



# *Concept Paper*

## *EAST ASIA SUMMIT Vocational Education and Training Quality Assurance Framework*

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## BACKGROUND

In 2010 Australia and the ASEAN Secretariat cooperated to convene two workshops of an East Asia Summit (EAS) Senior Education Officials Taskforce. A key outcome of these workshops was 13 EAS education cooperation project proposals, which were noted at the inaugural EAS Education Ministers meeting in Bali in July 2011. At this meeting, Senator Chris Evans, Australian Minister for Education, Employment and Workplace Relations announced that Australia would undertake three projects including the development of the regional TVET quality assurance framework. Australia's commitment to implement this project was noted in the statements by the Chairs of the EAS informal Education Ministers Meeting in July and the EAS Leaders Summit in November 2011.

This project aimed to produce an East Asia Summit Technical and Vocational Education and Training Quality Assurance Framework (EAS TVET QAF). The framework was to consist of a set of principles, guidelines and tools to assist EAS countries develop, improve and assess the quality of their TVET systems. It is anticipated that the EAS TVET QAF will form a coherent package capable of guiding the design and implementation of measures to strengthen quality assurance at the country level as well as providing a basis for alignment between national TVET systems.

The 18 member countries of the East Asia Summit (EAS) include the ten Association of Southeast Asian Nations (ASEAN) countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam), as well as Australia, China, India, Japan, Korea, New Zealand, Russia and the United States.

## CONTEXT AND PURPOSE

The purpose of this paper is to:

- outline the role of quality assurance processes at both the national and regional level; and to
- outline the conceptual design for an East Asia Summit Technical and Vocational Education and Training Quality Assurance Framework (EAS TVET QAF).

The EAS TVET QAF provides a set of principles, standards and quality indicators to assist EAS countries to assess the quality of their TVET systems and develop it accordingly, as well as provide a basis for greater alignment between national TVET systems.

The EAS TVET QAF aims to address the needs of developing and developed economies in the region through an appropriate balance of compliance and evaluative approaches to quality assurance. It is flexible to respond to the varying needs and circumstances of countries. The EAS TVET QAF is capable of application at TVET accrediting and registering agency level and TVET training provider level, and it aims to bring benefits such as improved effectiveness, transparency and confidence in TVET provision within and across countries.

## Structure of the paper

The paper is divided into two parts:

- Part A explores the purposes, principles and mechanisms that can be used for quality assuring TVET. It shows that there is a range of approaches that are used by countries across the globe, and that these approaches have been conditioned by the particular histories, structures and contexts of TVET systems. It also notes that there are widespread processes for the internal documentation and integration of quality assurance systems and in some cases there are measures in place to improve the alignment between international TVET quality assurance systems. Finally, reference is made to a range of existing regional initiatives (including frameworks) that have informed the development of the EAS TVET QAF.
- Part B provides an agreed regional EAS TVET QAF for application by East Asia Summit countries. It outlines a core framework that consists of a set of principles, agency standards and quality indicators to underpin quality assurance of TVET within countries and across the region. Also included is a suggested set of standards for providers as well as measures and data sources for each quality indicator.

## PART A: QUALITY ASSURANCE IN TECHNICAL AND VOCATIONAL EDUCATION

### TVET environment

TVET has played a traditional role in:

- providing the skill sets that are needed by enterprises and across national economies;
- supporting pathways into employment for young people; and
- strengthening mobility between occupations for experienced workers.

The demands upon TVET have increased in recent decades with rapid changes in technology, industry, occupations and skill sets. Apart from these traditional roles TVET systems are required to support the development of new skills and assist workers to more readily change or progress occupations/careers. Moreover they are required to achieve these outcomes and to adjust their own capacity more quickly as the pace of change of industry product and processes increases.

Industries and enterprises within more competitive environments require workers who can readily acquire the skills needed for new technologies, processes, products and quality standards. Workers need to have both general and more defined skill sets and the capacity to adapt these skill sets in the face of new industrial demands.

The globalisation of industries and economies has placed a further set of demands upon TVET systems. Enterprises must now compete more openly in an international market, and the capacity of a national economy to supply skills of sufficient quality and relevance greatly influences its competitiveness. Furthermore the international flow of enterprises and workers creates increased demands upon the skills supply of countries and regions and the skill levels of workers. The quality and relevance of the supply of skills contributes to national and regional capacities to attract investment. The quality and relevance of workers' skills influences their capacity for mobility across national and international employment markets.

Under these circumstances the demands on TVET programs has increased. Across developed and developing countries in the East Asia area there are numerous examples of industries and enterprises that complain of skill shortages while graduates of TVET programs cannot find employment.

While TVET has a direct role in supporting the skill needs of industry and the employment and career needs and opportunities of workers it is also located within wider national education and training systems that have social and civic as well as economic purposes. TVET, by contributing to the general knowledge and skills of individuals, makes an important contribution to these needs.

Within the context of the changes and diversification of industry skill needs, growing mobility of workers and the expansion of TVET markets, countries have been investing in bilateral mechanisms to improve the connectivity of their TVET provision in order to support regional economic integration through cross-border investment and the mobility of skilled labour. The processes of developing the links and ensuring transparency have mostly concentrated upon national systems. These processes have intensified and are now reaching towards multilateral mechanisms for

improving international connectivity, especially in the area of occupational standards and qualifications. Until recently, the setting of achievement standards, the development of qualifications frameworks, and the formalisation of quality assurance systems have mostly been at the national level. This is especially the case with TVET systems, with their links to national economies and labour markets, national professional bodies, and regulations related to immigration and emigration. The globalisation of economies and the international flow of students and workers now put increased priority on the effectiveness of qualifications and skills recognition across economic regions.

## Quality assurance

An essential element of a quality assured TVET system is ensuring that the provision meets the skill and education needs of industry and individuals in changing national and globalised economies. To achieve quality of TVET outcomes there should be:

- a means by which the quality of providers of TVET and of the qualifications issued are assured. The ways in which this will be done may vary with the ways in which TVET is organised and financed;
- the provision of sufficient public and private funds,
- an organising structure which may include the use of market competition and/or centralised decision making to promote the efficient use of the funds and to see that they are directed at skill needs and the career needs of individuals;
- a good public information system on skill needs, on career paths and on courses and providers so that decisions by authorities or choices by individuals and employers are able to be made effectively;
- a national qualifications framework (NQF), though there are examples of highly productive economies that do not have them; and
- alignment with current and predicted employment and labour market needs.

It is this last issue of the assurance of quality of providers and of qualifications awarded that is the focus of this paper. However in reviewing quality assurance other aspects of a quality TVET provision need to be considered, including the setting of standards for qualifications that may be covered by the NQF and the public provision of information on performance.

Quality assurance is a component of quality management and is ‘focused on providing confidence that quality requirements will be fulfilled’<sup>1</sup>. In relation to training and educational services, ‘quality assurance refers to planned and systematic processes that provide confidence in educational services provided by training providers under the remit of relevant authorities or bodies. It is a set of activities established by these relevant authorities or bodies to ensure that educational services satisfy customer requirements in a systematic, reliable fashion. However, quality assurance does not guarantee the quality of educational services it can only make them more likely’<sup>2</sup>.

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<sup>1</sup> AS/NZS ISO 9000:2006: Quality management systems—Fundamentals and vocabulary, June 2006, p. 9.

<sup>2</sup> Bateman, Keating and Vickers 2009, p. 8.

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## Quality assurance mechanisms

There are a large number of mechanisms available for quality assurance in TVET. Countries typically utilise different combinations of these mechanisms depending on the characteristics of each country's TVET system, the infrastructure that is available and other contextual factors.

Broadly, quality assurance systems can vary around some continua, which include:

- compliance or evaluative based; and
- context, input, process and/or output based.

Ideally quality assurance systems should have a balance within these sets of characteristics so that they ensure:

- probity and accountability for investments in TVET, and minimum standards for the delivery and outcomes; but at the same time encouraging quality improvement and innovation;
- quality and relevance of the TVET product in the form of educational and/or competency standards and provider capacity; as well as
- quality of the TVET product in the form of the relevance and level of the knowledge and skill outcomes of the graduates.

Quality systems also vary in terms of the location of the authority for quality assurance. This can vary between:

- government agencies, accountable to government and/or a range of stakeholders;
- industry groups or wider groups of stakeholders through separate agencies;
- providers that are allowed to manage the quality of their provision; or
- market forces where employer and individual choice puts pressure on underperforming providers.

Quality assurance of difference elements of TVET include:

- the TVET product through the accreditation of achievement standards (such as educational and/or competency standards as well as certification of a qualification);
- the training providers through registration<sup>3</sup> processes based upon their infrastructure, financial probity and health, staff qualifications and experience, management systems, delivery systems, and student support systems;
- the TVET processes through the auditing of provider processes and outcomes, including student learning and employment outcomes and student and user satisfaction levels;
- the TVET outcomes through control, supervision or monitoring of assessment and graduation procedures and outcomes;

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<sup>3</sup> Across some regions the processes of endorsement of the probity, capacities and processes of training providers is referred to as 'accreditation'. It is proposed that these processes be termed 'registration' in order to differentiate registration of providers against quality standards from the processes of accreditation of achievement standards (i.e. educational or competency standards and/or certification standards). Refer to Glossary.



- provider or system wide evaluations of TVET quality, including evaluations by external agencies; and
- the provision of public information on the performance of providers such as program and component completions, student and employer satisfaction.

Countries typically divide these functions across different types of agencies. The types of agencies include:

- *Accreditation agencies.* These can be single or multiple agencies, such as industry standard setting bodies, as well as a national or system wide agency. They typically include industry or employer representation and other stakeholders.
- *Provider registration and monitoring agencies.* These tend to be single agencies and have the responsibility for the registration and audit or evaluation<sup>4</sup> of providers. In some cases the audit or evaluation responsibility is delegated to other agencies.
- *Qualifications agencies and awarding bodies.* These bodies include national qualifications authorities with the authority to accredit and award and/or quality assure qualifications.
- *Licensing agencies and professional bodies.* Licensing agencies can be government agencies, industry bodies or professional bodies. The licensing systems can be supported through legislation or regulation or can be based upon the wide recognition of industry and professional bodies across industries and occupations.
- *Self accrediting and/or awarding providers.* Providers can have self accrediting and/or awarding status through legislation or through delegation from another agency.
- *External quality agencies such as those responsible for the ISO standards.*

The various functions that are embodied in national quality assurance systems of TVET will typically be located in a limited number of these types of agencies. Some agencies have single functions while others will have responsibility for multiple functions. Some countries have multiple agencies and some have only one, apart from the providers. The number and type of agencies and the balance of responsibilities that are located in these agencies, as well as the mechanisms that are used by these agencies to undertake these functions are conditioned by the particular characteristics and contexts of national TVET systems.

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### Design options for assuring quality

The nature of a quality assurance framework will be conditioned by the characteristics of the TVET market. A national TVET system that mostly consists of government TVET training providers is different to one that has a large percentage of industry and privately owned TVET providers. In the former, quality assurance is likely to be more input based and managed through providers' internal mechanisms that concentrate upon the quality and standard of the training and assessment, the building infrastructure and equipment and the training and experience of the teachers and

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<sup>4</sup> Quality audit refers to a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled (AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing, p. 1). Some countries may refer to audit activity as an external independent review or evaluation or assessment. For other countries the term 'evaluation' reflects a focus on the value of specified outcomes. Refer to Glossary – Audit, Evaluation.

instructors. In the latter, quality assurance is more likely to be a mix of input mechanisms that relate to the capacities of the providers and output mechanisms related to the standards of the knowledge and skills that are acquired by the participants.

The form in which a country develops its quality assurance processes is dependent on a range of factors, essentially based on the national or regional context. Factors can include: the extent to which initial VET is located in the schools sector, the existence and strength of apprenticeship systems, and the relationship between VET and tertiary education (Bateman, Keating and Vickers 2009). Bateman, Keating and Vickers also note that:

Nations also have different governance cultures that are the product of their different histories and their geo economic contexts. These cultures are also influenced by traditions of state—civil society relationships—which in VET include the role of the industry partners. In all nations, industry bodies have some role in quality assurance, mostly in standard setting (2009, p.5).

