



Hanze
University of Applied Sciences
Groningen

EnTranCe: Centre of Expertise Energy

Dr. Klaas Jan Noorman
Professor Energy Innovation

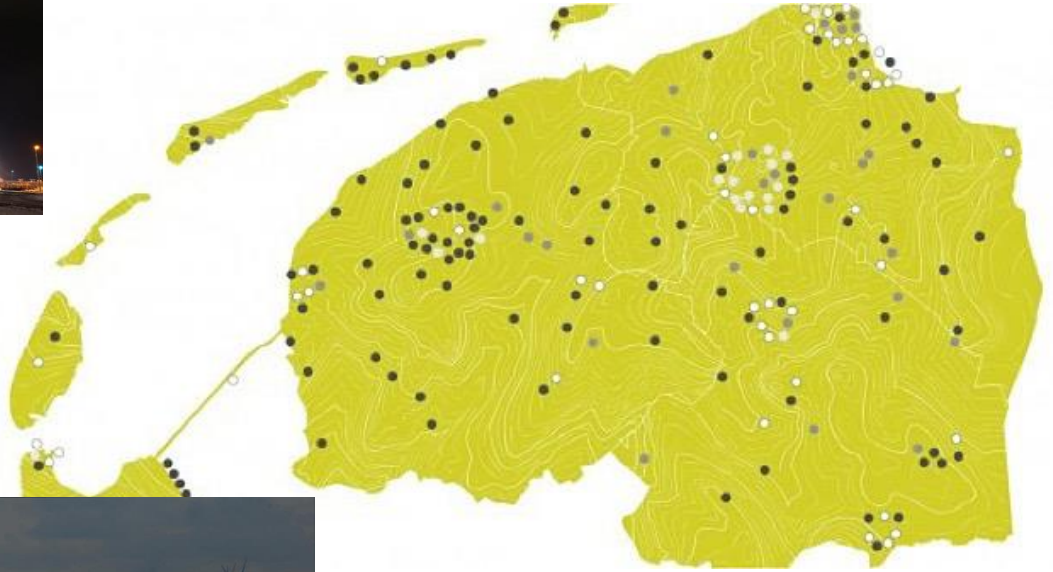
share your talent. move the world.

