VETwin-win

MODULE 5

Approaches for the accreditation of performance points in the interlinking of initial and further training

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General indications for the modules

An indispensable principle of this further education, which applies to all modules, concerns the particular methodical orientation that should relate throughout to what is taught, namely modern, action oriented learning methods in which the teachers do not "instruct" but see themselves rather as "learning colleagues of the learners. None of these modules address the pure determination of knowledge but should rather aim for the formation of new practical knowledge for the arrangement of the interlinking processes of vocational training and further education from the company. The participants then connect learning in presence seminars with online learning, independent learning and learning from practical tasks carried out in their own field of work. These they can evaluate, absorb and theoretically process together with the other participants and the instructors in regular group meetings.

I. Preliminary notes to Module 5

About this module and the factors on which it depends

The European ECVET initiative presents new challenges in vocational training.
The ECVET "Credit System for Vocational Education and Training“is an instrument that targets the promotion of (transnational) mobility.

DECVET "The development of a performance points system in operational training“ is a BMBF initiative in Germany that targets the promotion of transmissibility of prominent interfaces in the national vocational training system.
The following objectives are linked to the development of a German performance points system:

- Promotion of transparency in qualifications and learning results,
- Openness and flexibility in the access and bridging of vocational training approaches,
- Avoidance of waiting time, redundant qualifications and training impasses,
- Better connections between learning locations and promotion of cooperation in training facilities,
- Validation and accreditation of informally acquired learning results
- Increased mobility of individuals in vocational training.

These factors ensure the development of the performance points system based on the existing German vocational training system and regarding the specialties crucial to the structure.

Trainers must in the future know how to:
Design the learning contents, define and evaluate competences, assess outcomes, understand performance points, determine and evaluate acquired competences.

Learning objectives and contents of the module

1. EQR and DQR
   ECVET a performance points system in operational training
   - Interfaces in vocational training

2. Prequisites for accreditation
   - Judging and describing learning results units
   - Defining competences
   - Defining concurrence and agreement of system parts
   - Designating performance points
   - Judgment procedures trials

3. Learning units in practice

What the participants/learners should know in conclusion

Knowledge of:
- DQR und EQR, in particular systems in European countries
- ECVET and DECVET
- Outcome orientation
- Assessing competences

Abilities for:
- Development of the learning units
- Implementing the competence judgment procedure
- Issuing certificates recognising competences

Personal and social competences
- Trusting relationship with participants
- Communication with the responsible bodies in recognising the competences
- Continual updating and further development of the learning units in cooperation with companies and associations
- Reliable cooperation with regional examining boards
- Transnational cooperation in mutual recognition of competences acquired by participants

Requirements of the self learning process

The participants work independently in this module with a learning unit for trainees, describe the required outcome, establish interfaces, run trials and suggest performance points to be allowed.

General methodical notes for the instructors

- The further training culminates in the exchange of presence seminars, practice and the provision of study material through the online learning platform
- Teamwork should be primarily organised in the presence seminars
- The learning and work assignments of the participants are presented.

II. Contents and practical assignments

Contents

Practical tasks

Develop a learning unit for a qualification element from the building industry. Describe the outcome and the attendant procedures for determining competence

5.1 Frame of reference for certification of vocational competences

5.1.1 The ECVET programme

The principal challenge from the education policy is to make the vocational training appropriate to meet the requirements of the international markets and better mobility of capital and labour. The mobility of trainees too is an important element of European cooperation in the initial and further training sector. The trainees are however not quite as mobile as students. One reason is the wide heterogeneity of the European vocational training systems. There is no recognised regulatory framework with which a performance abroad can be described, classified and accredited.

Since the so called Copenhagen Process has been in effect on a European level, efforts have been made to create such a regulatory framework and a uniform frame of reference for the certification of vocational competences. The frame of reference was initiated with the European Credit Transfer System for VET (ECVET). ECVET can be used to describe qualifications and conforming points from units of learning results and accordingly make these results transferable and accumulative.

