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List of acronyms

APEC  Asia-Pacific Economic Cooperation

AQRF  ASEAN Qualifications Reference Framework

ASEAN  Association of Southeast Asian Nations

ETF  European Training Framework

HRDWG  Human Resources Development Working Group

ISCED  International Standard Classification of Education

ISCO  International Standard Classification of Occupations

IRF  APEC Integrated Referencing Framework for Skills Recognition and Mobility

OSF  Occupational Standards Framework
Background

APEC currently includes the following economies: Australia, Brunei Darussalam, Canada, Chile, People’s Republic of China, Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, The Philippines, Russia, Singapore, Chinese Taipei, Thailand, The United States and Viet Nam.

Labour mobility is a priority area in the APEC Human Resources Development (HRD) Ministerial Action Plan (2015-2018) and a key aspect of the APEC Connectivity Blueprint for 2015-2025. APEC Economic Leaders declared in November 2014 that ‘much work needs to be done to ease existing barriers to interaction and mobility, and to develop joint endeavours that will support seamless flows of people.’

At the APEC High Level Policy Dialogue on Human Capacity Building held in Papua New Guinea on 6/7 May 2015, participants agreed to:

- work towards a common understanding of competency standards and/or framework to support the recognition of the development of competencies across APEC economies involving the identification of the needs of businesses and industry feedback and sharing of best practices, and
- continue to share information on the existing qualifications referencing frameworks to further explore mutually beneficial qualifications referencing arrangements for APEC economies to support increased labour mobility within the region.

The development of an APEC Occupational Standards Framework (OSF) directly addresses the need to ease existing barriers to interaction and mobility by establishing a common understanding of skills required for specific occupations and determination of relevance of skills held by individuals. The APEC OSF includes an agreed protocol for the development of occupational standards at a regional level.

Chronological development

The OSF development was initiated through a broader project to explore the establishment of an APEC Integrated Referencing Framework for Skills Recognition and Mobility. This project was commissioned by The Australian Government Department of Education and Training through funding received from the Department of Foreign Affairs and Trade’s APEC Economic Diplomacy Fund to undertake a project entitled APEC Integrated Referencing Framework (IRF) for Skills Recognition and Mobility Project (‘the Project’). The project commenced in July 2015 and concluded in December 2015.

The IRF aims to draw together into a cohesive architecture the following key elements:

- Occupational standards framework – enables a comparison of the skills required for specific occupations
- Qualifications framework – enables comparison of national qualification levels
- Quality assurance framework – enables confidence in the relevance and quality of provision of training and qualifications.

The initial meeting to discuss the development of an APEC OSF was held in conjunction with discussions in the Philippines during September 2015 on the potential for a fully integrated framework.

Twelve APEC economies participated including: Australia, Chile, Chinese Taipei, Indonesia, Malaysia, New Zealand, Papua New Guinea, Peru, Philippines, Republic of Korea, Thailand and Vietnam.
Structure

Scope

The APEC Occupational Standards Framework (OSF) is an agreed protocol on the development and validation of regional occupational standards.

Purpose

Within the APEC economies there is a need to facilitate the development of regional occupational standards for specific industry sectors and establish a framework that supports recognition of skills specified in the occupational standards across APEC economies. These occupational standards can provide a reference point for national or local occupational standards; they can also reflect international standards established by international organisations and trade bodies. Importantly they can also facilitate a common understanding of knowledge, skills and competence required in occupations across the APEC region.

The key purposes of the APEC OSF are to:

- facilitate a common understanding of occupations and occupational standards;
- identify core elements and skill levels in select occupations across the economies;
- support labour and business mobility;
- enhance economic integration;
- provide a reference point for economies’ occupational standards and capacity development activities; and
- support exchange of information on best practice in competency based training and assessment.

It is envisaged that the users of the Framework will not be limited to employers and education and training providers, but may also assist policy makers and recognition agencies within APEC economies.

Principles

The APEC OSF has been designed based on agreed understandings across the APEC economies. It does not seek to prescribe how economies will develop their own occupational standards or how these standards will be used by stakeholders. APEC economies can determine how they will use this Framework and the regional occupational standards developed according to the Framework.