There is no one formula for the development of a quality assurance system, nor one model design. However key components include:

- processes for the construction of TVET qualifications and standards, including completion rules for the qualification;
- clear processes for registration and monitoring of providers, as well as a system for moderating and/or validating assessment, and for the awarding of qualifications; and
- establishment and governance of agency/ies for maintaining the quality assurance of qualifications, developing standards and accrediting providers.

## 1. Establishing achievement standards

There are multiple options for the construction of TVET achievement standards. The options relate to both the form of the achievement standards and the processes through which they are generated.

**Table 1: Options for establishing achievement standards**

	Forms	Examples of Processes
<b>Competency, Occupational and Assessment standards</b>	<p>Common sets of agreed achievement statements such as:</p> <ul style="list-style-type: none"> <li>• Competency standards which refer to the knowledge, skills and competence required by a person to do a job</li> <li>• Occupational standards, which refer to the tasks involved in occupations and its sub structures;</li> <li>• Assessment standards, which refer to statements of learning outcomes to be assessed and methodology used.</li> </ul>	<p>Public providers take the lead in establishing standards.</p> <p>Single agency responsible for the development and endorsement of standards.</p> <p>Multiple industry agencies responsible for developing and endorsing these standards.</p>

	Forms	Examples of Processes
<b>Qualifications or Certification standards</b>	<p>Qualifications that are linked to achievement standards.</p> <p>Sets of national qualifications within a national skills or qualifications framework.</p> <p>Certification standards that define the rules applicable to obtaining a qualification (e.g. certificate or diploma) as well as the rights conferred.</p>	<p>Providers establish own qualifications that are accredited by a single or multiple agencies.</p> <p>Central and/or multiple agency develops qualifications and self accredits or has the qualifications accredited by another agency.</p> <p>Single qualifications agency develops or delegates the development of qualifications and accredits qualifications.</p>
<b>Educational standards</b>	<p>Educational standards can encompass a number of different elements such as statements of learning objectives, content of curricula, entry requirements and resources required to meet learning objectives and relevant assessment methods.</p> <p>The level of specificity can vary from:</p> <ul style="list-style-type: none"> <li>• Broadly written and flexible curriculum</li> <li>• More detailed curriculum that is broken into discrete components with assessments linked to the components.</li> </ul>	<p>Providers are responsible for the development of their educational standards, which is not externally accredited or endorsed.</p> <p>Central agencies develop educational standards which are accredited and used by providers.</p> <p>Some providers may be responsible for the development of their own educational standards.</p>

The trends in TVET are relatively clear. In the context of more open markets:

- there is a movement towards national qualifications frameworks (NQFs) as a means of systematising, documenting, integrating and linking the 'TVET product' within the framework;
- within or alongside these NQFs, there has been a move towards outcomes based learning approaches via the development and accreditation of sets of achievement standards and qualification outcomes;
- the processes for the development and accreditation of qualifications typically will involve industry personnel and agencies; and
- providers utilise the accredited achievement standards to develop or further develop the curriculum for delivery.
- there is a trend towards developing higher level VET program and qualifications that recognise professional practice; and
- there is a trend in the European Union towards using broad based validation to recognize learning through experience.

However, the quality assurance of TVET achievement standards is considered separate from a national or sectoral qualifications framework<sup>5</sup>, which is complementary to and not part of a quality assurance framework.

## 2. Registering, monitoring and oversight of assessment in TVET provision

TVET provision historically has been diverse across countries, and how countries quality assure TVET provision is equally diverse. Table 2 summarises options for registering and monitoring training providers (generally through audit), conducting assessment and awarding qualifications.

**Table 2: Options for registering, monitoring and oversight of assessment in TVET provision**

	Forms	Examples of Processes
<b>Registration<sup>6</sup></b>	<p>Public providers that self register or are directly registered by government</p> <p>Public providers with a small number of private providers where the public provider or an external agency registers the private providers.</p> <p>Open TVET market with multiple providers with an external registration agency.</p> <p>Open market with registration agencies for all providers and teachers and instructors within the providers.</p>	<p>Registration is through internal processes and boards or councils that may include industry representatives.</p> <p>The public providers review and or auspice the private or non-public providers.</p> <p>The registration authority registers all providers or some providers, or it gives categories of registration, including effective self-registration with cyclical reviews for low risk providers.</p>
<b>Monitoring</b>	<p>Front end audits of provider facilities, finances, probity, teacher capability and training and assessment materials.</p> <p>Audits of outcomes through reviews of student assessments as well as qualification progression and completion rates, employment outcomes, user satisfaction, continuation of further study.</p>	<p>Audits are conducted on a cyclical basis, with the option of different cycles for different categories of providers.</p> <p>Audits can be scheduled in different ways, e.g. as a one off major review or undertaken at short notice.</p>
<b>Assessment</b>	<p>All assessments are designed and administered by the provider.</p> <p>Assessments are provider based, but externally moderated by the external agency.</p>	<p>Provider based assessments are reviewed and quality assured through internal processes than may include review by an external moderator.</p>

<sup>5</sup> A qualification framework is an instrument for development and classification of qualifications (at national or sectoral levels) according to a set of criteria (such as using descriptors) applicable to specified levels of learning outcomes (CEDEFOP (2011) p. 82).

<sup>6</sup> Glossary definition: Registration processes include formal acknowledgement by a registering body that a provider meets relevant quality standards. Under NQFs it is usual for a provider to be registered in order to deliver and assess accredited programs and issue awards.

Some agencies differentiate between two processes:

- Formal acknowledgement that the provider meets key generic quality standards
- Formal acknowledgement that the provider meets specific quality standards related to the provision of teaching, learning and assessment of a specific program.

For the purpose of the EAS Quality Assurance Framework for TVET project, registration of providers is the term used for both processes.

	Forms	Examples of Processes
	<p>Assessments are developed by an external agency but administered by the provider (e.g. common assessment tasks).</p> <p>Assessments are conducted by the external agency.</p>	<p>Samples of assessments are reviewed by the external agency, and if necessary the results are adjusted.</p> <p>Assessment results are issued by the external agency.</p>
<b>Awarding</b>	<p>The provider issues the qualification.</p> <p>Providers issue the qualification, but on behalf of and within quality assurance procedures of the awarding body.</p> <p>The awarding body issues the qualifications; this can be a government ministry.</p>	<p>Provider based qualifications are internally quality assured.</p> <p>Awarding body licenses the provider to issue the qualifications, which are subject to quality procedures.</p> <p>Awarding body issues the qualifications on the basis of its own assessments or validated and moderated assessments of the providers.</p>

### 3. Agency remit

TVET quality assurance systems typically are supported by a number of agencies that supervise, audit or conduct the various quality procedures outlined above. These agencies can be:

- Government run and will typically be a branch of a government department;
- More independent bodies established through legislation – statutory bodies; or
- Industry or professional bodies that may or may not be endorsed by government or a government agency, and which have established strong national and/or international reputations for quality in their TVET fields (for example the Royal Society of the Arts in the United Kingdom).

**Table 3: Agencies: Options for setting standards and qualifications, registering providers and awarding qualifications.**

	Forms	Examples of Processes
<b>Standards and qualifications</b>	<p>A single national qualifications authority or separate TVET and higher education authorities that can have one, several or all of the following functions:</p> <ul style="list-style-type: none"> <li>- Standards setting for some (TVET or higher education) or all qualifications – a qualifications framework;</li> <li>- Developing and/or accrediting TVET standards;</li> <li>- Developing and accrediting TVET qualifications;</li> <li>- Issuing or delegation of the issuing of TVET qualifications.</li> </ul> <p>A single national qualifications authority or separate TVET and higher education authorities</p>	<p>These different configurations will require different sets of relationships between the different agencies and between the agencies and the TVET providers.</p>

	Forms	Examples of Processes
	<p>together with a separate awarding body or bodies.</p> <p>A qualifications authority, awarding body(ies) and industry sector standards setting bodies.</p>	
<b>Providers</b>	<p>The registration of providers through:</p> <ul style="list-style-type: none"> <li>• The qualifications authority; or</li> <li>• The awarding bodies; or</li> <li>• A separate provider registration body.</li> </ul>	<p>Provider registration can be in different forms and through different processes as outlined above.</p>
<b>Awarding organisations</b>	<p>Self-awarding providers.</p> <p>Providers are delegated to award specific qualifications or clusters of qualifications by the qualifications or awarding bodies.</p> <p>Awards are issued by the qualifications authority, awarding body(ies) and/or professional and industry bodies.</p>	<p>The processes will be influenced by the configuration of agencies and their functions.</p>

Countries have to manage the conflicting principles of:

- the separation of the functions of standards setting and accreditation of qualifications, provider registration and audit, and the assessment and awarding of qualifications; and
- the need to avoid the proliferation of agencies that can lead to a lack of transparency and consistency, and contestation over territory.

Most, but not all, countries separate the functions of:

- standards and qualifications setting; and
- provider registration and monitoring/audit.

The awarding function or its delegation can reside within the qualifications agency, separate awarding bodies, or at the provider level.

## Components of a quality assurance framework

TVET systems across most countries have multiple origins. They have evolved from apprenticeship systems, secondary technical education, private and public technical education colleges, and industry training<sup>7</sup>. As a consequence in many countries they have operated under different government ministries or departments and different sets of qualifications and quality assurance arrangements.

In many countries an integrated TVET system has only recently been formed and in many other countries an integrated system has not yet been formed.

Therefore the task of building a quality assurance system for TVET is not standardised. Countries have different experiences and different approaches:

<sup>7</sup> Bateman, Keating and Vickers (2009)

- Some have concentrated upon the establishment of achievement standards (e.g. knowledge and skills and certification standards and qualification types), and use mechanisms to ensure that the knowledge and skills are delivered and assessed to the required standards.
- Some concentrate upon input quality with systems that ensure the quality and capacity of TVET providers and the training and experience of TVET teachers and instructors. These approaches rely upon an accreditation system for providers, teachers and curriculum and use audits of providers.
- Some concentrate upon the quality of the output. Mechanisms are used to ensure the validity, authenticity and reliability of the assessment systems and the processes for awarding TVET qualifications. These mechanisms also attempt to engage the key stakeholders, especially employers and students, so that assessments can be made of the relevance and quality of the knowledge and learning that is delivered.
- Others concentrate upon quality improvements. Some systems have additional requirements for providers to implement a continuous improvement approach across the scope of their operations. These approaches aim to instill a culture of continuous improvement of the inputs TVET based on assessment of the standards and relevance of the outputs.

All quality assurance systems attempt to build a balance between these approaches that is influenced by the particular history and legacy of TVET within a country and its particular institutional and cultural characteristics. Government policies for development of TVET systems also influence the balance point.

Typically quality assurance frameworks comprise the articulation of:

- principles;
- standards:
  - quality standards (including Agency and Provider); and
  - data standards (quality indicators, measures and sources).

It is these structures that have informed the development of the EAS TVET QAF presented in Part B.

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### Quality assurance principles

A foundation for cooperation and commonality is a set of common principles for quality assurance systems. They could include the following:

- *Transparency and accountability:* Transparency and accountability are two key principles of good governance. Accountability relates to the legal or reporting framework and the responsibility for evaluating own practices against performance measures. Transparency relates to the timely, reliable, clear and relevant public reporting of processes and performance. All stakeholders need to understand and have confidence in the quality assurance systems.
- *Comparability:* The application and selection of quality assurance measures may vary across different TVET programs and provider types. However, they need to be based upon comparable standards and expectations.

- *Flexibility and responsiveness:* Quality assurance measures and approaches should not be so rigid that they only build compliance cultures and restrict innovation and flexibility across TVET providers.
- *Balance and integration:* Effective quality assurance systems will utilise a balance of measures designed to ensure minimum standards and the protection of the interests of stakeholders, but at the same time encourage continuous improvement and innovation.
- *Continuity and consistency:* Systems should not change rapidly so as to maintain the confidence of stakeholders and should be consistent in their application.
- *Minimum standards:* All TVET systems require some minimum standards for both inputs and outputs.
- *Assurance and improvement:* Quality systems should provide stakeholders with an assurance of standards and promote improvement in delivery and outcomes.
- *Independence:* Quality assurance should be based upon the principles of good governance, including the independence of different elements of quality systems, and the avoidance of conflict of interest.
- *Subsidiarity:* Where possible and appropriate, judgements on quality should be made close to the delivery of TVET (i.e. in the country).

