



Finland - North Karelia – Joensuu

Karelia University of Applied Sciences





Finland

- 5,4 million inhabitants
- Declaration of independence: December 6, 1917
- Form of state: parliamentary republic
- Capital: Helsinki
- Member of the European Union since 1995
- Currency: Euro €
- Official languages: Finnish and Swedish
- Population density: 17 inhabitants/km²



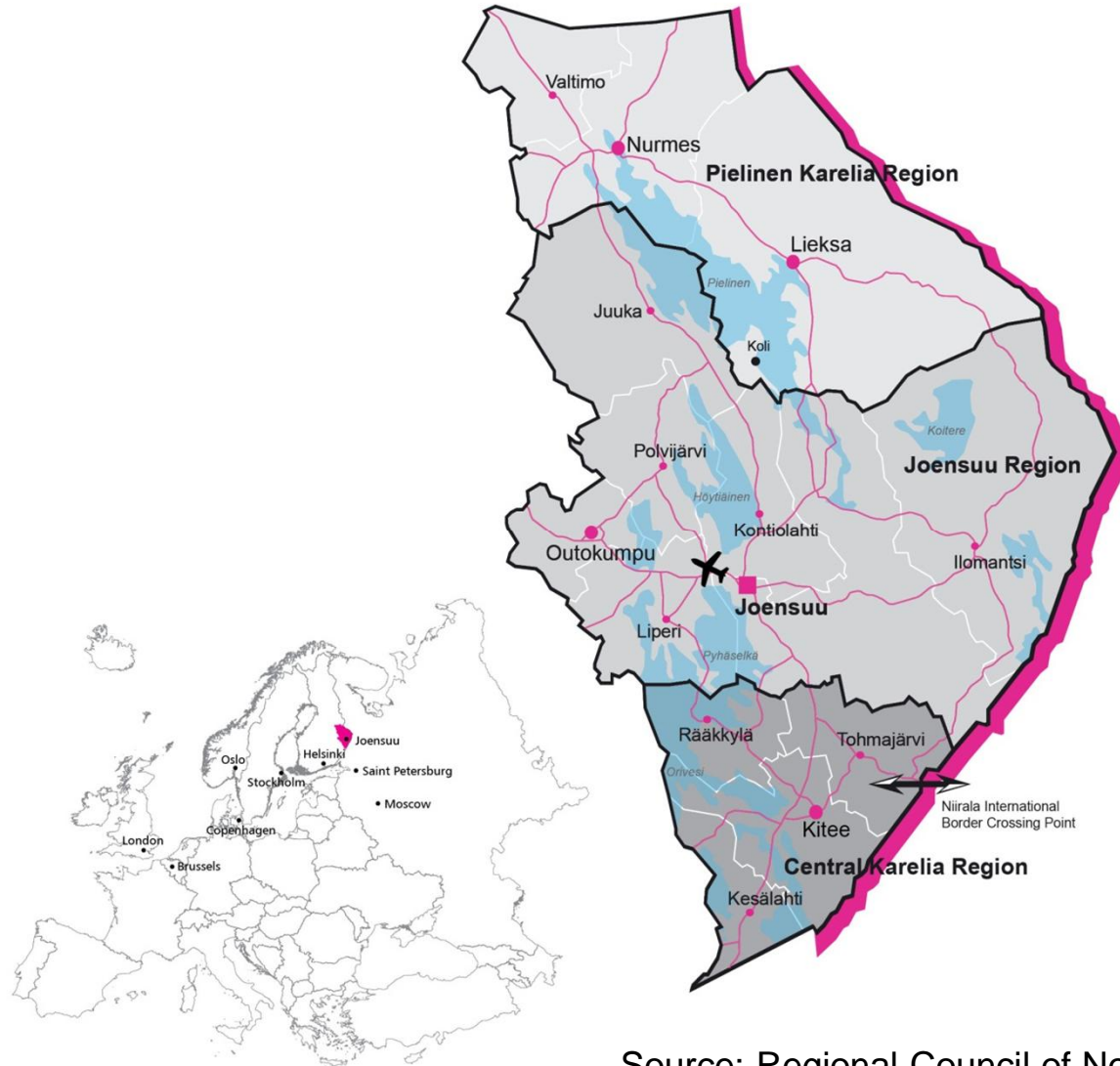


Finland

- Most important raw material resources: wood, metal ores (chromium, nickel, copper, zinc, cobalt, silver, gold)
- Main industrial products: paper and board, electronics and metal products
- Engineering and high technology industries, *was led by Nokia*, have long been the leading branches of manufacturing
- Open and safe society (ranks no. 1 in world press freedom index)
- Unemployment rate: approx. 8%
- Future challenges: aging of society, sparsely populated areas
- High scores in PISA study by OECD (15-year-olds' maths, science and reading competence)
- Four distinct seasons that widely affect the society (infrastructure, energy consumption, tourism etc.)



