CET Partnership call module 1

Energy Center

Politecnico di Torino, ITALY

Tobias Rieper – Research Assistant

24/06/2025

Politecnico di Torino

People:
1,200 Faculty member
1,000 Administrative staff
>35,000 enrolled students (BSc & MSc)
>1,000 PhD students

https://www.polito.it/

Energy Center

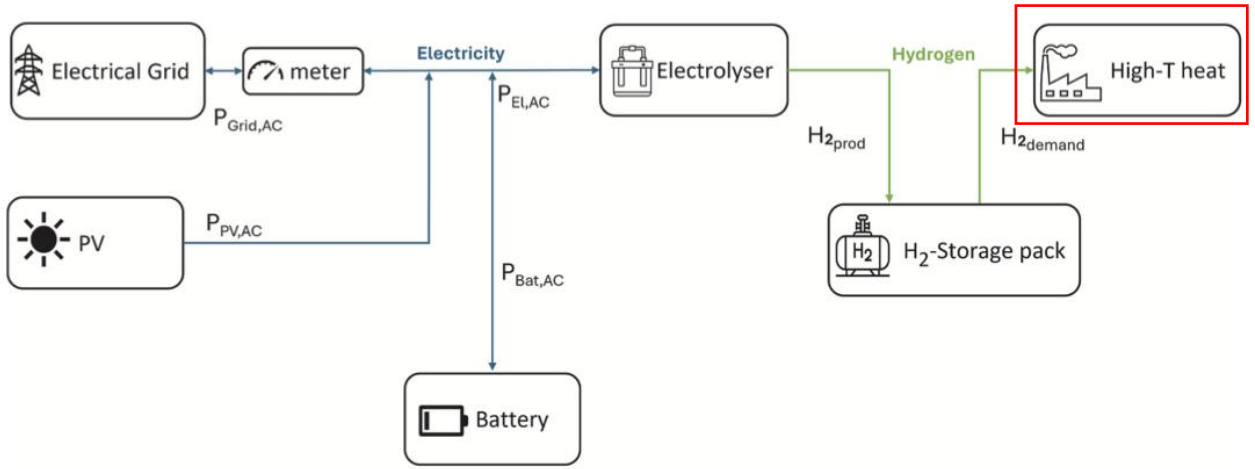
ENERGY CENTER

- Center for applied energy research, linked to Energy Department
- **80% private companies** and **20% academic research** groups
  → interface between research and industry
- Lab for hardware testing and simulation

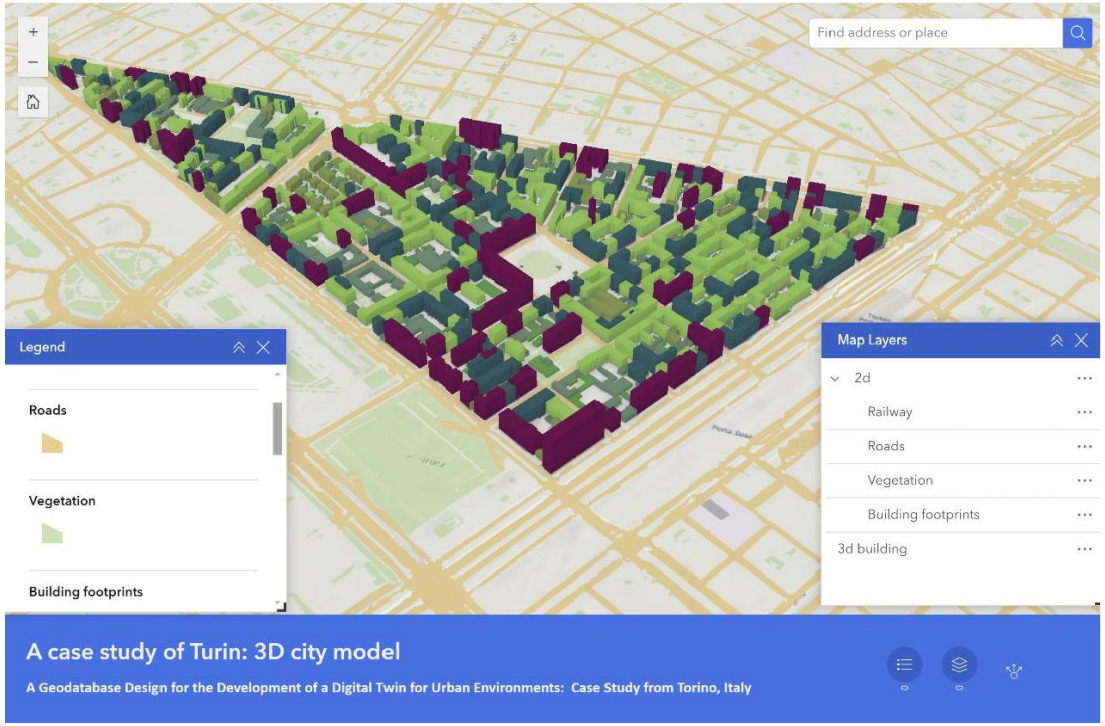
https://www.energycenter.polito.it/

Our Capability Portfolio

- Multi energy (e-, heat, H_2) co-simulations, considering industrial consumers
- 3-D geospatial models of positive energy districts
- Long-duration storage test-bench
- AI / ML analytics, e.g. for battery analyses



Optimisation of green hydrogen production for hard-to-abate industries: An Italian case study considering national incentives (Stolte et al. 2024)



Open Project Directions (examples)

Potential R&D topics:

1) Development of web-based multi-vector simulation tool
2) Hardware-in-the-loop (HIL) sandbox: storage and ancillary service control
3) Multi-vector storage integration study for industrial sites
4) Flexibility KPI estimation for industrial sites, considering regulatory frameworks

→ All concepts are starting points – ready to co-design with partners

What We Offer & Seek

We offer:

✓ **Modelling & data-analytics team**

✓ **Lab infrastructure & city data**

✓ **EU project coordination experience**

We seek:

➔ **Industrial need-owner (MUST)**

➔ **Industrial system integrator (MUST)**

➔ Academic partners with existing links to industrial stakeholders (PLUS)

➔ Storage or process OEM (PLUS)

➔ Public authority for scalability/replication (PLUS)

Get in Touch

Prof. Andrea Lanzini
andrea.lanzini@polito.it

Francesco Demetrio Minuto, PhD
francesco.minuto@polito.it

Tobias Rieper, MSc
tobias.rieper@polito.it

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