Horizontal comparisons of qualifications levelled in NQFs

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37 EQF AG:
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Contents

- Horizontal comparison project:
  - Objectives, working team and timetable
  - Methodology
  - Choice of qualification
- Fiche and elements of core context information analysis
- Learning outcomes comparison
- Methods of levelling
- „actual qualification” case
- Structure of the final report
- Expected results and continuation of work
Horizontal comparison (HC) objectives (AG32-3 note)

- The general aim of the pilot is to further improve the way EQF levelling takes place, building on national experiences;
- The specific aim of the pilot is to fine-tune and test a methodology for the comparison of levelling decisions and sharing experiences on existing strengths and weaknesses;
- The results will inform and support future levelling decisions at national level, and remain the property of these countries.
- The experiences from the pilot will inform and orient future ‘horizontal comparisons’;
- ‘Horizontal comparisons’ will address the consistency of the referencing of national qualifications, seeking (for example) to clarify:
  - whether seemingly comparable qualifications assigned to the same level are indeed comparable, and;
  - why seemingly similar qualifications have been assigned to different levels in different countries;
- HC also provides information on detail and way of describing learning outcomes across different countries.
Cedefop, Commision and EQF/AG experts
and experts from the following countries:

- Hungary
- Italy
- Latvia
- Norway
- Poland (coordinator)
- Sweden
- Scotland
February – preliminary discussion on method and agenda of work

March - April – qualifications chosen and methodology / fiche accepted

April - May – delivery of LO descriptions etc. by countries, first part of comparative analysis; need for additional questions

June – presentation of the HC first results at the AG36

July – answers for additional questions – additional analysis done

September 9 – working meeting in Warsaw

October 3 – working meeting in Brussels

October 4 – presentation of the HC results at the 37 AG

November ?? – working meeting in Warsaw on the deliverables/ draft of the final report

November 30 - draft of final report sent to the AG for discussion

December 8/9 - conclusion of pilot project, possible adoption of a work program for 2017-18 at the 38 AG.
Choice of qualifications:

The two qualifications were chosen for analysis:

* CNC operator
* Mechanical engineer
### Fiche for horizontal comparisons

<table>
<thead>
<tr>
<th>Country:</th>
<th>Country A</th>
<th>Country B</th>
<th>Country ...</th>
<th>Results of the horizontal comparison of qualifications and their levelling – similarities and differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group members:</td>
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<tr>
<td>Title of qualification (bilingval)¹</td>
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<tr>
<td>Scope of qualification²:</td>
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</tbody>
</table>

#### Context information³:
- **Access rights**;
- **Purpose of the qualification in education**;
- **Purpose of the qualification at the labour market**;
- **Reference to occupational context**;
- **International standards**;
- **Recognition practice**;
- **Validation practices**;
- **Validation of informal and non-formal learning**;
- **Quality assurance**;
- **Other relevant**.

<table>
<thead>
<tr>
<th>Organization of learning outcomes⁴</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Learning outcomes⁵:</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Analysis of learning outcomes⁶:</td>
<td></td>
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<tr>
<td>Basis of levelling⁷</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Level of NQF/EQF⁸</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conclusions of the qualification horizontal comparison between countries</th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendations (overall, per country, to EQF AG)</td>
<td></td>
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</tr>
</tbody>
</table>
3 stages of context information analysis

1. Indicating „core elements” of context information + submission and analysis of data

2. Submission and analysis of other context information data

3. Additional questions as guidance for data collection recommended
   - Submission and analysis of additional data

„learning by doing” method but the team very enthusiastic of the work
Context information - core elements

**Access rights:** Who is eligible to apply for qualification? What are the prerequisites? What are other requirements for applicants (formal, financial etc.)

**Purpose of the qualification at the labour market:** Is the qualification required/ one of requirements / recommended to practice a certain profession.

**Recognition practice:** Who is responsible for a recognition? What are recognition practices/procedures?

**Validation practices:** Who is responsible for a validation of the qualification? What are the validation practices/procedures?

**Quality assurance:** Who is responsible for quality assurance? What are the quality assurance practices?
Other context information

Validation of informal and non-formal learning
- Is it possible to validate prior achievements?
- How does a learner validate her achievements?

International standards:
- Is the qualification referring to any international standards (e.g. sectoral)? Which ones?

Purpose of the qualification in education system
- Determines if the qualification is required/one of requirements/recommended to practice a certain profession.