North Karelia



Source: Regional Council of North Karelia



North Karelia

- The region of North Karelia is located in the border region between East (296 km) and West (cultural, geographical, political)
- Capital: Joensuu
- Population 165 800
- Area: 21 584 km² (3 821 km² covered with water)
- Population density 9,3/km²
- 2200 lakes
- Forests cover approx. 70 % of the region
- Forest sector is the most important provider of export income in the region
- Others: food industry, metal industries, plastics
- Unemployment rate approx. 14 %



City of Joensuu

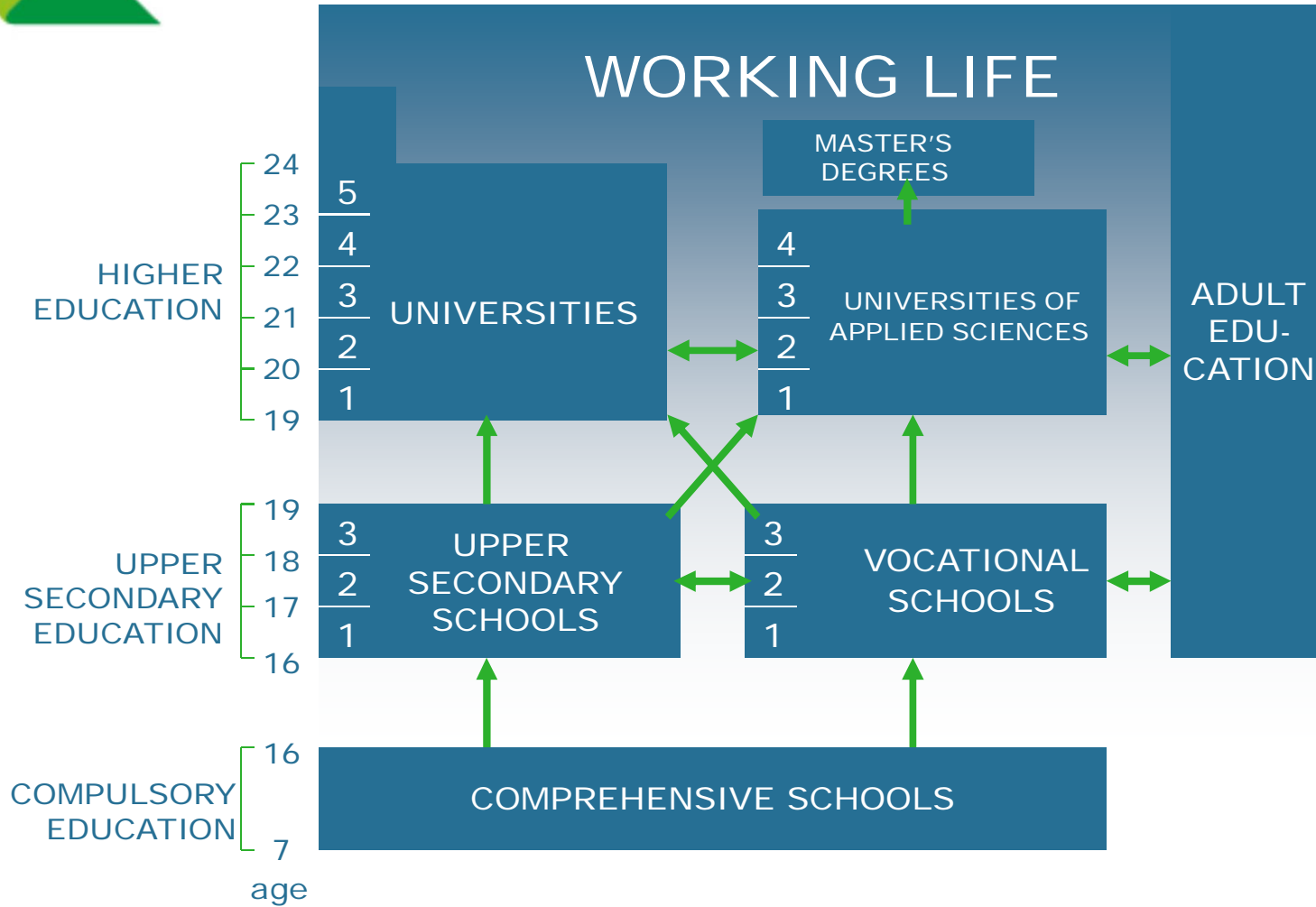
- Lively capital of the North Karelia Region
- Located next to the Russian border and about 400 km North-East from the capital of the country, Helsinki
- Population 74 155 (31.12.2012)
- European forestry capital