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### Quality assurance standards

Quality assurance principles form the basis of a quality assurance system. As part of the system the documentation of quality standards based on the principles has emerged as a core building block of quality, especially in TVET, in a context of greater diversity in the providers and users of education and training. These quality standards relating to inputs and outputs of education and training can apply at both agency and provider level.

Documentation of such standards is achieved mainly through the development of common sets of benchmarks and expectations for the different inputs and outputs of education and training systems. It relates to the benchmarks and expectations of the relevant agency, the curriculum, the capacities and behaviour of providers in delivering programs, and the knowledge, skills and attributes of the individuals who complete a program and are awarded a qualification. Quality assurance systems constitute the processes that *utilise*<sup>8</sup> these standards and expectations to enhance the realisation of the social and economic purposes of the investments in education and training.

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### Data standards

Quality assurance of TVET depends to a large extent upon the availability, validity, reliability of data about the practice and outcomes of TVET and the generation and use of indicators of quality. These indicators can be produced or derived from each of the different elements of the TVET delivery cycle.

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<sup>8</sup> Specifying the standards, benchmarks and expectations of the curriculum tends to be addressed with the establishment of national qualifications frameworks which are not the remit of this paper. However, assuring the quality of providers and assuring the provision and award of qualifications is an important component of a quality assurance framework.



The identification and use of indicators will be conditioned by:

- the availability of data sources and the capacity of the TVET systems to produce them;
- the potential impact upon stakeholders, including providers, in their production and use;
- the balance across aspects of the TVET (achievement standards, providers and provision, assessment and awarding);
- their validity, reliability and utility; and
- their capacity to ensure quality and confidence amongst stakeholders and to enhance quality and encourage improvement and innovation.

Particularly if the indicators are made public they can be used to:

- assure funders and investors of the probity, effectiveness and efficiency of TVET expenditure;
- assure stakeholders of the capacity and behaviour of TVET providers;
- assure stakeholders of the relevance and quality of the TVET processes and product;
- inform providers as a basis for improvements and innovations; and
- assure national and international users of the relevance and quality of the TVET product and system.

Generally speaking, indicators of quality tend to be classified according to inputs and outputs<sup>9</sup>. Input Indicators include:

- endorsement by industry, professional and occupational groups of the relevance and levels of TVET achievement standards;
- endorsement by providers of the quality and utility of TVET achievement standards;
- information on the capacity and experience of providers staff, the effectiveness of financial and management systems, and the quality and relevance of provider facilities and equipment;
- information on the content, style and quality of delivery of TVET providers;
- information on provider student support services, facilities and systems;
- information on enrolment entry requirements and procedures;
- patterns of student enrolments in relation to policy objectives;
- investment by TVET providers and staff in professional development, facilities upgrades, quality assurance systems, and other innovations;
- enrolment levels and patterns for providers;

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<sup>9</sup> For example, Gibbs (2010) developed a set of quality indicators for higher education based upon Biggs' (1989) 3 -P model of learning which comprised three types of variables: presage, process and product. Similarly, the EQARF indicators appear to be based on Stufflebeam's (2003) CIPP approach to classifying indicators in which there are four types of variables: context, input, process and product [output].

- the comprehensiveness, relevance and accessibility of information systems; and
- mechanisms to identify areas and types of skill needed by industry.

Output indicators include:

- assessment outcomes, and assessment audit outcomes for units and qualifications;
- records of program delivery, student activity and student assessments;
- student completion rates, satisfaction levels, and destinations – including employment rates, and rates for different social and occupational/industry groups;
- information on the use of skills within the workplace;
- employer and other user satisfaction with graduate outcomes; and
- evidence of the accuracy of information systems, systems to identify skill needs and the identification of the needs of vulnerable and/or other social groups.

There is a natural tension between quality assurance systems and an active TVET provider market. While the two are not antithetical, part of the purpose of quality assurance is to temper the market activities of the providers in order to provide protection for the users of TVET.

Therefore an effective quality assurance system within an active TVET market will balance its demands upon training providers and other stakeholders with sufficient flexibility and minimum levels of input and output processes to allow for innovation while maintaining wide stakeholder confidence in the integrity of the education and training and its outputs.

## Regional quality assurance strategies

National TVET quality assurance systems vary to a considerable extent, and this variance will continue into the future, yet it does not mean that national quality assurance systems cannot learn from each other, achieve greater alignment and build mutual understanding in the quality of national TVET outcomes. Despite the diversity of TVET systems across Europe, the European Union's Copenhagen Declaration includes an agreement for 'Promoting cooperation in quality assurance with particular focus on exchange of models and methods, as well as common criteria and principles for quality in vocational education and training' (EU, 2002, p. 3).

The key aim of a regional quality assurance framework is to develop mutual understanding amongst member countries. In addition, a regional quality assurance framework acts as:

- an instrument to promote and monitor the improvement of member countries' systems of vocational education and training (VET);
- a reference instrument that outlines benchmarks to help member countries to assess clearly and consistently whether the measures necessary for improving the quality of their VET systems have been implemented and whether they need to be reviewed;
- a self-assessment instrument that can include internal and external assessment which is can be made public.

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## Regional frameworks

There are two key regional TVET quality assurance frameworks that the East Asia Summit Technical and Vocational Education and Training Quality Assurance Framework (EAS TVET QAF) can draw from:

- *European Quality Assurance Reference Framework for VET*<sup>10</sup>
- *Pacific Register of Qualifications and Standards: quality assurance*<sup>11</sup>.

The *European Quality Assurance Reference Framework* was established through the European Parliament and Council in June 2009. Its key purpose is as ‘a reference instrument...to promote and monitor continuous improvement of...VET systems’<sup>12</sup>. The framework is based on the continuous improvement cycle of planning, implementation, evaluation and review/revision and includes:

- quality criteria;
- indicative descriptors for TVET system level;
- indicative descriptors for TVET provider level; and
- a reference set of quality indicators for assessing quality in TVET.

The implementation of European Quality Assurance Reference Framework is supported by the development of an active and highly effective community of practice<sup>13</sup> which brings together Member States, employers, trade unions and the European Commission to promote European collaboration in developing and improving quality assurance in VET.

The Pacific’s approach to quality assurance is part of a broader strategy, which includes:

- a regional register of qualifications and occupational standards
- Pacific Qualifications Framework.

The regional register seeks to ensure that the quality assurance system across all Pacific Island Countries and its subsequent implementation is designed, developed and implemented at a high standard and to foster mutual trust between a country and any of its multiple stakeholders’<sup>14</sup>. The quality assurance framework ensures that qualifications to be entered on the regional Register meet agreed standards. The Pacific’s approach to quality assurance focusses primarily on registering and accrediting agencies and includes:

- Quality Assurance Standards for Agencies:
  - Standards for Agencies
  - Standards governing the relationship between Agencies and their Providers
- Minimum quality standards for training providers.

Underpinning both these regional frameworks is:

- transparency;

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<sup>10</sup> [http://europa.eu/legislation\\_summaries/education\\_training\\_youth/lifelong\\_learning/c11108\\_en.htm](http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11108_en.htm)

<sup>11</sup> Note that the Pacific’s approach to quality assurance is still in trial stage.

<sup>12</sup> Official Journal of the European Union, 8/7/2009, p. 2.

<sup>13</sup> Refer to [www.eqavet.eu](http://www.eqavet.eu)

<sup>14</sup> Quality Assurance of National Qualifications Agencies, 2011 p. 4.

- agreed quality standards or criteria; and
- promotion of mutual understanding.

A key strategy for establishing and maintaining transparency and mutual understanding amongst participating countries in both these regions is via a referencing process.

Referencing is a process that results in the establishment of a relationship between the national quality assurance framework and that of a regional quality assurance framework. Referencing in the education arena is most commonly referred to in relation to national qualification frameworks (NQFs) and regional qualifications framework, such as the European Qualifications Framework. However, similar processes could be utilised for ensuring comparability of quality assurance systems and building mutual understanding.

The referencing process of the EQF (European Qualifications Framework) requires each country 'to refer their national qualifications levels to the EQF' (EQF 2009) and includes publishing a report. The referencing process also includes 10 broad referencing criteria<sup>15</sup>. The referencing criteria aim to ensure that the referencing processes and results can be compared and generate a zone of mutual trust amongst the EU countries<sup>16</sup>. Noted below are three criteria that apply to quality assurance.

5. The national quality assurance system(s) for education and training refer (s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines (as indicated in annex 3 of the Recommendation<sup>17</sup>).
6. The referencing process shall include the stated agreement of the relevant quality assurance bodies.
7. The referencing process shall involve international experts.

The inclusion of international experts in the referencing process is to assist with generating confidence and mutual trust in a country's referencing outcome by the international community. Whilst the role and level of participation could vary, research has shown that two or three international experts can be used effectively<sup>18</sup>.

In the EQF model, country referencing reports are made public on the EU website<sup>19</sup>. To facilitate mutual trust, the referencing report could be undertaken by each participating EAS country and should confirm that their quality assurance system and implementation of quality assurance strategies meet the agreed EAS TVET QAF quality assurance principles and standards

In the Pacific, for inclusion of national qualifications on the proposed Pacific Register for Qualifications and Standards, participating country agencies are to demonstrate that they meet the minimum standards for agencies (including registration and accreditation processes). The proposed quality assurance arrangements are linked to the Pacific Qualifications Framework and the process of agency recognition is based on a third party audit/review.

<sup>15</sup> Coles et al 2011, p. 28

<sup>16</sup> Coles, personal communication 2011.

<sup>17</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF>

<sup>18</sup> Coles et al 2011.

<sup>19</sup> [http://ec.europa.eu/eqf/documentation\\_en.htm](http://ec.europa.eu/eqf/documentation_en.htm)

Both the EQARF and the proposed Pacific Island Countries quality assurance arrangements (that links to the proposed Pacific Register of Qualifications and Standards) have agencies responsible for the management and review of the effectiveness of the framework.

## Regional initiatives

A number of additional regional initiatives are relevant to the development of an EAS TVET QAF:

- Quality assurance principles for Asia Pacific Region – Chiba Principles<sup>20</sup>
- International Network for Quality Assurance Agencies in Higher Education (INQAAHE) Good Practice Guidelines<sup>21</sup>
- European Association for Quality Assurance in Higher Education (ENQA) Standards and Guidelines for Quality Assurance in the European Higher Education Area<sup>22</sup>.

Although these developments pertain to agencies responsible for the quality assurance of higher education and to internal quality assurance requirements for higher education providers, they do provide guidance for the EAS TVET QAF especially in terms of its agency standards.

Below is a table summarising the key aspects of each higher education quality assurance framework.