The ECVET frame of reference should enable compatibility and recognition in the different national vocational training systems.
Instruments for promotion to be developed:

- Transparency and compatibility,
- Transferability and mutual recognition of vocational qualifications and competences.

The aims of the ECVET:

- Promotion of mobility (geographical)
- Improvements in horizontal and vertical training mobility (adaptability)
- Recognition of competences acquired through informal or external formal training.

5.1.2 Outcome and competence orientation

The ECVET Programme is based on the concept of learning results. In future it should no longer concern what, where or how long someone has learnt but rather what knowledge, ability and competences have been acquired. This means that the evaluation of the competences does not target the input factors such as duration, location and in particular the pedagogic methods in the training process[1] in which they occur but considers instead the acquisition of defined learning results (outcomes). As it is assumed that learners can only demonstrate this ability because they have the necessary competence, the competence concept is included in the outcome orientation.

Learning results are a statement of how much the learners know, understand and are able to do after they have completed the learning process[2]. The terms output and outcome are in the context of learning and are references to the competence of a person, that this person demonstrates in a certain situation (= output) the abilities conforming to a previously defined standard.
There is therefore no statement of where, how, when and in how much time these competences have been acquired.

[1]CEDEFOP (2008b): The shift to learning outcomes: Conceptual, political and practical developments in Europe. URL: http://ec.europa.eu/education/policies/educ/eqf/com_2006_0479_de.pdf(17.08.2011).

5.1.3 The DECVET programme in Germany

The necessary structures for the implementation of the ECVET will be set up in a pilot phase in 2012 and individual elements of the system will be tested in the framework of pilot projects in the practice. The initial emphasis will be on formal learning. From 2012 the gradual implementation and use of the system in vocational training qualifications will come into force. In 2014 the experience gained will be evaluated in order to formulate a basis from the findings and if necessary an adaptation process.

Since November 2010 in Germany there has been a national ECVET coordination office which has been commuted to the National Agency for Education in Europe at the Federal Institute for Vocational Training. The national coordination office has been assigned by the Federal Ministry for Education and Research and functions as a central point for fundamental questions concerning a performance points system for vocational training.

In Germany elements of the ECVET are being researched in the framework of a national DECVET pilot initiative under the aegis of the Federal Ministry for Education and Research. The DECVET initiative targets the following:

- Improved transparency of qualifications and training results,
- Open and flexible access and transition to vocational training approaches,
- Avoidance of waiting times, redundant qualifications and training impasses,
- Better connections between learning locations and increased cooperation in vocational training facilities,
- Validation and recognition of informally acquired learning results
- Increased mobility of individuals in vocational training.

Important elements of the DECVET initiative have been implemented, such as the performance points and the outcome oriented learning units and models of accreditation under the specifics of the German vocational training system have been tested. The aim of the DECVET is the systematic development and proving of a performance points system with which learning results can be recorded, accredited and transferred from one part of the training to another. Here the horizontal and vertical adaptability of the training system and flexibility within the training system are targeted.

In the "DECVET development, a performance points system in vocational training" pilot initiative, ten practical pilot projects and transferable procedures for the recognition of competences and learning results have been developed and trialed. This will enable improvements to the mobility and accessibility within and between training systems.

5.2 Identification of possible accreditation potential of learning results - derivation of an interdisciplinary learning unit

In the identification of possible accreditation potential of learning results the following factors should be considered:

- Analysis of the vocational action fields in the company and the sector

- Analysis of the open design and flexibility of training plans and the appropriate learning fields, including the following factors:

  - The flexibility and open design of the training framework plans which allow the integration of operational and sector specific specialties and interests in the practical training,
  - The requirements set out in the training plans (training framework plans) to be met by the training operation and the trainees
  - The specifications within the training framework plans regarding the minimum requirements of knowledge, ability and competences to ensure a comparable qualification level.

