



# From servicing particular interests to ensuring science and technology benefit humanity and our planet

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Online roundtable '**Strengthening the training-employment link: teaming up to increase the competitiveness of European higher education**' 26 January 2022



Politecnico  
di Torino

CESAER

# CESAER at a glance



# Brief outline of my talk

- Identifying the drivers for change
- Responding to the challenges
- Partners of the journey
- Experiences from PoliTo and the European University Alliance Unite!

# Part 1 – Identifying the drivers





# Drivers

1. Global challenges with local impact
2. Rapidly emerging key technologies
3. Changing geopolitical order
4. More complex expectation patterns

## Key technologies shaping the future

News

On 1 and 2 July, the Royal Academy of Engineering and our association hosted a joint online conference bringing together leading policy-makers and researchers from the UK, EU and beyond. The conference explored trends in key technologies for the next 30 years and their implications for engineers and universities of science and technology today.



6th July 2021

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# CALL TO ACTION

TO RESEARCH ORGANISATIONS FOR THE NET-ZERO TRANSITION

**JOINT POSITION ADOPTED DURING COP26**  
**8 NOVEMBER 2021**

**CESAER**  
The strong and united voice of universities  
of science and technology in Europe



**ISCN**  
International Science and Technology Centre for the North

**SCIENCE EUROPE**  
10  
2011 - 2021  
100 YEARS OF SUPPORTING RESEARCH EXCELLENCE



University of  
**Strathclyde**  
Glasgow

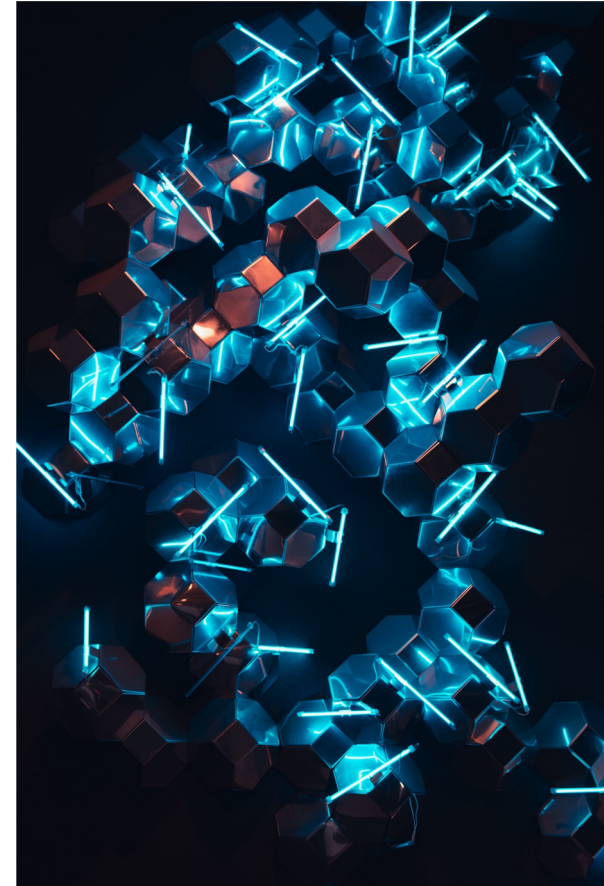
<https://www.cesaer.org/news/research-and-education-communities-urged-to-unite-to-tackle-global-climate-challenges-1019/>

# Part 2 - Responding to challenges



# Deciding our future

- Upcoming fundamental change of labour market on par with industrialisation
- Increasing need for re- and upskilling
- Departing from key technologies of tomorrow, not only needs of today
- Which model to pursue? Business-driven vs Global public good
- Learning and teaching for tomorrow: From ‘finding the right answer’ to ‘understanding systems, contexts and trajectories’
- Empower teachers, learners and students as actors of change through:
  - Inter- and transdisciplinary education & training
  - Education and training for sustainable development and the GREEN TRANSITION
  - Challenge-based education and training



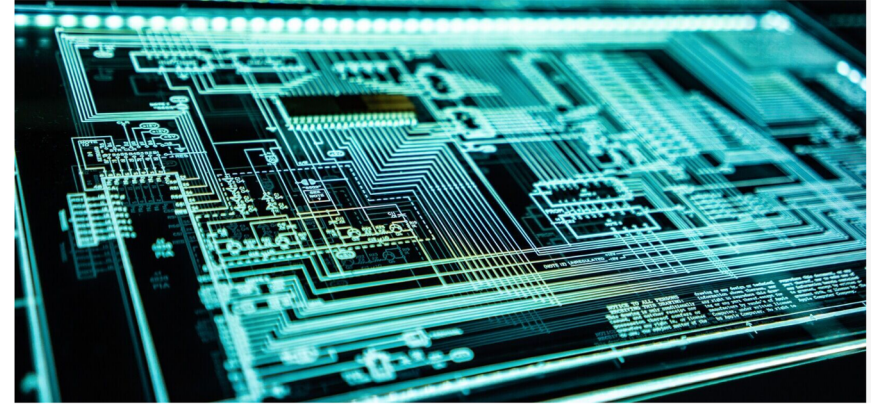
# Key enablers

1. Reaffirming and adhering to European values
2. Sustainable funding and long-term commitment
3. Empower researchers, learners and teachers to assume their role
4. Equality, diversity and inclusion in any ethical framework

## Assuming responsibility for key technologies

### News

At a joint conference with the Royal Academy of Engineering on 2 July, our President Rik Van de Walle government, research funders and universities can assume responsibility around key technologies.



