



Project: Lernpunkt Lehm

Presentation in Embrun / France

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Professional work: train the trainers / OSZ Bautechnik
II (Vocational School for construction workers)

0. EU, How did we proceed within the EU-project
Umbau und Ko“ ?












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Umbau & Ko – Certification

Leonardo d. Vinci - Project

UMWELTGERECHTES BAUEN MIT KOMPETENZ

| STUFE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|--|---|---|---|---|
|  |  | | | | | | | |
|  |  | | | | | | | |
|  | | | | | | | | |
|  | | | | | | | | |
|  |  |  |  |  | | | | |

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Matrix of competences

| Field of competence | Parts of a competence | Knowledge, Skills | Certification |
|---|---|---|--|
| 1. Field of competence: to professionally apply insulation material using the correct dimensions (thickness of the material) | To apply additional constructive measures in order to add the possible thickness of the insulation material | <p>Different possible construction methods</p> <p>Classification of timber, Schnittklassen, humidity of wood/timber</p> <p>Holzschutz <i>wood protection</i></p> <p>....</p> <p>Results of a wrongly performed construction work</p> <p>No calculation of the statics of the overall loadbearing construction</p> <p>No calculation of Befestigungs- und of means of fixing and joining Verbindungsmittel</p> | <p>Certificated continuous vocational training according to the AZWV, registration No: 244808 and</p> <p>Based on the given standards of certification relating to the topics: knowledge, skills and communication</p> |

Introduction:

How to set up the competencies

Part I: Introduction and background knowledge

1. The EU-Programme LLL (Live Long Learning)
2. European Qualifications Framework - EQF
3. European Creditsystem in Vocational Education and Training ECVET

Part II: to develop standards of competencies

1. Existing concepts of competencies within the EQF
2. The model of competences of the EU - EQF
3. To **define competences**

EU-Programme LLL



- **Brügge 2001**
Basics to co-operate in vocational training policy
Zusammenarbeit
- **Declaration of Kopenhagen 2002**
 1. **European dimension**
 2. **Promoting transparency**
 3. **Recognition of competences and qualifications**
 4. **Quality assurance**
 5. **Teachers and trainers**

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EU-Programme LLL



- **Basic principles: open co-ordination, no coherent vocational training systems**
- **transparency f.e. by mobility**
- **To build up mutual trust**
- **bottom-up-approach**
- **step-by-step**
- **rolling agenda**
- **quality assurance**
- **Building up areas of mutual trust and co-operation (Leonardo-Programme)**

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I.2. EU – Qualifications framework EQF

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European Qualifications Framework

8 EQF reference levels

- each level of qualifications is defined by a set of descriptors
- enables carriers
- based on learning outcomes
- manuals for defining standards of competences

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European Qualification Framework



| | Knowledge | Skills | autonomy & responsibility |
|---|--|--|---------------------------|
| 8 | complexity specialisation Theoretical background knowledge Flexibility, variability | | |
| 7 | | | |
| 6 | | | |
| 5 | | | |
| 4 | | Competence: f.e. to plaster walls with clay | |
| 3 | | | |
| 2 | | | |
| 1 | | | |

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EQF- Levels



| | knowledge | skills | competence |
|----------|---|---|--|
| 6 | fortgeschrittene Kenntnisse in einem Arbeits- oder Lernbereich unter Einsatz eines kritischen Verständnisses von Theorien und Grundsätzen | fortgeschrittene Fertigkeiten zur Lösung komplexer und nicht vorhersehbarer Probleme in einem spezialisierten Arbeits- oder Lernbereich | Leitung komplexer Projekte und Entscheidungsverantwortung in nicht vorhersehbaren Arbeits- oder Lernkontexten Übernahme der Verantwortung für die berufliche Entwicklung von Einzelpersonen und Gruppen |
| 5 | umfassendes, spezialisiertes Theorie- und Faktenwissen in einem Arbeits- oder Lernbereich sowie Bewusstsein für die Grenzen dieser Kenntnisse | Umfassende kognitive und praktische Fertigkeiten die erforderlich sind, um kreative Lösungen für abstrakte Probleme zu erarbeiten | Leiten und Beaufsichtigen in Arbeits- oder Lernkontexten, in denen nicht vorhersehbare Änderungen auftreten Überprüfung und Entwicklung der eigenen Leistung und der Leistung anderer Personen |
| 4 | breites Spektrum an Theorie- und Faktenwissen in einem Arbeits- oder Lernbereich | kognitive und praktische Fertigkeiten, um Lösungen für spezielle Probleme in zu finden | Selbstständiges Tätigwerden in Arbeits- oder Lernkontexten, die in der Regel bekannt sind, sich jedoch ändern können Beaufsichtigung der Routinearbeit anderer Personen |

