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Erasmus+ Programme  
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**MAKE IT Project**  
**Sector Skills Alliance**  
**ERASMUS+**

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# **MAKE IT**

## Let's Make It Happen – a Shift into Learning Outcomes in the Welding Sector



Project Ref. No. 2015-3299 / 562642-EPP-1-2015-1-BE-EPPKA2-SSA

### **R9.2. Glossary**

Version 3.0

05.12.2018



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## Foreword

The present document serves the purpose of guaranteeing a common understanding of the MAKE IT project's scope and topics to be used as tool by the partners, whenever necessary.

It will be organised sections according to the topics, introducing terms in that specific field. Prior to the sections some general abbreviations are introduced. The first section is "Education", followed by "Welding" and at last "Quality Management".



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## 1. Abbreviations

- ANB:** Authorized National Body
- ATB:** Approved Training Bodies
- APL:** Assessment of Prior Learning
- CEDEFOP:** European Centre for the Development of Vocational Training
- CEN:** European Committee for Standardization
- CGO:** competence-based learning
- C-VET:** Continuous Vocational Education and Training
- CU:** Competence Unit
- DG EAC:** Directorate General for Education and Culture
- DG:** Directorate General
- EACEA:** Educational, Audio-visual & Culture Executive Agency
- EC:** European Commission
- ECAS:** European Commission Authentication System
- ECTS:** European Credit Transfer and Accumulation System
- ECVET:** European Credit System for Vocational Education and Training
- EEA:** European Economic Area
- EQAVET:** European Quality Assurance in Vocational Education and Training
- EQF:** European Qualifications Framework
- EQF L:** European Qualifications Framework Level
- ESCO:** European Skills, Competences, Qualifications & Occupations
- ET 2020:** Education and Training 2020
- ETF:** European Training Foundation
- EU:** European Union
- EWP:** European Welding Practitioner
- ICT:** Information and Communication Technology
- IEA:** Internal Evaluation Approach
- ISO:** International Organisation for Standardisation
- IT:** Information Technology
- IO:** Intellectual Outputs
- I-VET:** Initial Vocational Education and Training

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**KA2:** Key Action 2 – Cooperation for Innovation and the exchange of good practices

**KPI:** Key Performance Indicators

**KSC:** Knowledge, Skill, Competences

**LOs:** Learning Outcomes

**LLP:** Lifelong Learning Program (EACEA-Europe)

**MSC:** Mainstream Steering Committee

**NA:** National Agency

**NARIC:** National Academic Recognition Information Centre

**NGO:** Non-governmental Organization

**NQF:** National Qualifications Framework

**NRP:** National Reference Point

**OECD:** Organisation of Economic Cooperation and Development

**OER:** Open Educational Resources

**PC:** Project Coordinator

**PDCA cycle:** Plan, Do, Check, Act

**PIC:** Participant Identification Code

**PSC:** Project Steering Committee

**QMS:** Quality Management System

**RPL:** Recognition of Prior Learning

**RVCC Recognition:** Validation, and Certification of Prior Learning (in Portugal, Spain)

**SMEs:** Small and Medium Enterprises

**SSA:** Sector Skills Alliance

**SWOT:** Strengths, Weaknesses, Opportunities and Threats

**T-VET:** Technical and Vocational Education and Training

**UNESCO:** United Nations Educational, Scientific and Cultural Organization

**VET:** Vocational Education and Training

**VNFIL:** Validation of non-formal and informal learning

**WP:** Work Package

**WBL:** Work-based learning

**WD:** Welding demonstration

**WL:** Workload

**WPL:** Working Package Leader

**WPS:** Welding Procedure Specification



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## 2. Education key-terms

**Sources:** Cedefop, 2011. "Glossary – Quality in Education and Training". Luxembourg: Publication Office of the European Union.

European Union, 2015. "ERASMUS+ - Programme Guide (EU-Version3)".

**Access to education and training:** Conditions, circumstances or requirements (such as qualifications, education level, competences or work experience) governing admittance to and participation in educational institutions or programmes.

*Source:* adapted from UNESCO, 1995.

**Accreditation of an education or training programme:** A process of quality assurance through which a programme of education or training is officially recognised and approved by the relevant legislative or professional authorities following assessment against predetermined standards.

*Source:* adapted from Canadian Information Centre for International Credentials

**Accreditation of an education or training provider:** Process of quality assurance through which accredited status is granted to an education or training provider, showing it has been approved by the relevant legislative or professional authorities by having met predetermined standards.

*Source:* Cedefop, 2008c, based on Canadian Information Centre for International Credentials, 2003

**Accreditation of prior learning (APL):** See validation of informal / non-formal learning.

**Accreditation of competences:** See recognition of learning outcomes; certification; validation of learning outcomes.

**Action:** A strand or measure of the Erasmus+ Programme. Examples of Actions are: Strategic Partnerships in the field of education, training and youth, Erasmus Mundus Joint Master Degrees, Sectors Skills Alliances, etc.

**Activity:** A set of tasks carried out as part of a project. An activity can be of different types (mobility activities, cooperation activities, etc.). In the framework of Jean Monnet, an Activity is equivalent to an Action (see definition above).

**Adult education:** All forms of non-vocational adult education, whether of a formal, non-formal or informal nature (for continuous vocational training see "VET").

**Adult education organisation:** Any public or private organisation active in the field of adult learning.

**Adult learner:** Any person who, having completed or is no longer involved in initial education or training, returns to some forms of continuing learning (formal, non-formal or informal).

**Alternance training:** A education or training combining periods in an educational institution or training centre and in the workplace. The alternance scheme can take place



on a weekly, monthly or yearly basis. depending on the country and applicable status, participants may be contractually linked to the employer and/or receive a remuneration.  
Comment: the German 'dual system' is an example of alternance training.  
Source: Cedefop, 2008.

**Applicant:** Participating organisation or informal group that submits grant application. Applicants may apply either individually or on behalf of a other organisations involved in the project. In the latter case, the applicant is also defined as coordinator.

**(Application) deadline:** Final date by when the application form must be submitted to the National or Executive Agency to be considered eligible.

**Apprenticeship (Apprentice):** Apprenticeship-type schemes are understood as those forms of Initial Vocational Education and Training (I-VET) that formally combine and alternate company based training (periods of practical work experience at a workplace) with school based education (periods of theoretical/practical education followed in a school or training centre), and whose successful completion leads to nationally recognised initial VET qualifications.

**Assessment of learning outcomes:** Process of appraising knowledge, know-how, skills and/or competences of an individual against predefined criteria (learning expectations, measurement of learning outcomes). Assessment is typically followed by validation and certification.

Comment: In the literature, "assessment" generally refers to appraisal of individuals whereas 'evaluation' is more frequently used to describe appraisal of education and training methods or providers.  
Source: Cedefop, 2008c.

**Awarding body:** Body issuing qualifications (certificates, diplomas or titles) formally recognising the learning outcomes (knowledge, skills and/or competences) of an individual, following an assessment and validation procedure.  
Source: Cedefop, 2008c.

**Basic information and communication technology (ICT) skills:** The skills needed to use efficiently the elementary functions of information and communication technologies to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the internet.

Comment: Basic ICT skills are now part of key skills/key competences.  
Source: European Parliament and council of the European Union (2006); Cedefop, 2012.

**Basic skills:** The skills needed to live in contemporary society, such as listening, speaking, reading, writing and mathematics.

Comment: together with new basic skills, basic skills form key skills.  
Source: Cedefop, 2008.

**Beneficiary:** If the project is selected, the applicant becomes beneficiary of an Erasmus+ grant. The beneficiary signs a grant agreement with/or is notified of a grant decision by the National or Executive Agency that has selected the project. If the



application was made on behalf of other participating organisations, the partners may become co-beneficiaries of the grant.

**Bench learning:** Process of learning from one another to:

- transfer good practices to partner organisations;
- improve overall organisation performance;
- develop cooperation between organisations.

*Source:* based on CAF regional bench learning project.

**Benchmarking:** Management tool for comparing performance against an organisation widely regarded as outstanding in one or more areas to improve performance.

or

Systematic process comparing the activities, processes and/or performance of a programme, organisation, country, etc. against a theoretical, political or existing reference with the aim of identifying ways to improve performance.

Comments:

- benchmarking can be either qualitative or quantitative;
- the process of learning from peers performing better is called bench learning.
- the Lisbon strategy has set the following education and training benchmarks:
  - The benchmarks for 2010 were:
    - the share of low-achieving 15 year-olds in reading should decrease by at least 20%;
    - the average rate of early school leavers should be no more than 10%;
    - at least 85% of 22 year-olds should complete upper secondary education;
    - the total number of graduates in maths, science and technology should increase by at least 15%, while the gender imbalance in these subjects should be reduced;
    - average participation of working adults' population in lifelong learning (age group 25-64) should reach at least 12.5%.
  - The benchmarks to be achieved by 2020 are:
    - at least 95% of children between the age of four and the age for starting compulsory primary education should participate in early childhood education;
    - the share of 15 year-olds with insufficient abilities in reading, mathematics and science should be less than 15%;
    - the share of early leavers from education and training should be less than 10%;
    - the share of 30-34 year-olds with tertiary educational attainment should be at least 40%;
    - an average of at least 15% of adults (age group 25-64) should participate in lifelong learning.

*Sources:* Definition 1: European Commission.

DG Enterprise and Industry.

Definition 2: *The Economist. Business database dictionary.*

**Blended learning:** Study type that involves learning in a combination of modes. Often used more specifically to refer to courses which use a combination of traditional face-to-face teaching work-shops or seminars, and distance learning techniques on-line (such as internet, television, conference calls)

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**Call for proposals:** invitation published by or on behalf of the Commission to present, within a given deadline, a proposal for action that corresponds to the objectives pursued and fulfils the required conditions. Calls for proposals are published in the Official Journal of the European Union (C series) and/or at relevant websites of the Commission, National or Executive Agency.

**Certificate:** in the context of Erasmus+, a document issued to a person having completed a learning activity in the field of education, training and youth, where relevant. Such document certifies the attendance and, where applicable, the learning outcomes of the participant in the activity.