EnTranCe
ENERGY TRANSITION CENTRE

Energy Academy Europe

October 2015: Opening by King Willem Alexander

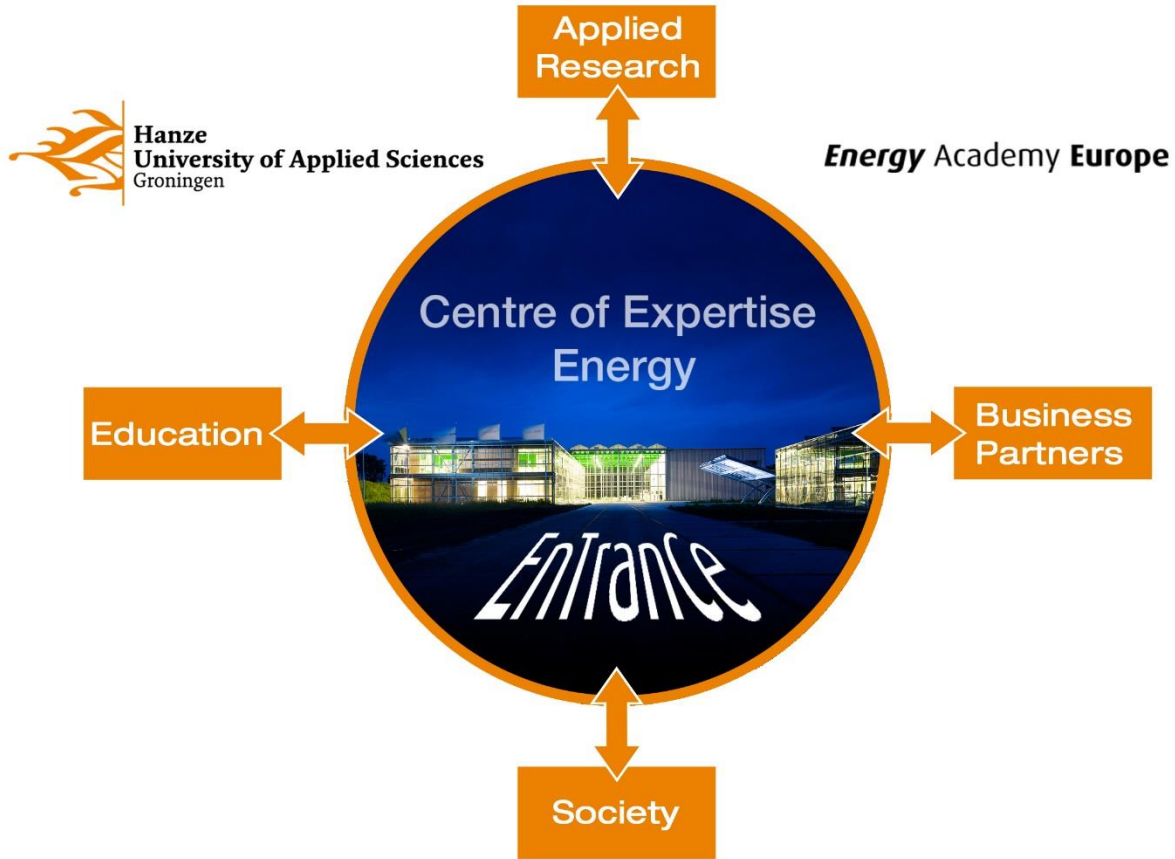




Focal Area Energy

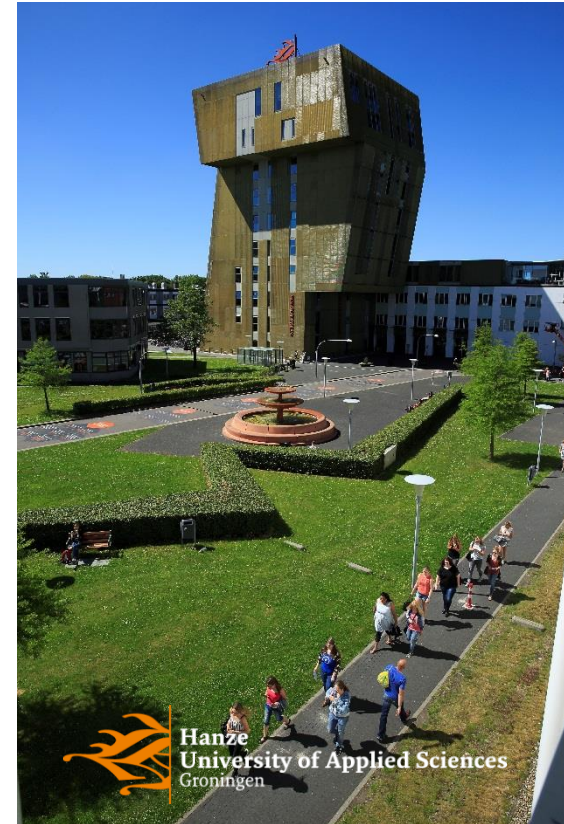
- Saving energy conservation, specifically in business
- Generating renewable energy
- Supporting local innovative initiatives
- A new energy system (*energiesysteem 2.0*)





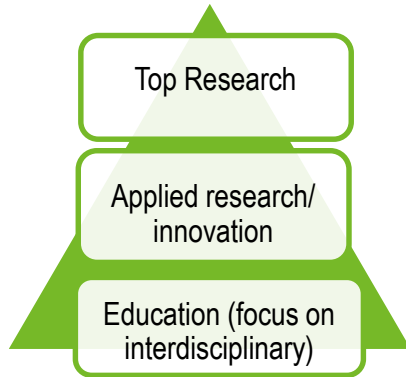
Hanze University of Applied Sciences

- Professionally oriented higher education
 - 26,500 students
 - 2.700 employees
- **70+** bachelor programs, **18** master programs
 - 22 studies with an energy route
 - 3 energy master programs (*one under development*)
 - 7 professorships with topic energy
 - Energy testing ground EnTranCe