<https://www.cesaer.org/news/assuming-responsibility-for-key-technologies-965/>

# Part 3 - Partners of the journey



# Working together for change

- From triple helix - university, industry and government – to forming and nurturing interactions with diverse societal partners:
  - Non-governmental organisations
  - Not-for-profit organisations
  - Creative and artistic sector
  - Societal interests groups
- Support up/re-skilling → LLL incl. micro-credentials
- Engage strongly with alumni
- From local to global and back again
- Advance research-based STEM education and training and boost the DIGITAL TRANSITION



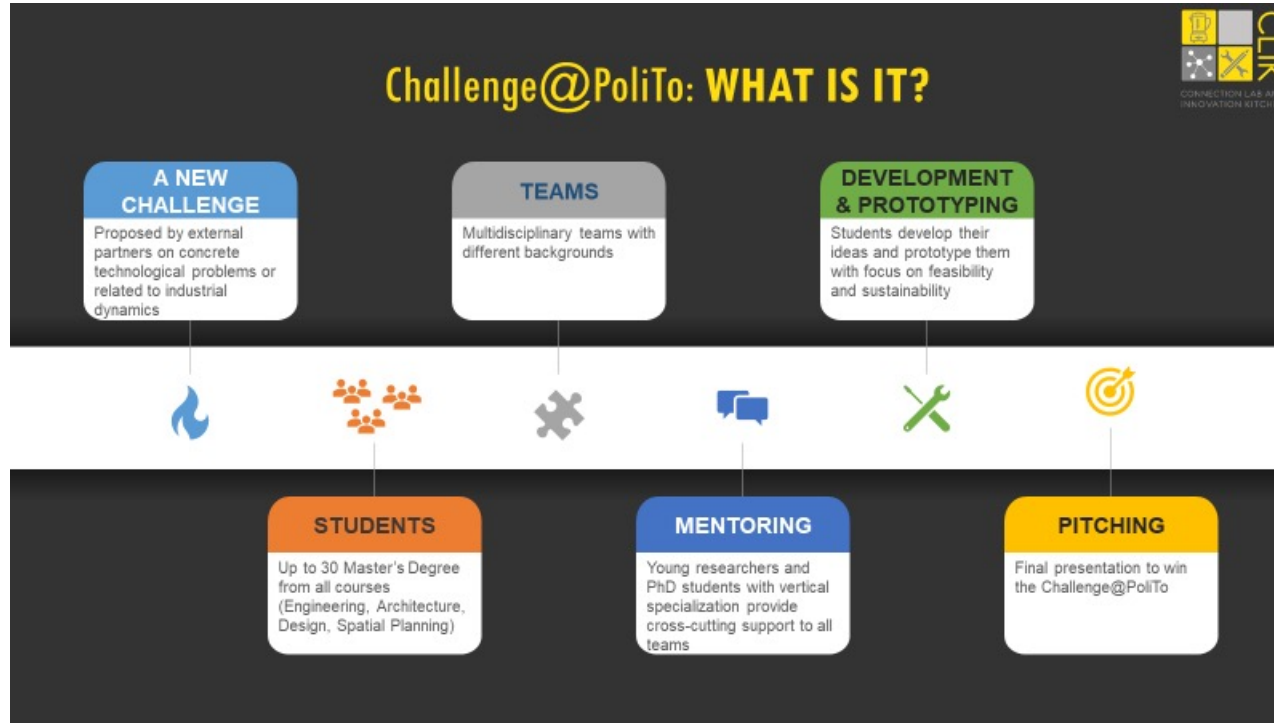
<https://www.immunology.org/news/connect-coronavirus-webinars>



# **Part 4 – Some experiences from Politecnico di Torino and the European University Alliance Unite!**



# Innovative challenge-based teaching @ PoliTo



- ~500 students
- From 30 MSc courses
- ~20 external partners
- 100+ teams
- ~100 mentors
- Since 19/20 a.y.

# Working with the Alumni @ PoliTo

- Mentorship

Connecting senior Alumni (Mentors) with younger graduates (Mentee)

- Alumni Professional Corner

In this online format, the guest is an Alumnus/a with several years of experience who shares details of his/her professional career with an audience that can interact with direct questions after the speech. Series of 3-4 meetings per year, multidisciplinary