**Certification of learning outcomes:** Process of issuing a certificate, diploma or title formally attesting that a set of learning outcomes (knowledge, know-how, skills and/or competences) acquired by an individual have been assessed and validated by a competent body against a predefined standard.

*Source:* Cedefop, 2008c.

**Certification of Welding Personnel:** The procedure leading to a written testimony of an individual's competence demonstrated by examination and assessment of experience and subsequent surveillance to confirm that the competence has been retained. This process leads to the issue of a Certificate with a validity period.

**Co-financing:** The co-financing principle implies that part of the costs of a project supported by the EU must be borne by the beneficiary or covered through external contributions other than the EU grant.

**Common principles for quality assurance in higher education and VET:** Quality assurance – to ensure accountability and improvement of higher education and vocational education and training – should be carried out in accordance with the following nine principles:

- quality assurance policies and procedures should underpin all levels of the European qualifications framework;
- quality assurance should be an integral part of internal management of education and training institutions;
- quality assurance should include regular evaluation of institutions, their programmes or their quality assurance systems by external monitoring bodies or agencies;
- external monitoring bodies or agencies carrying out quality assurance should be subject to regular review;
- quality assurance should include context, input, process and output dimensions, while giving emphasis to outputs and learning outcomes;
- quality assurance systems should include the following elements:
  - 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,

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- widely accessible evaluation results;
- quality assurance initiatives at international, national and regional levels should be coordinated to ensure overview, coherence, synergy and system-wide analysis;
- quality assurance should be a cooperative process across education and training levels and systems, involving all relevant stakeholders, in Member States and across the Community;
- quality assurance orientations at Community level may provide reference points for evaluations and peer learning.

*Source:* European Parliament and Council of the European Union, 2008.

**Company:** Two or more participating organisations teaming up to prepare, implement and follow up a project or an activity within a project. A consortium can be national (i.e. involving organisations established in the same country) or international (involving participating organisations from different countries)

**Comparability of qualifications:** Extent to which it is possible to establish equivalence between the level and content of qualifications (certificates diplomas or titles) at sectoral, regional, national or international levels.

Comment: comparability of qualifications improves individuals' employability and mobility. This term must not be confused with 'equivalence of qualifications' (which refers to the similarity of value of certificates or diplomas).

*Source:* Cedefop, 2008c.

**Compensatory learning:** Learning intended to fill the gaps accumulated by individuals during education or training, mainly to enable them to take part in training.

*Source:* Cedefop, 2004.

**Competence:** Proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

*Source:* European Commission, 2006a.

or

Ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development).

Comment: competence is not limited to cognitive elements (involving use of theory, concepts or tacit knowledge); it also encompasses functional aspects (involving technical skills) as well as interpersonal attributes (e.g. social or organisational skills) and ethical values.

*Source:* Cedefop, Tissot, 2004; European Commission, 2006a.

**Competence unit:** Same as training module, training unit, unit of learning outcomes, consisting of a coherent set of knowledge and skills, organized in learning outcomes, that can be assessed and validated. It can be part of a qualification or implemented individually.

*Source:* adapted based on CEDEFOP, Terminology of European education and training policy, 2nd Edition, 2014



**Continuing education and training:** Education or training after initial education and training – or after entry into working life aimed at helping individuals to:

- improve or update their knowledge and/or skills;
- acquire new skills for a career move or retraining;
- continue their personal or professional development.

Comment: continuing education and training is part of lifelong learning and may encompass any kind of education (general, specialised or vocational, formal or non-formal, etc.). It is crucial for the employability of individuals.

*Source:* Cedefop, 2008c.

**Coordinator/Coordinating organisation:** A participating organisation applying for an Erasmus+ grant on behalf of a consortium of partner organisations.

**Corrective action:** Action to eliminate the cause of a detected non-conformity or other undesirable situation.

*Source:* ISO, 2000.

**Cost-benefit analysis:** Comparative analysis of the costs and benefits of an education or training service or activity – and of the value of that service or activity – to select the most profitable solutions and thus maximise investments.

*Source:* based on Werner et al., 1994.

**Credit mobility:** A limited period of study or traineeship abroad -in the framework of on-going studies at a home institution -for the purpose of gaining credits. After the mobility phase, students return to their home institution to complete their studies.

**Credit system:** An instrument designed to enable accumulation of learning outcomes gained in formal, non-formal and/or informal settings, and ease their transfer from one setting to another for validation. a credit system can be designed by describing:

- an education or training programme and attaching points (credits) to its components (modules, courses, placements, dissertation work, etc.); or
- a qualification using units of learning outcomes and attaching credit points to every unit.

*Source:* Cedefop, 2008.

**Curriculum:** Inventory of activities implemented to design, organise and plan an education or training action, including definition of learning objectives, content, methods (including assessment) and material, as well as arrangements for training teachers and trainers.

Comment: the term curriculum refers to design, organisation and planning of learning activities whereas the term programme refers to implementation of these activities.

*Source:* Cedefop, 2008c; Landsheere, 1979.

**Customer satisfaction:** Measure to determine if services supplied by a provider meet or surpass customer expectation.

Comment:

- customer satisfaction is usually measured through customers' surveys;



- it is a key performance indicator and is part of the four perspectives of a balanced scorecard.

*Source:* based on Wikipedia.

**Degree mobility:** Period of study abroad aimed at the acquisition of a whole degree or certificate in the destination country/ies.

**Digital competence/digital literacy:** Ability to use information and communication technology (ICT).

Comment: digital competence is underpinned by basic skills in ICT: use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the internet.

*Source:* Cedefop, 2008; European Parliament and Council of the European Union, 2006.

**Diploma Supplement:** An annex to the official qualification documentation, which is designed to provide more detailed information on the studies completed according to an agreed format which is internationally recognized a document accompanying a higher education diploma, providing a standardised description of the nature, level, context, content and status of the studies completed by its holder. It is produced by higher education institutions according to standards agreed by the European Commission, the Council of Europe and UNESCO. The Diploma Supplement is part of Europass (see below). In the context of an international joint study programme, it is recommended to deliver a "joint diploma supplement" covering the entire programme and endorsed by all the degree awarding universities.

**Distance education and training:** Education and training imparted at a distance through communication media: books, radio, TV, telephone, correspondence, computer or video.

*Source:* based on ILO, 1979.

**Dropout:** Withdrawal from an education or training programme before its completion.

Comments:

- this term designates both the process (early school-leaving) and the persons who fail to complete a course (early school leavers);
- besides early school-leavers, dropouts may also include learners who have completed education or training but failed the final examinations.

*Source:* based on Ohlsson, 1994.

**ECTS (European Credit Transfer and Accumulation System):** A learner-centred system for credit accumulation and transfer based on the transparency of learning, teaching and assessment processes. Its objective is to facilitate planning, delivery and evaluation of study programmes and learner mobility through the recognition of qualifications and periods of learning a system that helps to design, describe and deliver study programmes and award higher education qualifications. The use of ECTS, in conjunction with outcomes-based qualifications frameworks, makes study programmes and qualifications more transparent and facilitates the recognition of qualifications.

**ECVET (European Credit System for Vocational Education and Training):** A system that aims to facilitate the validation, recognition and accumulation of work-related skills



and knowledge acquired during a stay in another country or in different situations. ECVET aims for better compatibility between the different vocational education and training systems in place across Europe and their qualifications. It should create a technical framework to describe qualifications in terms of units of learning outcomes, and it includes assessment, transfer, accumulation and recognition procedures.

**Educational attainment:** Highest level of education or training completed by an individual.

Comments: educational attainment:

- is measured according to the highest educational programme successfully completed, which is typically certified by a qualification;
- can be measured against ISCED or EQF levels.

*Source:* Cedefop; UNESCO, 2011.

**Education or training path:** Sum of learning sequences followed by an individual to acquire knowledge, skills or competences.

Comment: a learning path may combine formal and non-formal learning sequences where validation leads to certification.

*Source:* Cedefop, 2008c; European Commission, 2006b.

**Education or training pathway:** Set of related education or training programmes provided by schools, training centres, higher education institutions or VET providers, that eases individuals' progression within or between activity sectors.

*Source:* Cedefop, 2008c; European Commission, 2006b.

**Education or training provider:** Any organisation or individual providing education or training services.

Comments:

- education and training providers may be organisations specifically set up for this purpose, or they may be others, such as employers, who provide training as part of their business activities. Training providers also include independent individuals who offer services;
- certification of providers is a key element of quality in education and training.

*Source:* Cedefop, 2008c

**Enterprise:** Any undertaking engaged in an economic activity regardless of its size, legal form or of the economic sector in which it operates.

**EQAVET (European Quality Assurance Reference Framework for Vocational Education and Training):** A reference tool for policy-makers based on a four-stage quality cycle that includes goal setting and planning, implementation, evaluation and review. It respects the autonomy of national governments and is a voluntary system to be used by public authorities and other bodies involved in quality assurance.

**EQF (European Qualifications Framework):** A common European reference tool that serves as a translation device between different education and training systems and their levels. It aims to improve the transparency, comparability and portability of qualifications across Europe, promoting workers' and learners' mobility and facilitating their lifelong



learning, as defined in the 2008/C 111/01 Recommendation of the European Parliament and the Council.

**ESCO (multilingual classification of European Skills, Competences, Qualifications and Occupations):** Identifies and categorises skills and competences, qualifications and occupations relevant for the EU labour market and education and training, in 25 European languages. The system provides occupational profiles showing the relationships between occupations, skills, competences and qualifications. ESCO has been developed in an open IT format and is available for everyone to use free of charge.

**Established:** Relates to an organisation or body fulfilling certain national conditions (registration, statement, publication, etc.) that allow such organisation or body to be formally recognized by its national authority. In case of an informal group of young people, the legal residence of its legal representative is considered as having the equivalent effects for the purposes of eligibility to an Erasmus+ grant.

**Europass:** Europass is a portfolio of five different documents and an electronic folder aiming to contain descriptions of the entire holder's learning achievements, official qualifications, work experience, skills and competences, acquired over time. These documents are: the Europass CV, the Diploma Supplement, the Certificate Supplement, the Europass Mobility and the Language Passport. Europass also includes the European Skills Passport, a user-friendly electronic folder that helps the holder to build up a personal, modular inventory of his/her skills and qualifications. The aim of Europass is to facilitate mobility and improve job and lifelong learning prospects in Europe.