Most important educational and R&D institutes

- University of Eastern Finland (Joensuu campus)
- Karelia University of Applied Sciences
- North Karelia Municipal Education and Training Consortium
- European Forest Institute
- Finnish Forest Research Institute
- Joensuu Science Park



Finnish Education System





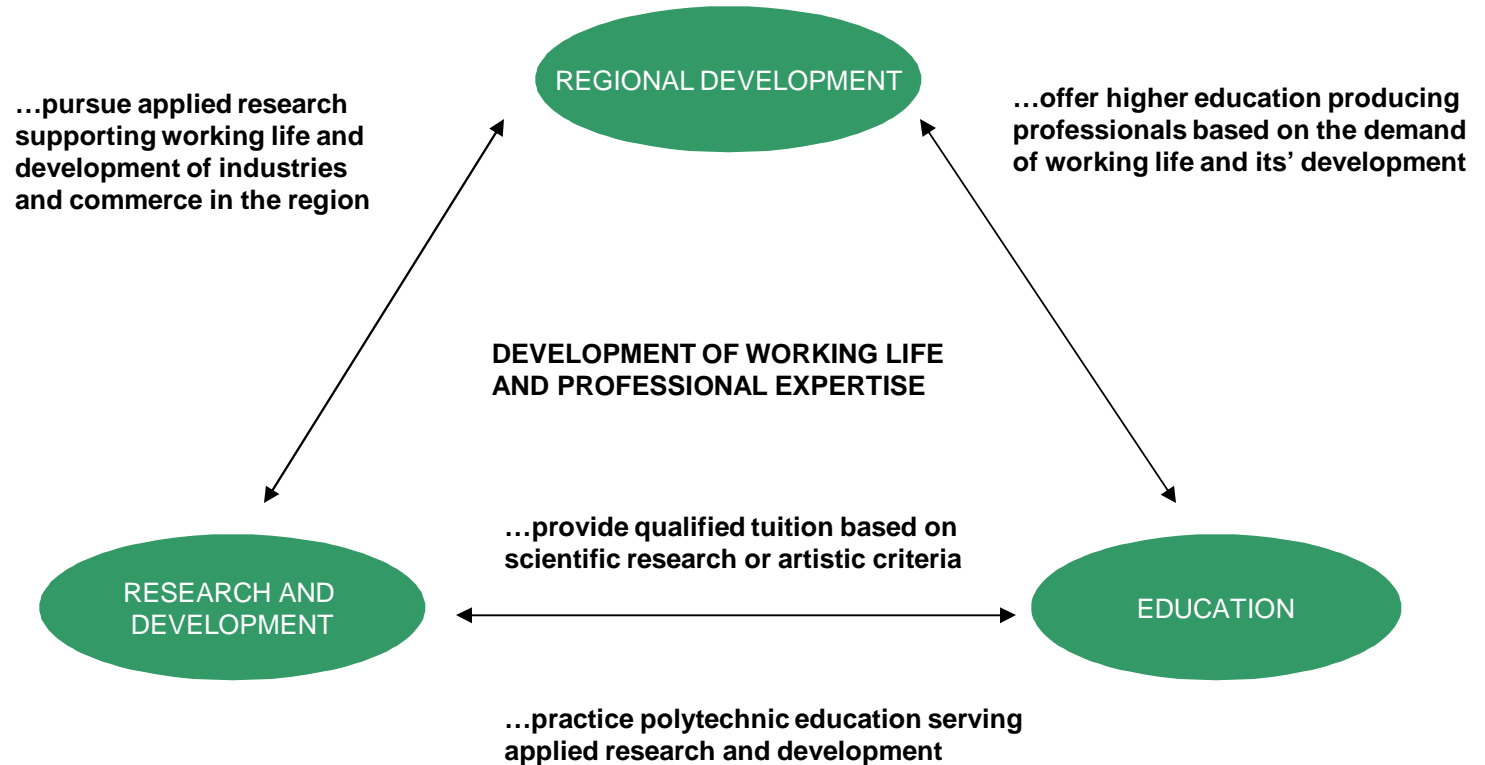
Higher Education System in Finland

- Two complementary sectors: universities of applied sciences (former polytechnics) and universities
- Universities conduct scientific research and provide instruction and postgraduate education based on it (-> Bachelor's, Master's, licentiate and doctoral degrees)
- Universities of applied sciences train professionals to the labour market needs and conduct research, development and innovation (RDI) activities supporting instruction and promoting regional development
- 3,5 - 4,5 years full-time study > a polytechnic degree; polytechnic Master's programme presuming three years work experience
- The first universities of applied sciences started on a trial basis in 1991–1992 and the first were made permanent in 1996



Tasks of the Universities of Applied Sciences