- The heterogeneity of the training groups in interdisciplinary training

- The heterogeneous nature of individual participants

Optional solutions for the construction of the learning units

1. Internal differentiation of the interdisciplinary learning unit in which different degrees of specification of outcome are defined based on the elements of the learning objective taxonomy.

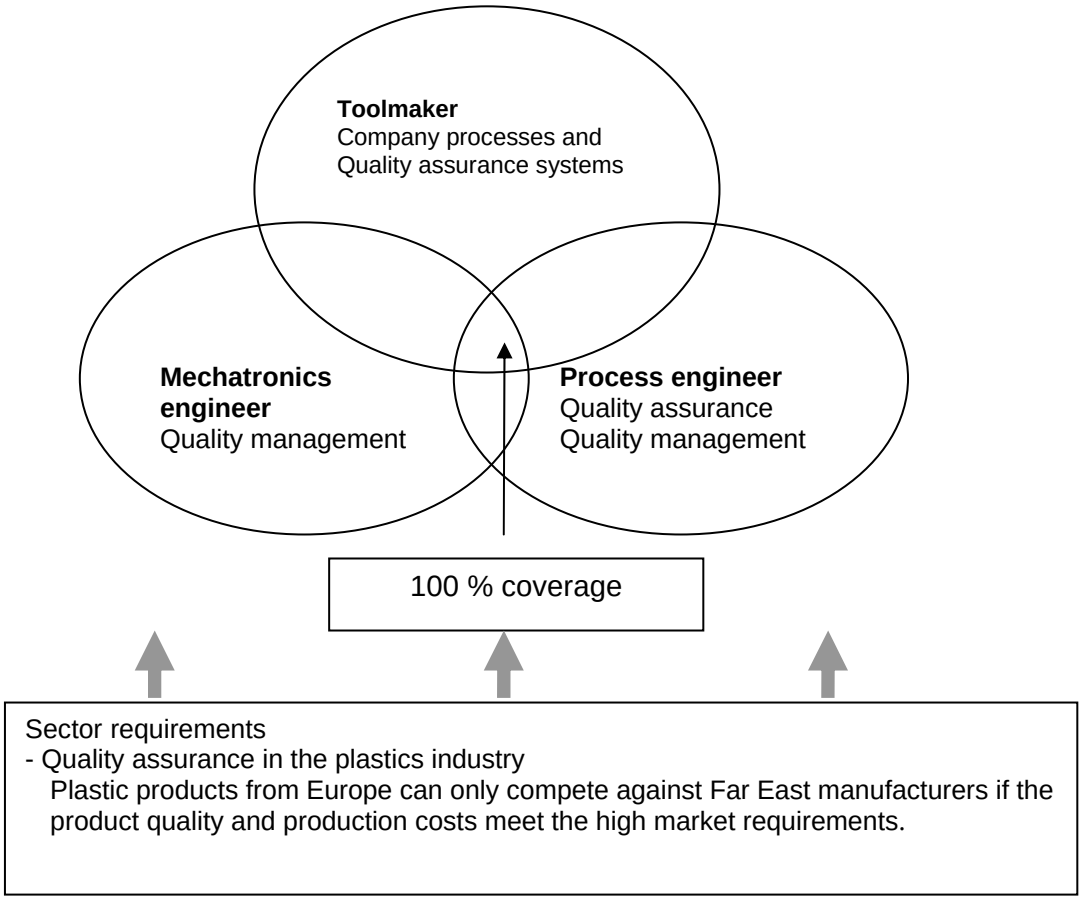
   Advantage: high effectiveness of training, training in heterogeneous groups with simultaneous use of the synergies resulting from the interdisciplinary instruction

   Disadvantage: higher requirements in the realisation phase and the differentiated collation and evaluation of the outcome.

