



*Varietas delectat...*

Complexity is the new normality

SEFI 47<sup>th</sup> Annual Conference

# Proceedings



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## **EBCC MODEL: THE SUSTAINABLE PARTNERSHIP MODEL AMONG UNIVERSITIES, COMMUNITIES AND INDUSTRY COMMUNITIES AND INDUSTRY**

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**Topics:** New Complexity Quest in Engineering Sciences, New Notions of Interdisciplinarity in Engineering Education

**Keywords:** sustainable partnership, real life cases, engineering education, community, local government

### **EBCC Model: The Sustainable Partnership Model among Universities**

The workshop is organized in the framework of the Erasmus+ strategic partnership project No 2017-1-LV01-KA203-035426 “Education, Business and Community Cooperation Model for a Creative European Engineering Education” (EBCC Model). There are five partners in this project: Riga Technical University, Latvia (RTU), Institut Supérieur de Mécanique de Paris, France (SUPMECA), Aristotle University of Thessaloniki, Greece (AUTH), Établissement public territorial Plaine Commune, France (PLAINE COMMUNE), and the European Society for Engineering Education, Belgium (SEFI). The workshop is facilitated by 8 experienced faculty and administrative staff members from these organizations. They have experience in development and implementation of the curriculum for project-based engineering education.

Universities have established a network of partners, including regional government and other stakeholders, but often the cooperation with the regional government is implemented on an irregular basis case by case.

The objective of the workshop is to share ideas and knowledge how to build long-term and mutually comprehensible and desirable cooperation between universities and communities and industry.

### **Agenda**

5 min.: Introduction. Moderated by RTU.

15 min.: The presentation of the guidelines for implementation of skills relevant to engineering design and development of innovative products in the engineering curriculum:

- case and/or innovative project idea creation model, moderated by RTU;
- student team building recommendations, moderated by SUPMECA;
- guidelines for integration of the selected skills into the curriculum and syllabus; moderated by SUPMECA.

25 min.: Round table discussion: Challenges and opportunities for the sustainable partnership model among universities, communities and industry, moderated by RTU.

10 min.: Creation of working groups of 5-7 persons and case study description. Moderated by PLAINE COMMUNE

25 min.: The practical exercise where the working groups will work to find the best cooperation model between university and local government or industry taking presented guidelines, case description and own experience. The participants will have roles of teachers and students, but RTU, SUPMECA, AUTH and PLAINE COMMUNE representatives will play roles of local government and community members. Moderated by SUPMECA.

15 min.: Feedback by each group and the final remarks. Moderated by RTU.

The participants will learn how to create advanced study curriculum based on real regional problems that would enhance students' practical experience, promote university involvement in resolving challenging issues of regional businesses as well as establish closer cooperation of the academic staff with the representatives of regional government. At the same time such cooperation should ensure high educational standards and meet the main educational objectives even if study courses include problems (projects) that are suggested by local government or industry.

The workshop has length 90 minutes and includes keynote presentations, discussions and practical case in working groups of 5-7 persons. There will be discussions on

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multidisciplinary approach, involvement of students from different universities and study levels (for example Master and Bachelor) national, cultural and societal differences within the EU, as well as potential gender-based issues. They will experience to work in small teams playing roles of academic staff and students. The groups will analyze the proposed cooperation model and create a blueprint of the model implementation for the presented case study description obeying facilitators' guidelines. The participants will present the outcomes of the own workgroup and evaluate the results of others. There are expected 20 - 30 participants in total. Participants will receive a workshop booklet containing all presentations and reference materials.