**Table 4: Summary of Higher Education quality assurance frameworks**

Framework	Agency Quality Assurance	Audit	Provider Quality Assurance
Chiba Principles	<p>Addresses both approval and audit of institutions and programs.</p> <p>Governance:</p> <ul style="list-style-type: none"> <li>• Independent and autonomous.</li> <li>• Mission statement, goals and objectives are clearly defined.</li> <li>• Human and financial resources are adequate and accessible.</li> </ul> <p>Policies, procedures, reviews and audit reports are public.</p> <p>Standards, audit methodology, and decision criteria are clear.</p> <p>Periodic review of activities, effects and value.</p> <p>Cooperates across national borders.</p> <p>Undertake research and provide information and advice.</p>	<p>Addresses both institution, program and institution &amp; program</p> <p>Standards are publicly available</p> <p>Stakeholder involvement</p> <p>Internal and external assessment (quality audit)</p> <p>Audit undertaken in a cyclical basis</p> <p>Public reports</p> <p>Appeals process</p>	<p>Quality assurance is embedded within provider goals and objectives.</p> <p>Internal quality management system is in place.</p> <p>Quality assurance strategy is implemented.</p> <p>Process for periodic approval, monitoring and review of programs and awards.</p> <p>Quality assurance of academic staff is maintained.</p> <p>Accuracy of provider information about its programs, awards and achievements.</p>
INQAAHE Good Practice Guidelines	<p>Addresses:</p> <ul style="list-style-type: none"> <li>• Governance arrangements (including mission statement or</li> </ul>	<p>External review includes clear standards, assessment methods and processes, decision criteria, and other</p>	<p>Relationship with provider:</p> <ul style="list-style-type: none"> <li>• Recognition that primary responsibility for quality</li> </ul>

<sup>20</sup> [http://www.aei.gov.au/About-AEI/Policy/Documents/Brisbane%20Communique/Quality\\_Assurance\\_Principles\\_pdf.pdf](http://www.aei.gov.au/About-AEI/Policy/Documents/Brisbane%20Communique/Quality_Assurance_Principles_pdf.pdf)

<sup>21</sup> [http://www.inqaahe.org/admin/files/assets/subsites/1/documenten/1231430767\\_inqaahe---guidelines-of-good-practice\[1\].pdf](http://www.inqaahe.org/admin/files/assets/subsites/1/documenten/1231430767_inqaahe---guidelines-of-good-practice[1].pdf)

<sup>22</sup> <http://www.engq.eu/files/ENQA%20Bergen%20Report.pdf>

Framework	Agency Quality Assurance	Audit	Provider Quality Assurance
	<p>objectives, ownership and governance structure is appropriate, external quality assurance is a major activity)</p> <ul style="list-style-type: none"> <li>Resources (in relation to adequacy of human and financial resources)</li> <li>Quality assurance including continuous improvement approach, self assessment and external review at regular intervals</li> <li>Public accountability – reports and decisions are public including of its own external review</li> <li>Collaboration with other agencies</li> <li>Policies related to import and export of qualifications (cross border)</li> </ul>	<p>information</p> <p>Specifications on the characteristics, selection and training of reviewers</p> <p>System to ensure equivalent process of review for all institutions</p> <p>Independent decision making</p> <p>Process for appeals</p>	<p>assurance rests with the provider.</p> <ul style="list-style-type: none"> <li>Agency has clear expectations of providers that may be promulgated in standards or factors or precepts that have been subject to consultation with stakeholders.</li> <li>Review process includes provider self assessment, external peer review and follow up procedure</li> </ul>
ENQA Standards and Guidelines for Quality Assurance in the European Higher Education Area	<p>Governance:</p> <ul style="list-style-type: none"> <li>Formal status</li> <li>Adequately resourced</li> <li>Clear mission statement, goals and objectives</li> <li>Independent</li> <li>Processes, criteria and procedures used should be pre-defined and publicly available</li> <li>Have procedures for own accountability</li> </ul> <p>Undertake external quality assurance activities on a regular basis (provider or program)</p>	<p>Aims and objectives of quality assurance processes, and the procedures should be public.</p> <p>Formal criteria should be explicit and published</p> <p>Process for external quality assurance should be fit for purpose</p> <p>Reports should be published</p> <p>Follow up procedures</p> <p>Periodic reviews should be on a cyclical basis.</p> <p>Agencies should produce summary reports outlining the general findings of their reviews, evaluations, assessments.</p>	<p>Internal policies and procedures for quality assurance and standards for programs and awards.</p> <p>Formal processes for approval, monitoring and periodic review or programs.</p> <p>Assessment of students using published criteria and regulations.</p> <p>Quality assurance of teaching staff.</p> <p>Appropriateness of learning resources and student support.</p> <p>Collection, analysis and use of relevant information for effective management of programs.</p> <p>Accurate information regarding programs and awards offered.</p>

A review of these three quality assurance frameworks highlights a number of commonalities. These include:

- establishment of an agency that has clear objectives and goals, and appropriate governance arrangements, as well as adequate resources;
- independence of decision making;
- self assessment and external review processes;

- transparency and publication of reports, data and findings;
- cross border or collaboration arrangements;
- focus on continuous improvement;
- a set of standards or criteria for assessment of providers and/or accreditation of achievement standards (i.e. certification standards);
- process for audit/review of providers and selection and currency of reviewers/auditors; and
- process for complaints and appeals.

A regional EAS TVET QAF would need to take into consideration these regional TVET quality assurance frameworks, plus the regional higher education quality assurance network standards.

## Conclusion

TVET systems deliver knowledge and skills for individuals and for employers and industries, and facilitate the recognition of skills that have been gained by individuals. Quality assurance includes the formal acknowledgment that the expected skills and knowledge have been delivered and that the individual has gained the skills and knowledge, through the award of a qualification or another formal statement from an appropriate agency. Quality assurance provides confidence to the users of TVET and of its qualifications and statements that the knowledge and skills have been delivered and acquired as described within the course and qualification specifications.

TVET systems are very broad and traditionally have encompassed multiple agencies and qualifications. In the context of the rapid advancement and change in knowledge and skills, the greater mobility of workers, and the greater integration of the global and regional economies there have been pressures to connect what have been diverse systems. An aspect of this connecting is the mechanism to assure the wider users of the quality of the TVET system in terms of comparability of standards. Quality assurance is integral to these integration processes, which are now extending to the relationships between national and regional TVET systems.

## PART B: EAST ASIA SUMMIT VOCATIONAL EDUCATION AND TRAINING QUALITY ASSURANCE FRAMEWORK

### Background

In 2010 Australia and the ASEAN Secretariat cooperated to convene two workshops of an East Asia Summit (EAS) Senior Education Officials Taskforce. A key outcome of this workshop was the proposal for an East Asia Summit Technical and Vocational Education and Training Quality Assurance Framework (EAS TVET QAF).

The EAS TVET QAF consists of a set of principles, guidelines and tools to assist EAS countries to develop and assess the quality of their TVET systems and set out improvements accordingly.

The EAS TVET QAF forms a coherent package capable of guiding the design and implementation of measures to strengthen quality assurance at the country level as well as providing a basis for alignment between national TVET systems across the East Asia Summit region.

The 18 member countries of the East Asia Summit (EAS) include the ten Association of Southeast Asian Nations (ASEAN) countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam) as well as Australia, China, India, Japan, Korea, New Zealand, Russia and the United States.

The participating countries provided feedback to the draft concept paper via online discussion, written responses and discussions emanating from the East Asia Summit Vocational Education and Training Quality Assurance Framework (EAS TVET QAF) Workshop, which was held in Canberra, Australia, 26 – 28 March 2012. The workshop was attended by high level delegates from 16 EAS member countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Thailand, Vietnam, Australia, India, China, Japan, New Zealand, Korea and the Russia) as well as representatives from SEAMEO VOCTECH based in Brunei and the ASEAN Secretariat.

### Scope

The EAS TVET QAF will function as a common reference quality assurance framework that will:

- Help EAS countries assess, develop and improve the quality of their TVET systems
- Guide the design and implementation of measures to strengthen quality assurance at the country level
- Provide the basis for alignment between national TVET systems across the region
- Increase transparency of and consistency in TVET policy developments and thereby promote mutual trust, worker and learner mobility as well as lifelong learning.

The EAS TVET QAF does not replace or attempt to define national quality assurance systems, instead it aims to support and guide initiatives in relation to quality assurance at the national agency level.

The EAS TVET QAF is voluntary and non binding in nature. Agencies are defined as:



- accrediting agencies are those entities that manage program accreditation under national legislation e.g. national qualifications agencies, official review boards or other nationally approved bodies or agencies with the remit to establish achievement standards and/or accredit qualifications; and
- registering agencies/ bodies are those entities that responsible for registering education and training providers e.g. national qualifications agencies, official review boards or other nationally approved bodies or agencies. Providers are a training organisation that plans and delivers education/training and assessment services that leads to the award of qualifications or components of qualifications.

For the evaluation of outcomes, it may be that one or both of these agencies are responsible or that an independent agency is responsible.

## Purpose

The key purposes of the EAS TVET QAF are to:

- Enable countries to promote and monitor the improvement of their quality assurance systems;
- Facilitate cooperation and mutual understanding between member countries; and
- Support other initiatives within and across the region that enhance connectivity, integration, education and labour mobility e.g. ASEAN Regional Qualifications Framework.

The EAS TVET QAF has a number of benefits including:

- Facilitating the sharing of good practice
- Providing for concrete means to support an evaluation and quality improvement culture at all levels
- Supporting and promoting lifelong learning
- Contributing to evidence based policy and practice.

## Framework

### Underpinning approach

Quality assurance is a component of quality management and is ‘focused on providing confidence that quality requirements will be fulfilled’<sup>23</sup>. In relation to training and educational services, ‘quality assurance refers to planned and systematic processes that provide confidence in educational services provided by training providers under the remit of relevant authorities or bodies. It is a set of activities established by these relevant authorities or bodies to ensure that educational services satisfy customer requirements in a systematic, reliable fashion’<sup>24</sup>.

The EAS TVET QAF, developed at the regional level, has the capacity to be applied at participating country level by relevant agencies, and can inform national requirements for providers.

<sup>23</sup> AS/NZS ISO 9000:2006: Quality management systems—Fundamentals and vocabulary, June 2006, p. 9.

<sup>24</sup> Bateman et al 2009, p. 8.

The EAS TVET QAF is based on a systematic approach to quality assurance and includes agency obligations and suggested provider obligations.

The EAS TVET QAF is also based on a continuous improvement cycle based on the notion of plan, do, check and act. The framework encourages participating country, via relevant agencies, to foster and support a quality assurance culture.

The EAS TVET QAF includes monitoring processes for agencies, including internal and external quality audit/review; as well as standards and indicators to inform the quality assurance process which can be applied at the agency and the provider level.

The evaluation and monitoring processes include evidence based and outcomes based principles that can be supported by a range of data sources (both qualitative and quantitative).

The concept design of the EAS TVET QAF includes a number of components:

- Principles
- Quality Standards
- Quality indicators
- Governance arrangements.

The design is outlined in Figure 1.

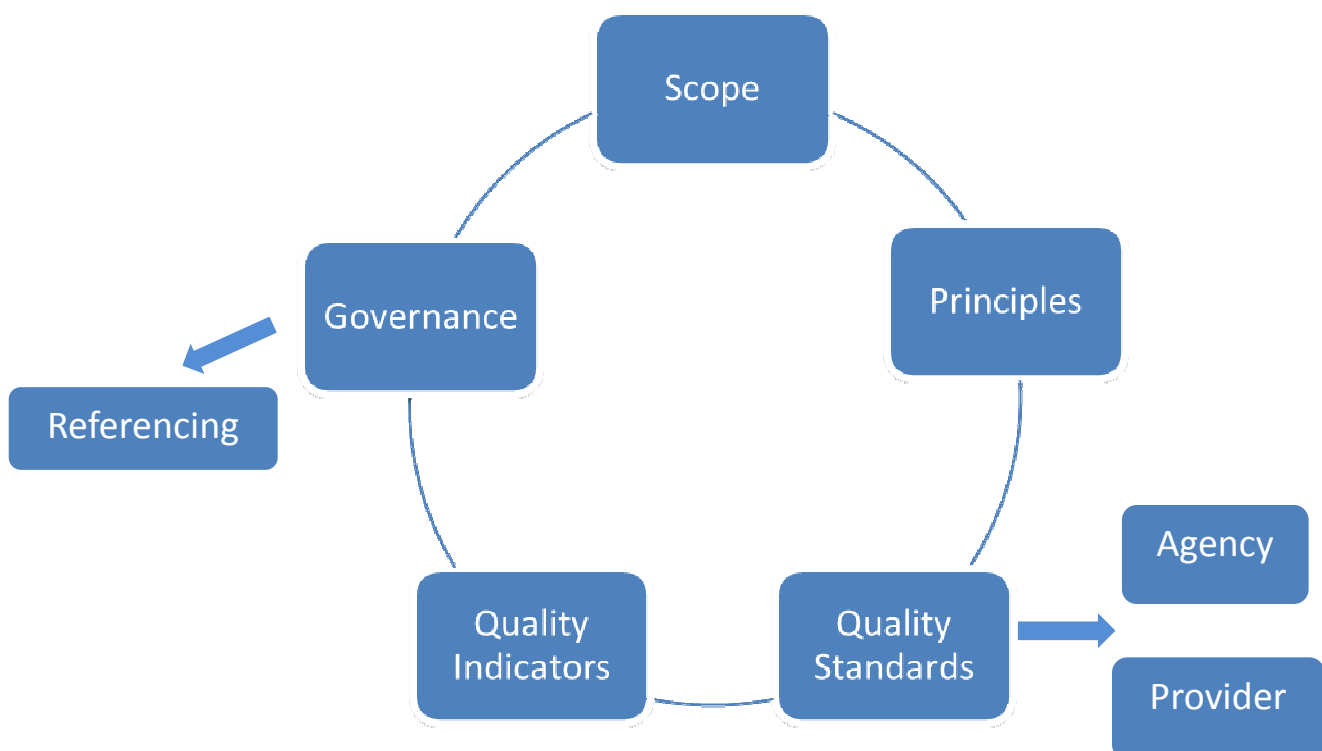


Figure 1: The Concept Design of the EAS TVET QAF: Component Relationships.