2. Adaptation of only those interdisciplinary learning units which offer an anticipated 100 % coverage of the outcome.
   Advantage: good viability, uniform certification, good basis for mutual recognition

   Disadvantage: less interaction, potential heterogeneity cannot be utilised

Example:
Adaptation of an interdisciplinary learning unit "Quality assurance in the plastics industry“



5.3 Suggestions for the determination of different learning units - construction of a learning unit

Learning unit (learning module)	
Sector	Commercial-technical fields in the in building industry
Training occupation	
Description of learning results	**Skills:**
	Knowledge:
	Competences:
Learning objectives (concerning the prerequisites for participants) [target group] 1. Cognitive 2. Affective 3. Psychomotoric	
Learning contents	
Time requirements accounting for learning location	
Forms of learning, methods, media	
Organisation of learning contents	
Assessment of results / evaluation of performance (procedures and criteria for evaluation of learning results)	

Example of a learning unit in the plastics sector (operational tasks relating to training):

Learning unit (learning module)	**Pneumatic tool controls,** **Machines and plants in the plastics sector**
Sector	Commercial-technical field - plastics sector
Ausbildungsberuf	Mechatronics engineer, toolmaker, process engineer for plastics and rubber
Description of learning results	**Skills:** The participants can after completing the learning unit set up and test pneumatic controls by following flow tables and function plans. Analyse and clear faults. Carry out preventive maintenance on pneumatic assemblies and systems. Use the acquired knowledge and skills in new tasks. Utilise machine information from documentation, tables and other documentation such as symbols, terms and norms relating to pneumatics. Relate and associate pneumatics problems in flow diagrams. **Knowledge:** The participants acquire comprehensive knowledge of the mathematical-physical and technical fundamentals of pneumatics. Understanding of the most important symbols, terms and norms used for pneumatic control equipment and how to use new information independently. The participants acquire comprehensive knowledge of the construction and functions of pneumatic assemblies in plastic processing machines The participants acquire comprehensive knowledge for the recognition and rectification of faults in pneumatic assemblies and installations They have a working knowledge of English in order to understand the frequently occurring English technical terms. **Competences:** The participants recognise and comprehend that technical installations in the plastics sector are highly automated and are equipped with the newest developments in controls and regulation equipment. They recognise their particular responsibility concerning the installation, maintenance and repair of these installations and can demonstrate in such work the observance of the quality parameters. The participants have further developed their cooperative and communicative competences after completing the learning unit. They can obtain information in cooperation with other trade groups, make decisions on further action and present their results.

Learning objectives (concerning the prerequisites for participants) [target group]	The trainees acquire knowledge and skills in the mathematical-physical and technical fundamentals of pneumatics, the analysis of a pneumatic system, its construction and functioning components, their interaction and the transmission of power and signals. This enables the planning of a subsequent systematic series of measures for commissioning (power supplies, interaction of functioning components, calculated setting and graduated adjustment of value limits and operating values and necessary measurements). The participants can recognise potential problem areas, draw up tables of typical faults and outline approaches for clearing them. After understanding the interaction of functioning components and their operation they can independently plan, carry out and control maintenance procedures. They recognise, that the three trades - Mechatronics engineer - Process engineer - Toolmaker Have a collective responsibility for the maintenance and repair of pneumatic systems in machines and installations in the plastics sector. They acquire the competence to recognise their specific vocational responsibility for the pneumatic installations in the plastics sector and act accordingly. The participants recognise the complexity of the fields of action and can decide to what extent they must work jointly with other trade groups on the installation, maintenance and repair of pneumatic assemblies and plant They acquire the ability to apply the knowledge and skills they have learned on training equipment to concrete training operations on real equipment The trainees carry out an operational training task independently. The consolidation of knowledge acquired to date is applied to pneumatic switching and pneumatic assemblies in injection moulding and extruders and the acquisition of operational competence. **The specification and extent of formulation:** The specification of learning objectives is laid down in the concrete preparation of a single training unit. The extent of acquired knowledge, skills and competence required is in specified the operational training task.

