and vocabulary). **Quality control** is a component of QA defined as a set of activities or techniques to ensure that all quality requirements are being met. In order to achieve this purpose, processes are monitored and performance problems are solved. Quality improvement refers to anything that enhances an organisation's ability to meet quality requirements.

The concept of Quality is evolving from 'conforming to the standards and specifications of a product' to quality is to fulfill the requirements of customers and satisfy them'. While quality control fits assembly line control - 'product-focused' -in supply led system, quality assurance is user-oriented: quality is determined and controlled at all stages of the whole product lifetime - fitness for purpose of user as judged by the users

Quality assurance integrates the 'hard side' elements (that is, statistical methods, quality control tools, process standardisation, and improvement, etc.) with the 'soft side' aspects (that is, quality concept, employees' participation, education and training, and quality culture, etc.)

Reform of TVET towards excellence necessitates that TVET decision makers, policy developers, providers and key stakeholders consider three core QA functions:

- defining quality
- measuring quality and
- improving quality

A TVET Quality Framework describes how the system and components of the system:

- define quality - inputs (e.g. training of teachers/trainers) -processes (e.g. how access to TVET is

### Why focus on quality

- High quality programs provide strong links between institutions and the needs of the labour market ie: graduates are more likely to find suitable employment
- High quality programs make TVET more attractive and give status
- A focus on quality provides accountability measures that can be linked to funding and performance management in a skills system
- Quality systems serve as a common reference to ensure consistency amongst different actors at all levels.
- Quality systems have transparent processes and procedures to ensure mutual understanding and trust between different actors
- skill standards are developed with meaningful inputs from industry needs
- qualifications reflect labour market needs
- curricula meets the requirements of the labour market
- targets for the participation of disadvantaged groups
- training providers have strong links with employers
- teaching and training staff are well-qualified and familiar with workplace practices
- Assessors are well-qualified and familiar with workplace practices
- a high percentage of graduates obtain employment
- facilities utilise the latest requirements and technologies
- there are low rate of non completion

promoted, teaching) - outcomes (e.g. how VET responds to the changing demands of the labour market

- Measure quality– Current TVET performance against expected standards
- Continually improve quality – closing the gap between current and expected levels of quality - continuous learning
- keep the methodology as simple as possible
- Is sustainable economically, ecologically, socially

TVET QA framework strengthens relevance of TVET outcomes to meet industry and employment requirements and improves the overall system, eventually an improvement in the status of TVET overall as consistency in TVET graduate outcomes - important factor in improving perceptions of TVET by assuring consistency of outcomes. A TVET Quality Assurance Framework places emphasis on the improvement and evaluation of the outputs and outcomes of TVET in terms of increasing employability, improving the match between demand and supply, and promoting better access to lifelong learning, in particu-

lar, for disadvantaged people. It states clear objectives for further development, which need to be continuously reviewed and adapted, according to experiences gained in technological and pedagogical innovations and ongoing evolution of work. A quality framework (Figure 19) presupposes agreement on several methodological and procedural principles, which will guide its implementation.

**Figure 19: Features of a Quality Framework**



A unified QA framework that can be used as a common reference across states, sectors and ministries and provides the structure within which all bodies operating across the VET system in India operate is a fundamental requirement. Examples of such frameworks can be found in VET systems across the world and each has a set of common components.

The first and most important component is a set of **objectives** to which all those with responsibility at any level in the system sign up to and which are strategic enough to reflect the policy objectives for the skills system in India. These objectives must be supported by and closely linked to a set of quality **principles**. Without a clear set of objectives it is not possible to build a unified approach to quality and quality assurance. The objectives provide the basis for all other components within the system and importantly can be referenced to ensure that the QA framework and operational systems that support it are meeting national objectives.

**Quality Objectives:** The purpose of the quality objectives is to specify what the quality assurance system aims to achieve. The objectives are more specific than goals and should serve as the basis for creating policy and evaluating performance at a national, state or organ-

isational level. The quality objectives should act as basic tools that underlie all planning and strategic activities.

**Quality Principles:** Quality Principles form the framework underpinning the quality assurance system. They are statements, based on the objectives, that should be applied to all schemes and strategies that support quality and quality improvement including quality standards and operating processes.

## National Standards

Quality Standards operating nationally act as the benchmark for all activity in vocational education and training systems and form basis of quality assuring qualification frameworks. These provide national reference points for all those bodies operating within the system and against which performance is set. Most systems are based on a detailed set of standards against which activity is measured and in some cases these form the framework for regulation and inspection. The issue of regulation is dealt with later in the paper.