Underpinning these basic principles are that the Framework will provide for:

- a flexible development process to enable each occupational sector to develop occupational standards to meet their needs;
- an avenue for member economies to contribute to the development and validation of regional occupational standards;
- both industry and government representation in the development and validation of regional occupational standards; and
- voluntary and flexible application within individual countries.
Key terms

Agreeing on key terms is critical for the ongoing development of regional occupational standards at an APEC level and for the development of mutual understanding across APEC economies.

Occupational standards detail the skills and knowledge required for an occupation. They can inform the development of qualifications to ensure they are relevant to the needs of the labour market, and they can also inform employers and learners of a job profile or occupation. Although local and national occupational standards generally include a range or mix of agreed competencies and include detailed specification of these competencies; in a regional framework such a level of detail could be a barrier to countries reaching an agreement on regional occupational standards. This may be especially pertinent given the broad range of countries within APEC and their respective occupational standards systems and education and training systems.

The European Training Framework (ETF 2014) notes that a majority of ETF partner countries have developed or are developing occupational standards. Many countries have developed coordinated systems of standards, e.g. United Kingdom, Germany, Australia, New Zealand and Canada with similar initiatives being established in a diverse range of countries, e.g. Malaysia, Chile (Fretwell et al 2001). The European Training Framework report (ETF 2014) indicates that in the EU countries there are three distinct groups of countries whereby:

1. Occupational standards take the form of a more or less comprehensive classification system whose primary function is supporting labour market monitoring.
2. Occupational standards are designed as benchmarks for measuring occupational performance, either in a work context or in an educational context.
3. Occupational standards describe the occupation targeted by a qualification. It is noted that in this group they are generally developed in an integrated process with education standards; although this is not always the case in some countries internationally.¹

How countries define, document and use occupational standards varies. As the APEC OSF aims to be a neutral influence it does not impinge on national processes.

To maintain flexibility in the development of occupational standards at a regional level the following definitions apply:

- Occupational standards are statements of activities and tasks related to a specific job and to its practice.²
- Occupational standards are essentially job statements, which may or may not be accompanied by function statements. Function statements are defined as specifications related to job tasks or functions within an occupation.

Other agreed terms are included in the Glossary.

¹ ETF 2014
² Adapted from Cedefop Glossary (2011)
Relationship to international classification systems

Using international classification systems may assist APEC economies to come to a common understanding of occupations. The International Standard Classification of Occupations3 (ISCO) is a tool for organizing jobs into a defined set of groups according to the tasks and duties undertaken in the job. Its main aims are to provide:

- A basis for the international reporting, comparison and exchange of statistical and administrative data about occupations
- A model for the development of national and regional classifications of occupations
- A system that can be used directly in countries that have not developed their own national classifications.

The option of recording relevant classification information for occupations shall be used in the APEC OSF where it is relevant.

Associated documents

The APEC economies over time may identify the need for further clarification as to terminology and/or further information in regards to sector information e.g. range or contexts for occupational standards. As such, further companion volumes to specific sector occupational standards or concept notes will be developed and endorsed as required.

For each occupation or industry sector three volumes shall be developed: occupational standards for a job role, country companion volume and job role companion volume.

Other references

In many countries occupational standards are directly linked to training standards so that education and training can relate directly to employment needs.

A training standard could be:

- An educational standard that refers to statements of learning objectives, content of curricula, entry requirements and resources required to meet learning objectives
- A standard that is less detailed and provides advice related to training expectations and inputs, resources (for example staff, students, materials) which should be available in an institution; duration or volume of learning of the program; NQF level of qualification.

As training standards are related directly to each APEC economy’s qualifications or certification systems, they are not the remit of the APEC OSF.

A number of the APEC economies are part of other communities that have a regional qualifications reference framework, e.g. ASEAN Qualifications Reference Framework (AQRF). The AQRF, a common reference framework, functions as a device to enable comparisons of qualifications across ASEAN member states. This framework enables countries to compare their national qualifications.

framework with the level descriptors of the AQRF. In addition, education international classification systems may assist APEC economies to come to a common understanding of their qualifications.

