



Competency Based Training

Competence can be defined as the ability of an individual to perform to a predefined standard, tasks appropriate to their position or level. Competence is also the proven ability to use knowledge, skills and personal abilities in those tasks.

Competency based training is based on the end result, rather than the process of learning. It is a learning outcomes based approach that covers knowledge, skills and competence. Competence is also defined in terms of the level of authority and autonomy of an individual.

Simplified description of levels:

Level	Role	Function / Task
1	Introduction	Assist
2	Basic	Do / Support
3	Advanced	Supervise
4	Commander	Manage
5	Director	Decide

The focus of a competency based training system is the assessment of competence. Assessments are normally carried out in the work-place, towards the end of the learning process. The assessment is therefore of the learning outcomes. Competency standards are used as the benchmark for the assessment.

Evidence of ability and learning has to be sought directly by assessing each trainee to support the claim of competence. Often evidence is gathered together in a portfolio which an assessor evaluates using the competency standards as the benchmark.

Wildfire training and prescribed fire training for forest fires, shrub fires, grass fires, crop fires and peat fires all involve a mixture of practical skills and knowledge. The competency based training concept has been applied successfully in a number of countries around the world to support skills development for these areas.

There are many hazards and risks involved in fire management. Each organisation needs to pay particular attention to the type and intensity of training required to ensure safety points become embedded in trainees learning. All aspects of safety on the fireground are key learning outcomes.

Training cycle

All the stages of a vocational training cycle can be mapped against competency standards:

- **Identification of needs** – measurement through appraisal, performance review, training needs analysis, and self-assessment using competency standards as benchmark
- **Training programme** – planning of learning activities, to deliver the skills, knowledge and attitudes and standards expected using competency standards to support training objectives and syllabus.
- **Delivery of training** – there are a number of options including: informal learning, attending courses, doing projects, work shadowing, coaching, mentoring, external training, internal training, training, which can all benchmark against competency standards.
- **Assessment** – measuring performance level back in the workplace, this looks at the transfer and acquisition of skills, knowledge and ability. Measurement is against competency standards that provides the benchmark.

Assessing Competence

Assessment of competence is a key part of a Competency Based Training system. It is a quality assurance system that can lead to certification and qualifications.

It is preferable for candidates to have their competence assessed in the work place, doing the job and using the skills and knowledge defined in the competency standards.

A very different approach is required compared to doing tests in a classroom. At the core of this type of system is the need for candidates to collect evidence in a portfolio to show that they are competent in relation to the standards. There is no pass or fail in the system, just an assessment of whether the candidate is competent or not yet competent or there is insufficient information to make a judgement.

Evidence can be collected from a number of sources; some of which involve the trainee putting things together and somewhere other's get involved too.

Forms of evidence:

- Direct observation of your performance by the Assessor
- Work products
- Authenticated statement – a witness testimony
- Personal statement
- Outcomes from questioning
- Outcomes of simulation
- Assignments or projects
- Accreditation of Prior Learning (APL) – evidence from the past

How does the assessment process work?

Like any new process, the assessment system needs to be understood by the trainee. The assessor will first meet up with the trainee and their employer. At the meeting the assessor

will go through how the system works and what's required. Also who does what, when and what help and support is provided. They will then work with the trainee to establish:

- What they can do already
- The standard and level they are aiming for
- What they need to learn
- The activities that will help the trainee learn the subject.

After that, it's a little bit like detective work; the trainee has to collect evidence to show that he or she has been doing the work required and to the right standards. Once it has been collected, the assessor then has to check this evidence to make sure the trainee has enough to prove they can do what's required.

Quality assurance and evidence

It is important that evidence is:

- **Valid:** It relates to the competency standard you are trying to prove
- **Authentic:** The evidence, or an identified part of it (e.g. report) was produced by **you**
- **Consistent:** Achieved on more than one occasion
- **Current:** Usually not more than two years old
- **Sufficient:** Covers all the performance and knowledge requirements laid down in the standards

Demonstrating competence: skills and knowledge

In order to meet the standards, you will also be required to prove knowledge and understanding. Each unit contains a list summarising the knowledge, understanding and skills a candidate must possess. Evidence of how these have been achieved and applied could be inferred in the performance evidence as one or all of the following:

- Descriptions of why a particular approach was used
- Personal reports about the learning process
- Reflective reports which include how a theory or principle was applied
- Assessment interviews and tests
- Responses to questioning
- Work products

Assessment and the learning process

Assessment of competence is normally done towards the end of the learning process. The competency standard is the benchmark that all steps relate to. Even though individuals do not necessarily need formal training to acquire all the necessary knowledge and skills trainees do need to be supervised, especially when safety is a concern.

Progression of learning

The stage in the learning process that assessment is undertaken is normally when someone has had some experience at work bedding in the skills and knowledge that they have acquired in training.

- Induction
- Learning
- Development
- Competent practise

-----Assessment-----

- Excellence / professionalism

Continuing Professional Development

It is also important to note when someone receives a certificate indicating competence this is not the end of the learning process. Improvements in performance can still be achieved and should be a focus for the individual.