The standards can cover the following:

- Assessment and Certification (Module 7)
- NQF Qualifications (Module 8)
- Teachers and Trainers (Module 9).
- Training Providers (Module 10)

## National Indicators

National Indicators provide a tool to measure performance at a national, state or local level. The indicators can be used to assess the quality of provision and the extent to which it is meeting the quality objectives. Year on year they can provide a useful measure in order to monitor improvement.

The indicators give one measure, they are not sufficient on their own to describe what might be happening across the whole VET system, They can form the basis for developing more detailed performance measures and reporting systems that relate to the over-arching objectives for the NSQF and VET. They can provide the basis for describing organisational performance at provider level, the direction and achievements of the system at state and national level and help in the further development of skills policy in order to improve outcomes for the VET system.

Implementing the indicators at system and provider level will need to be introduced in stages as the NSQF

and associated quality assurance mechanisms are introduced. Data collection and reporting systems based on outcomes and outputs rather than input measures will be required in order to make full use of the indicators and these will need to be integrated into operational processes required at both provider and systems level over time so that improvements can be measured and evidence based.

**Quality indicators** are statistical measures that give an indication of output quality. However, some quality indicators can also give an indication of process quality' (EUROSTAT 2010). The Cedefop (1996) defines them as 'formally recognized figures or ratios used as yardsticks to judge and assess quality performance'. Just as quality assurance mechanisms can be categorised into front-end (input) and back-end (output) mechanisms so can quality indicators:

- those that focus on the inputs to and process of training (front-end)
- those that focus on outcomes or outputs of training (back-end).
- Different quality indicators provide different information so the choice of what indicators to use will depend on the priorities of the QA system

**Outcome indicators** are a wide range of indicators used to measure quality in skills systems at both the level of training providers and the system as a whole. They are the "harder side" of quality assurance as they are mainly measured quantitatively. Most common indicators include:

- Participation - how many from certain target groups
- Completion - how many finish a program
- Attainment - how many receive a qualification
- Progression - how many move from one program or level to another
- Employment - how many are employed
- Satisfaction - how satisfied are students and employers

**Process indicators** are the "softer side" as they are assessed qualitatively. They apply to all aspects of the skills system:

- Qualifications / Certification – trust in consistency, robust processes
- Competency Standards – wide consultation, measurable outcomes

- Curriculum and Courses – learning strategies, industry linkages
- Delivery & Assessment – relevance and flexibility, pre-assessment moderation activities, consistency in assessment decisions
- Training Providers - ongoing professional development of staff, able to respond quickly and flexibility to industry

### 3. The Quality Cycle and the Components of the Quality Assurance Framework

Quality systems are primarily shaped by national characteristics and context. This includes (i) the governance structures, (ii) mechanisms and cultures of the nation state including the institutional capacity and the priority given to reforms, (iii) the structure, processes and cultures of education and training systems, (iii) the location of the ‘ownership’ of TVET and industry and occupational standards between occupational communities, government and other agencies, (iv) the perceptions of crises (or lack of) in education and training system, (v) the relevance of trans-national and/or regional TVET systems and (vi) available resources.