However, as the APEC OSF is focused on the development of occupational standards as opposed to educational programs conducted within countries and of qualifications and qualifications frameworks, references to the AQRF levels and the International Standard Classification of Education (ISCED) is focused on education outcome – they are considered not relevant to the APEC OSF.

**Development process**

There are three broad stages in the development of regional occupation standards.

**Stage 1: Identification and planning**

1. Identify priority industry sector for APEC economies.
2. Identify and confirm funding.
3. Establish a Working Group and identifying a lead APEC economy.
4. Identify priority occupations within the industry sector.

**Stage 2: Development of occupational standards**

5. Working Group develops job statements.
6. Working Group develops Function Statements for the Job Statement (if required).
7. Each APEC economy in the Working Group will have the opportunity to contribute to the development of the occupational standards.
8. All APEC economies will be invited to review drafts.

**Stage 3: Finalising occupational standards**

9. Each APEC economy will engage relevant in-country industry representatives to validate the draft APEC occupational standards.
10. Draft APEC occupational standards are prepared by Working Group and open for final comment.
11. APEC economies in the Working Group benchmark their occupational standards and/or qualifications to the draft APEC occupational standards.
14. APEC occupational standards are maintained on an APEC agreed website.
15. Review of APEC occupational standards.

Each step in the process is expanded in Appendix 1.

Working Groups can adapt the process and templates as required. However the Development Criteria form the basis of the development process, and need to be met even if Working Groups adjust the process or templates. The Development Criteria are included in Appendix 1.

**Communicating the framework**

Regional occupational standards developed by APEC economies shall be maintained on the agreed APEC website and able to be viewed by all APEC economies and externally by interested parties.
The maintenance and management of the APEC OSF and regional occupational standards developed within the structure of the Framework is still to be decided.

APEC economies are encouraged to provide access to information and guidance to stakeholders on how the APEC regional occupational standards relate to their local or national occupational standards and qualifications system.
### Appendix 1: Protocol for development

#### Development Criteria

The following seven criteria underpin the development process, and need to be met even if Working Groups adjust the process or templates.

<table>
<thead>
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<th>Criteria</th>
<th>Notes</th>
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<tr>
<td><strong>1</strong> Need identified as an APEC priority</td>
<td>Five APEC economies to confirm that the industry sector is a priority at a regional level for the development of regional occupational standards. Identification of priority sector is informed by industry.</td>
</tr>
<tr>
<td><strong>2</strong> Working Group includes appropriate representation.</td>
<td>Five APEC economies to commit to Working Group. Consideration is to be given of the balance of economies, e.g. developed and developing. Each APEC economy to commit one government and one industry representative with combined expertise in vocational training and the relevant industry sector. Consideration is to be given to gender balance. Commitment of APEC economies to provide representatives for the duration of the process e.g. meetings and/or online discussion. Commitment by one APEC economy to provide additional representative to lead the process and project manage.</td>
</tr>
<tr>
<td><strong>3</strong> APEC economies share a common understanding of similarities and issues facing the particular industry sector.</td>
<td>Each economy is to prepare a report to promote a shared understanding of the education and training system and of the particular industry; issues faced etc. Synthesis report to be undertaken by lead APEC economy, to be shared with Working Group.</td>
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<tr>
<td><strong>4</strong> Industry is involved in validation activities conducted in country.</td>
<td>Industry validation of the draft APEC occupational standards is required to ensure that the standards align to the job roles and meet the needs of industry across the region. Industry representatives should have a clear understanding of each of the job roles and the applicable tasks. Industry representatives should be selected from a range of enterprises, with different scopes of operation, such as small, medium and large enterprises, regional or urban enterprises and those that operate across borders. For best results feedback should be sought from at least six and up to 12 industry representatives.</td>
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<td><strong>5</strong> All APEC economies have the opportunity to be involved in the development of the regional occupational standards.</td>
<td>Participation of all APEC economies is evident in:  - Feedback at the initial draft stage  - Feedback at the final draft stage. Occupational standards are open for comment; however</td>
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<tr>
<td>Criteria</td>
<td>Notes</td>
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<td>feedback is voluntary, and it not required for final confirmation by the Working Group.</td>
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<td>6</td>
<td>Benchmarking process and findings is justified to participating economies in the Working Group. Working Group members benchmark their occupational standards to the draft APEC occupational standards, and report findings to Working Group.</td>
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<td>7</td>
<td>Timeline for review of regional Occupational Standards is identified by industry. APEC economies are to monitor the currency of the APEC occupational standards. Industry and the lead economy are to drive the need for review and the review requirements. It is anticipated that review will need to be between 3 – 5 years.</td>
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Stages in the development process

