

European Platform for Innovation and Collaboration between Engineer Students



FACTS AND FIGURES

- 2-year European project co-financed by Erasmus+ (from September 1, 2014 to August 31, 2016)
- - The French PLACIS project and issues raised during PLACIS : A new format to train engineers through at-a-distance international and/or industrial multidisciplinary projects carried out collaboratively by students,
 - The progressive change of the curricula, with new methods, new tools, new complexity, MOOCs issue...

• Partners:

- Supméca, France (coordinator)
- KU Leuven, Belgium
- SEFI, Belgium

CES

- Riga Technical University, Latvia
- Aalto University, Finland
- Universita di Napoli Federico II, Italy
- Politecnico di Torino, Italy
- Universitat Politecnica de Valencia, Spain





MAIN GOAL OF EPICES

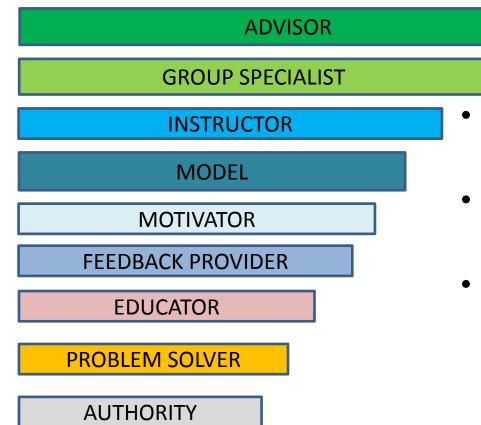
- Improve the project-based learning in engineering and work on the teachers roles, through 6 intellectual outputs:
 - O1 : Model of facilitator roles and skills in Project-based Learning in European Engineering Education
 - O2 : Initiation of training packages for developing effective facilitation skills for teachers involved in project based learning in European Engineering Education
 - O3 : Creation/adaptation of a platform for teacher networks for sharing best practices of facilitation in different media
 - O4 : Feedback and results on larger scale use of training packages & possible use of guidelines
 - O5 : Assessment Methodology for Project Based Learning in Engineering studies
 - O6 : Development of toolboxes/toolkits (for measurable competencies) for assessment of skills and knowledge with reference to the environment you are working in



CES



ROLE OF TEACHER ? MODEL BY KU Leuven



- HOW do different teacher roles support learning ?
- HOW do teachers view their role ?
- HOW does teacher view correlate with student experience on learning?

https://www.biw.kuleuven.be/projectbegeleiding_en/Information.aspx



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TEACHER ROLES IN STUDENT PROJECTS

- Aalto University with EPICES partners: Web based questionnaires for 13 EPICES teachers and 20-30 students (France, Italy, Spain, Latvia, Finland)
- Study a) The role of the teacher in facilitating student learning and match this with b) how the students feel that teachers are performing as facilitators
- Started 17.2.2015 currently ongoing, finish May 2015

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- So far 5-8 teachers have replied (questionnaires 1 and 2) and 9 students, the study is ongoing
- Very preliminary data, can not yet correlate individual teacher replies with student replies for each course

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IMPORTANT LEARNING OUTCOMES: PRELIMINARY DATA

TEACHERS (n=5 so far)

- Scientific knowledge
- Designing and carrying out a plan
- Ability to interpret, think critically
- Reason logically, act according to plan
- Form reasoned judgement and defend scientific argument
- Collaborate in teams
- Communicate in writing and verbally
- Take into account temporal context

STUDENTS (n=9 so far)

- Scientific knowledge
- Understand Links between disciplines
- Formulate clear research problem
- Understanding technology and character of your own field
- Ability to interpret, think critically
- Reason logically, act according to plan
- Form reasoned judgement and defend scientific argument
- Communicate in writing and verbally
- Collaborate in teams



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TEACHERS' VIEWS: SOME CONTRADICTIONS

TEACHER SELF-VIEW OF ROLE AS FACILITATOR

Teachers state that they do not give direct replies or solutions, and find solutions together with students

BUT THIS CONTRADICTS WITH !

Teachers also reply that they must be in control, continuously check on progress, give examples of how solutions could be obtained and seem to have a strong need to control the student work



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