Learning contents	**Introduction to the fundamentals of pneumatics** • Mathematical handling of physical dimensions: power, pressure, surface area, direction, speed, degree of effect, power transmission, pressure distribution (combined with knowledge learned in the vocational school) **Physical fundamentals** • Compressed air generation • Compressed air distribution • Maintenance unit **Assemblies and Schaltzeichen** • 1 and 2 way cylinders • Directional control valves • Butterfly check valve • Pneumatic drives, operating behaviour (normal operation, interrupted operation, flow speeds, influences from factors such as temperature, humidity,...) • Control/regulation of pneumatic movement (proportional equipment) **Switching design according to assignment** • Construction of switching from pneumatic plans • Processing of circuit diagrams • Systematic trouble shooting, clearing faults on training elements **Working under real conditions** • Analysis of the pneumatic assemblies in real plant • Installation and maintenance work on pneumatic plant • Training related operational task
Time requirements	4 weeks
Forms of learning, methods, media	- Introductory material - Self paced learning - Individual exercises and questions from the text (comprehensive study of schematics and switching behaviour of pneumatic working and control elements and the systematic implementation of a pneumatic training task based on examples) - Self assessment, evaluation talks and fault analysis - Laboratory equipment (modular work station system), - Study sheets - Training on real plant for plastics manufacture, in particular extruders and injection moulding plant (installation of pneumatic elements, detection and clearing of simulated faults) - Operational training related task
Organisation of learning contents	The learning unit targets future commercial-technical skilled labour from industry and crafts in the plastics sector with technical knowledge and good, logical thought processes. It is taught to groups of max. 12 participants. The learning unit also teaches multi-disciplines, i.e. participants from the three trades: - Mechatronics engineer - Process engineer - Toolmaker from the plastics sector are trained on the principle of uniformity and

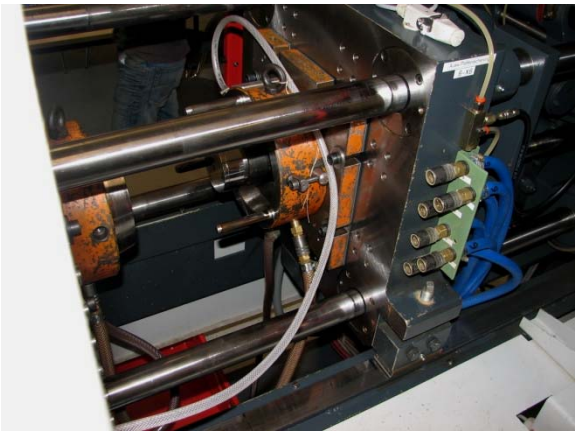
	differentiation. 2 weeks of the learning unit are carried out directly in the training centre, followed by 2 more weeks in a mixed form of operational training centre. Given the prerequisites, these 2 weeks can be entirely run in the in the company. A typical company specific task can be determined from the learning unit.
Determining results/ proof of performance	The success of the learning unit is measured with: - an internal course test - the completion of an operational training related task. At the end of the learning unit there is a three stage evaluation: 1. Self assessment 2. Evaluation by the instructor from the training centre 3. Evaluation of the operational training related task by the instructor and company trained skilled labour The participants are given a certificate confirming the results.

5.4 Example of an operational training related task with suggestions for practicable evaluation criteria

Example of an operational training related task in the plastics sector

Relevant trades: mechatronics engineer, toolmaker, and process engineer.
This task can be done by all three trades; the mechatronics engineer must lead with an introduction to injection moulding equipment):

Operational training related task:
To clear a fault on a Ferromatik Milacron Elektra 50 S



Task:
A fault has occurred in the during a production process in an injection moulding machine, a Ferromatik Milacron Elektra 50 S, equipped with the IQT 44 controller (standard). The containers made by this machine are no longer fully automatically ejected from the mould.
This may be due to a fault in the mechanical ejection system, in the machine tool itself (signs of wear), in the assisted ejection from the mould by air pressure (obstruction in the air canal system of the machine tool) or in the pneumatic control system assembly. The technical parameters of the respective air valves are controlled by the keypad via the monitor.

