ORUS

UUCN UK Universities Climate Network

The role of universities in supporting institutions to the target of net-zero emissions

COP27 – side event - Italy Pavilion

Sharm el-Sheikh - November 16, 2022

Patrizia Lombardi

Politecnico di Torino



SUSTAINABILITY EDUCATION



Universities' role in engaging the next generation of leaders is crucial. Paradigm shift







CHALLENGE@POLITO



Interactive Peer-to-peer Learning Activities in Partnership with Industry.

Politecnico di Torino proposes a new teaching approach to foster cross-pollination among state-ofthe-art research, students' innovative ideas, different backgrounds, cutting-edge equipment, urban and territorial planning and industries/enterprises. Challenges last one semester in which student groups works to overcome the challenge, supported by professors and mentors





SUSTAINABILITY LITERACY TEACHING



"Sustainability Literacy" is the knowledge, skills and mindsets that allow individuals to become deeply committed to building a sustainable future and assisting in making effective decisions to this end

The RUS Network has developed a model of Sustainability Literacy Teaching that can be adopted by any university for its student community. Many universities already have implemented courses that aim to train students, teachers and staff on the topic of sustainable development through an in-depth study of the 17 SDGs of the UN 2030 Agenda. In some cases the course are available to high school students and to employees of the municipalities (Università degli Studi di Udine and other RUS universities)





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GRAND GLOBAL CHALLENGES





At Bachelor Level, this cross-disciplinary and cross-faculty obligatory parallel course addresses major challenges of our time:

- 1. Technology & ethics
- 2. Climate change
- 3. Energy
- 4. Health
- 5. Digital
- 6. Mobility

Pairs of lecturers, an engineer and a human/social scientist, provide students with two complementary and mutually enriching points of view, the technical and the humanistic-social perspectives. The aim is to train more 'creative' engineers, more capable of grasping the stimuli coming from society, better prepared to face the complex reality of our time through interdisciplinarity and contamination between knowledge belonging to even very different fields (Politecnico di Torino).



FIRST NATIONAL PHD COURSE ON SSCC



The "Sustainable Development and Climate Change" PhD course adopts a transdisciplinary approach to research, to address the complex phenomena characterising today's society, climate change in primis, and to promote new models of sustainable development. A research programme in which ideas and methods linked to the environment, society, technology, economy and health are perfectly integrated into a global vision, in order to develop a better future. The national doctorate is a network of public and private research centers fully interconnected and it sees the collaboration of more than 50 Italian universities. (coordinated by the Istituto Universitario di Studi Superiori - IUSS Pavia).





Nowadays, one of the fundamental tasks of universities is to provide an integrated reflection on where science is going, the various disciplines that comprise it, including of course the humanities and social sciences. We need to focus on the reciprocal relationships between science and society, how scientific progress influences, for better or for worse, our lives, and how the needs of society condition the development of technologies and ultimately scientific research.

Giorgio Parisi premio Nobel per la fisica



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