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## Principles

The EAS TVET QAF is underpinned by the following five key principles.

### Transparency

*Encourage mutual trust across the region.* The quality assurance framework promotes transparent standards and measures of quality.

### Accountability

*Encourage the evaluation and reporting of agency practices and performance against the standards and measures.*

### Continuous Improvement Approach

*Foster a quality improvement culture at all levels.* The quality assurance framework encourages the use of a balance of strategies that enhances the provision of training services within and across the region to meet the changing and future needs of stakeholder groups.

### Flexibility and Responsiveness

*Value and promote flexibility at all levels.* Flexibility relates to the design, delivery and review of the quality of TVET to meet the varying needs of countries and their stakeholders.

### Comparability

*Provides the benchmark for individual country quality assurance systems or framework.* The framework will enable countries to compare quality assurance systems and to enhance confidence in the comparability of qualifications across the region. Comparability requires continuity as a notion of consistency. Quality systems should not change rapidly and should be consistent in their application to enable comparisons and maintain confidence.

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## Standards

Within the EAS TVET QAF standards are referred to as:

- *quality standards* which are the technical specifications for assuring quality at the agency and provider level (including governance, registration and accreditation); or
- *achievement standards* which are statements approved and formalised by a recognised agency or body, which defines the rules to follow in a given context or the results to be achieved. These can take a variety of forms including competency, assessment, educational, occupational or certification standards; or
- *data standards* which are the data specifications for data collection and reporting.

The EAS TVET QAF's quality standards operate at two levels and include agency requirements and suggested provider requirements.

Both the agency quality standards and the provider quality standards are described in terms of:

- governance;

- registration; and
- accreditation.

In terms of country agencies; the governance standards focus on effective management of an agency's resources and key functions in a manner that is open, transparent, accountable, equitable and responsive to stakeholder needs. The registration and accreditation standards focus of the key functions of an agency, which are:

- registration of providers; and
- accreditation of achievement standards.

In terms of providers, the suggested quality standards are supporting information that may apply in relation to agencies developing or reviewing their quality assuring requirements for providers and the provision of TVET. The suggested quality standards for providers are included in Appendix 1.

The quality standards take a systematic approach to quality assurance; they require planned processes that aim to provide confidence in educational services, they include agency (and provider) obligations, and have a focus on continuous improvement.

Therefore the EAS TVET QAF includes quality standards based on three key elements:

- establishment;
- accountability; and
- improvement.

The **establishment element** is 'focused on providing confidence that quality requirements will be fulfilled'<sup>25</sup>.

The **accountability element** is focused on confirming that quality requirements are fulfilled.

The **improvement element** is focused on confirming performance is continuously improved.

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<sup>25</sup> AS/NZS ISO 9000:2006: Quality management systems—Fundamentals and vocabulary, June 2006, p. 9.

## Agency quality standards

The Agency quality standards can be applied both within and across the participating EAS countries. In some instances countries can review their quality assurance system to ensure that it addresses all key requirements as described in the quality standards; however for other countries it will inform the establishment of agencies and/or responsible bodies that have oversight of quality assurance arrangements in TVET in their country.

**Table 5: Agency quality standards:**

<i><b>Establishment</b> (providing confidence that quality requirements will be fulfilled)</i>	<i><b>Accountability</b> (confirming that quality requirements are fulfilled)</i>	<i><b>Improvement</b> (confirming that performance is continuously improved)</i>
<b>1. Governance</b>		
<p>1.1 The Agency has explicit goals and objectives.</p> <p>1.2 The Agency’s responsibilities and/or competence, governance and probity arrangements are clearly determined and made public.</p> <p>1.3 The Agency has a structure and systems in place to ensure it is adequately resourced, managed effectively and maintains its independence in decision-making.</p> <p>1.4 The Agency has a system for managing complaints; and appeals related to decisions made by the Agency.</p> <p>1.5 Strategies are in place to promote cooperation and collaboration between agencies, across</p>	<p>1.9 The Agency systematically monitors and reviews its performance to ensure that it continues to meet its goals, objectives and obligations across all of its key functions<sup>27</sup>; and to inform regulatory policy.</p> <p>1.10 The Agency monitors the research and development strategy to confirm its effectiveness.</p> <p>1.11 The Agency is subject to cyclical independent external quality audit<sup>28</sup>.</p> <p>1.12 Agency performance is reported to stakeholders.</p>	<p>1.13 The performance of the Agency is continuously improved in response to research, data collected and outcomes of external quality audit.</p> <p>1.14 Improvements to the TVET system are made in response to research and data collected.</p>

<sup>27</sup> Registration of providers and accreditation of achievement standards (i.e. certification standards).

<sup>28</sup> Quality audit refers to a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled (AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing, p. 1). Some countries may refer to audit activity as an external independent review or evaluation or assessment.

<b>Establishment</b> (providing confidence that quality requirements will be fulfilled)	<b>Accountability</b> (confirming that quality requirements are fulfilled)	<b>Improvement</b> (confirming that performance is continuously improved)
<p>borders.</p> <p>1.6 A system is in place for the monitoring and continuous improvement of all of the Agency's functions and to inform regulatory policy in light of the outcomes.</p> <p>1.7 The Agency has a defined research strategy for ongoing development of the TVET system.</p> <p>1.8 A national data standard is in place that ensures the consistent and accurate capture of TVET information<sup>26</sup>.</p>		
<b>2. Registration</b>		
<p>2.1 An open, transparent and rigorous system is in place to register providers and approve program delivery against quality standards and/or criteria<sup>29</sup>.</p> <p>2.2 A public register of approved providers is maintained.</p> <p>2.3 A process is in place for systematically monitoring and reviewing provider registration and performance to inform registration policy.</p> <p>2.4 A transparent system is in place to ensure</p>	<p>2.5 Providers are audited to ensure that they continue to meet the quality standards.</p> <p>2.6 Data on provider performance<sup>30</sup> and compliance is collected and analysed and used to inform registration policy.</p> <p>2.7 Data on provider performance<sup>31</sup> and compliance is made public.</p>	<p>2.8 The registration system is improved in response to data collected on provider performance.</p>

<sup>26</sup> Refer to Table 9 for an exemplar national data standard.

<sup>29</sup> Suggested provider quality standards are included in Appendix 1.

<sup>30</sup> Performance data relates to the four aspects in the Quality Indicators displayed in Table 7.

<sup>31</sup> Performance data relates to the four aspects in the Quality Indicators displayed in Table 7.

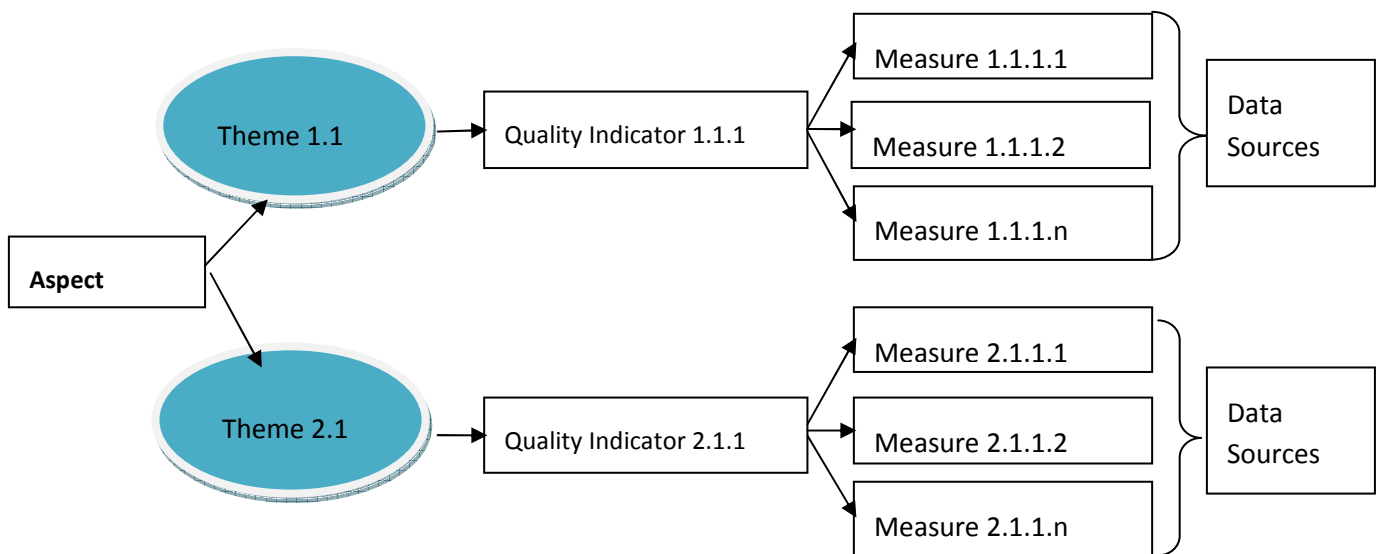
<b>Establishment</b> (providing confidence that quality requirements will be fulfilled)	<b>Accountability</b> (confirming that quality requirements are fulfilled)	<b>Improvement</b> (confirming that performance is continuously improved)
consistent registration decisions, sanctions, conditions and rewards to providers.		
<b>3. Accreditation</b>		
<p>3.1 An open, transparent and rigorous system is in place to accredit programs against agreed standards/criteria and to maintain consistency in decision-making.</p> <p>3.2 A public register of accredited programs is maintained.</p> <p>3.3 A process is in place for systematically monitoring and reviewing accreditation decisions to inform accreditation policy.</p> <p>3.4 Requirements for issuing qualifications to students are clearly defined.</p> <p>3.5 Requirements for recognising prior learning and the provision of articulation pathways are in place and made public.</p>	<p>3.6 Reaccreditation of programs is achieved through maintenance of standards.</p> <p>3.7 Consistency of accreditation decisions is maintained through moderation and professional development.</p> <p>3.8 Accreditation data is publicly reported and informs educational and/or labour market policy.</p>	<p>3.9 Accreditation systems are improved by acting on stakeholder feedback.</p>

## Quality Indicators

The quality indicators in the EAS Quality Assurance Framework for TVET are intended to support the evaluation and continuous improvement processes of agencies and providers. The indicators can be used to evaluate the performance of a country's TVET sector at both national and provider level.

The quality indicators are not intended to be exhaustive or prescriptive but instead, have been designed to provide agencies and providers with a range of possible indicators for selection/adaption to meet the varying needs, requirements and approaches to quality assurance.

The conceptual model that underpinned the design of the quality indicators has been displayed in Figure 2. This conceptual model can be presented as a national data standard with five major components: Aspects, Themes, Quality Indicators, Measures and Data Sources.



**Figure 2: The Conceptual Model for developing the quality indicators.**

An analysis of existing quality indicators found elsewhere (e.g. New Zealand, Europe, Australia, USA, Singapore) was initially undertaken to identify a set of common themes. Each theme was then classified according to whether it related to the context, input, process or product aspects of the model. The classification of themes according to these four aspects has been based on Stufflebeam's (2003) CIPP approach to evaluation. The themes and quality indicators that were associated with the background factors typically in place prior to learning have been classified as Context related themes. Those themes that referred to the procedures, resources and processes that can be implemented up front to assure quality have been classified as Input related themes. The Process type of themes refer to the measures of quality that occur during the learning experience whilst the themes that referred to measures of quality in terms of outputs has been classified as Product related. The relationship between the Themes and the Aspects of the model that underpinned the design of the quality indicators, measures and data sources has been presented in Table 7.