Analyse the fault and take the steps to clear it. Work if alone possible and take care in your task that the planning, implementation and checks result in the specified handover of a fully functioning machine.

The implementation of the task is evaluated according to the following criteria:

Planning phase

Points (0-3-5-7-9-10)

Criteria	**Self assessment**	**Impartial evaluation**
Recognition of the working and learning objectives		
Research of information sources		
Effective use of self study materials		
Current situation analysis Fault analysis		
Finding solution strategies for implementation of the task		
Preparing a work schedule		
If necessary, agree the work schedule with the company experts (WM. MECH, VM)		
Make personal decisions		

Interim total x 0,3 .....

Implementation phase

Points (0-3-5-7-9-10)

Criteria	**Self assessment**	**Impartial evaluation**
Observation of health and safety regulations		
Effective application of standards and DIN regulations		
Function test of bought in parts as initial check		
Installation of valves and electric assemblies		
Agreement and cooperation between different trade groups		
Observation of operational interruptions to production schedules		
Expert support		
Test run and conclusions		
Quality control		
Interpretation of the results		

Interim total x 0,4 .....

Transfer phase

Points (0-3-5-7-9-10)

Criteria	**Self assessment**	**Impartial evaluation**
Technical correctness of the solution		
Written account of the results as annex		
Confirmation for the company of results used		
Presentation of the task		
Order of presentation - Structure - Personal position Presentation of company relevant conclusions		
Level achieved in self paced learning and its transfer to other tasks		
Implementation of the knowledge gained in similar activities		
Development ideas for further company quality assurance (possibility of avoidance and prevention of such faults)		

Interim total x 0,3 .....

Guidelines for a brief presentation

Operational tasks relating to initial and further training:

Title: .....
Firm: .....

Training content regarding technical and temporal structure of training profession, e.g. content from the appropriate further training module	Here the difference between task and learning objectives must be made, i.e. the task must contain unequivocal qualification elements.
Derived from an operational task important to further training with anticipated results and time limit	Here it should be noted why it involves a real task that is necessary and important for the company.
Participating trainees and improvers	
Necessary working steps	If required, preparatory forays and excursions, preparatory exercises could be undertaken. It is however important here to project the schedule in the processing of the concrete task.
Necessary support from instructors in cooperating learning location	How can company instructors, trained skilled workers or other company specialists and the SAZ instructor help with the task, how should they collaborate to support the trainees? What kind of cooperation with the vocational school is necessary?

Results achieved	Very good	Good	Satisfactory	Sufficient	Poor	Insufficient
Work planning, cooperation communication, information		The evaluation criteria outlined here field a suggestion that they can be specified according to task and training progress of the trainees. For example, it would be reasonable to have evaluation criteria as they are projected in many new occupations for the evaluation of the company project work in the final examination.				
Implementation according to quality and time						
Self assessment of the results, checks, corrections, presentation of the results						
Benefits to the company						

Signature of instructor Signature of trainee

5.5 Outcome oriented design for training - Measurability of acquired technical and staff competences

What are learning outcomes?

Learning outcomes describe concrete, measurable competences (technical and personal competences). In the development of learning units the contents do not reflect the approach (or the input) but rather what the learners should have learned at the end of the module/ learning unit.

Indicators of the outcome are:
- Knowledge
- Skills
- Social and personal competences

Knowledge
Knowledge defines the facts, fundamentals, theories and practice learned in a learning or working environment.
In the European qualification frameworks knowledge is described as theoretical and/or factual knowledge.[3]

Vocation related example of knowledge in the plastics sector
1. Setting up and functions of the requisite plastics processing machinery, tools and peripheral equipment in the occupation and the concrete working situation.
2. Health and safety
3. Electrical, pneumatic and hydraulic controls
4. Quality management
5. Business process: knowledge of the sector specific business processes, logistic procedures in the fields of toolmaking, finishing, maintenance and charging procedures
6. Company data on the quality control chain through to customer service

A further designation of knowledge can be classified as:

[3] European qualification frameworks (EQR) for lifelong learning. In: http://www.good-practice.de/strukturen_beitrag2486.php, Aufruf:28.05.08

- **Factual knowledge**
  e.g. knowledge of assemblies, control systems, tools, material, formulae, diagrams and definitions in the plastics industry
- **Conceptual knowledge**
  e.g. knowledge of the related effects in the processing of plastics and interrelated effects of individual elements in the plastics processing machinery
- **Procedural knowledge**
  Active knowledge "knowhow" for the planning, implementation and control of an activity, e.g. adjustments to injection moulding machines and changing machine tools

Skills
Skills are the ability to use knowledge and knowhow to implement tasks and solve problems.
In the European qualification frameworks, skills are described as cognitive skills (logical, intuitive and creative thinking) and practical skills (workmanship and application of methods, materials, tools and instruments)[4].

Vocation related example of skills in the plastics sector

1. Appropriate commissioning, monitoring and operation of plastics processing machinery and plant
2. Recognising and clearing faults
3. Assessment of quality of plastics products
4. Use of CAD and SPS procedures and the care and maintenance of electrical and pneumatic drives
5. Working with environmental and economical awareness

Recognisable skills

- Aptitude when handling tools, devices and machines,
- The prompt application of acquired skills in new tasks,
- Safe, accident free and quality implementation of tasks.

In addition and in particular

- Planning of tasks
- Understanding of workshop diagrams
- Programming of plastics processing machinery
- Checking results and evaluating the test results
- Planning work schedules and optimising process parameters

Personal competences (social and personal competences)
Personal competences are proven ability, knowledge, skills, personal, social and/or methodical ability in learning or working situations in a vocational and/or personal environment.
In the European qualification frameworks competence is described in the sense of taking responsibility and initiative.[5]

Competences arise from working situations and describe how the trainees carry out assignments, principally alone and also cooperatively in a team with other skilled operatives.

[5] European qualification frameworks (EQR) for lifelong learning. **In: http://www.good-practice.de/strukturen_beitrag2486.php,** Aufruf:28.05.08

For example skills include:
1. Personal awareness of responsibility in the typical shift work in the plastics industry
2. Accord and cooperative solutions for fault clearing tasks
3. Independent handling of information on process parameters
4. Information exchange in the cooperative solutions for tasks

Competences include.
- Ability to express oneself
- Comprehensive explanation of work related matters
- Handling disagreements and conflict in technical matters
- Confidence in new situations
- Good interpretation of instructions and communication thereof to others
- I have no difficulties in fitting in with a team and can form a cordial relationship

Further examples:

Field: technical competence (knowledge, skills)
- Uses technically approved solution methods
- Completes task fully and to specification
- Produces practical, applicable results
- Arrives at original solutions for tasks
- Solves tasks economically and rationally
- Keeps appointments
- Coordinates the entire task
- Implements rough work plan
- Implements fine work plan
- Plans controls
- Coordinates work and individual activities
- Coordinates work schedule and results

Field: personal competence
- Targets joint objectives
- Motivates other group members
- Supports and helps others
- Accepts opinions of others
- Articulates clearly
- Communicates and relays information
- Gives constructive feedback to others
- Documents entire work with traceability
- Prepares formal documentation logically and correctly
- Formulates technically and correctly
- Designs are graphic and original
- Keeps appointments
- Makes a major / no contribution
- Prepares presentations
- Expresses facts clearly and comprehensively
- Speaks clearly and directly
- Demonstrates confidence and composure
- Keeps to deadlines

5.6 Equivalence comparison - example of an equivalence comparison in the plastics sector for the recognition of performance points

Equivalence comparison - To examine whether the learning unit of vocation A, the learning unit of vocation B and/or C is equivalent and how many performance points may be recognised in the vocation.

The following steps are recommended:

1st. step
Training framework plans and teaching framework plan as the starting point
Synopses to identify the joint learning unit
Example: Learning unit for pneumatic controls

2nd. step
Determining the coverage of the outcome
When implementing the learning unit, it is determined how much the planned outcomes cover. A significant indicator of the equivalence is achieved if the coverage is 80 -100 %.