**Evaluation of education and training:** Judgment on the value of an intervention, programme or policy with reference to criteria and explicit standards (such as its relevance or efficiency).

Comment: evaluation encompasses two broad aspects:

- evaluation as a systematic investigation to determine the worth or merit of a programme, 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);
- 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 programme and/or of future related initiatives (formative or process evaluation).

*Source:* European Commission, 1999; Cedefop, Technical working group on quality in VET.

**Formal learning:** Learning that occurs in an organised and structured environment (in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner's point of view. It typically leads to validation and certification.

*Source:* Cedefop, 2008c.



**Guidance and counselling/ information, advice and guidance (IAG):** Range of activities designed to help individuals to take educational, vocational or personal decisions and to carry them out before and after they enter the labour market.

Comments:

Guidance and counselling may include:

- counselling (personal or career development, educational guidance);
- assessment (psychological or competence/performance related);
- information on learning and labour market opportunities and career management;
- consultation with peers, relatives or educators;
- vocational preparation (pinpointing skills/competences and experience for job seeking);
- referrals (to learning and career specialists);

Guidance and counselling can be provided at schools, training centres, job centres, the workplace, the community or in other settings.

*Source:* Cedefop, 2008.

**Higher education institution:** Any type of higher education institution which, in accordance with national law or practice, offers recognised degrees or other recognised tertiary level qualifications, whatever such establishment may be called, or any institution which, in accordance with national law or practice, offers vocational education or training at tertiary level.

**Impact:** General term used to describe the effects of a programme, policy or socioeconomic change. Impact can be positive or negative as well as foreseen or unforeseen.

Comment: impact research analyses the effects of an intervention or programme or changes in society such as demographic or technological change.

*Source:* based on UK Evaluation Society; Cedefop, Descy and Tessaring, 2005.

**Indicator:** Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, reflect the changes connected to an intervention, or to help assess the performance of a development actor.

*Source:* OECD, 2002.

**Informal groups of young people:** See the definition of "groups of young people active in youth work but not necessarily in the context of a youth organisation" above.

**Informal learning:** Learning resulting from daily activities related to work, family or leisure which is not organised or structured in terms of objectives, time or learning support; it may be unintentional from the learner's perspective.

**Information and communication technology (ICT):** Technology which provides for electronic input, storage, retrieval, processing, transmission and dissemination of information.

*Source:* Cedefop, 2004.

**Initial education and training:** General or vocational education and training carried out in the initial education system, usually before entering working life.

Comments:

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- some training undertaken after entry into working life may be considered as initial training (retraining);
- initial education and training can be carried out at any level in general or vocational education (full-time school-based or alternance training) pathways or apprenticeship.

Source: Cedefop, 2008c

**International:** In the context of Erasmus+, relates to any action involving at least one Programme Country and at least one Partner Country.

**International Sectoral Qualification:** Set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment.

Comments:

- job placement can be carried out by public or private employment services, or by schools/universities;
- it encompasses activities such as drafting a CV, preparation for interviews, skills audit, guidance and counselling.
- job placement is also used in the sense of short-term work experience.

Source: Cedefop

**Job Shadowing (practical learning experience):** A short stay at a partner organisation in another country with the aim of receiving training by following practitioners in their daily work in the receiving organisation, exchanging good practices, acquiring skills and knowledge and/or building long-term partnerships through participative observation.

**Joint degree:** Single degree certificate awarded to a student upon completion of a joint programme. The joint degree must be signed by the competent authorities of two or more of the participating institutions jointly and recognised officially in the countries where those participating institutions are located.

**Joint programmes:** Higher education (study or research) programmes jointly designed, delivered and fully recognised by two or more higher education institutions. Joint programmes can be implemented at any higher education level, i.e. bachelor, master or doctorate. Joint programmes can be national (i.e. when all universities involved are from the same country) or transnational/international (i.e. when at least two different countries are represented among the higher education institutions involved).

**Key skills / key competences:** Sum of skills (basic and new basic skills) needed to live in a contemporary knowledge society.

Comment: in their recommendation on key competences for lifelong learning, the European Parliament and the Council set out eight key competences:

- communication in mother tongue;
- communication in foreign languages;
- competences in maths, science and technology;
- digital competence;
- learning to learn;
- interpersonal, intercultural and social competences, and civic competence;
- entrepreneurship;
- cultural expression.



*Source:* Cedefop, Tissot, 2008c; European Parliament and Council of the European Union, 2006.

**Knowledge:** Outcome of assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices related to a field of study or work.

**Comment:** there are numerous definitions of knowledge. Nevertheless, modern conceptions of knowledge rest broadly on several basic distinctions:

(a) Aristotle distinguished between theoretical and practical logic. In line with this distinction, modern theoreticians (Alexander et al., 1991) distinguish declarative (theoretical) knowledge from procedural

(practical) knowledge. Declarative knowledge includes assertions on specific events, facts and empirical generalisations, as well as deeper principles on the nature of reality. Procedural knowledge includes

heuristics, methods, plans, practices, procedures, routines, strategies, tactics, techniques and tricks (Ohlsson, 1994);

(b) it is possible to differentiate between forms of knowledge which represent different ways of learning about the world. Various attempts

have been made to compile such lists, the following categories seem to be frequently represented:

- objective (natural/scientific) knowledge, judged on the basis of certainty;
- subjective (literary/aesthetic) knowledge judged on the basis of authenticity;
- moral (human/normative) knowledge judged on the basis of collective acceptance (right/wrong);
- religious/divine knowledge judged by reference to a divine authority (God). This basic understanding of knowledge underpins the questions we ask, methods we use and answers we give in our search for

knowledge;

(c) knowledge encompasses tacit and explicit knowledge. Tacit knowledge (Polanyi, 1967) is knowledge learners possess which influences cognitive processing. However, they may not necessarily express it or be aware of it.

Explicit knowledge is knowledge a learner is conscious of, including tacit knowledge that converts into an explicit form by becoming an 'object of thought' (Prawat, 1989).

*Source:* Cedefop, 2008c; European Commission, 2006a.

**Knowledge application:** Within the MAKE IT project correspond to the outcomes related to memorization and comprehension

*Source:* Result 2.1 EWP LOS Standards

**Learning-by-doing:** Learning acquired by repeated practice of a task, with or without prior instruction.

*Source:* Cedefop, 2008c.

**Learning-by-using:** Learning acquired by repeated use of tools or facilities, with or without prior instruction.

*Source:* Cedefop, 2008c.

**Learning community:** Community that promotes a culture of learning by developing effective local partnerships between all sectors of the community, and supports and motivates individuals and organisations to learn.

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*Source:* Cedefop, 2004.

**Learning content:** Topics and activities which make up what is learned by an individual or group of learners during a learning process.

*Source:* adapted from European Training Foundation, 1997.

**Learning facilitator:** Anyone who promotes acquisition of knowledge and skills by establishing a favourable learning environment, including anyone exercising a teaching, training, supervision or guidance function. The facilitator helps the learner develop knowledge and skills by providing guidelines, feedback and advice throughout the learning process.

*Source:* Cedefop, 2004.

**Learning mobility:** Moving physically to a country other than the country of residence, in order to undertake study, training or non-formal or informal learning; it may take the form of traineeships, apprenticeships, youth exchanges, volunteering, teaching or participation in a professional development activity, and may include preparatory activities, such as training in the host language, as well as sending, receiving and follow-up activities.

**Learning outcomes:** All general education, vocational education and training, non-formal learning and informal learning undertaken throughout life, resulting in an improvement in knowledge, skills and competences or participation in society within a personal, civic, cultural, social and/or employment-related perspective, including the provision of counselling and guidance services.

**Level of qualification:** The term covers two aspects:

a) the level of attainment in education and training recognised in a qualification system or in a qualification framework;

*or*

b) the learning outcomes acquired through education and training, work experience or in informal/ non-formal settings.

Comment: the level of qualification:

- is often determined against a standard in a qualification system or against a level descriptor in a qualification framework;

- can be determined against an occupational profile (for example, description of learning outcomes required to perform the tasks

attached to a job at a specific level of responsibility and autonomy);

- may also refer to education and training attended but not validated and certified.

*Source:* Cedefop.

**Lifelong learning:** All learning activity undertaken throughout life, which results in improving knowledge, knowhow, skills, competences and/or qualifications for personal, social and/or professional reasons.

*Source:* Cedefop, 2008c; European Commission, 2001.

**Low-skilled person:** Person whose level of education and training is lower than a predetermined standard.

Comments:

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- standard level below which an individual is considered as low qualified depends on the context, for example on the general level of education in a society, or on distribution of qualifications within an occupation; in Europe, individuals are generally considered low qualified when they have a level inferior to upper secondary;
- the actual qualification of an individual goes beyond the level of formal education and training: it encompasses learning outcomes acquired through continuing (re)training /upskilling, work experience, personal or professional development.

*Source:* Cedefop.

**Mentoring:** Guidance and support provided in various ways to a young person or novice (someone joining a new learning community or organisation) by an experienced person who acts as a role model, guide, tutor, coach or confidant.

*Source:* based on Bolton, 1980.

**Mobility/Learning agreement:** An agreement between the sending and receiving organisation, as well as the participating individuals, defining the aims and the content of the mobility period in order to ensure its relevance and quality. It can also be used as a basis for the recognition of the period abroad by the receiving organisation.

**Month:** In the context of the Erasmus+ Programme and for the purpose of calculating the grants, a month is equal to 30 days.

**Mutual recognition of qualifications:** Recognition by one or more countries or organisations of qualifications (certificates, diplomas or titles) awarded in (or by) one or more other countries or organisations.

Comment: mutual recognition can be bilateral (between two countries or organisations) or multilateral (within the European union or between companies belonging to the same sector).

*Source:* Cedefop, 2008.

**Non-formal learning:** learning which takes place through planned activities (in terms of learning objectives and learning time) where some form of learning support is present, but which is not part of the formal education and training system.

**Norm:** Use standard.

**Occupational profile:** the set of skills, competences, knowledge and qualifications that is usually relevant for a specific occupation.