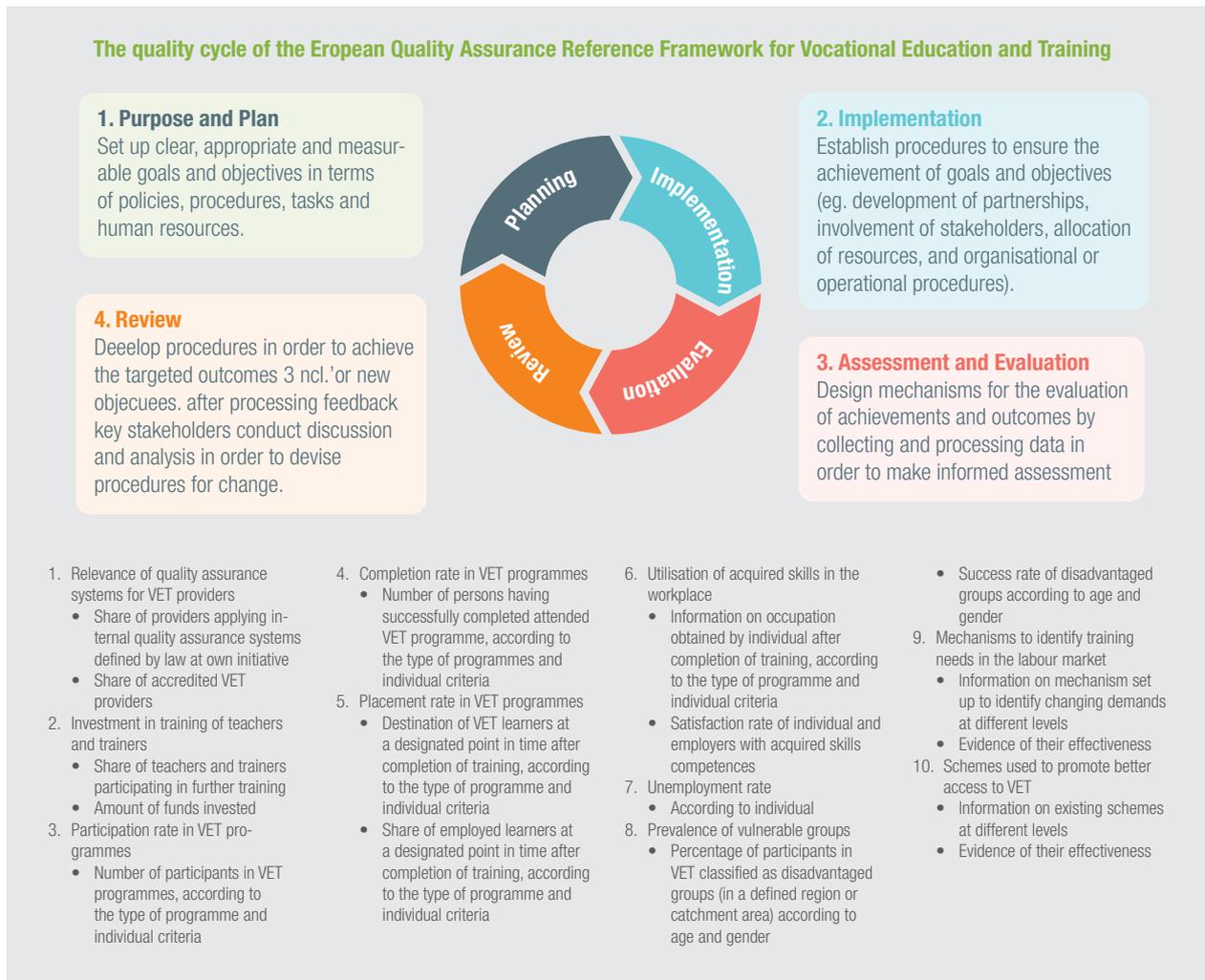
In order for the QA framework to have an impact the components must be operationalized across the system and there must be clear linkages and **lines of accountability**. The need to ensure that quality and quality assurance is embedded across the whole system, whether re-engineered with new bodies or using the existing structures, is critical. Accountability may be enforced through legislation and/or regulation – either backed by legislation or through a process of self-regulation by participants in the system. The benefits of **regulation**, particularly if changes are made systematically to the existing system, are that a regulatory framework can guide

and shape the outcomes. Discussion at the working group meetings indicated a range of views. International experience indicates that in complex systems some form of regulation may be the best tool for providing assurances that the system is operating to a minimum national standard that works towards achieving the objectives set. A set of regulatory requirements or criteria, particularly with regard to qualifications is a common feature where qualification frameworks exist. The nature of regulation, whether statutory or through a self-regulatory mechanism varies.

Other implementation tools commonly include approval/licencing of bodies operating within the system, monitoring or inspection of providers and accreditation of courses and qualifications. All of these are operating to some extent already within the Indian system but currently are not uniform or co-ordinated so that a number of agencies may be operating these processes against different requirements and in different ways. Bringing some degree of commonality to these processes through a clear set of functions that are required and identifying more clearly the roles and responsibilities of each organisation needs to be undertaken if a QA framework is to have an impact on skills outcomes. A trend across VET systems internationally is for the establishment of **a single national body** which sets the national standards and requirements and oversees the system, sometimes using regulatory instruments and the proposal for the NSDA would effectively fulfil this role.

Both the functions required for a robust approach to QA and the nature of the organisations that would be required. There was considerable debate around responsibilities for the various functions identified but all groups agreed that a national qualification body with a regulatory function across the qualification system was required. In working through the outcomes of the group’s activities and deliberations the following sections summarise key aspects that have broad agreement.