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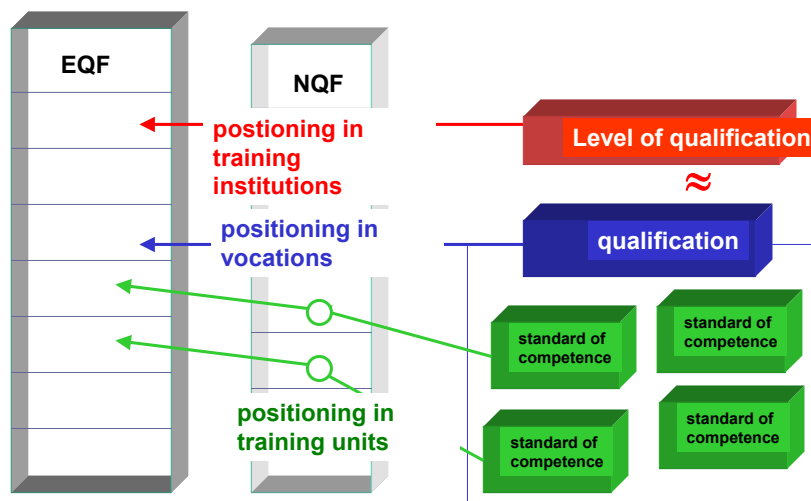
EQF



| | knowledge | skills | competence |
|----------|--|--|---|
| 3 | Knowledge of facts, principles, processes, and general concepts, in a field of work or study | A range of cognitive and practical skills, required to accomplish tasks and to solve problems by selecting and applying basic methods, tools, materials and information. | Take responsibility by the completion of work and studies Adapt own behaviour to circumstances in solving problems |
| 2 | Basic factual knowledge in a field of work or study | Basic cognitive and practical skills required to use relevant information in order to carry out task and to solve routine problems using simple rules and tools | Work or study under supervision with some autonomy |
| 1 | Basic general knowledge | Basic skills required to carry out simple tasks | Work or study under direct supervision in a structured context |

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Option for a national qualifications framework (NQF)



(Nach Prof. Dr. Ute Clement)¹²



EU – Credit System for Vocational Education and Training

I.3 ECVET

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ECVET 1: Basic Principles



ECVET (European working document)

**definition: a credit point systems allows for dividing
qualifications into units**

**(but: Competences are wholistic ! Handlungskompetenz ist
ganzheitlich!)*** this is a special term withing the German discussion(comment by translator)

Each unit relates to defined knowledge, skills and competences

(but: What do we understand by competence?)

We need reference levels / a common reference point

reference: defined learning outcomes

**ECVET-system: *bridging with* national systems and rules for the
accumulation and validation of credit points**

**Aim: transparency and mutual trust
comparabilty of qualifications**

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ECVET 2: Definition

ECVET – Definition:

A unit is a part of a qualification (diploma). It can be the smallest part of a qualification, which can be assessed, validated and/or recognised.

Credit points : Credit points are one of those devices, which help to implement the ECVET system on a European level (...)

Credit points will be allocated for qualifications and for units, which are parts of a qualification.

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ECVET 3: Questions

But:

The ECVET-System has not been designed up till now. Unlike the university system there are no fixed regulations in VET.

Reference levels within the National Qualification Frameworks (NQF) are not yet decided on.

What can be the reference point in the project?

An allocation of the „currency ECVET(Credit)-point“ does not yet exist.

How should we cope with this situation?

What to be done?