Energy Academy Europe

- International centre of excellence
- Bringing together initiatives, partners and networks to work on energy transition
- 3 pillars: education, research and innovation

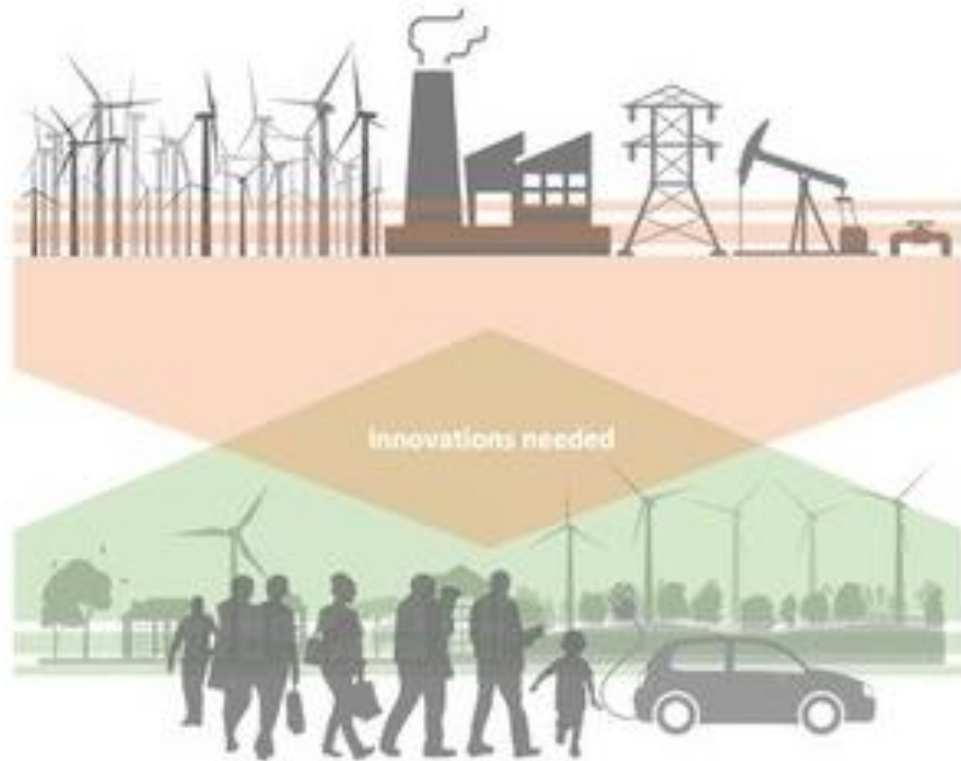


Position: Bridging two Worlds



Decentral when possible,
central when necessary







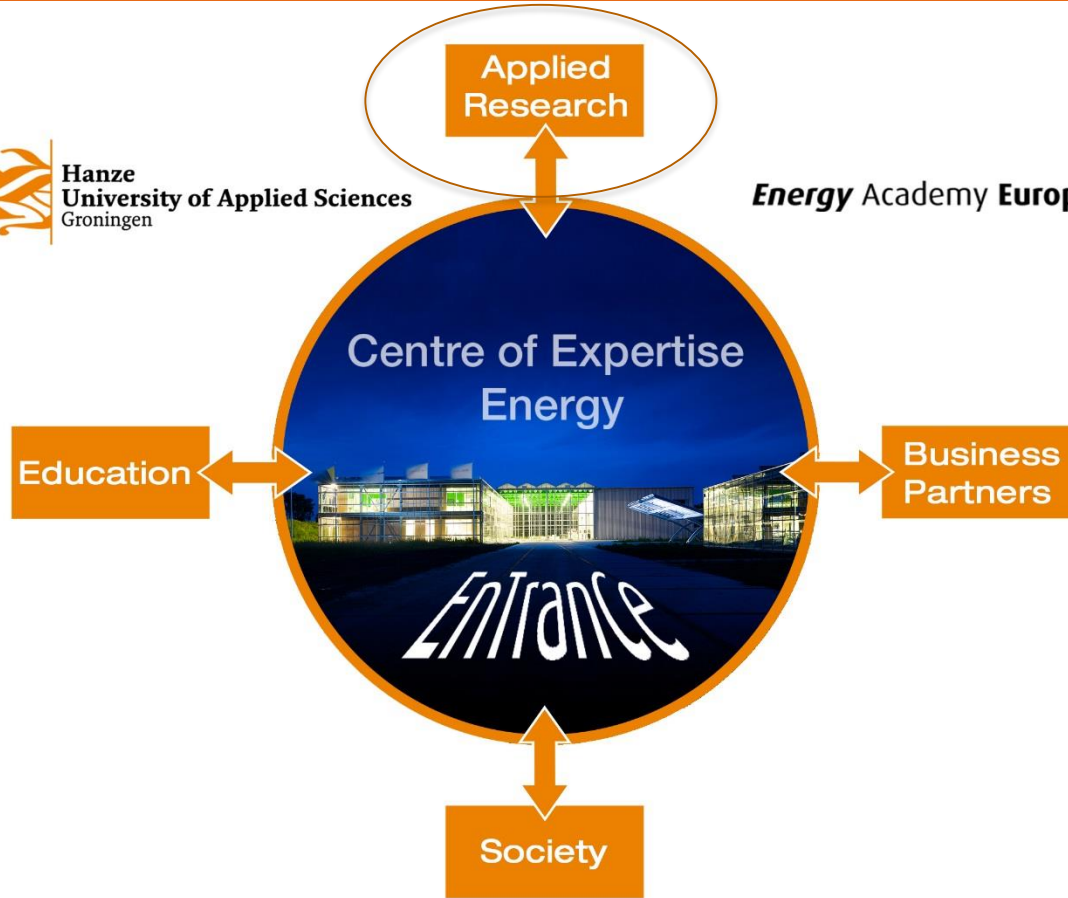
Geothermal Energy in Groningen





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Energy Academy Europe