(The law on polytechnics 4 §)



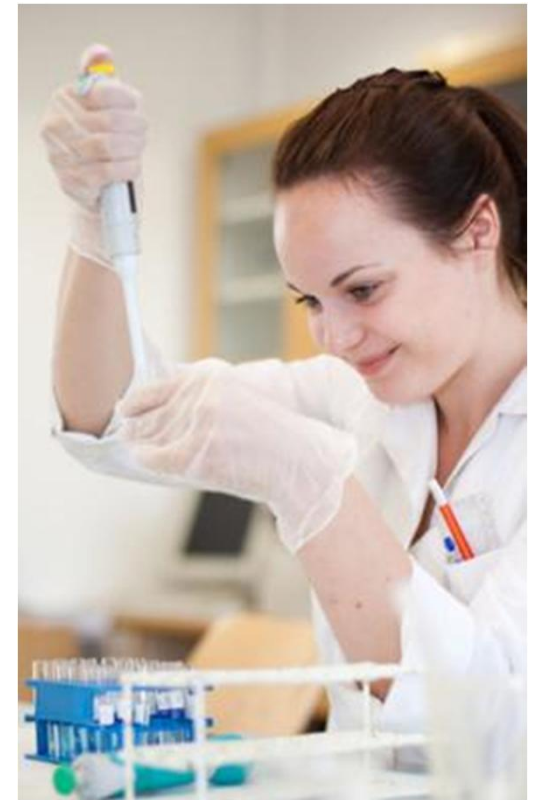


Higher Education System in Finland: universities of applied sciences (UAS)

- Guided by the Ministry of Education and Culture
- The total number of young and mature students 130,000 > over 20,000 degrees and 200 Master's degrees per year
- 25 auasies and 160 campuses/placements >the number will decrease!
- Polytechnic reform: 1.1. 2014 a new Polytechnics Act > new licenses for uasies
 - Applications by the end of Sept. 2013
 - responsibility for polytechnic funding as a whole will be transferred to the government
 - polytechnics will be made independent legal persons
 - Funding: education (degrees, 55 ECTS) 85 % and RD 15 %



Karelia University of Applied Sciences





Karelia University of Applied Sciences

- Founded in 1992 among the first universities of applied sciences in Finland
- Main funding from the Ministry of Education and Culture
- 7 study fields, 17 Bachelor degree programmes and 3 Master-level degree programmes
- 4 campuses in Joensuu
- Ltd. since 2013
- Approx. 3900 students and 370 teachers and other staff
- President Dr Petri Raivo
- Vice President Dr Pekka Auvinen



