

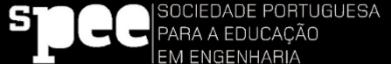
# INSIGHTS FROM PORTUGAL

Engineering ethics education: insights from Spain and Portugal 23 September 2021 SEFI@work



## Higher Education overview

- No specific discipline in any accredited engineering course
- Publications repository at UPorto 5, ULisboa 3, UCoimbra 3, UMinho 3, UNLisboa, UAveiro, UTAD, UBI, UAlgarve, UEvora ??, IPP 3, ISEL o, ISEC o
- Codes of conduct in general in institutions for students, professor and non-academic staff
- Ethics mentioned in learning outcomes of disciplines.



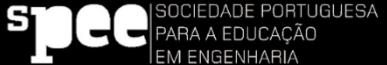
# Higher Education overview (cont.)

- EUR-ACE Standards: Bachelor "...to inform judgements that include reflection on relevant social and ethical issues..."; Master "...etical judgements...".
- Portugal has 71 engineering programs with EUR-ACE label.
- Evaluation report of EUR-ACE in Portugal does not explicitly address ethical requirements of standards.



## Professional overview

- Mandatory course for admission in OE (2002) and in OET
- Around 7 hours training plus homework of about 8 hours
- Theoretical session and case studies
- Assessment with pass/fail
- Deontology and Ethics about same time
- Manual OET 59 pages



#### Professional overview (cont.)

- Ethics and Professional Deontology
  - Law and Moral
  - Concepts Clarification
  - Ethics and Ethical Codes
  - Ethical Dilemmas: Examples, Approach Methodologies, Guidance, Solutions
  - Value Conflicts and Priorities
  - Humanity, Nature Dynamics, Human Rights
  - Implementation and Exploitation of Technology
  - Common Good, Private and Corporative Interests
  - Safety and Functionality, Usefulness of Technical Solutions