1. Applied Research

At the Centre of Expertise Energy we focus on **FIVE** main topics

1. Hybrid energy system design & management
2. Alternative gasses & hybrid fuels
3. Energy interventions & behaviour, public support & communication
4. New economic realities, labour market, governance & legal aspects in the energy sector
5. Sustainable communities & local initiatives

Bio-P2G

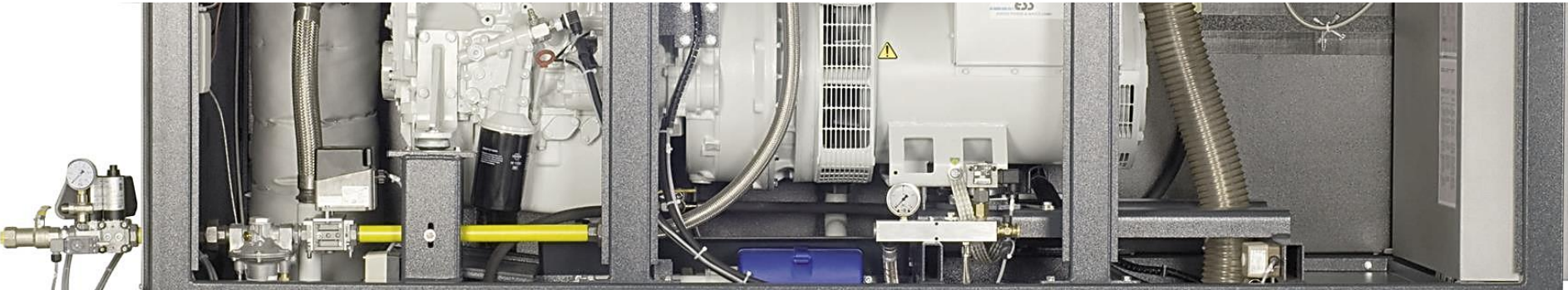
Research about the technical and economical feasibility of Bio-P2G