**Occupation:** Set of jobs whose main tasks and duties are characterised by a high degree of similarity.

*Source:* ILO, 2008.

**Off-the-job training:** Vocational training undertaken away from the normal work situation. it is usually only part of a whole training programme, in which it is combined with on-the-job training.

*Source:* based on UNESCO, 1979.



**On-the-job training:** Vocational training given in the normal work situation. It may constitute the whole training or be combined with off-the-job training.

*Source:* based on UNESCO, 1979.

**Open learning:** Learning which gives the learner a degree of flexibility in choice of topics, place, pace and/or method.

*Source:* Cedefop, 2008.

**Open Method of Coordination:** An intergovernmental method providing a framework for cooperation between the EU Member States, whose national policies can thus be directed towards certain common objectives. Within the scope of the Programme, the OMC applies to education, training and youth.

**Output indicator:** Data that provide a quantitative or qualitative measure of the result of an education or training intervention.

*Source:* Cedefop.

**Output standard:** Standard that sets the level of performance to be attained.

Comment: output standards can be applied to:

- systems (to set the level of performance to be achieved by the whole country or region);
- providers (to set the level of performance to be achieved by VET providers);
- individuals (to set the level of performance to be achieved by the learner).

*Source:* Cedefop, Technical working group on quality in VET.

**Overqualification:** Situation where an individual has a higher qualification than the current job requires.

Comments:

- overqualification is close to – but not synonymous with:
  - overeducation: situation where an individual has more
- education than the current job requires (measured in years);
  - overskilling: situation where an individual is not able to utilise fully their abilities and skills in the current job.
- overqualification can be temporary (e.g. when an overqualified young person accepts a low-level position until they find more appropriate employment) or can have a more permanent character.

*Source:* Cedefop, 2010.

**Participants:** In the context of Erasmus+ participants are considered those individuals fully involved in a project and, in some cases, receiving part of the European Union grant intended to cover their costs of participation (notably travel and subsistence). Under certain Actions of the Programme (i.e. Strategic Partnerships) a distinction is hence to be made between this category of participants (direct participants) and other individuals indirectly involved in the project (e.g. target groups).

**Participating organisation:** Any organisation or informal group of young people involved in the implementation of an Erasmus+ project. Depending on their role in the project, participating organisations can be applicants or partners (also defined as co-applicants, if they are identified at time of submission of the grant application). If the



project is granted, applicants become beneficiaries and partners may become co-beneficiaries if the project is financed through a multi-beneficiary grant.

**Partner (organisation):** Participating organisation involved in the project but not taking the role of applicant.

**Partner Countries:** Countries which do not participate fully in the Erasmus+ Programme, but which may take part (as partners or applicants) in certain Actions of the Programme. The list of Erasmus+ Partner Countries is described in Part A of this Guide, section "Who can participate in the Erasmus+ Programme".

**Partnership:** An agreement between a group of participating organisations in different Programme Countries to carry out joint European activities in the fields of education, training, youth and sport or establishing a formal or informal network in a relevant field such as joint learning projects for pupils and their teachers in the form of class exchanges and individual long-term mobility, intensive programmes in higher education and cooperation between local and regional authorities to foster inter-regional, including cross-border, cooperation; it may be extended to institutions and/or organisations from Partner Countries with a view to strengthening the quality of the partnership.

**Performance criteria:** Within the MAKE IT project correspond to the necessary steps a trainee should undertake to achieve/perform a certain activity/task; it encompasses the quality requirements for assessment of the performance.

*Source:* Result 2.1 EWP LOS Standards

**Permeability of education and training systems:** Capacity of education and training systems to enable learners to:

- access and move among different pathways (programmes, levels) and systems;
- validate learning outcomes acquired in another system or in non-formal/informal settings.

Comments:

- permeability of systems can be improved by:
  - modularising pathways and defining units of learning outcomes;
  - establishing qualification frameworks which create links between various qualifications, improving readability of qualifications within and between countries;
  - setting credit systems;
- permeability is characterised by direction (vertical/horizontal), criteria for access (individual or collective), admission or exemption, level of formalisation (at institution or system levels).

*Source:* Cedefop.

**Practical application:** within the MAKE IT project correspond to the outcomes related to the analysis, evaluation, application and creation)

*Source:* Result 2.1 EWP LOS Standards

**Prior learning:** See informal learning, non-formal learning.



**Process standard:** Standard which sets the minimum requirements that must be guaranteed in running VET activities.

Comment: these standards can be applied to:

- systems (e.g. 'all training activities must assign 30% of time to work experience');
- providers (e.g. 'the provider must employ at least 80% certified teachers').

Process standards can be set by public authorities or private organisations.

*Source:* Cedefop, Technical working group on quality in VET.

**Professional development:** Any action undertaken to improve professional performance.

Comments: professional development:

- encompasses specific skills and generic skills (team or time management, negotiation skills, conflict management, communication, etc.);
- may take the form of self-learning, formal training, consultation, conferences, coaching or mentoring, communities of practice and technical assistance.

*Source:* Cedefop; Wikipedia, 2012.

**Programme Countries:** EU and non-EU countries that have established a National Agency which participate fully in the Erasmus+ Programme. The list of Erasmus+ Programme Countries is described in Part A of this Guide, section "Who can participate in the Erasmus+ Programme".

**Programme of education or training:** Inventory of activities, content and/or methods implemented to achieve education or training objectives (acquiring knowledge, skills and/or competences), organised in a logical sequence over a specified period of time.

Comment: programme of education or training refers to implementation of learning activities whereas curriculum refers to the design, organisation and planning of these activities.

*Source:* Cedefop, 2008c

**Project Qualification:** A coherent set of activities which are organised in order to achieve defined objectives and results. A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual achieved learning outcomes to given standards.

**Qualification:** Qualification covers different aspects:

(a) formal qualification: the formal outcome (certificate, diploma or title) of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards and/or possesses the necessary competence to do a job in a specific area of work. A qualification confers official recognition of the value of learning outcomes in the labour market and in education and training. A qualification can be a legal entitlement to practice a trade (OECD);

(b) job requirements: knowledge, aptitudes and skills required to perform specific tasks attached to a particular work position (ILO).

*Sources:* Cedefop, 2008c; based on Eurydice, 2006; European Commission, 2008; ETF, 1997; OECD, 2007; ILO, 1998.



**Qualification 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.

Comment: A qualification framework can be used to:

- establish national standards of knowledge, skills and competences;
- promote quality of education;
- provide a system of coordination and/or integration of qualifications and enable comparison of qualifications by relating qualifications to one another;
- promote access to learning, transfer of learning outcomes and progression in learning.

*Source:* based on European Commission, 2008; OECD, 2007.

**Qualification system:** All activities related to recognition of learning outcomes and other mechanisms that link education and training to the labour market and civil society. These activities include:

- definition of qualification policy, training design and implementation, institutional arrangements, funding, quality assurance;
- assessment, validation and certification of learning outcomes.

Comment: a national qualifications system may be composed of several subsystems and may include a national qualifications framework.

*Source:* based on European Commission, 2008.

**Quality assurance in education and training:** Activities involving planning, implementation, evaluation, reporting, and quality improvement, implemented to ensure that education and training (content of programmes, curricula, assessment and validation of learning outcomes, etc.) meet the quality requirements expected by stakeholders.

Comments:

- QA contributes to better matching of education and training supply and demand;
- QA covers the macro-level (educational system level), meso-level (level of individual educational institutions) and micro-level (level of teaching-learning processes).

*Source:* Cedefop.

**Quality cycle / PDCA cycle:** Iterative four-step problem-solving process typically used in business process improvement.

Comment: it is also known as the Deming cycle, Shewhart cycle, Deming wheel, or plan-do-check-act.

*or*

Cycle of four stages one has to go through to realise continuous improvement, as described by Deming:

**P** (plan) (project phase);

**D** (do) (execution phase);

**C** (check) (control phase);

**A** (act) (action, adaptation and correction phase).

*Source:* Wikipedia; EIPA, 2006.

**Quality criteria for assessing quality in VET:** Distinctive mark (or characteristic) for assessing quality of a VET system or quality of VET activities of an organisation. Quality



criteria should be supplied with one or several indicators depending on the complexity of the criteria.

**Comment:** the four quality criteria to be used when implementing EQAVET are:

- planning reflects a strategic vision shared by relevant stakeholders and includes explicit goals/objectives, actions and indicators;
- implementation plans are devised in consultation with stakeholders and include explicit principles;
- evaluation of outcomes and processes is regularly carried out and supported by measurement;
- review.

**Source:** Cedefop, based on European Parliament and Council of the European Union (2009); Technical working group on quality in VET.

**Quality indicator:** Formally recognised figure(s) or ratio(s) used as yardsticks to judge and assess quality performance.

**Source:** Cedefop, van der Berghe, 1996.

**Quality indicator for assessing quality in VET:** 10 quality indicators which can be used to support evaluation and quality improvement of VET systems and/or VET providers are:

- relevance of quality assurance systems for VET providers;
- investment in training of teachers and trainers;
- participation rate in VET programmes;
- completion rate in VET programmes;
- placement rate in VET programmes;
- utilisation of acquired skills at the workplace;
- unemployment rate according to individual criteria;
- prevalence of vulnerable groups;
- mechanisms to identify training needs in the labour market;
- schemes used to promote better access to VET.

**Source:** European Parliament and Council of the European Union (2009).

**Quality management approach in VET:** Any integrated set of policies, procedures, rules, criteria, tools and verification instruments and mechanisms that together ensure and improve, the quality provided by a VET institution.

**Comment:** 'approach' is used as an overall term because the term 'system' is often used in a narrower sense. 'Approach' covers both very fixed and formalised real systems and any sets of more systematic behaviour meant to regulate and/or to develop the quality performance of a VET system.

**Source:** Cedefop, Christensen and Bertzeletou, 2001.

**Quality management in education and training:** Process of controlling level of performance of education and training using performance and quality indicators, for both self-evaluation and external inspection.

**Comment:** quality management in education and training is to address different issues:

- what key outcomes have we achieved;
- how well do we meet the needs of our stakeholders;
- how good is our delivery of education processes;
- how good is our management;



- how good is our leadership;
- what is our capacity for improvement

*Source:* based on HM, 2006

**Quality monitoring:** Systematic collection and analysis of quality indicators to determine whether the quality of education and training meet the standards set.