**Figure 20: The quality cycle**



## 4. Key Requirements of TVET QA Systems

The table below identifies the key requirements for a functioning QA system:

**Table 9: Key requirements for a functioning QA system**

Key component	QA Functional Requirement	QA Body Role and Responsibilities	Key Processes
NOS/job description	Provide up to date relevant skills standards that meet employer needs in a particular sector  Produce standards that can translate into relevant learning outcomes and competence requirements for courses and qualifications	Ensure standards reflect the needs of employers and are useable and used to underpin skills provision in VET	Collaboration with employers Use of up to date LMI Regular monitoring and review of outcomes and sector needs analysis Updating of standards
Accredited Learning Outcomes and Qualifications	Provide up to date relevant qualifications and accredited learning outcomes that meet employer needs (as reflected in NOS and LMI)	Ensure accredited outcomes and qualifications meet required standards and policy objectives for VET including NSQF requirements and specifications  Ensure accredited outcomes and qualifications meet the needs of employers and provide opportunities for students to acquire knowledge and skills needed to succeed  Ensure accredited outcomes and qualifications are robust and maintain public and employer confidence in outcomes for students	Standard setting Regulation and/or accreditation of course and qualification developers National Qualification register/database Collaboration/engagement with NOS developers and employers Monitoring/inspection and review (data, reporting)

Key component	QA Functional Requirement	QA Body Role and Responsibilities	Key Processes
Education and training Providers and course delivery	<p>Provide relevant, up to date and high quality teaching and learning opportunities for students</p> <p>Provide processes for continuous improvement of training and assessment based on outcomes and equity for students</p>	<p>Ensure all accredited VET providers are securing the best outcomes for students through high quality and relevant teaching and learning</p> <p>Ensure the quality of both inputs and outcomes in all areas of teaching and learning through processes of accreditation, assessment, monitoring and reporting</p>	<p>Standard setting</p> <p>Regulation and / or accreditation of providers</p> <p>Register accredited providers</p> <p>Monitoring/Inspection</p> <p>Self- assessment</p> <p>Review and reporting (data and reports)</p>
Assessment and Certification	<p>Provide accessible assessment opportunities that are focussed on skills and competence as well as underpinning knowledge</p> <p>Provide accessible assessment opportunities for students that meet their circumstances and requirements including for RPL</p> <p>Provide assessment opportunities that are relevant to NOS and NSQF requirements</p> <p>Provide a robust certification scheme that incorporates outcomes from a range of assessment opportunities including RPL</p>	<p>Ensure assessment is appropriate, robust and accessible to all learners</p> <p>Ensure quality processes are in place to ensure validity of outcomes across VET</p> <p>Ensure the security of the validation and certification scheme/s for VET</p> <p>Ensure the status of certification and public confidence in this</p>	<p>Standard setting</p> <p>Accreditation of certifying bodies</p> <p>Monitoring/ inspection</p> <p>Review and reporting</p>
Student Outcomes	Student outcomes are relevant and of high quality	Ensure all student outcomes from both accredited provision and qualifications is relevant to employers and provides a platform for progression either to further education, training or employment.	<p>Data collection on outcomes</p> <p>Continuous review against skills requirements ( LMI and NOS)</p>

**In summary the key functional requirements to secure a robust QA framework are:**

**For NOS and competency standards the establishment of a QA process of planning, implementation and review that ensures only approved bodies which meet national standards are responsible for:**

- Development of quality assured, up to date, relevant skills standards that meet employer needs in a particular sector
- Development of standards that can translate into relevant learning outcomes and competence requirements for courses and qualifications
- Maintenance and regular review and updating of NOS

**For accredited courses the establishment of a QA process of planning, implementation and review that ensures only approved bodies which meet national standards are responsible for:**

- Development of accredited courses based on NOS or units of competency as defined by industry and with clearly specified learning outcomes
- Ensuring courses are designed to lead to a recognised NSQF qualification or certificated outcome

- Ensuring courses are competency based, providing opportunities for students to develop workplace skills, competencies and attributes
- Monitoring and regular review and updating of courses

**For NSQF Qualifications and accredited outcomes the establishment of a QA process of planning, implementation and review that ensures that only approved bodies which meet national standards and regulatory requirements are responsible for:**