Flexigrow

Determining the ideal circumstances for two new energy systems at a neighborhood level

1. Micro-CHP
2. Electric heat pumps

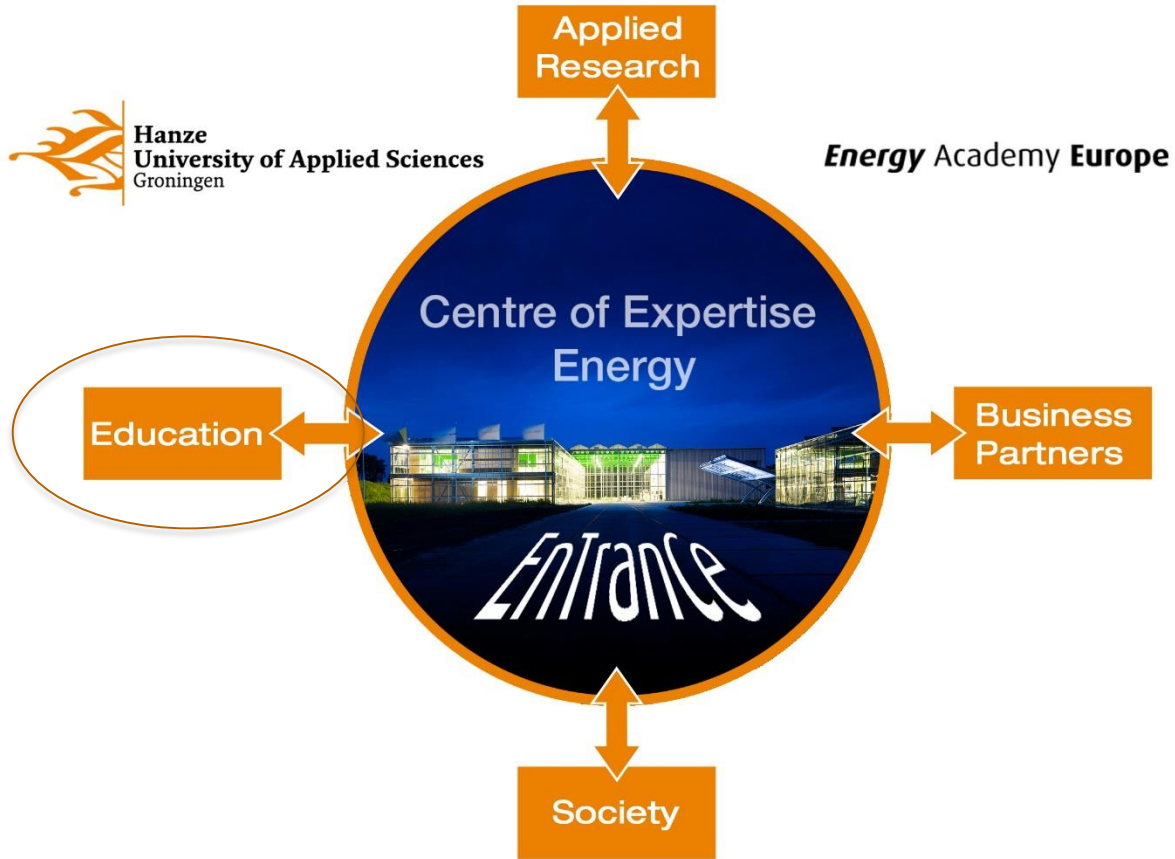


We Energy Game

Creating the ideal sustainable energy mix and make villages and towns energy neutral



Hanzehogeschool
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2. Educational programs