*Source:* Cedefop.

**Quality policy:** Overall intentions and direction of an organisation with regard to quality as formally expressed by top management.

**Comment:** the technical working group on quality in VET identified three quality policy objectives at system level:

- improvement of employability of the labour force;
- better matching between training supply and demand;
- better access to VET, in particular for vulnerable groups.

*Source:* ISO, 1994; Cedefop.

**Quality prerequisites:** Knowledge and know-how required to follow effectively a training unit or complete training course.

*Source:* Le Préau, 2002.

**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. The purpose of quality standards is optimisation of input and/or output of learning.

*Source:* Cedefop, 2003.

**Receiving organisation:** under some Actions of Erasmus+ (notably mobility Actions) the receiving organisation is the participating organisation receiving one or more participants and organising one or more activities of an Erasmus+ project.

**Recognition of learning outcomes:**

(a) Formal recognition: process of granting official status to skills and competences either through:

- award of qualifications (certificates, diploma or titles); or
- grant of equivalence, credit units or waivers, validation of gained skills and/or competences.

*and/or*

(b) social recognition: acknowledgement of the value of skills and/or competences by economic and social stakeholders.

*Source:* Cedefop, 2008c.

**School:** An institution providing general, vocation or technical education, on any level from pre-school to upper secondary education. Please consult the list of types of institutions defined as schools in each country; for more information contact the National Agency in the country.

**Sector:** Group of companies with the same main economic activity (e.g. chemicals).

*or*

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Category of transversal professional activities (e.g. marketing) common to various companies.

*Source:* Cedefop, 2008c; European Commission, 2006a.

**Self-assessment (of a learner):** Ability of learners to observe, analyse and judge their performance based on predefined criteria and determine how they can improve it.

*Source:* Alverno College.

**Self-evaluation (of a VET provider):** Any process or methodology carried out by a VET provider under its own responsibility, to evaluate its performance or position in relation to two dimensions:

- an internal dimension ('micro level') that covers services, internal staff, beneficiaries or clients, policy and/or internal organisation, development plan, etc.; and
- an external dimension ('macro level') that covers analysis of the educational offer of this institution compared to others: relationship with the territorial system of actors (local decision-makers, unions, local governments, type of labour market and needs of VET, information network, type of populations interested in a learning offer and evolution of the needs, main results of work at national and European levels in the VET sector). This double self-evaluation allows VET providers not only to improve their internal systems of quality control but also to evaluate their own position in their various environments.

*Source:* based on Cedefop, Technical working group on quality in VET

**Sending organisation:** Under some Actions of Erasmus+ (notably mobility Actions) the sending organisation is the participating organisation sending one or more participants to an activity of an Erasmus+ project.

**Skill:** Ability to perform tasks and solve problems.

*Sources:* Cedefop, 2008c; European Commission, 2008.

**Skill gap:** Situation where an individual does not have the level of skills required to perform his or her job adequately.

Comments:

- skill gaps can be analysed at individual level (using a skills audit), at company/sector level, or at regional, national or international levels;
- skill gaps can be linked to an insufficient level of qualification; they may also refer to situations where the workforce has the right level of qualification but lacks specific types of skills (such as management skills) or experience required to perform a task or a job adequately.

*Source:* Cedefop, 2010.

**Skills audit:** Analysis of knowledge, skills and competences of an individual, including their aptitudes and motivations to define a career project and/or plan professional reorientation or training project.

Comment: the aim of a skills audit is to help individuals to:

- analyse their career background;
- self-assess their position in the labour environment;
- prepare themselves for validation of nonformal or informal learning outcomes;



- plan a career pathway.

*Source:* based on Code du travail français (partie législative), 2003; Cedefop, 2008c.

**Skill mismatch:** Situation of imbalance in which the level or type of skills available does not correspond to labour market needs.

Comments:

- skills mismatch can be a surplus or a lack of knowledge, abilities and competences;
- skill mismatch can be analysed at different levels (individual, enterprise, sectoral, economy);
- experts distinguish between vertical mismatch (the level of education/skills is higher or lower than required) and horizontal mismatch (the level of education/skills matches job requirements, but the type of education/skills is inappropriate for the current job).

*Source:* Cedefop.

**Skill needs:** Demand for particular types of skills, competences or qualifications on the labour market (total demand in a country or in a region, economic sector, etc.).

*Source:* Cedefop.

**Skill needs analysis:** Detailed examination of the skills, competences and qualifications required by the economy to operate effectively.

Comments:

- skills needs analysis aims at identifying skills gaps and shortages, anticipate future skills needs, and assess capacity of the qualification
- system (education and training provision, funding schemes, etc.) to meet the needs of the economy;
- the term skills needs analysis is related to, but not synonymous with
  - anticipation of skills needs: process of identifying future skills or qualifications required by the economy in a short, medium or longer term;
  - skills forecasting: quantitative method to estimate skill demand (jobs) or skill supply (labour force) that will be available at short, mid or long term in the labour market, and corresponding skill or qualification requirements;
  - identification of skills needs: research and analysis carried out to determine skill needs emerging in countries, regions, sectors,
- companies and occupations.

*Source:* based on Cedefop, 2008b.

**Skill obsolescence:** Situation in which knowledge and skills of individuals are out of date or out of use.

Comment: this term is also used in the literature to describe situations where physical or mental abilities and skills deteriorate due to atrophy or wear and tear.

*Source:* Cedefop; De Grip, A.; van Loo, J. (2007).

**Skill shortage:** Situation where skills supply (type of abilities and number of people available on the labour market) is not sufficient to meet labour market demand.

Comment: a skill shortage applies to all levels of qualification; it may result from factors such as:



- insufficient education and training supply;
- geographical imbalance in supply;
- developments impacting the structure of the economy;
- lack of attractiveness of specific occupations (difficult working conditions, low remuneration, insufficient social recognition).

Source: Cedefop, 2010.

**SMART objectives:** Mnemonic used in management to help setting objectives which are:

- **Specific:** precise about what is going to be achieved;
- **Measurable:** with quantified objectives;
- **Achievable;**
- **Realistic:** are the necessary resources available;
- **Timed:** within manageable timing.

Source: Cedefop, Technical working group on quality in VET; EIPA, 2006.

**SMEs (Small and medium-sized enterprises):** Enterprises (see definition above) which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro.

**Social cohesion:** Degree to which different groups in a society can live together and share common values.

Comments:

- social cohesion requires a low degree of social exclusion, intra-community cooperation and social solidarity across communities and social groups;
- social cohesion goes beyond the level of economic homogeneity (rate of employment, salary scale, access to health and education, housing); it is also linked to the level of social inclusion;
- Jenson (1998) identified five dimensions to social cohesion:
  - (a) belonging – isolation: (shared values, identity, feelings of commitment);
  - (b) inclusion – exclusion (access to welfare);
  - (c) participation – non-involvement (in civil society);
  - (d) recognition – rejection of differences (in a pluralistic society);
  - (e) legitimacy – illegitimacy (trust in and respect for institutions).

Source: Cedefop, 2008C; Jenson, 1998.

**Social dialogue:** Process of exchange between social partners to promote consultation, dialogue and collective bargaining.

Comments:

- (a) social dialogue can be bipartite (involving representatives of workers and employers) or tripartite (also associating public authorities and/or representatives of civil society, NGOs, etc.);
- (b) social dialogue can take place at various levels (company, sectoral/cross-sectoral and local/regional/national/transnational);
- (c) at international level, social dialogue can be bilateral, trilateral or multilateral, according to the number of countries involved.

Source: Cedefop, 2008c.



**Social partners:** Employers' associations and trade unions forming the two sides of social dialogue.

Comments:

- the concept of 'social partner' originates in France and Germany and was subsequently taken up in EU circles;
- tripartite social dialogue also associates public authorities and/or representatives of civil society, NGOs, etc.

*Source:* Cedefop, 2008c.

**Specifications:** Explicit set of requirements to be satisfied by a material, product, or service.

*Source:* Wikipedia.

**Staff:** Persons who, on either a professional or a voluntary basis, are involved in education, training or youth non-formal learning, and may include professors, teachers, trainers, school leaders, youth workers and non-educational staff.

**Stakeholders in VET:** All those who have an interest, whether financial or not, in VET activities, for example, policymakers, citizens/customers, employers/employees, society, public service organisations, etc.

*Source:* based on EIPA, 2006.

**Standard (in education and training):** Statement approved and formalised by a recognised body, which defines the rules to follow in a given context or the results to be achieved.

Comments:

- a standard may be expressed in quantitative terms, stating absolute or relative figures or using indicators, or in qualitative terms, using wording which has to be specific and accurate;
- a further distinction can be made between input, process, and output standards (Pollitt and Bouckaert, 2004, p. 107):
  - input standards are standards regarding resources (for example staff, students, materials) which should be available in an institution;
  - process standards are standards regarding activities taking place inside an institution to generate output;
  - output standards are standards regarding products of processes in an institution, and therefore lay down the level of performance to be attained;
- another distinction can be made between competence, educational, occupational, assessment, validation and certification standard:
  - competence standard refers to the knowledge, skills and/or competences linked to practising a job;
  - educational standard refers to statements of learning objectives, content of curricula, entry requirements and resources required to meet learning objectives;
  - occupational standard refers to statements of activities and tasks related to a specific job and to its practise;
- assessment standard refers to statements of learning outcomes to be assessed and methodology used;



- validation standard refers to statements of level of achievement to be reached by the person assessed, and the methodology used;
- certification standard refers to statements of rules applicable to obtaining a certificate or diploma as well as the rights conferred.
- according to the system, these standards can be defined separately or be part of one document; in the UK and Ireland, in referring to expected results of a school or the system, the term 'target' is more frequently used to describe the statement of specific objectives and expected results at system level or by individual providers, and the expression 'output/outcome standards' to describe specific objectives to be achieved by learners;

*Source:* ISO; Cedefop 2008a.

**Summative evaluation:** Systematic investigation to determine the worth or merit of a programme, measure or policy using relevant social research methods and criteria, standards and indicators.

*Source:* Cedefop, Descy and Tessaring, 2005.