3rd. step
Evaluation of the learning unit

In this phase a weighting of the learning units is applied in which the time factor influences the entire training time and the level achieved according to a four level scale. (N.B: this scale must not be confused with the DQR levels, it lays the necessary emphasis on technical and personal competence and coverage within the vocation, including within the three vocations; the time dimension is necessary as it concerns a three year vocation for process engineers and for toolmakers and mechatronics engineers three and a half years).

To apply a weighting for the outcomes achieved, the following benchmark levels are recommended:

Level 1
The trainee acquired knowledge and skills. This acquired technical competence enables the trainee to apply this knowledge under instruction and carry out concrete practical tasks.

Level 2
The trainee has fundamental skills and can apply them to new tasks. The trainee can cooperate and communicate in certain tasks.

Level.3
The trainee is able to apply acquired knowledge to new tasks. The trainee can independently acquire and process the necessary information. Associated knowledge enables the trainee to discern the similarities and differences in tasks.

Level.4
The trainee demonstrates creative techniques and can find solutions and alternatives for the implementation of tasks. The trainee can independently acquire and apply the necessary knowledge with his existing experience. Communication, initiative, responsibility and effective team work characterise this level.

Recommended multiplication factors:

Level 1	0,25
Level 2	0,5
Level 3	0,75
Level 4	1,0

4th. step
Planned comparison of achieved and certified outcomes
The proof of competence and the determination of technical and personal competence must also demonstrate a coverage appropriate to the planned outcome.

5th. step
The responsible office confirms the equivalence on the recommendation of the examining board.

5.7 Performance points system in the building industry – example: clay building

Clay brick construction is acquiring growing significance; it is no longer exclusive to the building industry but is also a part of European initial and further training. The ever increasing demand for skilled labour and the European effort towards modularisation of the acquisition of vocational qualifications have made the structuring of training for clay building imperative.

On the basis of the "European Qualification Framework" (EQR) and the "European Credit System for Vocational Education and Training" (ECVET) the EU Learn·Clay project has developed a system that enables the acquisition, evaluation and transfer of clay building learning results between participating partners and countries. The vocational offices will increase considerably if foreign experience has been gained during the training.
ECVET Lehmbau targets therefore the vocational mobility and careers by integrating formal and informal learning.

The starting point of the project is the granting of a qualification "Designer for clay building " in six units. Each of these units is characterised by a useful package of knowledge, skills and competences.
In the results the following units arise which conform to a high degree to the tasks in established clay building concerns.

1. Manufacture of clay rendering
2. Implementing clay rendering
3. Maintenance, repair and surface treatment of clay rendering
4. Interior design with clay rendering
5. Decorative elements from clay rendering
6. Marketing for clay rendering

They can now be evaluated as single, self sufficient units. Their order is therefore no longer important. Each unit can be independently applied and checked.
ECVET Lehmbau is so organised that it can be applied to other initial and further training.

The orientation on learning results is characteristic of the EQR and was necessary with regard to the comparability.
ECVET Lehmbau should offer trainees the opportunity to graduate from an entry level to the level of independent hand worker by various routes. Learning results already achieved should be accumulative and recognised as exiting qualifications.

In order to ensure comparability of learning results between the partner countries, unambiguous criteria and indicators for evaluation were put in place. The aim of ECVET was not to equalise regional differences in clay building techniques and building styles but rather to give trainees the opportunity to learn about existing building techniques and styles in Europe directly through the transnational exchange of mobility of trainees. The indicators for evaluation of the criteria conform to the national standard (norm, techniques, guidelines).

An essential characteristic of the "Units of learning results" was that they would be evaluated independent of learning location. To be able to transfer learning results from one organisation to another or from one European country to another, an agreement on methods and procedures is necessary. This helps to determine the amount of definitive knowledge, abilities and competences trainees have actually acquired.