**Table 6: Relationship between Themes and Aspects.**

	Aspects			
	Context	Input	Process	Output/Product
<b>Themes</b>	C.1 Learner Characteristics	I.1 Learning support and resource	P.1 Training and Assessment	0.1 Student Progress and Attainment
	C.2 Learner Pathways	I.2 Program design and curriculum development		0.2 Comparability of standards
	C.3 Recognition of prior learning in all contexts	I.3 Quality of Teaching Staff		0.3 Employability and graduate destinations
	C.4 Provider characteristics			0.4 Stakeholder satisfaction
	C.5 Labour market influences			

For each theme, a set of indicators has been developed to enable participating countries to monitor and compare the quality of their TVET provision.

The EAS TVET QAF Indicators according to theme are displayed in Table 7.

**Table 7: The EAS Quality Indicators**

Themes	Indicators
C.1 Learner Characteristics	C.1.1 Learner demographic profile
C.2 Provider characteristics	C.2.1 National registration of providers
C.3 Learner Pathways	C.3.1 Flexible and alternative pathways into TVET programs
C.4 Recognition of prior learning in all contexts	C.4.1 Strategies for recognising learning in all contexts including formal and informal educational contexts as well as learning in the workplace
C.5 Labour market influences	C.1.5 Coherence of supply in relation to demand
I.1 Learning resources and support	I.1.1 Access to learning resources and support services
	I.1.2 Provision of services to learners with disabilities.
I.2 Program design and curriculum development	1.2.1 Effectiveness of program design, accreditation and review
I.3 Quality of Teaching Staff	1.3.1 Investment in training of teachers
	1.3.2 Recruitment and retention of high quality teaching staff.
P.1 Training and Assessment	P.1.1 Range and appropriateness of training and assessment strategies employed
O.1 Learner Progress and Attainment	O.1.1 Retention and completion rates
O.2 Comparability of achievement standards	O.2.1 Monitoring achievement standards across time.
O.3 Graduate destinations	O.3.1 Monitoring pathways from TVET to work and/or continuing education
O.4 Stakeholder satisfaction	O.4.1 Graduate and employer satisfaction with the program

To support the quality indicators, operational measures and examples of data sources were identified and presented as an exemplar national data standard; refer to Appendix 2 (Table 9). Both the operational measures and data sources have been included as supporting information to the Quality Indicators to assist countries in developing or reviewing their data collection standard. Note that the data sources have been classified as critical and desirable, depending on the level of sophistication of the information systems in place. These data sources have been provided to assist countries and providers to measure their performance against the proposed quality indicators.

## Referencing process

A key question to be posed for policy makers of the EAS TVET QAF is how the framework will enhance mutual understanding and collaboration. Critical to this question is how countries will demonstrate alignment of their quality assurance systems or processes to the EAS TVET QAF.

Options for policy makers include:

- Self assessment against the EAS TVET QAF; or
- A referencing process that requires countries to formally and publically evaluate their systems to the EAS TVET QAF; or
- Demonstration of quality assurance systems of alignment to the EAS TVET QAF and assessed by a governing agency (refer to Governance section), and nomination onto a website of the governing agency following an external review.

Ongoing alignment to the framework could be undertaken via any of the methods proposed above or possibly through periodic monitoring, possibly over a three year period, with referencing or assessment undertaken by an expert appraisal of the implementation.

The options available to the EAS TVET QAF depend on the governance arrangements and the EAS countries' approach to developing mutual understanding. Possible options include:

1. A regulatory approach that included formal checking to confirm if a country's TVET quality assurance arrangements meets the requirements, i.e. third party audit to certify agency practice. This may also include membership such as INQAAHE, APQN.
2. A voluntary approach that included:
  - A self referencing model (similar to the EQF model with international representation), or
  - A self referencing model undertaken internally.

Feedback from participating countries via the online discussion, the written responses and workshop discussions confirmed that the referencing process could be undertaken:

- As a stand alone quality assurance process; or preferably
- As a broader referencing process between National Qualifications Framework to a regional qualification framework e.g. ASEAN regional qualifications framework requires referencing to key principles as well the NQF – but does not at this stage clearly specify that the referencing will be undertaken against agreed agency standards.

In addition, the EAS TVET QAF referencing process should include:

- Confirmation that the quality assurance system meets the EAS principles, and
- Confirmation that the accrediting and registering agencies meet agreed quality principles and broad standards.

In the EAS TVET QAF the referencing process should include:

- A single report that is approved by major stakeholders and made public;
- International experts. It is proposed that each country's referencing panel include at least one international representative<sup>32</sup>, plus an additional observer from one of the other EAS countries; and
- Use of a self assessment tool to inform and support the referencing process.

## Governance

Once the EAS TVET QAF is agreed the main issue for the EAS countries is the maintenance, use, evaluation and update of the quality assurance framework.

In addition, there will need to be capacity for guidance and support provided to participating countries if the EAS TVET QAF is to be effective. There will need to be capacity for the maintenance of the quality assurance framework, as well for monitoring its effectiveness and its implementation across member countries. The management of the framework would also involve some mechanism of assessing whether it is providing the quality assurance and capacity building function for member economies, and whether it is fostering a community of practice of quality assurance within the region. Operational considerations also include management of a website for the promotion of the framework, for the sharing of information and for lodging referencing reports.

Consideration needs to be given to the resource implications involved in such functions, and the need for an agency with a strong knowledge base and expert personnel. One option would be to set up a standalone agency to carry out the functions. Another option may be to locate these functions within a Secretariat that supports the EAS countries. Another option may be to have one EAS country take the responsibility for the ongoing oversight of the EAS TVET QAF. Regardless, these options have resource and capacity implications.

Wherever the monitoring and evaluation functions are finally located, the responsible agency needs to have full acceptance of its remit amongst participating EAS countries, and, more importantly, a willingness of those countries to cooperate and provide the necessary data and information to fully evaluate the effective or success of the framework.

Findings from the written feedback and discussions at the Workshop in Canberra (2012) indicated that participating countries preferred an independent agency or secretariat (not associated with any one country) and it to be completely autonomous. SEAMEO or the ASEAN Secretariat were suggested as potential organisations to manage the EAS TVET QAF beyond the project. It was also suggested that the ongoing management of the EAS TVET QAF could involve the set up of a board or managing committee made up of national representatives (from a national agency in each country) and an independent expert.

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<sup>32</sup> It is suggested that the international expert could be external to the EAS member countries or internal to the EAS countries but the international expert should not be a representative of the referencing country or the observer's country.

## APPENDIX 1: AGENCY QUALITY STANDARDS FOR PROVIDERS

The provider quality standards have been developed essentially as supporting information for Agencies to ensure that the requirements established for recognising providers meet these agreed quality standards. However, countries establishing their quality assurance arrangements could base their provider registration and accreditation of achievement standards (i.e. certification standards) requirements on these quality standards.

**Table 8: Quality Standards for Providers (Exemplar)**

<i><b>Establishment</b> (providing confidence that quality requirements will be fulfilled)</i>	<i><b>Accountability</b> (confirming that quality requirements are fulfilled)</i>	<i><b>Improvement</b> (confirming that performance is continuously improved)</i>
<b>1. Governance</b>		
<p>1.1 Provider goals and objectives are explicit and promote continuous improvement.</p> <p>1.2 Provider structure, governance and probity measures meet Agency requirements and relevant legislation.</p> <p>1.3 A quality management system is in place to implement the Agency standards for providers..</p> <p>1.4 The provider has a system for self-assessment and continuous improvement of its performance and all its key functions.</p> <p>1.5 The quality management system includes strategies for the timely and effective management of client complaints and appeals.</p>	<p>1.6 The provider systematically monitors and reviews its quality management system to ensure that it continues to meet the Agency standards for providers and relevant legislation.</p> <p>1.7 The provider reports outcomes of self-assessment to the Agency and other stakeholders.</p>	<p>1.8 Key functions and services are improved in response to self-assessment and continuous improvement outcomes.</p>
<b>2. Registration</b>		
<p>2.1 The provider’s scope of operations is determined in response to stakeholder needs and priorities.</p> <p>2.2 The provider demonstrates that training and</p>	<p>2.11 Premises, facilities, equipment, administrative and student support services are systematically monitored</p>	<p>2.16 Improvements are made across the scope of the provider’s registration functions, in response to data collected.</p>

<b>Establishment</b> (providing confidence that quality requirements will be fulfilled)	<b>Accountability</b> (confirming that quality requirements are fulfilled)	<b>Improvement</b> (confirming that performance is continuously improved)
<p>assessment plans are in place to achieve the program outcomes, given the needs of the target group.</p> <p>2.3 The provider provides clear, accurate and sufficient information about its programs and services to enable applicants to make an informed decision regarding their participation in training and assessment.</p> <p>2.4 The provider’s processes for selecting students are open and transparent.</p> <p>2.5 The provider has fair, valid and effective systems for assessing learners against the program outcomes.</p> <p>2.6 The provider has the administrative and student support services to operate as a training provider.</p> <p>2.7 The provider has the premises, facilities, equipment, educational resources and teaching staff to deliver its programs.</p> <p>2.8 The provider provides flexible training and assessment to meet the needs of learners and industry.</p> <p>2.9 The provider has a system in place for accurately reporting learner achievement.</p> <p>2.10 Students’ prior learning is recognised.</p>	<p>and reviewed so that they continue to satisfy defined standards and industry and/or community requirements.</p> <p>2.12 Training programs are systematically monitored and reviewed to ensure that they continue to satisfy defined standards and industry and/or community requirements</p> <p>2.13 Assessment is validated and/or moderated.</p> <p>2.14 The skills and knowledge of education staff are systematically monitored and developed so that they continue to satisfy defined standards and industry and/or community requirements</p> <p>2.15 The provider reports data collected against the national data standard to the Agency and its other stakeholders.</p>	

<b>Establishment</b> (providing confidence that quality requirements will be fulfilled)	<b>Accountability</b> (confirming that quality requirements are fulfilled)	<b>Improvement</b> (confirming that performance is continuously improved)
<b>3. Accreditation</b>		
<p>3.1 The provider has processes in place to accredit<sup>33</sup> programs according to Agency requirements and/or internal approval requirements.</p> <p>3.2 A system is in place to ensure currency and relevance of program design.</p>	<p>3.3 Accreditation<sup>34</sup> processes are monitored so that the provider continues to meet Agency requirements and/or internal approval requirements.</p>	<p>3.4 The quality of program design is systematically evaluated and improved.</p>

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<sup>33</sup> For self accrediting training organisations this will be an internal accreditation process, however for other training organisations this may be an internal approval process with external accreditation through an agency.

<sup>34</sup> See note above.

## APPENDIX 2: EXEMPLAR NATIONAL DATA STANDARD - QUALITY INDICATORS, MEASURES AND DATA SOURCES

Table 9: Exemplar national data standard - Quality indicators, measures and data sources

Themes	Indicators	Measures	Data sources	
			Critical	Desirable
C.1 Learner Characteristics	C.1.1 Learner demographic profile	C.1.1.1 Type and range of participants in TVET, e.g.: <ul style="list-style-type: none"> <li>• Gender</li> <li>• Age</li> <li>• Ethnicity</li> <li>• Education level</li> <li>• First language</li> <li>• Employment status</li> <li>• Vulnerable and/or other social groups (EQAVET 2010).</li> </ul>	Enrolment data <ul style="list-style-type: none"> <li>• Student background characteristics (e.g. gender, age, ethnicity, location, length of unemployment, disability, first language (NCVER 2010, MOE NZ 2008))</li> </ul>	
C.2 Provider characteristics	C.2.1 National registration of providers	C.2.1.1 Proportion of providers on the national register according to provider type, qualifications, location, registration status C.2.1.2 Proportion of providers with self accrediting status. C.2.1.3 Proportion of qualifications on the national register.	National register of providers National register of qualifications Provider type (e.g. not for profit, government, private, enterprise) Geographic location(s) Accreditation status (e.g. self accredited) Registration approval and review dates Qualification(s) nationally accredited (MOE NZ 2008, NCVER 2010)	Financial viability Legal status and standing
C.3 Learner Pathways	C.3.1 Flexible and alternative pathways into TVET programs	C.3.1.1 Type and range of pathways according to qualification and field of education	Program and Pathways data <ul style="list-style-type: none"> <li>• Register of qualifications using national codes</li> </ul>	Unique student identifier data (MOE NZ 2008 & AUS)