**SWOT analysis:** Analysis of strengths, weaknesses, opportunities (potential advantages) and threats (potential difficulties) of and to an organisation.

*Source:* EIPA, 2006.

**Teacher:** Person whose function is to impart knowledge, know-how or skills to learners in an education or training institution. A teacher in a vocationally-oriented institution may be referred to as a 'trainer'.

Comment: a teacher may fulfil several tasks such as organising and carrying out training programmes/courses and transmitting knowledge, whether generic or specific, theoretical or practical.

*Source:* Cedefop, 2004; AFPA 1992.

**Trainer:** Anyone who fulfils one or more activities linked to (theoretical or practical) training, either in an institution for education or training, or at the workplace.

*Comments:*

(a) two categories of trainer can be distinguished:

- professional trainers are training specialists whose job may coincide with that of the teacher in a vocational training establishment;
- part-time or occasional trainers are professionals in various fields who take on, in their normal duties, part-time training activities, either in-company (as mentors and tutors of recruits and apprentices or as training providers) or externally (by occasionally offering their services at a training establishment);

(b) trainers may carry out various tasks:

- design training activities;
- organise and implement these activities;
- provide training, transfer knowledge, know-how and skills;
- help apprentices develop their skills by providing advice, instructions and comments throughout the apprenticeship.

*Source:* Cedefop, 2008c; AFPA, 1992.

**Traineeship (work):** Spending a period of time in an enterprise or organisation in another country, with a view to acquire specific competences that are required by the



labour market, carry out work experience and improve the understanding of the economic and social culture of that country.

**Training course planning and design:** Set of consistent methodological activities employed in designing and planning training initiatives and schemes against objectives set.

Comment: training course planning and design includes analysis of training demand and needs, project design, coordination and implementation monitoring as well as evaluation of training impact.

*Source:* based on Le Préau, 2002.

**Training needs analysis:** Systematic analysis of present and future skills needs against the skills available to implement an efficient training strategy.

Comments:

- training needs analysis rests on:
  - (a) identification of skills needs;
  - (b) identification of skills available in the workforce; and
  - (c) appraisal of skills gaps and shortages;
- training needs analysis can be conducted at individual, organisational, sectoral, national or international levels; it may focus on quantitative or qualitative aspects (for example, level and type of training) and should ensure that training is delivered effectively and cost-efficiently.

*Source:* Cedefop, 2008c.

**Training of trainers:** Theoretical or practical training for teachers and trainers.

Comments: training of trainers:

- is for teaching/training personnel, either practising: (a) as professional teachers or trainers, (b) as professionals in a given field who accompany trainees in their work environment (occasional teachers or trainers);
- covers a wide range of skills: knowledge specific to the field in question (general, technical or scientific); educational, psychological and sociological skills; management skills; familiarity with the world of work; and knowledge of training schemes and target audience;
- also covers training related to course design, organisation and implementation, as well as content of training activities (imparting knowledge, know-how and skills).

*Source:* Cedefop, 2004.

**Transferability of learning outcomes:** Degree to which knowledge, skills and competences can be used in a new occupational or educational environment, and/or be validated and certified.

*Source:* Cedefop, 2008.

**Transition from school or training to work:** Move from education or training to employment, covering the period between leaving education and entering the labour market.

Comment: transition between school and employment (integration path, type of employment with regard to level and status and duration) is complex. Integration



depends on many factors (gender, age, qualification, employment policy, guidance and counselling provision, etc.).

*Source:* Cedefop, 2008c.

**Transnational:** Relates, unless otherwise indicated, to understand, appreciate and, as appropriate, recognise learning outcomes and qualifications throughout the Union.

**Transparency of qualifications:** Degree of visibility and legibility of qualifications, their content and value on the (sectoral, regional, national or international) labour market and in education and training systems.

*Source:* Cedefop, 2008c.

**Tutoring:** Any activity offering a learner guidance, counselling or supervision by an experienced and competent professional. The tutor supports the learner throughout the learning process (at school, in training centres or on the job).

Comment: tutoring covers various activities:

- academic subjects (to improve educational achievement);
- careers (to ease transition from school to work);
- personal development (to encourage learners to make wise choices).

*Source:* Cedefop, 2008c.

**Underqualification:** Mismatch where the knowledge, skills and competences of an individual do not meet the requirements of a job or more generally of the labour market.

Comment: underqualification may refer to undereducation (a situation in which an individual has a level of education inferior to that required for a job) or underskilling (a situation in which an individual lacks the skills and competences necessary to perform a job to acceptable standards).

*Source:* Cedefop.

**Unit of learning outcomes (ECVET):** Set of knowledge, skills, and/or competences which constitute a coherent part of a qualification. A unit can be the smallest part of a qualification that can be assessed, transferred, validated and, possibly, certified. A unit can be specific to a single qualification or common to several qualifications.

Comment: characteristics of units (content, size, total number of units composing a qualification, etc.) are defined by a body responsible for the qualification at the appropriate level. The definition and description of units can vary according to the qualifications system and the procedures of the competent body. However, the ECVET system proposes to provide for every unit:

- generic title of the unit;
- knowledge, skills and competence which are contained in a unit;
- criteria for assessment of the corresponding learning outcomes.

*Source:* European Commission, 2006b.

or

Component of a qualification, consisting of a coherent set of knowledge, skills and competences, that can be assessed and validated.

*Source:* European Parliament and Council of the European Union (2009b).



**Upskilling:** Short-term targeted training typically provided following initial education or training, and aimed at supplementing, improving or updating knowledge, skills and/or competences acquired during previous training.

*Source:* Cedefop, 2008c.

**Validation of learning outcomes:** Confirmation by a competent body that learning outcomes (knowledge, skills and/or competences) acquired by an individual in a formal, non-formal or informal setting have been assessed against predefined criteria and are compliant with the requirements of a validation standard. Validation typically leads to certification.

*Source:* Cedefop, 2008c.

**Validation of non-formal and informal learning:** A process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard and consist of the four distinct phases:

1. Identification through dialogue of particular experiences of an individual,
2. Documentation to make visible the individual's experiences,
3. Formal assessment of these experiences, and
4. Certification of the results of the assessment which may lead to a partial or full qualification.

**Vocational education and training (VET):** Education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market. For the purpose of Erasmus+ projects focusing on initial or continuing vocational education and training are eligible under VET actions.

**Welding Demonstration (WD):** Within the MAKE it project, refers to the welding activity, which normally are contemplated in the EWP and European Welder (EW) practical training. Each WD is related to specific preliminary Welding procedures (pWPS) and specific skills.

*Source:* Result 4.1 Guideline for RPL in the Welding Sector

**Work-based learning:** Acquisition of knowledge and skills through carrying out and reflecting on tasks in a vocational context, either at the workplace (such as alternate training) or in a VET institution.

*Source:* Cedefop.

**Workplace learning:** Study type which involves the acquisition of knowledge, skills and competences through carrying out and reflecting on tasks in a vocational context, either at the workplace (such as alternance training) or in a vocational education and training institution.

**Workload:** An estimation of the time learners typically need to complete all learning activities such as lectures, seminars, projects, practical work, work placements, individual study required to achieve the defined learning outcomes in formal learning environments. The correspondence of the full-time workload of an academic year to 60 credits is often formalised by national legal provisions. In most cases, student workload ranges from 1,500 to 1,800 hours for an academic year, which means that one credit



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corresponds to 25 to 30 hours of work. It should be recognised that this represents the normal workload and that for individual learners the actual time to achieve the learning outcomes will vary.

*Source:* ECTS users guide glossary, 2015



### 3. Welding Key-terms

**Sources:** EN ISO 3834-1:2006 (E)  
EN ISO 3834-1:1994 (E)  
EN 15085:2007 + A1:2013 – chapter:3

**Acceptance authority:** Organisation that is responsible for the acceptance of the product.

Note – This organisation can be part of the customer's organisation or be an independent organisation appointed or approved by the customer.

*Source:* EN 15085:2007

**Construction:** Product, structure or any other welded item.

*Source:* EN ISO 3834-1:2006 (E)

**Contract:** Agreed requirements for constructions ordered by a customer, and manufacturer's basic specification for constructions manufactured in series for several customers, unknown to the manufacturer at the time of design and production.

*Source:* EN ISO 3834-1:1994 (E)

**Customer:** Organisation responsible for defining the technical requirements, quality requirements and the acceptance procedures for the welded product.

*Source:* EN 15085:2007

**Design specification:** Requirements for products specified by customers or by the organization in anticipation of customer requirements or regulation.

*Source:* EN ISO 3834-1:2006 (E)

**Effective cross-section:** Cross-section of a welded joint that is considered when performing dimensioning calculations.

*Source:* EN 15085:2007

**Joint fatigue dimensioning:** Defining the dimension of a welded joint that is needed to achieve the required fatigue characteristics.

*Source:* EN 15085:2007

**Joint static dimensioning:** Defining the dimension of a welded joint that is needed to achieve the required static mechanical characteristics.

*Source:* EN 15085:2007

**Manufacturer, fabricator:** Person and organization responsible for the welding production.

*Source:* EN ISO 3834-1:2006 (E)

**Manufacturer certification body:** Body recognised by the national safety authority that has a proven competence in the scope of this series of standards and certifies the manufacturer according to the requirements of EN 15085-3 :2007

*Source:* EN 15085:2007



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**Manufacturer, fabricator/manufacturing organization:** Welding workshops and/or sites under the same technical and quality management.

*Source:* EN ISO 3834-1:1994 (E)

**Production weld test:** Mock-up sample welded joints to prove the manual skill of the welder or to demonstrate acceptable production of the welded joint.

*Source:* EN 15085:2007

**Qualification:** Evidence of training, professional knowledge, skill and experience to enable the personnel to perform the required tasks.

*Source:* EN 15085:2007

**Qualified person:** Person whose competence and knowledge have been obtained by education, training and/or relevant practical experience.

*Source:* EN ISO 3834-1:2006 (E)

**Safety category:** Defines the consequences of failure of the single welded joint in respect to the effects on persons, facilities and the environment.