Reference to occupational context;
- Is the qualification related to any specific: sector or branches? Institutions or companies? Functions or positions? Working culture? Specific geographical region? In which way?
Questions on context analysis

Regarding the methodology of the comparison of national levelling decisions do we need a context information? - YES

Why is the context information essential (or at least important) for horizontal comparison? – VARIETY of of national approaches protected

Which categories of the context information are relevant for the HC? Are these categories „core elements”? – WELL …. ? Basis for selection?

Need for „additional questions”
### Additional questions

<table>
<thead>
<tr>
<th>Access rights</th>
<th>Purpose of the qualification in the labour market</th>
<th>Recognition (\text{practical proficiency})</th>
<th>Validation (\text{practical proficiency})</th>
<th>Quality assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample questions included in the below</strong></td>
<td></td>
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</tr>
<tr>
<td><em>Who is eligible to apply for qualification?</em> What are the prerequisites? What are other (\text{requirements for applicants} (\text{formal, financial, etc.})?*</td>
<td>Determines if the qualification is in recognition of requirements (\text{recommended to practice a certain profession}).</td>
<td><em>Who is responsible for a recognition?</em> What are the validation procedures? (\text{practical proficiency})</td>
<td><em>Who is responsible for a validation of the qualification?</em> What are the validation procedures? (\text{practical proficiency})</td>
<td></td>
</tr>
<tr>
<td><strong>Additional comments and questions</strong></td>
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</tr>
<tr>
<td><em>What are the entry requirements to apply for this qualification?</em></td>
<td>If the qualification is in recognition of requirements (\text{recommended to practice a certain profession}).</td>
<td>Taking into account the information submitted by the project partners and the idea and measures by local partners of introducing this category, it should be considered to change the term “recognition” to the term “certification”.</td>
<td><em>What kind of validation is the validation body for the qualification?</em> Are there the same bodies as the awarding bodies?</td>
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<tr>
<td><em>What are the prerequisites for further training after the obtaining of this qualification?</em></td>
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<td><em>What are the validation procedures that means how and with what outcomes are the training outcomes for this qualification assessed?</em></td>
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<tr>
<td><em>What are the most important job prospects and further learning prospects?</em></td>
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<tr>
<td><em>What are the opportunities in the labour market (national, European, global) for this qualification?</em> Are the qualifications recognised in the field of quality?</td>
<td></td>
<td></td>
<td><em>What are the validation procedures that means how and with what outcomes are the training outcomes for this qualification assessed?</em></td>
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</tr>
<tr>
<td><em>What are the issues that merit further investigation?</em></td>
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<tr>
<td><em>What are the outcomes for this qualification?</em> <em>Who is the holder of this qualification able to apply?</em></td>
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<tr>
<td><em>What is the training program?</em></td>
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<tr>
<td><em>How can one become certified? (e.g., exam, graduation, etc.)</em></td>
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<td></td>
</tr>
<tr>
<td><em>Score the training program in terms of quality and value.)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>What are the validation procedures that means how and with what outcomes are the training outcomes for this qualification assessed?</em></td>
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</tr>
</tbody>
</table>
## Additional questions – one example

### Purpose of the qualification at the labour market

Determines if the qualification is required/one of requirements/recommended to practice a certain profession

### What are the most important job prospects and further learning prospects?

What are the opportunities in the labour market (national, European, global) that this qualification gives to those who confirm its required learning outcomes?

What are the prospects for further learning after the obtaining of this qualification? About what further qualifications will the holder of this qualification be able to apply?

Example:

“A person with a qualification can be employed by clubs, associations and sports federations, e.g. to conduct national teams, provincial, players have a predisposition to achieving high performance sports teams in the highest class divisions. It can also work with regional sport associations in the field of education and training of staff training.”

“The qualification may be used in the situation:
- Employment in the service and repair workshops, points service and sales of motorcycles services for users of motorcycles,
- Doing business in the provision of services related to the diagnosis, repair and maintenance of motorcycles,
- Hobby dealing with servicing and repair their own Motorcycle”
Initial conclusions from the analysis of context information

• the fiche is an efficient tool for gathering and ordering data and making comparison of context information

• „additional questions” - provided significantly valuable information in some categories

• The language and terminology used in the descriptions are similar

• changing ”Recognition practices” into „Certification practices” recommended

• Volume of the description should be determined in order to make comparisons easier

• Recommendation for illustrating and supplementing the analyzed qualification by description of a concrete qualification provided by the actual institution

• In general – for future research - need for the guidelines for data collection
Learning outcomes descriptions: data gathered, way of comparison, results

1. The analysis of LO’s information consisted also of two stages:
   - the LO’s were grouped thematically, in order to make them comparable
   - the coherence of descriptions was evaluated