Stage 1: Identification and planning

1. Identify priority industry sector for APEC economies.

   Identification will be driven by government in conjunction with industry stakeholders. Identification will be predicated on the potential for international investment and labour and capital migration across borders for member countries. The identification of priority industry sectors will be informed through consultation with Human Resources Development Working Group (HRDWG) and member economies and a review of economic data. This activity may be conducted out of session.

2. Identify and confirm funding.

   The interested economies will seek funding from participating countries through the HRDWG.

3. Establish a Working Group and identifying a lead APEC economy.

   Stakeholder involvement is formalised through the establishment of a Working Group from at least five APEC economies according to Criteria 2. The lead economy shall be determined via general agreement of the participating economies; and will more than likely be representatives from the funding economy.

   The lead economy representative shall call for each participating economy to prepare a short country report that summarises the education and training system and the particular industry (including issues faced).

   The lead economy representative shall prepare a synthesis report to include at a minimum:
   - An overview of similarities and differences of systems
   - Summary of the industry sector landscape. This report forms the initial discussion at the first meeting.

4. Identify priority occupations within the industry sector.

   At the first meeting, Working Group economies will be consulted to:
   - Determine and agree roles and responsibilities of the lead economy representative.
   - Determine occupations for development and rank in importance. The identified occupations will have relevance to all member economies.
   - Develop a work plan for the development of the occupational standards including tasks to be completed, responsibilities, resourcing and timelines (refer to Template 1).
   - Confirm templates to guide documentation of occupational standards. These standards will include Essential\(^4\) and Additional\(^5\) roles and responsibilities (job tasks);

\(^4\) All (5) participating economies agree that these roles and responsibilities (job tasks) are common across the countries.
Stage 2: Development of occupational standards

5. Working Group develops Job statements
   Working Group to develop Job Statements for each occupation (refer Template Model 2A or Template Model 2B). For Model 2B there are no Function Statements to be developed.

   There are two models of templates provided depending on the needs of the Working Group.

   Model A: includes Job Statement and also Function Statement templates. Further templates (4A, 5A, 6A) align with this model.

   Model B: Includes only Job Statement template. Further templates (5B, 6B) align with this model. This model includes less detail as there are no Function Statements attached to the Job Statement. The Working Group can use this model if the perceived risks of the occupation is low, e.g. retail, housekeeping.

6. Working Group develops Function Statements for the Job Statement (if required).

   The Model template for Job Statements agreed by the Working Group, determines whether stated Essential and Additional job tasks (documented in Template Model 2A) are to be developed into the Function Statements (Template Model 3A).

7. Each APEC economy in the Working Group will have the opportunity to contribute to the development of the occupational standards.

   All APEC economies in the Working Group will have access to an online facility in order to contribute to the drafting process.

   Prior to loading draft occupational standards a mapping document is prepared to summarise and map across occupations all function statements as required for Model A (refer Template Model 4A).

8. All APEC economies will be invited to review drafts.

   Draft APEC occupational standards will be made available to all other APEC economies for comment via an online facility.

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5 Additional roles and responsibilities (job tasks) are identified by some (between 1 – 4) economies but not all.
Stage 3: Finalising occupational standards

9. Each APEC economy will engage relevant in country industry representatives to validate the draft APEC occupational standards.

   Each APEC economy in the Working Group will conduct feedback sessions in country. Feedback will be sought from industry representatives regarding the suitability of the standards. Industry representatives should be provided with clear information on what is required and the timeframe for providing feedback (refer Template Model 5A or Template Model 5B).