Practice, experience, and feedback from supervisors are all ways to help improve performance. Formal performance appraisals perhaps linked back to the competency standards and continuing training can also help develop professional wildfire suppression and prescribed fire skills.

European Qualification Framework

The European Qualifications Framework (EQF) is a voluntary reference system designed to fit the multitude of qualifications across Europe into a coherent framework based on learning outcomes. The purpose of the EQF is to make qualifications more transparent and readable across sectors and countries.

The EQF does this by setting qualifications into a series of reference levels (1 – 8), from basic to advanced. The eight reference levels are described in terms of learning outcomes, split into knowledge, skills and competence.

By 2010 countries will be asked to relate their national qualifications systems to the EQF. By 2012 each individual certificate should have an indication of the EQF reference level.

The likely benefits of engagement with the EQF process are:

- Improved matching of employers needs with qualifications across Europe
- Improved validation of informal learning, especially for individuals who have learned through extensive experience from work or other fields of activity.
- Improved labour mobility between countries
- To enables industries, like fire management, that are common to all EU countries to work towards common standards & qualifications

More information about the EQF, in all EU languages, can be found at

- http://ec.europa.eu/education/lifelong-learning-policy/doc44_en.htm

EQF Definitions

Term	Description
Learning outcomes	Statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence
Knowledge	The outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study either theoretical and/or factual
Skills	The ability to apply knowledge and use know-how to complete tasks and solve problems either cognitive or practical
Cognitive	The use of logical, intuitive and creative thinking
Practical	Involving manual dexterity and the use of methods, materials, tools and instruments
Competence	The proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations, described in terms

EuroFire and the EQF

The EuroFire project has developed a series of pilot competency standard units that describe the core learning outcomes an operator may be expected to have at Level 2. No qualification to support the delivery of the learning outcomes has been developed. The principle of “subsidiarity” applies with qualifications the responsibility of individual states and sectors.

Level 2 EQF Descriptors

The six EuroFire competency standards and four training modules have been developed to support crew members operating at Level 2.

The EQF Level 2 descriptors are:

Knowledge	Basic factual knowledge of a field of work or study
Skills	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools
Competence	Work or study under supervision with some autonomy

EuroFire Competency Standards

Competency standards are often used as the fundamental part of a competency based training system. Competency standards are a description of the performance required in a work situation, with the knowledge needed to support that activity, in a context or range of situations.

In the European Qualifications Framework context competency standards can be used to define learning outcomes. This means that competency standards can be used to support work based training and qualifications at a particular level of activity.

The emphasis on the outcomes of learning, the end result, is a big change from the traditional approach to training that emphasized inputs, for example the number of training hours.

Competency standards are normally written as general statements sufficient to describe the activity. The detail is in other documents, training manuals, assessment guidance and other reference material.

The main benefits of competency standards are to:

- Support a better match between the needs of the labour market and education and training provision
- Facilitate the validation of practical experience and informal learning as well as formal training
- Help the transparency of qualifications across different countries training systems

The EuroFire Level 2 competency standards have been written as a series of 6 units. Due to the large number of different organisations involved in wildfire and prescribed fire management at this basic level in Europe it was not possible to relate the standards to identifiable job roles. A different approach was chosen.

The EuroFire standards have been focused instead on the typical tasks, techniques and tools that can be identified at Level 2, the basic level. As such they should have more general applicability across Europe.

The structure of the standards is to split the overall subject into units. Each unit should take between 20 and 40 guided learning hours to acquire the necessary learning. Units are further split down into elements and each element has three parts: what you must do,

The six competency standards are:

- **EF1** Ensure that your actions in the vegetation fire workplace reduce the risks to yourself and others
- **EF2** Apply techniques and tactics to control vegetation fire
- **EF3** Communicate within a team and with supervisors at vegetation fires
- **EF4** Apply hand tools to control vegetation fires
- **EF5** Control vegetation fires using pumped water
- **EF6** Apply vegetation ignition techniques

EuroFire Training Modules

The EuroFire partnership team, as a pilot project, has developed fire training materials to support the development of similar fire management skills across the European Union. The fire training materials have been developed to support fire training and assessment for a Level 2 work environment. That is for members of a tanker crew, hand crew, or prescribed burning crew, who are instructed to do tasks and who work under direct supervision.

Six EuroFire competency standard units for fire crews and personnel involved in the suppression of wildfires, forest fires, rangeland fires and in prescribed burning have been developed. Four training modules to support firefighters self-learning are also available.

Not all the standards have been covered by an equivalent module due to a lack of time in the project. The units by training modules are the areas of skills knowledge and competence identified in consultation with the industry as being weak. The training modules are:

- **EF1** Ensure that your actions in the vegetation fire workplace reduce the risks to yourself and others.
- **EF2** Apply techniques and tactics to control vegetation fire.
- **EF4** Apply hand tools to control vegetation fire.
- **EF6** Apply vegetation ignition techniques.

Consequently, the additional language versions include only the Standards and Training Modules EF1, EF2, EF4 and EF6.