- Energy Routes in 22 schools leading to EAE certification
- Learning Community (*Energy Transition Community EnTranCe*)
- Master (MSc) portfolio
 - European Master Renewable Energy
 - Master Sustainable Energy System Management
 - Master Energy 4 Society



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Applied
Research

Energy Academy Europe

Centre of Expertise
Energy

Education

Business
Partners

Society

Entrance

3. Partners

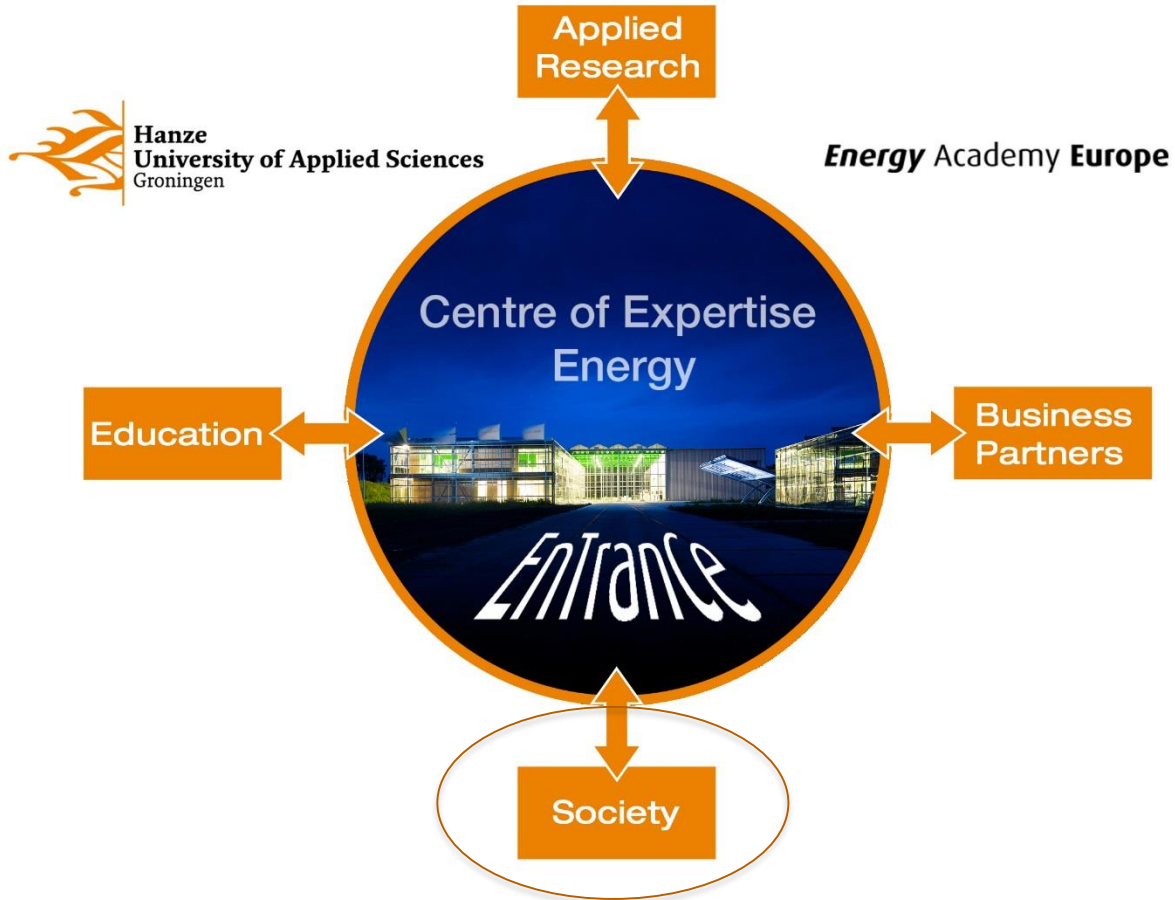




And more is yet to come ...