- Development of quality assured, up to date, relevant qualifications and accredited learning outcomes that meet employer needs ( as reflected in NOS and LMI)
- Development of qualifications that meet the requirements for the NSQF including assigning a level within the NSQF, assigning credit ( where relevant to qualifications and units/modules) and titling and other technical requirements specified by the NSQF
- Development of accredited outcomes and qualifications and associated assessment requirements that meet NSQF standards and policy objectives for VET
- Maintenance and review of qualifications and qualification outcomes to ensure accredited outcomes

and qualifications are robust and maintain public and employer confidence in outcomes for students

- Provision of accurate and timely data on qualifications and student achievement

**For training providers the establishment of a QA process of planning, implementation and review that ensures that only approved providers which meet national standards for delivery, including teaching and learning are responsible for:**

- Providing relevant, up to date and high quality teaching and learning opportunities for students
- Establishing processes for continuous improvement of training and assessment based on outcomes and equity for students
- Ensuring the quality of both inputs and outcomes in all areas of teaching and learning through processes of teaching and assessment
- Monitoring and regular review of teaching, learning, assessment and student outcomes
- Provision of accurate and timely data on student outcomes and satisfaction ratings

**For assessment and certification the establishment of a QA process of planning, implementation and review that ensures that only approved bodies which meet national standards are responsible for:**

- Development of assessment opportunities that are focussed on skills and competence as well as underpinning knowledge
- Provide accessible assessment opportunities for students that meet their circumstances and requirements including for RPL
- Provide assessment opportunities that are relevant to NOS and NSQF requirements
- Ensure quality processes are in place to ensure validity of outcomes
- Provide a robust certification scheme that incorporates outcomes from a range of assessment opportunities including RPL
- Ensure the status of certification and public confidence in this
- Monitoring and regular review of assessment requirements and certification processes

Quality improvement-focused organisations

- Provide staff the training and tools they need to measure and improve services, consultations, training and assessment provision

- Use a team-based approach to prioritize improvements and implement them
- Develop and agree on a plan on how the improvement activities will be implemented
- Involve stakeholders/ clients since they bring valuable ideas based on their experiences in receiving and delivering services
- Build motivation for quality improvement - a vision for quality
- Establish quality improvement teams
- Dedicate time to measure performance
- Provide time to openly discuss successes and failures

## 5. Quality Assurance in the Indian Context

There are many arrangements currently existing in India, which can be used as a basis for a national QA system. A national policy and guidelines are being proposed by the India-EU project and are currently under consideration. Interim arrangements can be based on improvement of current approaches, whilst not slowing down training and assessment provision. There are 'low hanging fruit' that can assist in getting started. Some indicators are already used. The main issue is coordination: working together.

The current arrangements for QA across all aspects of vocational education and training in India are complex. There are 3 key structural elements that make this the case:

- The current separation of vocational education (largely undertaken through the MHRD) and vocational training (now under the Ministry of skills)
- State autonomy versus national requirements
- Differences in practice between the public and private provision of VET and the formal and informal skills and employment sectors

The policy requirements now in place to meet challenging skills targets for all sectors puts an additional pressure on ensuring that not only are targets met in relation to volume but that the reforms and changes improve the quality and relevance of skills training in India. This is not a unique set of circumstances. The reform of VET across Europe and elsewhere has required consideration of autonomous systems already in place across nations and states.

There are currently a number of validating and accrediting bodies, at both national and state level across the sector. Many are well established and have a system for quality control that is understood by those that use it. Others are newly established, for example, the SSCs and are building their approach to qualifications and skills under NSDC guidance. There is therefore a need to take an approach to a unified system that takes account of the context and environment that currently exists, that recognises the work already in train and that brings together organisations in a logical manner and that can evolve in a way that ensures those that use it and are affected by it understand and can apply the measures it requires. Any new approach must be one that improves the quality of outcomes in relation to VET across the system. The work to introduce a unified NSQF is a significant one and its success will be dependent on bringing together, through a unified quality assurance framework, all aspects of its implementation, delivery and outcomes. The existing QA infrastructure focusses largely on quality control of the inputs to VET with an emphasis on validation and accreditation of providers and provision that seeks to ensure products (courses and qualifications) can be delivered. The system is developing in some areas but there is evidence already of overlapping functions across organisations and lack of clarity in relation to national standards and accountabilities. A real and pressing challenge is how to incorporate practice across both the public and private sector and across the rural and urban areas for the benefit of all. At the moment, 10% of workforce receives skill training, of which 2% is formal training and 8% is informal training. there is a huge need for multi-skilled workers.