GIOVEDÌ 8 OTTOBRE 2020 ORE 17.30 SU ZOOM




**Patrizia Tedesco**  
IT Advisor @Lavazza

**Patrizia Tedesco ha sempre lavorato nel mondo dell'Information Technology.**  
Entrata giovanissima in Lavazza, ha ricoperto cariche di responsabilità e prestigio sempre più alte: **da IT Project Manager in ambito Supply Chain a responsabile dei progetti SAP, l'ERP aziendale** nei primi anni 2000. Nel 2008 diventa **Deputy ICT Director** estendendo la sua responsabilità ai temi infrastrutturali, telecomunicazioni e Data Center. Da inizio 2011 a Aprile 2019 è stata il **Global CIO di Lavazza**, con sede nell'HQ di Torino e responsabilità ICT su tutte le consociate italiane e estere del Gruppo. Oggi è **IT Advisor presso la Lavazza e collabora con alcune società del settore IT.**

ALUMNI PROFESSIONAL CORNER **YOUNG**

**GIOVEDÌ 27 GENNAIO 2022 ORE 13:30 SU ZOOM**

Introduce l'incontro **Felice Vai, Presidente Alumni PoliTO**



**Federica Joe Gardella**  
Architetta

Federica Joe Gardella è architetta e **dottoranda in Architettura, Storia e Progetto** presso il Politecnico di Torino. A luglio 2021 ha conseguito con lode la **Doppia Laurea magistrale in Architettura Costruzione Città** al Politecnico di Torino e Milano con la tesi dal titolo **"Countdown to ATP Finals 2021-2025. Dentro l'azione"**, sul conto alla rovescia per le ATP Finals di Torino alla vigilia del primo anno dell'evento. Durante il percorso di laurea ha partecipato all'**Alta Scuola Politecnica** e al **programma per Giovani Talenti**. Parallelamente ha portato avanti la **passione per il tennis** competendo in Serie A1 fino al 2018. Attualmente è titolare nella squadra di tennis del Politecnico ai Campionati Nazionali Studenteschi.

[Courtesy of C. Chiasserini]

# Entrepreneurship and innovation in the Unite! European University Alliance

- Unite! is a first-wave Alliance including TU Darmstadt (coordinator), PoliTo (H2020 project coordinator), Aalto U., KTH, INPG/UGA, IST/UL and UPC (forthcoming partners: TU Graz and Wroclaw UST)
- Among the **aims** of the Alliance:
  - to build a network of ecosystems and a community of Technology Transfer Centers;
  - to diffuse the entrepreneurship culture.
- Examples of **ongoing activities**:
  - Match-making events for ecosystem stakeholders and universities' TTOs
  - Development of a shared minor in entrepreneurship for Bachelor students
  - Development of shared lifelong study programs (e.g. on Technological innovation)
  - **Development of ad-hoc set of courses in entrepreneurship and innovation for PhD students**



# PhD employability in the Unite! European University Alliance: the natural link between education and R&I

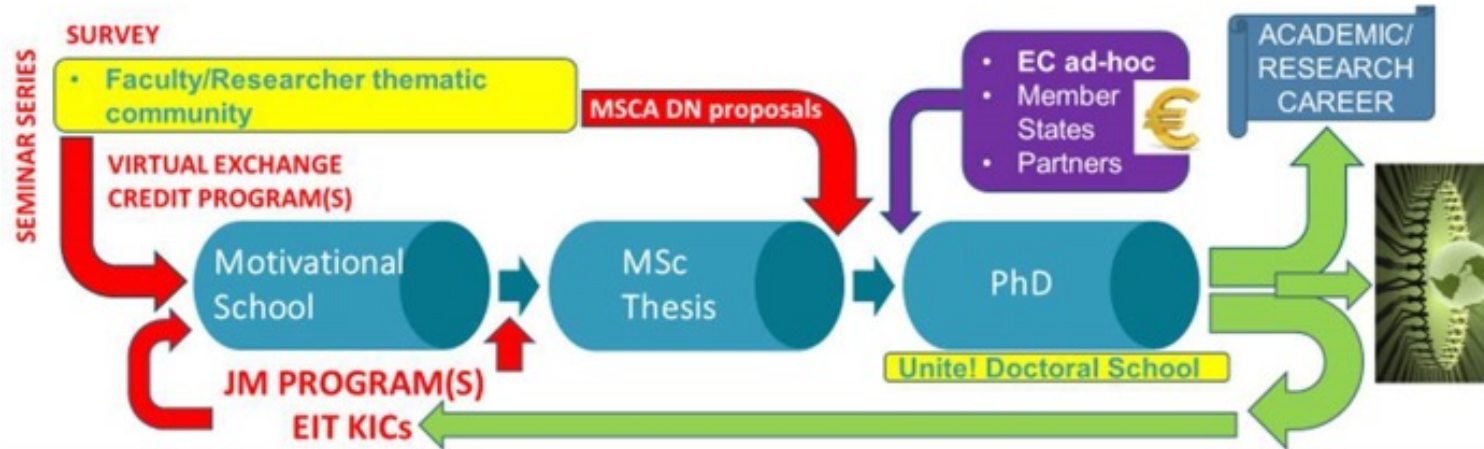


- Embedding and serving the knowledge square
- To be modularly applied to the Unite! Focus areas (today Energy, tomorrow AI, Industry 4.0, ...) → UDS



unite!

University Network for Innovation,  
Technology and Engineering



More information on

[cesaer.org](http://cesaer.org)

[www.polito.it](http://www.polito.it)

<https://www.unite-university.eu/>

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