*Source:* EN 15085:2007

**Special process:** Process, the results of which cannot be fully verified by subsequent inspection and testing of the product and where, for example, processing deficiencies may become apparent only after the product is in use. Accordingly, continuous monitoring and/or compliance with documented procedures is required to ensure that the specified requirements are met.

*Source:* EN ISO 3834-1:1994 (E)

**Sub-contractor:** Supplier of products, services and/or activities to the manufacturer in a contractual situation.

*Source:* EN ISO 3834-1:2006 (E)

**Weld inspection class:** Defines the inspections to be carried out for a given weld with respect to the weld performance class.

Note – The weld inspection class is abbreviated by “CT” (class of testing).

*Source:* EN 15085:2007

**Weld performance class:** Performance requirements of the welded joint as defined by the stress category and the safety category of the welded joint.

Note – The weld performance class is abbreviated by “CP” (class of performance).

*Source:* EN 15085:2007

**Welding Procedure Specification (WPS):** A document that has been qualified by a welding procedure test, tested welding consumables, previous welding experience, standard welding procedure or pre-production welding test, and providing the required variables of the welding procedure to ensure repeatability during production welding. This document has a specified course of action to be followed in making a weld, including the welding process(es), reference to materials, welding consumables, preparation,



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preheating (if necessary), method and control of welding and post weld heat treatment (if relevant), and necessary equipment to be used.

*Source:* ISO 15607:2003

**Welding operator:** Person who performs fully mechanized or automatic fusion welding processes.

*Source:* EN ISO 3834-1:2006 (E)

Note: To learn and/or explore more welding terms, please use “Weldictionary” available for free in the AppStore, which resulted from a Leonardo da Vinci framework project.



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## 4. Quality key-terms

**Source:** ISO 9000:2005

**Capability:** Ability of an organization, system or process to realize a product that will fulfil the requirements for that product.

Note – Process capability terms in the field of statistics are defined in ISO 3534-2.

**Characteristic:** distinguishing feature.

Note – A characteristic can be inherent or assigned.

Note 2 – A characteristic can be qualitative or quantitative.

Note 3 – There are various classes of characteristic, such as the following:

- physical (e.g. mechanical, electrical, chemical or biological characteristics);
- sensory (e.g. related to smell, touch, taste, sight, hearing);
- behavioural (e.g. courtesy, honesty, veracity);
- temporal (e.g. punctuality, reliability, availability);
- ergonomic (e.g. physiological characteristic, or related to human safety);
- functional (e.g. maximum speed of an aircraft).

**Competence:** Demonstrated ability to apply knowledge and skills.

Note – The concept of competence is defined in a generic sense in this International Standard. The word usage can be more specific in other ISO documents.

**Concession:** Permission to use or release a product that does not conform to specified requirements.

Note – A concession is generally limited to the delivery of a product that has nonconforming characteristics within specified limits for an agreed time or quantity of that product.

**Configuration:** Interrelated functional and physical characteristics of a product or service defined in product configuration information.

*Source:* ISO 10007:2003, 3.3, modified — The term “service” has been included in the definition

**Configuration baseline:** Approved product configuration information that establishes the characteristics of a product or service at a point in time that serves as reference for activities throughout the life cycle of the product or service.

*Source:* ISO 10007:2003, 3.4, modified — The term “service” has been included in the definition

**Conformity:** Fulfilment of a requirement.

Note – The term conformance is synonymous but deprecated.

**Continual improvement:** Recurring activity to increase the ability to fulfil requirements.

Note – The process of establishing objectives and finding opportunities for improvement is a continuous process through the use of audit findings and audit conclusions, analysis of data, management reviews or other means and generally leads to corrective action or preventive action.



**Contract:** Binding agreement.

Note – The concept of contract is defined in a generic sense in this International Standard. The word usage can be more specific in other ISO documents.

**Correction:** Action to eliminate a detected nonconformity.

Note – A correction can be made in conjunction with a corrective action.

Note 2 – A correction can be, for example, rework or regrade.

**Corrective action:** Action to eliminate the cause of a detected nonconformity or other undesirable situation.

**Customer:** Organization or person that receives a product.

Example: Consumer, client, end-user, retailer, beneficiary and purchaser.

Note – A customer can be internal or external to the organization.

**Customer satisfaction:** Customer's perception of the degree to which the customers' requirements have been fulfilled.

Note – Customer complaints are a common indicator of low customer satisfaction but their absence does not necessarily imply high customer satisfaction.

Note 2 – Even when customer requirements have been agreed with the customer and fulfilled, this does not necessarily ensure high customer satisfaction.

**Customer satisfaction code of conduct:** Promises, made to customers by an organization concerning its behaviour, that are aimed at enhanced customer satisfaction and related provisions.

Note 1 – Related provisions can include objectives, conditions, limitations, contact information, and complaints handling procedures.

Note 2 – In ISO 10001:2007, the term “code” is used instead of “customer satisfaction code of conduct”.

Source: ISO 10001:2007, 3.1, modified — The term “code” has been removed as an admitted term, and Note 2 to entry has been modified

**Defect:** Non-fulfilment of a requirement related to an intended or specified use.

Note – The distinction between the concepts defect and nonconformity is important as it has legal connotations, particularly those associated with product liability issues. Consequently, the term “defect” should be used with extreme caution.

Note 2 – The intended use as intended by the customer can be affected by the nature of the information, such as operating or maintenance instructions, provided by the supplier.

**Dependability:** Collective term used to describe the availability performance and its influencing factors: reliability performance, maintainability performance and maintenance support performance

Note – Dependability is used only for general descriptions in nonquantitative terms [IEC 60050-191:1990].

**Design and development:** Set of processes that transforms requirements into specified characteristics or into the specification of a product, process or system.



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**NOTE** – the terms design” and development are sometimes used synonymously and sometimes used to define different stages of the overall design and development process.

**Deviation permit:** Permission to depart from the originally specified requirements of a product prior to realization.

**NOTE** – A deviation permit is generally given for limited quantity of product or period of time, and for a specific use.

**Dispute:** <customer satisfaction> disagreement, arising from a complaint, submitted to a DRP-provider.

**Note 1** – Some organizations allow their customers to express their dissatisfaction to a DRP-provider in the first instance. In this situation, the expression of dissatisfaction becomes a complaint when sent to the organization for a response and becomes a dispute if not resolved by the organization without DRP-provider intervention. Many organizations prefer their customers to first express any dissatisfaction to the organization before utilizing dispute resolution external to the organization.

*Source:* ISO 10003:2007, 3.6, modified

**Document:** Information and its supporting medium.

**Example** – Record, specification, procedure, document, drawing, report, standard.

**Note** – The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.

**Note 2** – A set of documents, for example specifications and records, is frequently called “documentation”.

**Note 3** – Some requirements (e.g. the requirement to be readable) relate to all types of documents, however there can be different requirements for specifications (e.g. the requirement to be revision controlled) and records (e.g. the requirement to be retrievable).

**Documented information:** Information required to be controlled and maintained by an organization and the medium on which it is contained.

**Note 1** – Documented information can be in any format and media and from any source.

**Note 2** – Documented information can refer to: the management system, including related processes; information created in order for the organization to operate (documentation); evidence of results achieved (records).

**Note 3** – This constitutes one of the common terms and core definitions for ISO management system standards given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1.

**Efficiency:** Relationship between the result achieved and the resources used.

**Effectiveness:** Extent to which planned activities are realized and planned results achieved.

**Grade:** Category or rank given to different quality requirements for products, processes or systems having the same functional use.

**Example** – Class of airline ticket and category of hotel in a hotel guide.

**Note** – When establishing a quality requirement, the grade is generally specified.

PROJECT NUMBER – 562642-EPP-1-2015-1-BE-EPPKA2 SSA. This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



**Information:** Meaningful data.

**Infrastructure:** <organization> system of facilities, equipment and services needed for the operation of an organization.

**Inspection:** Conformity evaluation by observation and judgement accompanied as appropriate by measurement, testing or gauging.  
ISO/IEC Guide 2

**Interested party:** Person or group having an interest in the performance or success of an organization.

Example – Customers, owners, people in an organization. suppliers, bankers, unions, partners or society.

Note – A group can comprise an organization, a part thereof, or more than one organization.

**Management:** Coordinated activities to direct and control an organization.

Note – In English, the term “management” sometimes refers to people, i.e. a person or group of people with authority and responsibility for the conduct and control of an organization. When management is used in this sense, it should always be used with some form of qualifier to avoid confusion with the concept management defined above. For example, “management shall...” is deprecated whereas stop management “shall...” is acceptable.

**Management system:** System to establish policy and objectives and to achieve those objectives.

Note – A management system of an organization can include different management systems, such as a quality management system, a financial management system or an environmental management system.

**Monitoring:** Determining the status of a system, a process, a product, a service, or an activity.

Note 1 – For the determination of the status there can be a need to check, supervise or critically observe.

Note 2 – Monitoring is generally a determination of the status of an object, carried out at different stages or at different times.

Note 3 – This constitutes one of the common terms and core definitions for ISO management system standards given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition and Note 1 to entry have been modified and Note 2 to entry has been added.

**Nonconformity:** Non-fulfilment of a requirement.

**Objective:** Result to be achieved.

Note 1 – An objective can be strategic, tactical, or operational.

Note 2 – Objectives can relate to different disciplines (such as financial, health and safety, and environmental objectives) and can apply at different levels (such as strategic, organization wide, project, product and process).



Note 3 – An objective can be expressed in other ways, e.g. as an intended outcome, a purpose, an operational criterion, as a quality objective or by the use of other words with similar meaning (e.g. aim, goal, or target).

Note 4 – In the context of quality management systems, quality objectives are set by the organization, consistent with the quality policy, to achieve specific results.

Note 5 – This constitutes one of the common terms and core definitions for ISO management system standards given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by modifying Note 2 to entry.

**Objective evidence:** Data supporting the existence or verity of something.

Note – Objective evidence may be obtained through observation, measurement, test, or other means.

**Organization:** Group of people and facilities with an arrangement of responsibilities, authorities and relationships.

Example – Company, corporation, firm, enterprise, institution, charity, sole trader, association, or parts or combination thereof.

Note – The arrangement is generally orderly.

Note 2 – An organization can be public or private.

Note 3 – This definition is valid for the purposes of quality management system standards. The term organization is defined differently in ISO/IEC Guide 2.