2. Analysis of the learning outcomes in order to determine the level of qualification.
   - Each learning outcome was compared with a level descriptors in a given NQF.
   - The adequate (“best fit”) descriptor has to be unequivocally indicated
<table>
<thead>
<tr>
<th>Category</th>
<th>HU</th>
<th>NO</th>
<th>LV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation to work - selection of</td>
<td>select, prepare and use CNC machines and equipment suited to the</td>
<td>select and use the correct protective equipment for the job at hand</td>
<td>1) Recognizes CNC machine tools to perform technical work (machining process)</td>
</tr>
<tr>
<td>equipment</td>
<td>the production assignment</td>
<td>select and use materials based on the task and explain characteristics of material involved</td>
<td>5) Selects tool holding, clamping, workpiece, and the job at hand</td>
</tr>
<tr>
<td>Preparation to work - checking the</td>
<td>- Perform checking operations before starting work (operability of</td>
<td>- Prepare for work (tool correction-value stores, zero point store contents, tool distribution, CNC program, checking main positions)</td>
<td>6) Sets and enters the driver of CNC machines before starting work (machining)</td>
</tr>
<tr>
<td>machines</td>
<td>machine systems, states of tools, technological parameters)</td>
<td></td>
<td>15) Perform visual and technical test of the machine before starting work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7) Downloads the necessary tools for machining and the program for processing and tool selection for machining software tools/machines</td>
</tr>
</tbody>
</table>
Levels of the NQFs for analysed LO’s

<table>
<thead>
<tr>
<th></th>
<th>Mechanical Engineer</th>
<th>CNC Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Sweden</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Latvia</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Poland</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Hungary</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Italy</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
## Language of learning outcomes

Similar language – in all cases only small differences of editorial character:

<table>
<thead>
<tr>
<th>Country</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>&quot;plan work based on drawings, other documents and procedures&quot;</td>
</tr>
<tr>
<td>Latvia</td>
<td>2. Read drawings.</td>
</tr>
<tr>
<td></td>
<td>3. Read technical documentation</td>
</tr>
<tr>
<td>Poland</td>
<td>Uses technological documentation for CNC machine tools / machines in order to identify their technical parameters</td>
</tr>
<tr>
<td>Hungary</td>
<td>&quot;Study the drawing of the new workpiece, technological documentation &quot;</td>
</tr>
<tr>
<td>Italy</td>
<td>understand the technical drawings</td>
</tr>
</tbody>
</table>
Differences in learning outcomes descriptions

- General similarities in "core elements"

- Different approaches to general knowledge;

- Different importance of competences, e.g. responsibility

- Almost identical description of skills

But:

- Differences can be explained on the basis of context information

- Differences do not jeopardise the possibility of comparison
Methodology of levelling

• The description of methods used in a given country to determine the level of qualification as a basis for comparison

• Confusion (?) after answers concerning levelling – variety of methods used by countries
  • Even in one country methods adopted for different sets of qualifications can be different (see the PL case)

• Can we find the “core elements” of all methods?

• “best fit” principle – what does it mean in this context?
  • (case of „full fit” principle?)

• Again: illustration by actual qualifications necessary
Methodology of levelling –
the PL general and higher education case

- decision concerning the number of level done by the relevant ministry on basis on the Integrated Qualification Register legislation

- level descriptors used (compulsory) as a basis for designing curricula by education programs
  - „national curricula” for general and vocational education
  - Autonomy of HEIs in designing curricula but accordingly to the level descriptors
  - and quality assurance control if the level descriptors are used in right way.
Methodology of levelling – the PL case for sectoral qualifications

- This method is a result of a pilot levelling of 413 Polish sectoral qualifications, that was held in 2012-2013.

- Five stages of leveling – application for getting the PL QF level number

- Functions of the national register for qualifications
Methodology of levelling

• Do these two approaches have something in common? Can we find the “core elements” of all methods? Yes:

  • learning outcomes of qualification have to be referred to the level descriptors

  • and their mutual reference is evaluated / confirmed by the quality assurance systems.

• These elements are present or are to be present in all NQFs (see also the referencing criteria)

  • If not – strong recommendation for presenting them
Methodology of levelling – additional conclusions

- Method of leveling cannot be limited to formal comparison of LO and level descriptors
  - Importance of context information
  - Protecting variety of qualifications is an added value for education systems
  - Variety does not make comparison impossible

- One standardized pattern for qualification description as a basis for levelling probably cannot work.
  - “Best fit” principle – what does it mean in context of HC and many methods of levelling?
  - Additional problems:
    - Typology of qualifications regarding method of levelling (see also the NQF in project)
    - Again „actual qualification” analysis/illustration very recommended
„Actual qualification” fiche - for mechanical engineer

• Decided in Warsaw, discussed in Brussels 3 October
• Data submitted by the end of October
• Question: what do we mean by „concrete qualification”?