1. observe the development and discussions (experts)
2. define a reference point within your project:
based on competences –
according to the EU definition (knowledge, skills, competence)
3. use time as a yardstick of measurement:
f.e. 40 hours for one credit point
4. This approach is already useful for: balance of competencies
Allocate x (f.e. 100) credit points to a qualification/ training course
Credit points illustrate the proportion of the unit of the qualification.

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EU – EQF

part II: to design standards of competences

1. The concept of a competence within EQF

Agreement:

National Qualification Frameworks (NQFs) are not yet designed for all partner countries, therefore the project partners refer to the reference level in the European EQF.

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Competence 1: Definition



There are many different definitions of competences, depending on the different initial and continuous vocational training cultures.

Within the project it is necessary to exchange and discuss the used concepts of a competence ..

One possible definition: *next page in German language*

Competences =

Skills, methods, knowledge, attitude and values, which an individual gains, develops and uses during his/her whole life time. They are closely connected with the individual and his/her ability to act with own responsibility : The concept of competence covers qualifications and as far as the individual is concerned refers to basic educational aims and contents.

by Dehnbostel / Lindemann

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Competence 1: Definition



There are many different definitions of competences, depending on the different initial and continuous vocational training cultures.

Within the project it is necessary to exchange and discuss the used concepts of competences ..

A possible definition:

Kompetenzen =

Fähigkeiten, Methoden, Wissen, Einstellungen und Werte, deren Erwerb, Entwicklung und Verwendung sich auf die gesamte Lebenszeit eines Menschen beziehen. Sie sind an das Subjekt und seine Befähigung zu verantwortlichem Handeln gebunden. Der Kompetenzbegriff umfasst Qualifikationen und nimmt in seinem Subjektbezug elementare bildungstheoretische Ziele und Inhalte auf.

Dehnbostel / Lindemann

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Competence 2:

EU- Definition as proposed in 2005



***Competence contains: i) cognitive competence, which includes the Kompetenz,....., also tacit knowledge, which is gained by experience;
ii) functional competence (skills, know-how), which are applied to perform a specific task or job;
iii) personal competence, which refers to the ability to cope with a given situation;
iv) ethical competence, which refers to personal or social values.***

(Gemeinsame Definition von Kompetenz, Experten aus unterschiedlichen Ländern)

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Competence 3: Concept



levels



Levels

Competence (Handlungskompetenz in German) is the ability and preparedness to perform a specific task or job safely and efficiently.

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2. Model of competences in EQR

From input based to
output or outcome based strategies
(Wirkungssteuerung)

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Definition Competences 1

(Handlungskompetenz)



Competence



Input: learning objectives, materials, curricula, learning strategies, teaching methods, trainers qualification, venues, etc.

(Nach Prof. Dr. Ute Clement) p23

Definition Competences 2

(Handlungskompetenz)