Themes	Indicators	Measures	Data sources	
			Critical	Desirable
		<p>C.3.1.2 Proportion of learners moving from different pathways (e.g. school, other TVET programs, further education, higher education and employment status) into TVET programs</p> <p>C.1.2.3 Patterns of student enrolments.</p>	<ul style="list-style-type: none"> <li>Register of pathways per qualification</li> </ul> <p>Enrolment Data</p> <ul style="list-style-type: none"> <li>Student educational background (e.g. Previous qualifications (NCVER 2010))</li> <li>Student employment background (NCVER 2010)</li> <li>Main activity of student just prior to enrolment (MOE NZ 2008)</li> <li>Schemes used to promote and improve access to TVET (EQAVET 2010)</li> <li>Enrolments in individual TVET programs according to national codes</li> <li>Enrolments in TVET programs by broad field of education (UNESCO 2011, NCVER 2010, MOE NZ 2008)</li> </ul>	
C.4 Recognition of prior learning in all contexts	C.4.1 Strategies for recognising learning in all contexts including formal and informal educational contexts as well as learning in the workplace (European Commission 2002)	<p>C.4.1.1 Success rate of recognition of prior learning/credit transfer applications (NCVER 2010)</p> <p>C.4.1.2 Proportion of program offerings with formal credit transfer arrangements with other TVET providers.</p>	<p>RPL and credit transfer policy statements and procedures in accordance with EAS QA principles</p> <p>Application outcomes for recognition of prior learning/credit transfer (NCVER 2010)</p>	<ul style="list-style-type: none"> <li>Register of qualifications with formal credit transfer arrangements with other TVET providers</li> </ul>
C.5 Labour market influences	C.1.5 Coherence of supply in relation to demand (European Commission 2002).	<p>C.1.5.1 Number and type of strategies to monitor skill shortages, skill gaps and recruitment difficulties to inform TVET program offerings (Shah &amp; Burke 2003, EQAVET 2010).</p> <p>C.1.5.2 Match between program offerings and labour market demands.</p>	<p>Strategies used to monitor labour market influences</p> <p>Labour market data</p> <p>Unemployment rate nationally, regionally and locally (Shah &amp; Burke 2003)</p> <p>TVET program data</p>	<p>Labour market data</p> <ul style="list-style-type: none"> <li>National, regional and local employer based surveys (e.g. perceptions of skill shortages)</li> <li>Occupation vacancy or hard to fill vacancy rates (nationally, regionally and locally)</li> </ul>



Themes		Indicators		Measures		Data sources	
						Critical	Desirable
						Qualification codes linked to National Classification of Occupations	
I.1	Learning resources and support	I.1.1	Access to learning resources and support services and	I.1.1.1	Level of investment in resources, services and facilities that are designed to improve access to quality services that support student learning.	<p>Current expenditure of education per student (UNESCO 2011)</p> <p>Education expenditure per qualification level (UNESCO 2011)</p> <p>Funding per student allocated to provision of learning resources (Gibbs 2011)</p> <p>Investment in student support services (Gibbs 2011)</p> <p>Ratio of learning support staff to total staff (Gibbs 2011)</p> <p>Expenditure on facilities and equipment</p> <p>Investment in information systems</p>	
		I.1.2	Provision of services to learners with disabilities.	I.1.2.1	Level of investment in resources, services and facilities that cater for the needs of those with disabilities.	<p>Type and number of disability services available (MOE NZ 2008)</p> <p>Investment in disability services</p> <p>Percentage of students with disabilities accessing disability services</p>	
I.2	Program design and curriculum development	1.2.1	Effectiveness of program design, accreditation and review	1.2.1.1	Proportion of qualifications that meet accreditation requirements.	<p>National register of qualifications</p> <p>Formal program documentation requirements including:</p> <ul style="list-style-type: none"> <li>Broad educational discipline classifications (e.g. ASCED) and national occupation classification</li> <li>National qualification code, type and level</li> <li>Program Entrance requirements</li> <li>Explicit learning outcome statements per unit/subject (Chalmers 2007)</li> </ul>	<p>Formal program documentation:</p> <ul style="list-style-type: none"> <li>Industry/community involvement</li> <li>Accredited/recognised/endorsed by industry/professional body/association</li> <li>Opportunities for combining study and workplace learning (Blom &amp; Meyers, 2003)</li> </ul> <p>Research related activities to inform teaching and learning such as:</p> <ul style="list-style-type: none"> <li>Research and/or evaluation reports (Chalmers 2007)</li> </ul>
				1.2.1.2	Level of stakeholder involvement in program design, accreditation and review.		
				1.2.1.3	Proportion of relevant qualifications with professional body/association approval.		
				1.2.1.4	Proportion of qualifications with formal workplace learning component.		
				1.2.1.5	Evidence of research informing curriculum development and review.		

Themes	Indicators	Measures	Data sources	
			Critical	Desirable
			<ul style="list-style-type: none"> <li>• Clear benchmarks for assessment</li> <li>• Program review processes and reports</li> <li>• TVET provider identifier and characteristics (NCVER 2010)</li> </ul> Formal workplace learning component	<ul style="list-style-type: none"> <li>• Teaching staff who are engaged in related research (Chalmers 2007)</li> </ul>
I.3 Quality of Teaching Staff	1.3.1 Investment in training of teachers (EQAVET 2010)	1.3.1.1 Proportion of funds invested in staff professional development/in-service training (EQAVET 2010). 1.3.1.2 Proportion of teachers participating in professional development/in-service training (EQAVET 2010).	Staff professional development expenditure in relation to total provider expenditure  Records of staff participation	
	1.3.2 Recruitment and retention of high quality teaching staff.	1.3.2.1 Proportion of teaching staff who meet national standards for training and assessment in TVET programs	Qualifications and experience of teaching staff including: <ul style="list-style-type: none"> <li>• Training and assessment qualifications (Chalmers 2007)</li> <li>• Vocational/technical qualifications</li> <li>• Industry experience and currency</li> </ul>	
		1.3.2.2 Range and type of mechanisms to attract and retain high calibre teaching staff.	Average remuneration of teachers (UNESCO 2011)  Rate of staff turnover	Staff recruitment strategies (Gibbs 2011)  Type and number of awards/incentives for rewarding/recognising high quality teaching staff (Chalmers 2007)
P.1 Training and Assessment	P.1.1 Range and appropriateness of training and assessment strategies employed	P.1.1.1 Level of learner satisfaction with learning, training and assessment. P.1.1.2 Level of validation and/or moderation. P.1.1.3 Alignment between specified learning outcomes and the training and assessment strategies. P.1.1.4 Level of industry engagement in training and assessment.	Class contact time, independent study hours and total hours (Gibbs 2011)  Class size (CHALMERS 2007)  Location and duration  Student Staff Ratios (Blom & Meyers 2003 and Gibbs 2011).  Student feedback questionnaires (Chalmers 2007; Gibbs 2011, AQTF 2010): <ul style="list-style-type: none"> <li>• Range of teaching and learning</li> </ul>	Assessment practices: <ul style="list-style-type: none"> <li>• Availability of benchmarks for assessment (Gibbs 2011)</li> <li>• Records of attendance at validation and/or moderation activities (KPMG, 2009))</li> <li>• Assessment method weightings – traditional versus authentic based tasks (e.g. multiple choice test versus workplace demonstration) (Gibbs</li> </ul>

Themes	Indicators	Measures	Data sources	
			Critical	Desirable
		P.1.1.5 Retention of students identified at risk of failing and/or withdrawing. P.1.1.6 Level of employer satisfaction with quality of on and off the job training and assessment; and with student workplace readiness.	strategies (XXXX, AQTF 2010) <ul style="list-style-type: none"> <li>Clarity and transparency of unit requirements and expectations (AQTF 2010)</li> <li>Quality, quantity and timeliness of assessment and reporting (XXXX)</li> <li>Teacher expertise</li> </ul> Employer satisfaction questionnaire (for formal workplace learning): <ul style="list-style-type: none"> <li>Training quality and work readiness (AQTF 2010)</li> </ul>	2011) Community/industry engagement/partnership in delivery (Chalmers 2007) Teaching Staff Workload balance (Gibbs 2011) Schemes to identify students' at risk of failing and/or withdrawing Students identified at risk of failing and/or withdrawing
O.1 Learner Progress and Attainment	O.1.1 Retention and completion rates	O.1.1.1 Retention and completion rates per qualification type and learner demographics (EQAVET 2010). O.1.1.2 Completion rate of learners previously identified to be at risk of failing/withdrawing. O.1.1.3 Retention and completion rates across time.	Student retention data (Chalmers 2007, Gibbs 2011) Participation data in VET programs (EQAVET 2010) Completion/graduation data in TVET programs (EQAVET 2010) Student withdrawal data (MOE NZ 2008, NCVET 2010)	Student withdrawal reasons (MOE NZ 2008, NCVET 2010)
O.2 Comparability of achievement standards	O.2.1 Monitoring completion achievement standards across time.	O.2.1.1 Evidence that achievement standards are maintained or improved across qualifications. O.2.1.2 Evidence that achievement standards are maintained or improved across time.	Schemes used to monitor achievement standards internally and externally Longitudinal student achievement data per course Records of internal and external validation and/or moderation activities	Pre and post psychometric measures of generic competencies/outcomes (e.g. problem solving, literacy, numeracy) (Gibbs 2011)
O.3 Graduate destinations	O.3.1 Monitoring pathways from TVET to work and/or continuing education (Blom & Meyers, 2003)	O.3.1.1 Destination of graduates at designated points in time (EQAVET 2010). <ul style="list-style-type: none"> <li>Proportion of graduates working in relevant occupations (EQAVET 2010).</li> </ul>	Graduate Employment data (Chalmers 2007, Gibbs 2011) Placement data in further education programs (EQAVET 2010) Graduates' occupation classification and employment field post training (EQAVET	

Themes	Indicators	Measures	Data sources	
			Critical	Desirable
		<ul style="list-style-type: none"> <li>Proportion of graduates in continuing education</li> <li>Employment status</li> </ul>	2010)	
O.4 Stakeholder satisfaction	O.4.1 Graduate and employer satisfaction with the program (Chalmers 2007)	<p>O.4.1.1 Proportion of graduates, 1 to 2 years after completion, who were satisfied with their training and learning experience.</p> <p>O.4.1.2 Proportion of destination employers of a given sector who are satisfied with graduate preparedness (EQAVET 2010).</p>	<p>Recent Graduate Student Satisfaction Surveys (Chalmers 2007; Gibbs 2011, AQTF 2010)</p> <ul style="list-style-type: none"> <li>Learner Engagement with the course and provider (AQTF 2010)</li> <li>Learner Perceptions and Attitudes toward: <ul style="list-style-type: none"> <li>Teaching and learning in general (XXXX<sup>35</sup>, AQTF 2010)</li> <li>Clarity and transparency of course requirements and expectations (AQTF 2010)</li> <li>Lifelong learning (Blom &amp; Meyers, 2003)</li> <li>Teaching and learning support services (AQTF 2010)</li> <li>Quality and timeliness of assessment and reporting in general (XXXX)</li> <li>Provider/organisation culture (XXXX)</li> <li>Physical environment and resources (XXXX, AQTF 2010)</li> <li>Employment preparedness</li> </ul> </li> </ul>	<p>Post Graduate Student Survey</p> <ul style="list-style-type: none"> <li>Learners perception of employment preparedness and utilisation of skills and knowledge (AQTF 2010)</li> </ul>

<sup>35</sup> XXXX refers to a confidential report yet to be released.