Karelia University of Applied Sciences

- 633 Bachelor degrees in 2012
- 172 Master's degrees 2005-2012
- International partners 100 (in more than 25 countries)
- Int. exchange: students 80/70 (over 3 months period)
- Int. exchange: staff 120/60 (1-4 weeks)
- Extent of studies 210-270 ECTS (Bachelor) including practical training period (min. 30 ECTS) and thesis (15 ECTS) conducted with working life
- Audited with high scores (advanced) by The Finnish Higher Education Evaluation Council (FINHEEC). Quality label for the years 2012 – 2017.
- Organisation:
 - 4 multisectoral and interdisciplinary centres of education and research (e.g. Centre for Bioeconomy)
 - Centre for Development and Services, including e.g. Student Services, Library, IT-services, RDI and International Relations





Campuses in Joensuu

Multi-sectoral and interdisciplinary centres:

Centre for Bioeconomy (Sirkkala)

Centre for Business and Engineering (Wärtsilä)

Centre for Creative Industries (Sirkkala, Science Park, Karjalantalo)

Centre for Social Services and Health Care (Tikkarinne)

Centre for Development and Services (Tikkarinne)



North Karelia

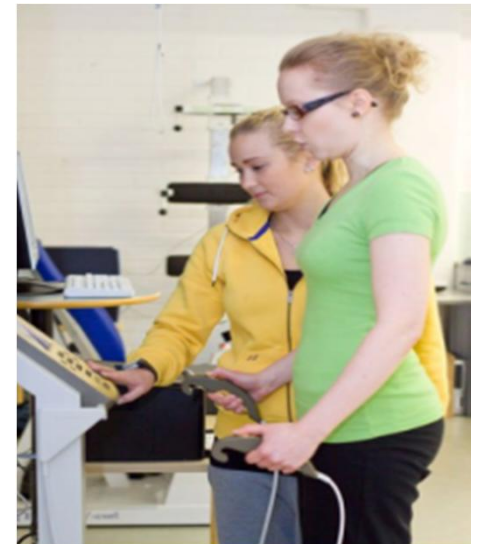


Karelia University of Applied Sciences

Centre for Social Services and Health Care

Tikkarinne campus

- Nursing
- Physiotherapy
- Social Services
- Social and Health Care Development and Management
(Master's degree)





Karelia University of Applied Sciences

Centre for Business and Engineering

Wärtsilä campus

- Business Economics
- International Business (English taught programme)

- Information Technology
- Business Information Technology
- Electrical Engineering
- Mechanical and Production Engineering
- Civil Engineering
- Technology Competence Management (Master's degree)



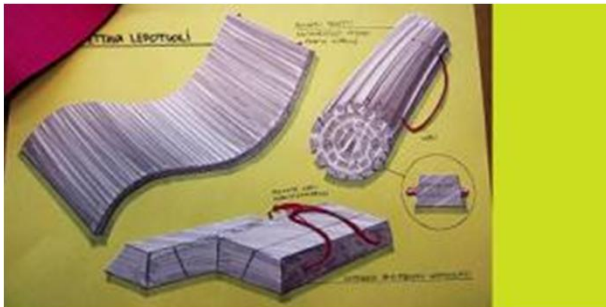


Karelia University of Applied Sciences

Centre for Creative Industries

Sirkkala, Science Park and Karjalantalo campus

- Tourism
- Design (English-taught programme, no intake since 2012)
- Communication (Media)
- Music





Karelia University of Applied Sciences

- Degree programmes for adults
- Open University of Applied Sciences
- Updating/continuing education
 - specialisation studies
 - personnel training
 - short-term courses
- Labour market training
- Regional University Network in North Karelia
 - training and development needs of sparsely populated areas in North Karelia

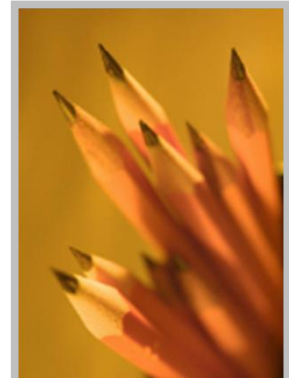




Karelia University of Applied Sciences

Focus areas of R&D and education at Karelia UAS

- Renewable energies
- Welfare services in sparsely populated areas
- Expertise on Russia
- Multimedia-based experience services
- Precision technologies (nanotechnology)
- Wood construction





