

NATURE OF SERINA'S PROJECT RELATED WITH 2016 PORTO DECLARATION AND LINKED TO UNITED NATIONS SDGS

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Thessaloniki, Greece, 12 November 2021

The role of education for Civil Engineers in the implementation of the SDGs

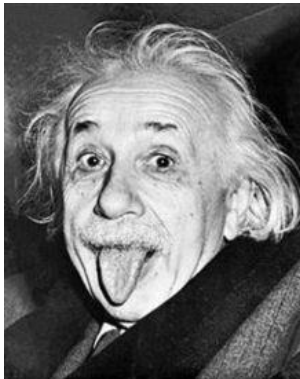
1st Joint Conference of EUCEET and AECEF

Global sustainability: challenge or opportunity for engineering?



Global sustainability... understanding the issues

"If I had an **hour to solve a problem**, I'd spend 55 minutes thinking about the problem and five minutes thinking about solutions."



Global sustainability: challenge or opportunity for engineering?

- Engineers are the great problem solvers of the world
- Understanding the problem
- IACEE perspective : SERINA global initiative
- United Nations 17 Sustainable Development Goals

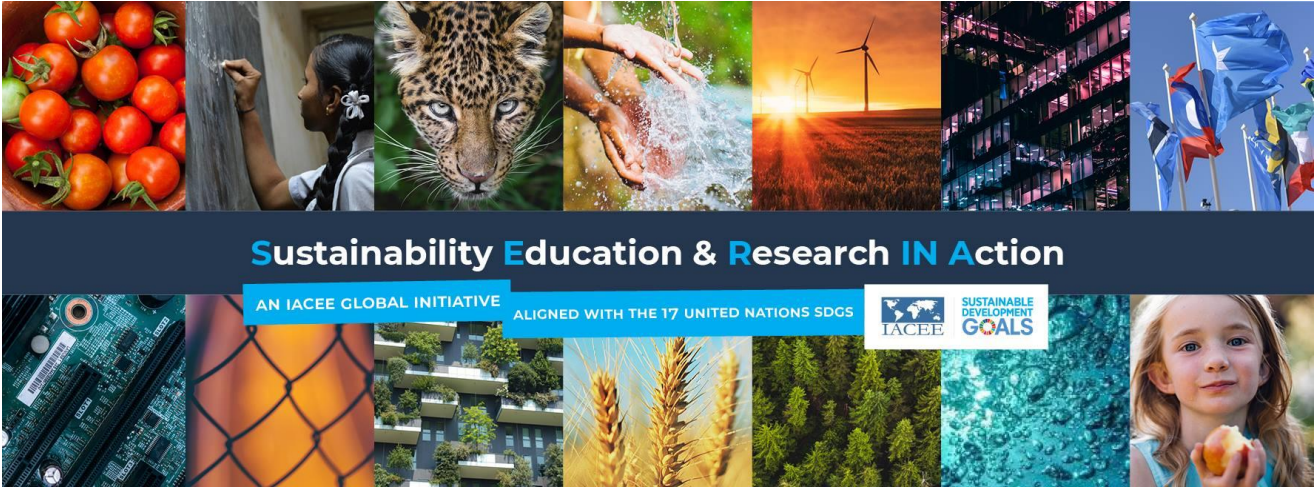


SERINA

serina.iacee.org



Global Initiative SERINA



United Nations Sustainable Development Goals : a blueprint of opportunity?

A framework for sustainable economic,
social and environmental development

17 Goals

169 Associated Targets

2030

Global sustainability: challenge or opportunity for engineering?

- Engineers are the great problem solvers of the world
- Understanding the problem
- Climate, environment, resources, ...
- United Nations 17 Sustainable Development Goals
- God created the World and engineers change it!

Porto Declaration 2016

“In keeping with its dedication to leading life long learning, the IACEE will develop global initiatives to address 21st century challenges threatening the survival of human kind, through collaboration, education, design, creative thinking and engineering”

Sustainability Competences of Engineers

- Inclusion on all engineering program competences/learning outcomes
- Training for active engineers (mandatory?)
- Continuing Professional Development/Lifelong learning
- Required by professional organizations to keep status
- Medium and long term impact - Graduates
- Short term impact - professionals

UNESCO II Engineering Report (4Mar21)

- [Engineering for Sustainable Development](#)
- 4.ENGINEERING EDUCATION AND CAPACITY-BUILDING FOR SUSTAINABLE DEVELOPMENT
- 4.1 Engineering education for the future;
- 4.2 Lifelong learning in engineering: an imperative to achieve the Sustainable Development Goals;
- 4.3 Engineers' continuing professional development

UNESCO II Engineering Report (4Mar21)

- Session 28Oct21 – European Commission - European Sustainability Competence Framework
 - Breakout sessions: the framework in your context
 - Group 1: Supporting lifelong learning for sustainability
 - Group 2: Building educator capacity
 - Group 3: Teaching and learning and whole school approaches
- [New Bauhaus](#), [IFEES](#) and [AECEF/EUCEET](#)

27Oct21 Twin Transitions – Digital Europe

Press Esc to exit full screen

TWIN TRANSITION IN ACTION: CASE STUDIES

In five of the most-polluting sectors:
**Buildings, Energy, Manufacturing,
Transport, Agriculture**



Cecilia Bonefeld-Dahl - DIGITALE...



RECENT INITIATIVES

- WEEF/GEDC – DIVERSITY & ETHICS IN EDUCATION FOR A SUSTAINABLE WORLD
- NEU EUROPEAN BAUHAUS (EUROPEAN GREEN DEAL)
- SUSTAINABILITY COMPETENCE FRAMEWORK

Research possibilities

- Research program outcomes of Civil Engineers in terms of learning outcomes/competences; include contents, teaching modes and assessment techniques.
- Same for other engineering areas.
- How to upskill and reskill active engineers and professionals to acquire sustainability competences.
- Adapt European Commission sustainability competence framework to existing engineering competence frameworks.
- Research about UNSGDs implementation in engineering LLL and CPD.



Σας ευχαριστώ!
Thank you!