competence

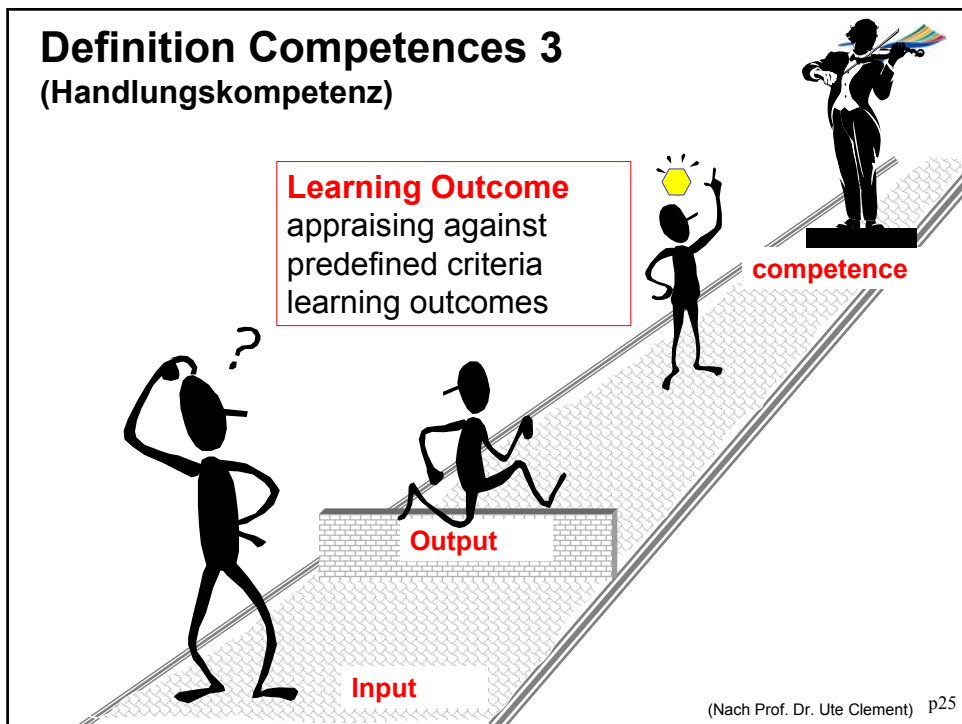


Input

Output assesses the results during the learning process

(Nach Prof. Dr. Ute Clement) p24

Definition Competences 3 (Handlungskompetenz)



Competence model EQF / (DQR):



1. knowledge

Factual knowledge
procedural knowledge
comparative knowledge

2. skills

ability to solve problems
ability to carry out tasks

3. competence

degree of selfsufficiency
learning competence
responsibility

Reference: levels within EQF

Training and complexity of vocational abilities (berufliche Handlungsfähigkeit)

Descriptors are generally abstract descriptions of learning results

Descriptors = level indicators

Therefore: describe standards of competences, which match the defined descriptors!



II.3. To adopt profiles of competences

Agreement for the EU-project Lernpunkt Lehm

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A pragmatic concept 1:

We discuss and agree on the following definitions::

- **Kenntnisse/ Knowledge**
 - cognitive concepts
 - factual knowledge
 - Regelwissen
 - Begründungswissen
- **Fertigkeiten /Skills**
 - Teilhandlungen einer Arbeitshandlung
 - Teil- oder Subkompetenzen
 - Funktionale Kompetenzen
 - Methodenkompetenz (Arbeitsmethoden und –
techniken)
 - Problemlösung / Aufgabenbezug

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A pragmatic concept 2:

- **competence / as defined in the EQR: autonomy and responsibility**
 - professional, social, ecological, economical and quality related consequences of own performance
 - vocational ethos
 - learning competence for live long learning
 - communication and social competence

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A pragmatic concept

Ein Beispiel:

| | | | | |
|---|--|---|----------------------------------|--------------------------|
| ↓ Planen ↓ Ausführen ↓ Kontrollieren | Kompetenzstandard | Elektropneumatische Steuerungen planen und in Betrieb nehmen | | Stufe: 3 |
| | | | | Credit: 6 |
| | Industriemechaniker Industriemechanikerin | Ausbildungsordnung Unterweisung /Schule | Zeitraumen Berufsbildposition | 5 10, sowie 13 und 16 |
| | | Modul | 6, sowie 3 und 13 | |
| | Kenntnisse | | Fertigkeiten | |
| | | | | |
| | Kompetenz | | | |
| | | | | |

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Describing Competences.

How do I proceed?



- **Basic principle: we look at competences, which can be used on the labor market**
- **We describe the competence in the following way: verb + objective (+ specification)**
- **visible performance**
- **can be performed by a single person**
- **can be used on different work places**
- **complete performance/job (planning, performing, quality control)**

Example:

to complete the usual documents applying for (?) a building permit according to the instructions of an architect.

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What to be done?



1. **We agree on a project work plan in order to proceed with the design of an earth building ECVET System within our project.**
2. **Each partner organisation describes a concept for profiles of competences (concept of competences, methods of assessment and ways of certification) according to their specific learning culture. We compare and evaluate these concepts .**
3. **The partnerships agrees on a concept of competence and a basic unit.**
4. **We will ask a group of experts to work out details: Handlungsanweisung für Kompetenzanalyse ausarbeiten**
5. **We decide, who develop the standards of competences**
6. **We decide on methods of assessment and ways of certification.**

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