



# ENGINEERING QUALIFICATIONS AND COMPETENCES ACQUIRED BY GRADUATES

BEST Virtual Summit

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# Engineering Professional Qualifications

- EUR-ACE ([www.enaee.eu](http://www.enaee.eu))
- ABET ([www.abet.org](http://www.abet.org))
- [Washington Accord](#)
- [International Engineering Alliance](#)
- [APEC Engineer](#)
- ...


# Competences framework

- FEANI proposed for discussion at EMC and adapted from CALOHEE

Dimension	Knowledge	Skills	Attitudes
Level 7 EQF MASTER	Demonstrate knowledge and understanding of the disciplinary, professional, personal and interpersonal requirements necessary to solve / design / investigate / conduct very complex engineering problems / products, processes and systems / issues / activities in Engineering (Civil, Mechanical, Chemical, Informatics, ....)	Apply knowledge and understanding to solve / design / investigate / conduct very complex engineering problems / products, processes and systems / issues / activities in Engineering (Civil, Mechanical, Chemical, Informatics, ....)	Identify and justify appropriate and relevant established method or new and innovative methods to solve / design / investigate / conduct very complex engineering problems / products, processes and systems / issues / activities in Engineering (Civil, Mechanical, Chemical, Informatics, ....) and behave according to professional, ethical and social responsibilities.



# 9 dimensions

- Knowledge and understanding
  - Analysis and problema solving
  - Design
  - Research
  - Practice
  - Decision Making
  - Team working
  - Communication
  - Lifelong Learning
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# Example

<p>Decision making</p>	<p>Demonstrate critical awareness of the key aspects of professional, ethical and social responsibilities linked to management of work contexts, decision making and judgment in the field of study.</p>	<p>Manage work contexts in the field of study and within broader or multidisciplinary contexts that may be unpredictable and require new strategic approaches, take decisions and formulate judgments.</p>	<p>Identify and justify appropriate and relevant strategic approaches and analyse professional, ethical and social responsibilities linked to the management of work contexts in the field of study and within broader or multidisciplinary contexts, taking coherent decisions and formulating coherent judgments.</p>
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# Topics for discussion

- Were these competences explained during the HE classes?
- Were courses and disciplines explicitly showing these competences?
- Can you demonstrate that you have these competences?
- Can you create a e-portfolio with competences and evidences?
- What other competences have you acquired in HE classes?
- Is there any other professional competence missing?
- ....