Although outputs in terms of examination successes and student numbers are measured and accounted within the current systems, measurement of outcomes (that is the quality and relevance of delivery and student outcomes) is less visible. It is this aspect of quality that is increasingly important so that, combined with a unified qualification system that has direct relevance to the skills employers need, both the quantity and quality of skills outcomes is raised across all areas of VET.

However there is a strong emphasis on reforms with the PM calling for greater cross Ministry /agency coordination and 30 crore people to be trained for India and overseas work. International comparability is a key objective throughout the system. Reforms include removing some regulatory burden, meeting the motto One Nation, One standard.

## 6. Skype Session: The Success Story of the Dual System (Helena Sebag)

- DEQA-VET is a point of contact and service office for questions relating to all aspects of quality assurance and quality development in vocational education and training (VET), DEQA-VET. It pulls together information and expertise, instigates projects and initiatives, and organises events relevant to quality. As the node of the European EQAVET network, it
- Ensures a flow information between national stakeholders and the EQAVET network on each other's QA activities and development.
- Supporting the implementation of the EQAVET work programme.
- Develop concrete measures to support QA and quality development in the German VET sector.
- Raise awareness among national stakeholders of the benefits of applying the principles, methods and tools of quality assurance in VET.

**DEQA-VET purpose is the promotion of a “culture of quality ”** through the application of quality assurance in VET and networking of VET stakeholders and institutions at the German and European level. In DEQA-VET, there are on ne hand 4 staff member at the BIBB (Federal Institute for Vocational Education and Training) in Bonn/1 person at the DIPF (German Institute for International Educational Research) in Frankfurt, and on the other hand a national advisory group with representatives of the social partners: employer and employee associations, chambers, Federal and state governments (consultative). The target beneficiaries are social partners, companies, vocational schools, full-time vocational schools, providers of VET, education policy and administration bodies of the Federal and state governments, certification bodies for initial and continuing vocational education and training, VET research institutions.

**DEQA-VET is committed to promote the EQAVET indicators which are as follows:**

1. Relevance of quality assurance systems for VET providers
2. Investment in training of teachers and trainers
3. Participation rate in VET programmes
4. Completion rate in VET programmes

5. Placement rate in VET programmes
6. Utilisation of acquired skills in the workplace
7. Unemployment rate
8. Prevalence of vulnerable groups
9. Mechanisms to identify training needs in the labour market
10. Schemes used to promote better access to VET

### The Success-Story of the Dual System ...

The success of the Dual system is expressed by EQA-VET indicators

- Participation Rate in VET 54,9% (EQAVET Indicator 3)
- Completion Rate in VET 90% (EQAVET Indicator 4)
- Youth-Unemployment Rate 7,7% (EQAVET Indicator 7)

### The legal requirements made to Providers are stated in the Vocational Training Act (BBiG). They include for each training course

- The occupational proficiency
- Development of training regulations and their continuous modernisation, containing
  - Title of the training occupation
  - Period of apprenticeship
  - Training profile
  - Framework training plan
  - Examination standards
- Counselling, monitoring and supervision by the competent bodies:
  - Training aptitude of the company
  - Training aptitude of its training staff (AEVO)

- Documentation of the training
- Training contact and training programmes
- Formulation of basic standards

### But there are challenges ahead, such as:

#### Demand for Skilled Labour

*Do we qualify for the right jobs?*

*How to increase permeability?*

#### Demographic Trends

*How to increase the attractiveness of VET?*

#### Social Integration

*How to decrease the Transition System and integrate disadvantaged youth?*

*How to decrease the drop out rate?*

#### European Educational Area

*How to increase transparency and mobility?*

The Minimum content of a training regulation is as follow:

- Title of the training occupation
- Duration of the traineeship
- Training profile
- Framework training plan
- Examination standards

There is a quality assurance system within the Dual system

## FURTHER READINGS

- CEDEFOP, 2009. The relationship between quality assurance and VET certification in the EU Member States. Luxembourg, EU Publication Office
- CEDEFOP, forthcoming. Quality assurance of certification in vocational education and training
- UNESCO, 2005. Guidelines in quality provision in Cross-border Higher Education
- W. Van den Berghe, 1996, Quality Issues and Trends in Vocational Education and Training in Europe. Publication of the CEDEFOP.