- 'Meethuis' by GasTerra
- BuildinG
- Digital Society Hub



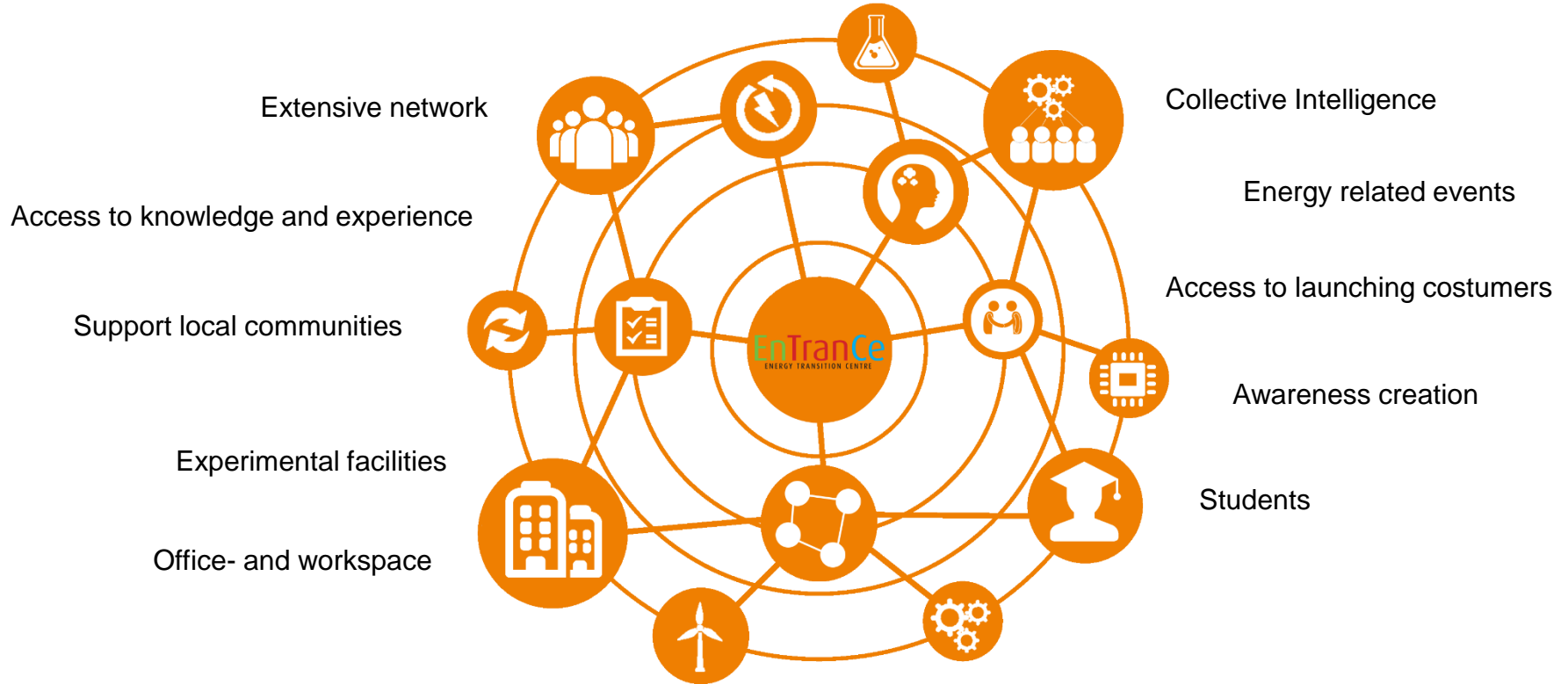


4. Society

- Knowledge & Support
- Liberalization & Decentralization of the Energy Market
- People in Power
- Public events



For you



Roadmap 2022

- Blueprints for at least 5 **sustainable & regional villages**
- Researching and testing of **hybrid energy systems**
- 1500 EAE-certified **energy students** per year
- 15 energy **startups** per year
- **Research capacity:** € 10 million per year
- € 25 million **regional investments**
- **20.000 visitors** to EnTranCe