• Main elements of general specification:
  • Institution awarding the diploma of the qualification:
  • Title of diploma (bilingual):
  • Specialization: Level of NQF: 6
  • Workload - ECTS:
  • Period of study:
  • Enrollment / access rules
  • Diploma Supplement contents
  • What else?

• Who awards the number of the NQF level?
Actual qualification - relation to the NQF descriptors:

- Short description of the designing the study program / curriculum and validation of expected learning outcomes:
  - Who does design the program?
  - Who decides about the set of expected learning outcomes has to be achieved in order to get diploma? On what basis?
  - In what way the expected learning outcomes are linked to the NQF level 6 descriptors?
    - Who and in which way takes care if the set of expected learning outcomes is covered by learning outcomes provided by courses (teaching units, modules …)?
  - Are any international standards for engineer education incorporated into the program?
  - Are any professional standards incorporated into the program?
  - In which way confirmation of achievement of expected learning outcomes (validation) is provided?
  - In which way validation of learning outcomes achieved in non-formal and informal way is provided in the program.
  - Who accepts the whole study program / curriculum (takes responsibility for it)? On what basis?
  - In what way the stakeholders are involved into process of designing curriculum and validation of learning outcomes?

- Description of internal and external quality assurance procedures relevant for location of the program / its learning outcomes on the 6 level of NQF.

- Appendixes: set of learning outcomes – basis for the program / curriculum divided into knowledge, skills and (social) competencies; the study program (curriculum); if available: syllabi of the courses - examples; if available: reports of quality evaluation (internal and external) regarding the program design on basis of expected LO and their validation.
Proposal for the structure of the final report

Content

1. Purpose of the pilot project
2. Target Group for the report
3. Background and a summary of meetings in the HC group
4. Summary of the report
5. Introduction
6. Methods
7. Comparison of Learning outcomes
   7.1. CNC operator
   7.2. Mechanical Engineer
8. Comparison of the levelling
   8.1. CNC operator
   8.2. Mechanical Engineer
9. Conclusions
10. Lessons learned and recommendations
11. Appendix
Content of 4,5,6 - an example

**Summary of the report**: major points and how the HC group came to the conclusions and the recommendations

**Introduction**:

• "Set the scene" for the Advisory Group.

• State purpose of the project, explain and justify the questions/ challenges that has been explored, the answers and proposed solutions.

**Methods**:

Context information: How data was gathered and the way the comparison was done (The basis for development of the methodology / tool for horizontal comparison).
Appendix – important part of the report

- Volume of the main text – 40 pages

- Volume of appendixes - ??

- Evidences for the analysis results partly in appendix

- Valuable set of information about state of play of the implementations of the NQFs
Provisional conclusions from discussion at the HC team working meeting in Brussels (3 October)

• Fiche - the effective tool for completing and ordering data
• Context information
  • important for understanding and accepting variety of data
  • Additional questions building draft of the guideline helpful
  • Language of EQF/NQF sufficient for comparison and used in comprehensive way
• Learning outcomes
  • Comparison possible and done
  • Language of EQF/NQF sufficient for comparison and used in way not jeopardizing comparison
  • Differences in location LO on NQFs levels and in can be explained by context information and illustrating by “actuale qualification”
Provisional conclusions from discussion at the HC team working meeting in Brussels (3 October)

• Methodologies of leveling
  • Variety of approaches but common „core elements”
    • Relationship between LO and level descriptors
    • Quality assurance of the process of leveling
  • Comparison possible and done
Provisional recommendations:

• Protecting variety - providing comparison and upgrading transparency/trust – is possible and recommended.

• Guideline for data/information submission for comparison recommended

• Illustration by the “actual qualification” recommended

• Strengthening of the relevant referencing criteria recommended

• Stricter standardization not necessary
Next steps

- October 4 – presentation of the HC state of play at the 37 AG
- November ?? – working meeting of the HC team in Warsaw on the deliverables/draft of the final report
- December 1 - draft of final report sent to the AG for discussion
- December 8/9 - conclusion of pilot project, possible adoption of a work program for 2017-18 at the 38 AG
Thank you for your attention!
“Support to central government administration, awarding bodies and quality assurance institutions in implementing stage I of the Integrated Qualifications System”

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