10. Draft APEC occupational standards are prepared by Working Group and open for final comment.

   Draft occupational standards shall be adjusted given the feedback during the validation sessions. Once adjusted, the draft occupational standards shall be open for final comment by other APEC economies on a voluntary basis, through an online facility.

11. APEC economies in the Working Group benchmark their occupational standards and/or qualifications to the draft APEC occupational standards.

   Following any final adjustments, each APEC economy in the Working Group will benchmark their occupational standards and/or qualifications to the draft APEC occupational standards (refer Template Model 6A or Template Model 6B). The extent and depth of benchmarking will be guided by each economy’s level of development. Each participating economy provides a brief report of the process undertaken and the findings of the benchmarking activity to other participating economies.


   APEC Working Group confirms final version and prepares an endorsement document (refer to Template 7).

13. HRDWG endorse the occupational standards

   HRDWG review endorsement document and confirm that the agreed APEC protocol has been followed (refer to Template 8).

14. APEC occupational standards are maintained on an agreed APEC website.

15. Review of APEC occupational standards.

   Review of the APEC occupational standards to ensure currency will be guided by Industry in partnership with the lead economy.

Templates:

   Template 1: Workplan
   Template 2A: Job statement (Model A)
   Template 2B: Job statement (Model B)
   Template 3A: Function statement (Model A)
Template 4A: Mapping (Model A)
Template 5A: Validation tables (Model A)
Template 5B: Validation tables (Model B)
Template 6A: Benchmarking tables (Model A)
Template 6B: Benchmarking tables (Model B)
Template 7: Endorsement document
Template 8: Endorsement sign off document.
Appendix 2: Glossary

The following definitions marked with an asterisk (*) are those developed specifically for the APEC Occupational Standards Framework (OSF). The remainder of the following definitions are those included in the ASEAN Qualifications Reference Framework and the EAS TVET Quality Assurance Framework.

| Benchmarking* | Within the APEC OSF, benchmarking refers to APEC economy representatives comparing the final draft APEC occupational standards to:  
- existing VET system standards  
- existing industry standards / courses  
In addition, representatives indicate if there any plans for either industry or government to incorporate the APEC occupational standards in local TVET delivery. |
| National Qualifications Framework | 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. |
| Occupational standards* | Occupational standards are statements of activities and tasks related to a specific job and to its practice. |
| Qualification | Qualifications are a meaningful and coherent cluster of learning outcomes that meet the specified qualification type descriptors, that are capable of being assessed and are subject to external quality assurance processes. |
| Qualifications framework | 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. |
| Quality assurance | Quality assurance is a component of quality management and is ‘focused on providing confidence that quality requirements will be fulfilled’. 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 assurance system | Quality assurance system includes all aspects of a country's activity related to assuring the quality of education and training. These systems include the following elements: |

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6 Majority of these definitions are included in the ASEAN QRF. The ones shaded yellow are new to the list.
8 Adapted from Cedefop Glossary (2011)
9 Cedefop Glossary (2011) p. 82.
- clear and measurable objectives and standards, guidelines for implementation, including stakeholder involvement,
- appropriate resources,
- consistent evaluation methods, associating self-assessment and external review,
- feedback mechanisms and procedures for improvement,
- widely accessible evaluation results.\(^1\)

<table>
<thead>
<tr>
<th>Regional qualifications framework</th>
<th>A broad structure of levels of learning outcomes that is agreed by countries in a geographical region. A means of enabling one national framework of qualifications to relate to another and, subsequently, for a qualification in one country to be compared to a qualification from another country.</th>
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<td>Training standard(^*)</td>
<td>A training standard could be an educational standard or could be a standard that is less detailed and provides advice related to training expectations and inputs, resources (for example staff, students, materials) which should be available in an institution; duration or volume of learning of the program; NQF level of qualification. Training standards are outside the remit of the APEC OSF.</td>
</tr>
<tr>
<td>Validation (of occupational standards)(^*)</td>
<td>Within the APEC OSF, validation refers to industry representatives confirming the accuracy and relevance of the draft APEC occupational standards to occupations in their country of operation.</td>
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References