International Karelia University of Applied Sciences

- Worldwide network of partner universities
- Active participation in the mobility programmes
 - Approx. 80 incoming and 120 outgoing exchange students annually (> 3 months)
- Erasmus mobility + several Erasmus intensive courses
- Nordplus (Nordic Cooperation Programme)
- FIRST (Finnish-Russian Student Exchange Programme)
- North-South-South Higher Education Institution Network Programme (partner institutions in Namibia, Zambia, Botswana and Malawi)
- EU-Canada / TEP
- Bilateral partnerships with higher education institutions in Asia, Africa, Canada and Brasilia



RDI activities at Karelia UAS (2011)

Volume of RDI projects 5.4 M €, internal financing 7%

- 57 national EU projects

- 13 international EU projects

- 32 national projects

- 9 TEKES projects (out of all national projects)

Volume of the entire RDI activities 10.1 M €, internal financing 33%

Includes also RDI investments, commissioned services, projects of Ministry of Education and Culture as well as State subsidized RDI activities

Majority of the financiers in RDI activities are EU, Ministry of Education and Culture, Ministry of Employment and Economy (incl. Tekes), companies, foundations, and other ministries

RDI personnel: 258 persons, 52% women, 80.9 person/year

Based on information provided to Statistic Finland, spring 2012.

Centre for Bioeconomy





Centre for Bioeconomy

General information

Unique unit among universities of applied sciences in Finland: combines education and research on natural resources and environmental issues

- We promote sustainable development and the bioeconomy rising up from it
- We have regional and international impact
- Our roots are in real working life

Business and entrepreneurship based on sustainable use of renewable natural resources





Centre for Bioeconomy

Staff and facilities

24



- Ca. 50 employees
 - Director, 2 heads of education and development
 - 24 Lecturers (Bachelor, Master, Doctoral degrees: forestry, agriculture, technology, economy, administration, regional planning, education)
 - Ca. 5-12 RDI specialists
 - Personnel in support services (student and project & administration & laboratory services, 4 persons)
- A new campus in Sirkkala, Joensuu
 - 17 classrooms, auditorium, space for virtual education, laboratories, offices and 6 meeting rooms





Centre for Bioeconomy Education

- 2 fields of study and 4 degree programmes (for both young and adult students)
 - Degree Programme in Rural Industries (no intake anymore)
 - Degree Programme in Forestry
 - Degree Programme in Environmental Technology
 - Master programme in Environmental Technology

→ Synergies in bioeconomy

- Ca. 500 students
- Specialisation studies (continuing professional education programmes) e.g. in bioenergy and GPS





Centre for Bioeconomy Education 1(2)



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- Education in three bachelor-level programmes and in one master-level programme:
 - Degree Programme in Rural Industries are awarded with a degree Bachelor of Natural Resources
 - The graduates work e.g. as entrepreneurs, advisors, rural secretaries/ authorities, supervisors, project managers and as EU coordinators, as well as in various other expert and managerial positions
 - Degree Programme in Forestry with a degree Bachelor of Natural Resources
 - The graduates work in forest planning, in purchasing and sales in wood procurement companies, as executive managers in associations of forest owners, as advisors and experts; as marketing or sales managers, project managers
- Employment rate: approx. 83 % (KUAS: approx. 82 %)



Centre for Bioeconomy Education 2(2)



- Education in three bachelor-level programmes and in one master-level programme:
 - Degree Programme in Environmental Technology with a degree Bachelor of Engineering
 - The graduating engineers work in tasks relating to environmental protection, as *biomass and heating entrepreneurs*, consultants, energy advisors and in various expert and managerial positions in environmental management.
 - The master-level degree in Environmental Technology awards the title of Master of Engineering
 - The graduates work in executive and managerial positions at energy sector
- The starting point of the studies is the sustainable use of natural resources >> to utilise opportunities of bio economy.
- Employment rate: approx. 81 % (KUAS: approx. 82 %)



Centre for Bioeconomy International activities

- Wide international partner network
 - Europe (e.g. Netherlands, Germany, Norway, Hungary, Slovakia, Greece, Austria, Sweden, Iceland, Scotland, England)
 - Africa (Namibia, Botswana, Zambia)
 - India
 - Russia
 - Canada
- Student, teacher and specialist exchanges; international projects and education
- International study modules and intensive courses
- "Sustainable Rural Development around Europe"
- "Intensive Course on Renewable Energies"
- "Intensive Course on GIS"





Centre for Bioeconomy

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