EnTranCe: Centre of Expertise Energy

“If we want things to stay as they are, things will have to change.”

Dr. Ir. Jan-jaap Aue
Hanze University of Applied Sciences

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Hanze University of Applied Sciences Groningen

- Established in 1798
- Policy plan 2012-2016 rated “Excellent” by ministry: extra governmental funding.
- Professionally oriented higher education
- 70+ Bachelor programmes, 18 Master programmes;
- 17 Schools with each their own atmosphere;
- Partner in the Groningen Confusius Institute
- 3 focal areas: Energy, Healthy Ageing, Entrepreneurship
- 26,500 students choose our university; 10% international, 72 nationalities
Our region

- Slochteren GasField
- 42% Dutch Wind energy production (on- and offshore)
- 44% Dutch Green gas production
- 4,200 companies
- 32,375 direct FTE
- €27 Billion investments (inbetween 2010 en 2020), 45% renewables;
Cooperation of business partners, Hanze University of Applied Sciences, University of Groningen (Nr 75 Shanghai Ranking) consolidating leadership of the Netherlands in the energy sector and in the transition towards sustainable energy.

- **Open model in education / research / innovation**

- **Focus on transition** to sustainable, reliable, and affordable energy
  - Renewables (wind, solar etc.)
  - Energy efficiency (including energy, water, and food)
  - Gas (including biogas, green gas)
  - CO₂ reduction
  - Smart grids
Why?

- Urgent energy challenges (global warming, energy security, economic growth) for public and private sector.

- Facing these challenges requires:
  - Vital knowledge and experience in energy matters
  - A continuous supply of properly trained personnel
  - High quality multi-disciplinary approach in education and research
  - Activities that support strategic decision making the energy industry

- Energy Academy Europe facilitates these requirements MultiLevel on a regional, national and international scale.

- Fieldlab of Energy Academy Europe at Hanze: EnTranCe (The Energy Transition Center)
October 2015 Opening by King Willem Alexander
Mission

At the Centre of Expertise Energy, we speed up innovations needed for the transition towards a sustainable energy society. We contribute by applied research and education.

In co-creation, students, researchers, companies and societal organisations work together on realising the energy transition. In this learning community we develop and share new applicable knowledge and create business opportunities.
Bridging Two Worlds

Hanze UAS

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EnTranCe: the Energy Transition Centre-

- Open Innovation, Inter Disciplinary
- Co-Creation researchers, companies, students: permanent 75-100 students
- Optimizing chain of education, from vocational to post graduate..
- Focus on demand driven research projects
  - Applied
  - Inter-disciplinary
  - Multi-level: MBO, HBO en WO
- Spin off, start-ups
- Growing number of (project)Partners
Goals 2022

- Together with partners and local communities we develop concepts for (at Least) 5 sustainable (Emission Neutral) communities in our region.
- In 2020 we educated 1500 EAE certified Energy Students
- We realised 15 Energy Startups per year
- We induced 25 million Euros of investments in our region based on our concepts.
How?

Educational programmes
• Energy Routes in 10 schools leading to EAE certification
• Learning Community
• Master (MSc) portfolio
  • European Master Renewable Energy
  • Master Sustainable Energy System management
  • Master Energy 4 society (under dev)

Applied Research
• Hybrid energy system design & Management
• Alternative gasses and hybrid-fuels
• Energy interventions and behaviour, public support and communication
• New economic realities, labour market, governance and legal aspects in the energy sector
• Sustainable communities and local initiatives

Facilities
• Energy Value Chain
• Energy Barn
• EnTranCe

Partners
• Business partners
• Governmental partners
• Societal partners
• stakeholders

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Toolkit & Power2X

- LNG
- BioFuels
- Power2X

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What’s on offer for startups?

- Office- and workspace
- Active network of energy related companies
- Access to knowledge and experience on energy
- A Stage to the world (7500 visitors expected this year)
- Students!
- Access to Workshops (mechanical, electronics, chemical)
- Experimental test facilities: energy value chain
- Access to launching customers
Change Agency Ameland in Transition

short video on EnTranCe and the island of Ameland
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