

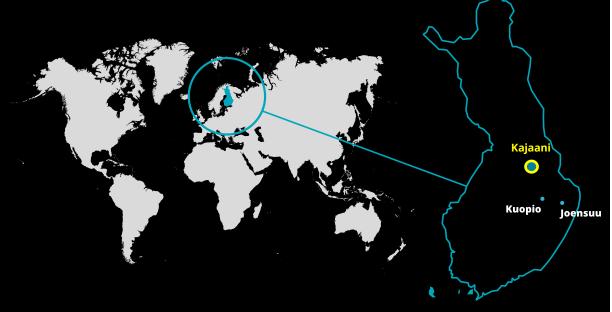
# Seizing a sustainable future - Sustainable Technologies -

### **University of Eastern Finland**

Joensuu | Kuopio



Philosophical Faculty
Faculty of Science, Forestry and Technology
Faculty of Health Sciences
Faculty of Social Sciences and Business Studies



100

**Major subjects** 

3,200

**Members of staff** 

~17,000

**Degree Students** 

**1,200** 

International Degree
Students



#### Teaching in engineering since 2023

- Sustainable technologies program (MSc tech) -

Two first enrollments -> ca. 90 students

New Professors and other staff needed

At the same time, University level infrastructure program cuts back spaces on offices, workshops and labs by 15%

- Extensive reorganization of faculty research premises
  - Technical facilities, workshops, biorefining pilot setups, FabLab, etc. still required...

**UEF FABLAB 2026** 



#### Research and education infrastructure

In Joensuu, key emphasis of infrastructure development focuses on Forest sciences, Photonics and Sustainable Technologies

Regional Council of North Karelia and city of Joensuu

- Development efforts with external funding
- ✓ Academy FIRI, EU Infra Networks
- ✓ ERDF Biopartnerit 2019-2021 (infra 500 k€)
- ✓ ERDF PUU-TKI 2022-2025 (infra €660k)
- ✓ ERDF AURA DI-DEVELOP 2022-2026 (infra €200k)
- ✓ JTF Puhtia-P-Karjalaan 2023-2026 (infra €800k)
- ... etc. etc. etc.























- Wood product weathering and decay performance
- ✓ Sustainability assessments on wood use
- ✓ **Education development** next gen. challenges in engineering
- Wood modification and property analysis
- Antiviral activity of wood
- ✓ Wood and fungi hybrid materials
- Wood building applications and use of recycled wood
- Cellulose and lignin biorefining
- Renewable energy and emissions
- ✓ Biomaterial applications (nanocelluloses, lignin...)
- ✓ Industry-Academia collaboration emphasized

Generic skills (5-year survey)

Work-life relvance of study content

Assessment methods



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(CoV-2 inspired)
Antivirality of
wood-derived
chemicals

Solid surface analysis methods



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Nanocellulose applications

Fibre analysis

Catalytic lignin to biochemicals



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**CCUS** 

Catalytic H2ammonia

Catalytic emission control



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**ABB Abloy** Berner **Borealis Fortum** John Deere Neste **Ponsse Spinnova Stora Enso UPM** Valmet

GTK/Luke/VTT
National SMEs



## Forest bioeconomy showroom and technical piloting facilities (2026-ish)