**Organizational structure:** Arrangement of responsibilities, authorities and relationships between people.

Note – The arrangement is generally orderly.

Note 2 – A formal expression of the organizational structure is often provided in a quality manual or a quality plan for a project.

Note 3 – The scope of an organizational structure can include relevant interfaces to external organizations.

**Output:** Result of a process.

Note 1 – Whether an output of the organization is a product or a service depends on the preponderance of the characteristics involved, e.g. a painting for sale in a gallery is a product whereas supply of a commissioned painting is a service, a hamburger bought in a retail store is a product whereas receiving an order and serving a hamburger ordered in a restaurant is part of a service.

**Performance:** Measurable result.

Note 1 – Performance can relate either to quantitative or qualitative findings.

Note 2 – Performance can relate to the management of activities, processes, products, services, systems or organizations.

Note 3 – This constitutes one of the common terms and core definitions for ISO management system standards given in Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives, Part 1. The original definition has been modified by modifying Note 2 to entry.

**Preventive action:** Action to eliminate the cause of a potential nonconformity or other undesirable potential situation.



Note 1 – There can be more than one cause for a potential nonconformity.

Note 2 – Preventive action is taken to prevent occurrence whereas corrective action is taken to prevent recurrence.

**Procedure:** Specified way to carry out an activity or a process.

Note – Procedures can be documented or not.

Note 2 – When a procedure is documented, the term ‘written procedure or documented procedure’ is frequently used. The document that contains a procedure can be called a procedure document.

**Process:** Set of interrelated or interacting activities which transforms inputs into outputs.

Note – Inputs to a process are generally outputs of other processes.

Note 2 – Processes in an organization are generally planned and carried out under controlled conditions to add value.

Note 3 – A process where the conformity of the resulting product cannot be readily or economically verified is frequently referred to as a special process.

**Product:** Result of a process.

Note – There are four generic product categories, as follows:

- services (e.g. transport);
- software (e.g. computer program, dictionary);
- hardware (e.g. engine mechanical part);
- processed materials (e.g. lubricant).

Many products comprise elements belonging to different generic product categories. Whether the product is then called service, software, hardware or processed material depends on the dominant element. For example, the offered product automobile consists of hardware (e.g. tyres), processed materials (e.g. fuel, cooling liquid), software (e.g. engine control software, driver’s manual), and service (e.g. operating explanations given by the salesman).

Note 2 – Service is the result of at least one activity necessarily performed at the interface between the supplier and customer and is generally intangible. Provision of a service can involve, for example, the following:

- an activity performed on a customer-supplied tangible product (e.g. automobile to be repaired);
- an activity performed on a customer-supplied intangible product (e.g. the income statement needed to prepare a tax return);
- the delivery of an intangible product (e.g. the delivery of information in the context of knowledge transmission);
- the creation of ambience for the customer (e.g. in hotels and restaurants).

Software consists of information and is generally intangible and can be in the form of approaches, transactions or procedures.

Hardware is generally tangible and its amount is a countable characteristic. Processed materials are generally tangible and their amount is a continuous characteristic. Hardware and processed materials often are referred to as goods.

Note 3 – Quality assurance is mainly focused on intended product.

**Progress evaluation:** <project management> assessment of progress made on achievement of the project objectives



Note 1 – This assessment should be carried out at appropriate points in the project life cycle across project processes, based on criteria for project processes and product or service.

Note 2 – The results of progress evaluations can lead to revision of the project management plan.

Source: ISO 10006:2003, 3.4, modified — Notes to entry have been modified

**Project:** Unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost and resources.

Note – An individual project can form part of a larger project structure.

Note 2 – In some projects the objectives are refined and the product characteristics defined progressively as the project proceeds.

Note 3 – The outcome of a project can be one or several units of product.

Note 4 – Adapted from ISO 10006:2003.

**Project Management Plan:** document specifying what is necessary to meet the objective(s) of the project.

Note 1 – A project management plan should include or refer to the project's quality plan.

Note 2 – The project management plan also includes or references such other plans as those relating to organizational structures, resources, schedule, budget, risk management, environmental management, health and safety management, and security management, as appropriate.

Source: ISO 10006:2003, 3.7

**Qualification process:** process to demonstrate the ability to fulfil specified requirements.

Note – The term “qualified” is used to designate the corresponding status.

Note 2 – Qualification can concern persons, products, processes or systems.

Example – Auditor qualification process, material qualification process.

**Quality:** degree to which a set of inherent characteristics fulfils requirements.

Note – The term “quality” can be used with adjectives such as poor, good or excellent.

Note 2 – “Inherent”, as opposed to “assigned”, means existing in something, especially as a permanent characteristic.

**Quality assurance:** Part of quality management focused on providing confidence that quality requirements will be fulfilled.

**Quality characteristic:** Inherent characteristic of a product, process or system related to a requirement.

Note – Inherent means existing in something, especially as a permanent characteristic.

Note 2 – A characteristic assigned to a product, process or system (e.g. the price of a product, the owner of a product) is not a quality characteristic of that product, process or system.

**Quality control:** Part of quality management focused on fulfilling quality requirements.



**Quality improvement:** Part of quality management focused on increasing the ability to fulfil quality requirements.

Note – The requirements can be related to any aspect such as effectiveness, efficiency or traceability.

**Quality management:** Coordinated activities to direct and control an organization with regard to quality.

Note – Direction and control with regard to quality generally includes establishment of the quality policy and quality objectives, quality planning, quality control, quality assurance and quality improvement.

**Quality management system:** Management system to direct and control an organization with regard to quality.

**Quality manual:** Document specifying the quality management system of an organization.

Note – Quality manuals can vary in detail and format to suit the size and complexity of an individual organization.

**Quality objective:** Something sought, or aimed for, related to quality.

Note – Quality objectives are generally based on the organization's quality policy.

Note 2 – Quality objectives are generally specified for relevant functions and levels in the organization.

**Quality plan:** Document specifying which procedures and associated resources shall be applied by whom and when to a specific project, product, process or contract.

Note – These procedures generally include those referring to quality management processes and to product realization processes.

Note 2 – A quality plan often makes reference to parts of the quality manual or to procedure documents.

Note 3 – A quality plan is generally one of the results of quality planning.

**Quality planning:** Part of quality management focused on setting quality objectives and specifying necessary operational processes and related resources to fulfil the quality objectives.

Note – Establishing quality plans can be part of quality planning.

**Quality policy:** Overall intentions and direction of an organization related to quality as formally expressed by top management.

Note – Generally the quality policy is consistent with the overall policy of the organization and provides a framework for the setting of quality objectives.

Note 2 – Quality management principles presented in this International Standard can form a basis for the establishment of a quality policy.

**Record:** Document stating results achieved or providing evidence of activities performed

Note – Records can be used, for example, to document traceability and to provide evidence of verification, preventive action and corrective action.

Note 2 – Generally records need not be under revision control.



**Regrade:** Alteration of the grade of a nonconforming product in order to make it conform to requirements differing from the initial ones.

**Regulatory requirement:** Obligatory requirement specified by an authority mandated by a legislative body.

**Release:** Permission to proceed to the next stage of a process.

Note – In English, in the context of computer software, the term “release” is frequently used to refer to a version of the software itself.

**Repair:** Action on a nonconforming product to make it acceptable for the intended use.

Note – Repair includes remedial action taken on a previously conforming product to restore it of use, for example as part of maintenance.

Note 2 – Unlike rework, repair can affect or change parts of the nonconforming product.

**Requirement:** Need or expectation that is stated, generally implied or obligatory. Expression in the content of a document conveying criteria to be fulfilled if compliance with the documents to be claimed and from which no deviation is permitted.

Note – “Generally implied” means that it is custom or common practice for the organization, its customers and other interested parties, that the need or expectation under consideration is implied.

Note 2 – A qualifier can be used to denote a specific type of requirement, e.g. product requirement, quality management requirement, customer requirement.

Note 3 – A specified requirement is one that is stated, for example in a document.

Note 4 – Requirements can be generated by different interested parties.

Note 5 – This definition differs from that provided in 3.12.1 of ISO/IEC Directives, Part 2:2004.

**Review:** Determination of the suitability, adequacy or effectiveness of an object to achieve established objectives.

Example – Management review, design and development review, review of customer requirements, review of corrective action and peer review.

Note 1 – Review can also include the determination of efficiency.

**Rework:** Action on a nonconforming product or service to make it conform to the requirements.

Note 1 – Rework can affect or change parts of the nonconforming product or service.

**Scrap:** Action on a nonconforming product to preclude its originally intended use.

Example – Recycling, destruction.

Note – In a nonconforming service situation, use is precluded by discontinuing the service.

**Specification:** Document stating requirements.

Note – A specification can be related to activities (e.g. procedure document, process specification and test specification), or products (e.g. product specification, performance specification and drawing).

**Statutory requirement:** Obligatory requirement specified by a legislative body.



**Supplier:** Organization or person that provides a product.

Example – Producer, distributor, retailer or vendor of a product, or provider of a service or information.

Note – A supplier can be internal or external to the organization.

Note 2 – In a contractual situation, a supplier is sometimes called contractor.

**System:** Set of interrelated or interacting elements.

**Test:** Determination of one or more characteristics according to a procedure.

**Top management:** Person or group of people who directs and controls an organization at the highest level.

**Traceability:** Ability to trace the history, application or location of that which is under consideration.

Note – When considering product, traceability can relate to:

- the origin of materials and parts,
- the processing history, and
- the distribution and location of the product after delivery.

Note 2 – In the field of metrology the definition in VIM:1993, 6.10, is the accepted definition.

**Validation:** Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled.

Note – The term “validated” is used to designate the corresponding status.

Note 2 – The use conditions for validation can be real or simulated.

**Verification:** Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled

Note – The term “verified” is used to designate the corresponding status.

Note 2 – Confirmation can compose activities such as

- performing alternative calculations,
- comparing a new design specification with a similar proven design specification,
- undertaking tests and demonstrations, and
- reviewing documents prior to issue.

**Work environment:** Set of conditions under which work is performed

Note – Conditions include physical, social, psychological and environmental factors (such as temperature, recognition schemes, ergonomics and atmospheric composition).