## ACRONYMS

AANZFTA – ASEAN-Australia-New Zealand Free Trade Area

AFAS - ASEAN Framework on Services

APEC – Asia Pacific Economic Community

APQN - Asian Pacific Quality Network

ASEAN - Association of South East Asian Nations

EAS – East Asia Summit

INQAAHE - International Network for Quality Assurance Agencies in Higher Education

MRAs -Mutual Recognition Arrangements

NQF – National Qualifications Framework

QAF – Quality Assurance Framework

RQF - Regional Qualifications Framework

SEAMEO - Southeast Asian Ministers of Education Organization

TVET – Technical and Vocational Education and Training

## GLOSSARY<sup>36</sup>

Accreditation	The process of assessment and official approval of achievement standards (i.e. certification standards), including qualification or unit(s) of a qualification, usually for a particular period of time, as being able to meet particular requirements or certification standards defined by an accrediting agency that functions within a quality assurance system.
Accredited qualifications	Qualifications which have been accredited or granted approval by an accrediting agency or organization as having met specific requirements or certification standards.
Accrediting agency	Accrediting agencies are those entities that manage program accreditation under national legislation e.g. national qualifications agencies, official review boards or other nationally approved bodies or agencies with the remit to establish achievement standards and/or accredit qualifications. All accrediting agencies are subject to ongoing monitoring and periodic review of their performance against quality standards.
Achievement standards (in education and training)	<p>Statements approved and formalised by a recognised agency or body, which defines the rules to follow in a given context or the results to be achieved.</p> <p>Achievement standards can take a variety of forms. A distinction can be made between competency, educational, occupational or certification standards:</p> <ul style="list-style-type: none"><li>• competency standard refers to the knowledge, skills and/or competencies linked to practising a job;</li><li>• assessment standard refers to statements of learning outcomes or levels of achievement to be assessed and methodology used</li><li>• educational standard refers to statements of learning objectives, content of curricula, entry requirements and resources required to meet learning objectives</li><li>• occupational standard refers to statements of activities and tasks related to a specific job and to its practise;</li><li>• certification standard refers to statements of rules applicable to obtaining a qualification (e.g. certificate or diploma) as well as the rights conferred.<sup>37</sup></li></ul>

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<sup>36</sup> A range of these definitions have been sourced from the Burke et al (2009) or Pacific Qualifications Framework (2011) unless otherwise noted.

<sup>37</sup> Adapted from CEDEFOP 2011, p. 109.

Audit	<p>Quality audit refers to a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled<sup>38</sup>. Some countries may refer to audit activity as an external independent review or evaluation or assessment.</p> <p>For other countries the term ‘evaluation’ reflects a focus on the value of specified outcomes. Refer to Evaluation (of education and training) in this Glossary.</p>
Awarding body	<p>Awarding bodies issue qualifications. This could include government agency such as the Ministry of Training or a University.</p>
Data standard	<p>Data standards are the data specifications for data collection and reporting</p>
Comparability	<p>Comparability is the comparison of one qualification with another, based, most often, on a common format or instrument - such as comparability tables – that enables the ‘face value’ of a qualification to be established. The act of comparing enables judgments to be made about the equivalence (sameness) of qualifications<sup>39</sup></p>
Continuous improvement	<p>A planned and ongoing process that enables a provider systematically review and improve its policies, procedures, products and services in order to generate better outcomes for clients and to meet changing needs. It allows a provider to constantly review its performance against relevant quality standards and to plan ongoing improvements to its performance. Continuous improvement involves collecting, analysing and acting on relevant information obtained from clients and other interested parties, including the provider’s staff. It also includes monitoring and reviewing the improvement actions taken.</p>
Credit framework	<p>Credit framework typically is a set of taxonomy based descriptors of the volume of learning and the level of learning. It is designed to enable and support the development of courses and qualifications, compare and align qualifications and therefore enable stronger links between qualifications, including credit based links.</p>
Credit transfer	<p>Credit transfer assesses the initial course or subject that an individual is using to claim access to, or the award of credit in, a destination course. The assessment determines the extent to which the client’s initial course or subject is equivalent to the required learning outcomes, competency outcomes, or standards in a qualification (AQTF 2010).</p>

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<sup>38</sup> AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing, p. 1.

<sup>39</sup> James Keevy, Borhene Chakroun & Arjen Deij (2010), p. 91 & 92.

Descriptors	Descriptors describe the qualification types or of units within qualifications.
Design rules or formula	Design rules or formula describe the size of the qualification and/or what it can be made up of. For example 50 per cent of learning must be at level 3.
Evaluation (of education and training)	<p>Evaluation refers to the judgment on the value of an intervention, and training program or policy with reference to criteria and explicit standards (such as its relevance or efficiency).</p> <p>Evaluation encompasses two broad aspects:</p> <ul style="list-style-type: none"> <li>• Evaluation as a systematic investigation to determine the worth or merit of a program, measure or policy by means of careful appraisal and study, based on relevant social research methods and criteria, standards and indicators (summative evaluation or impact evaluation)</li> <li>• Evaluation as a developmental process that illuminates or enlightens specific policies, processes and practice for its stakeholders, contributes to collective learning, reduces uncertainty in decision-making and helps to improve the design and implementation of the program and/or of future related initiatives (formative or process evaluation)<sup>40</sup>.</li> </ul>
Learning outcome (or outcomes-based learning)	Learning outcomes are clear statements of what a learner can be expected to know, understand and/or do as a result of a learning experience. Learning outcomes provide a clear statement of achievement.
Levels	A stage in a hierarchical system used for grouping qualifications that are deemed to be broadly equivalent. The level typically refers to the complexity of learning outcomes in any qualification.
Moderation of assessment	Moderation is the process of bringing assessment judgements and standards into alignment. It is a process that ensures the same standards are applied to all assessment results within the same unit. It is an active process in the sense that adjustments to assessor judgements are made to overcome differences in the difficulty of the tool and/or the severity of judgements <sup>41</sup> .
Naming rules	Naming rules or conventions are requirements for the allocation of qualification type titles.

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<sup>40</sup> CEDEFOP (2011), p. 45 & 46.

<sup>41</sup> Adapted from Gillis and Bateman (2009).



National Qualification Framework	National qualifications framework <sup>42</sup> (NQF) is an instrument for the development and classification of qualifications according to a set of criteria or criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of level descriptors. The scope of frameworks may be comprehensive of all learning achievement and pathways or may be confined to a particular sector, for example initial education, adult education and training or an occupational area. Some frameworks may have more design elements and a tighter structure than others; some may have a legal basis whereas others represent a consensus of views of social partners.
Program	A structured learning program may include a complete qualification, or a cluster of units of a qualification or a unit of a qualification.
Program capability	The capability of an organisation to deliver an education or training program that leads to quality outcomes and meets the required standards.
Provider	A training organisation that plans and delivers education/training and assessment services that leads to the award of qualifications or components of qualifications.
Provider accredited qualifications	Some providers are able to self accredit (sometimes through legislation) qualifications from the national qualifications framework.
Qualification	Qualification <sup>43</sup> is a formal certificate issued by an official organisation, in recognition that an individual has been assessed as achieving learning outcomes or competencies to the standard specified for the qualification title, usually a type of certificate, diploma or degree. Learning and assessment for a qualification can take place through workplace experience and/or a program of study. A qualification confers official recognition of value in the labour market and in further education and training.
Qualification system	Qualifications system <sup>44</sup> includes all aspects of a country's activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. One feature of a qualifications system may be an explicit framework of qualifications.
Quality assurance	Quality assurance is a component of quality management and is 'focused on providing confidence that quality requirements will be fulfilled' (AS/NZS ISO 9000:2006: Quality management systems—Fundamentals and vocabulary, p.

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<sup>42</sup> Coles, M and Werquin, P (2006), p. 22.

<sup>43</sup> Coles, M and Werquin, P (2006), p. 21 & 22.

<sup>44</sup> Coles, M and Werquin, P (2006), p. 22.

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In relation to education and training services, quality assurance refers to planned and systematic processes that provide confidence in the design, delivery and award of qualifications within an education and training system. Quality assurance ensures stakeholders interests and investment in any accredited program are protected.

**Quality audit** A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled (AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing, p. 1).

**Quality management system** A quality management system aims ‘to direct and control an organisation with regard to quality’ (AS/NZS ISO 9000:2006: Quality management systems—Fundamentals and vocabulary, p. 8).

An organisation should establish, document, implement and maintain a quality management system and continually improve its effectiveness. The quality management system documentation could include:

- Documented statements of a quality policy and quality objectives
- Quality manual
- Documented procedures and records appropriate to key functions
- Documents, including records, determined by the organisation to be necessary to ensure the effective planning, operation and control of its processes (adapted from AS/NZS ISO 9001: 2008, Quality management systems— Requirements, p. 2).

**Quality standard** Technical specifications which are measurable and have been drawn up by consensus and approved by an organisation recognised at regional, national or international levels.<sup>45</sup> Within the EAS TVET QAF these technical specifications are the agency and provider quality assurance standards (including governance, registration and accreditation).

**Recognition of prior learning (RPL)** Recognition of prior learning (RPL) is an assessment process that assesses an individual’s non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes, competency outcomes, or standards for entry to, and/or partial or total completion of, a qualification (AQTF 2010).

**Recognition Tool** A Recognition Tool is a means of improving the information conveyed in a certificate or diploma. One form of tool is the Diploma Supplement. E.g. from the University of Nottingham: ‘This Diploma Supplement follows the model developed by the European Commission, Council of Europe and

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<sup>45</sup> CEDEFOP (2011), p. 96.

UNESCO/CEPES. The purpose of the Supplement is to provide sufficient independent data to improve the international “transparency” and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.)’.

Referencing	Referencing is a process that results in the establishment of a relationship between the national quality assurance framework and that of a regional quality assurance framework. Referencing in the education arena is most commonly referred to in relation to national qualification frameworks (NQFs) and regional qualifications framework, such as the European Qualifications Framework; however similar processes can be utilised for ensuring comparability of quality assurance systems.
Regional framework	A means of enabling one framework of qualifications to relate to others and subsequently for one qualification to relate to others that are normally located in another framework <sup>46</sup> .
Registration of providers	<p>Registration processes include formal acknowledgement by a registering body that a provider meets relevant standards. Under NQFs it is usual for a provider to be registered in order to deliver and assess accredited programs and issue awards.</p> <p>Some agencies differentiate between the two processes, e.g.:</p> <ul style="list-style-type: none"><li>• Formal acknowledgement that the provider meets key generic standards</li><li>• Formal acknowledgement that the provider meets specific standards related to the provision of teaching, learning and assessment of a specific program.</li></ul> <p>For the purpose of the EAS Quality Assurance Framework for TVET project, registration of providers is the term used for both processes.</p>
Registering agency	Registering agencies/ bodies are those entities that responsible for registering education and training providers e.g. national qualifications agencies, official review boards or other nationally approved bodies or agencies.
Sectors	Sectors refers to the main subgroups within education e.g. schools, TVET and higher education (universities).
Self-assessment	Any process or methodology carried out by a TVET provider or agency under its own responsibility, to evaluate its performance or position in relation to relevant quality standards (internal and/or external). This may also be referred to as self-evaluation or self-review <sup>47</sup>
Standards	Standards in the EAS TVET QAF have been classified as two major types:

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<sup>46</sup> Commission of European Communities (2005), p 13

<sup>47</sup> Adapted from CEDEFOP 2011, p. 100.

- Quality standards – refer to
- Achievement standards

Taxonomies	Taxonomies (or classification systems) are used to list the type of learning outcomes achieved at each level within an NQF. Examples are ‘complexity of knowledge’, ‘degree of application’ and ‘level of autonomy.’
Transparency	‘Transparency is the degree to which the value of qualifications can be identified and compared in education, training, the workplace and other contexts. It is the degree of explicitness about the meaning of a qualification (outcomes, content, levels, standards, awards). It implies the exchange of information about qualifications in an accessible way within and outside the country of award. When transparency is achieved, it is possible to compare the value and content of qualifications at national and international level.’ <sup>48</sup>
Unit	The smallest component of a qualification; also known as subjects, modules, courses, papers, competencies, components. This is the smallest part of a qualification or program that can be separately assessed and certified.
Validation	Validation is a quality review process. It involves checking that the assessment tool produced valid, reliable, sufficient, current and authentic evidence to enable reasonable judgements to be made as to whether the requirements of the relevant aspects of the educational/competency standards had been met. It includes reviewing and making recommendations for future improvements to the assessment tool, process and/or outcomes <sup>49</sup> .
Volume of learning measure	The volume of learning can be measured in terms of notional learning time for the complete qualification or for a unit. Notional learning time is the time it takes an average learner to achieve the learning outcomes of a unit of a qualification or the complete qualification. Notional learning time includes time in direct contact (as in lectures and tutorials); practical and field work; time in independent study; and time spent doing assessments. For example 1 credit = 10 hours learning time, or 1 = 40 hours.

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<sup>48</sup> James Keevy, Borhene Chakroun & Arjen Deij 2010, p. 91.

<sup>49</sup> Adapted from Gillis and Bateman 2009.

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