



Open your mind. LUT.

Lappeenranta **University of Technology**

LUT facts

› figures

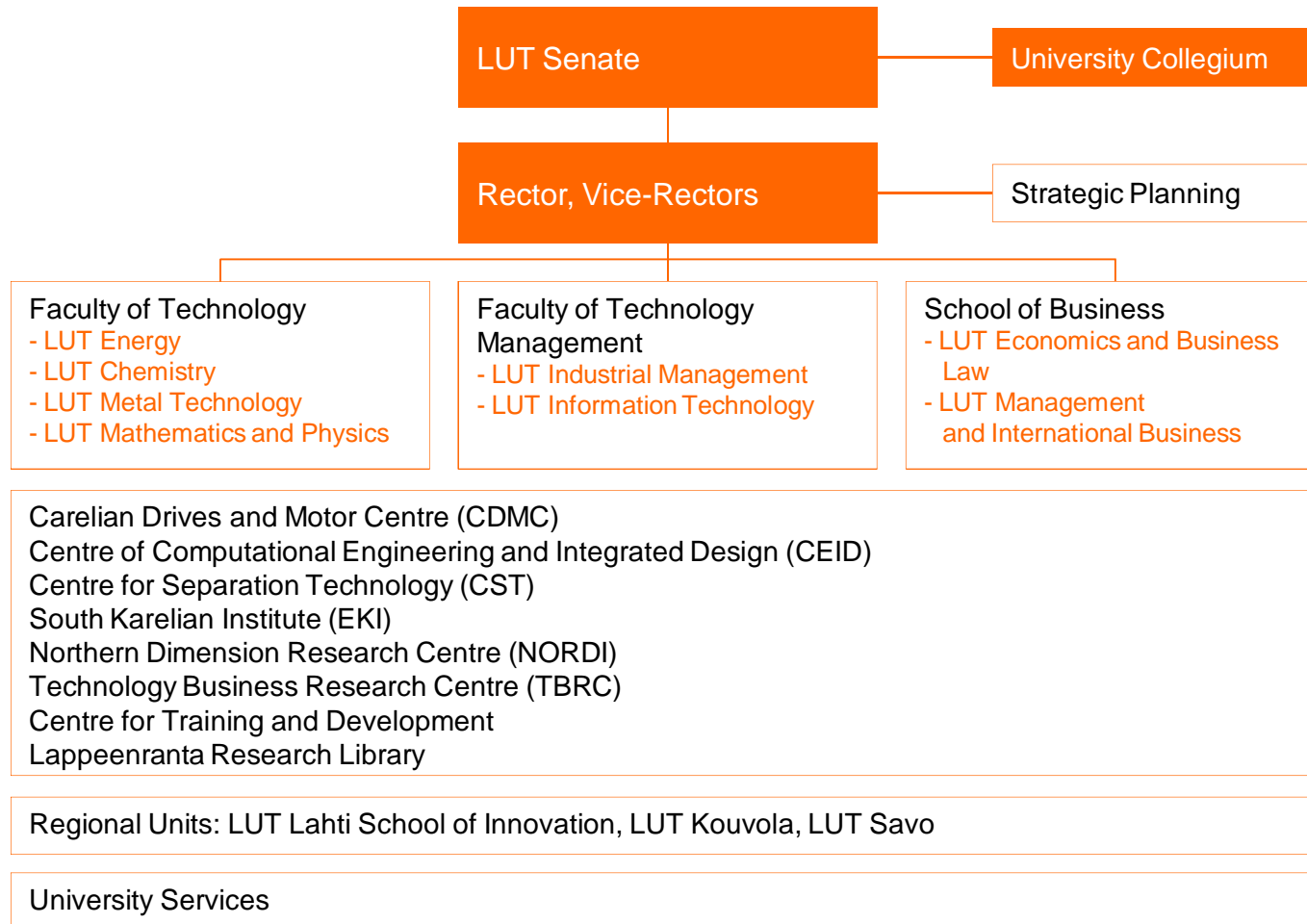
- Founded in 1969, combining technology and business from the start
- Over 8 700 have obtained a Master's degree in technology or business, and nearly 400 have obtained a doctorate in technology, business or philosophy
- Approximately 930 staff members
- 5 000 undergraduate students: technology 75%, business administration 25%
- 22% of technology students and 49% of business students are women
- Approximately 250 degree students (5%) are foreign nationals
- 16% of first-year students in autumn 2009 were foreign nationals
- 45 different nationalities at LUT
- Life-long learning: 1 485 students in continuing professional education, 1 566 students in open university education

LUT facts

› organisation

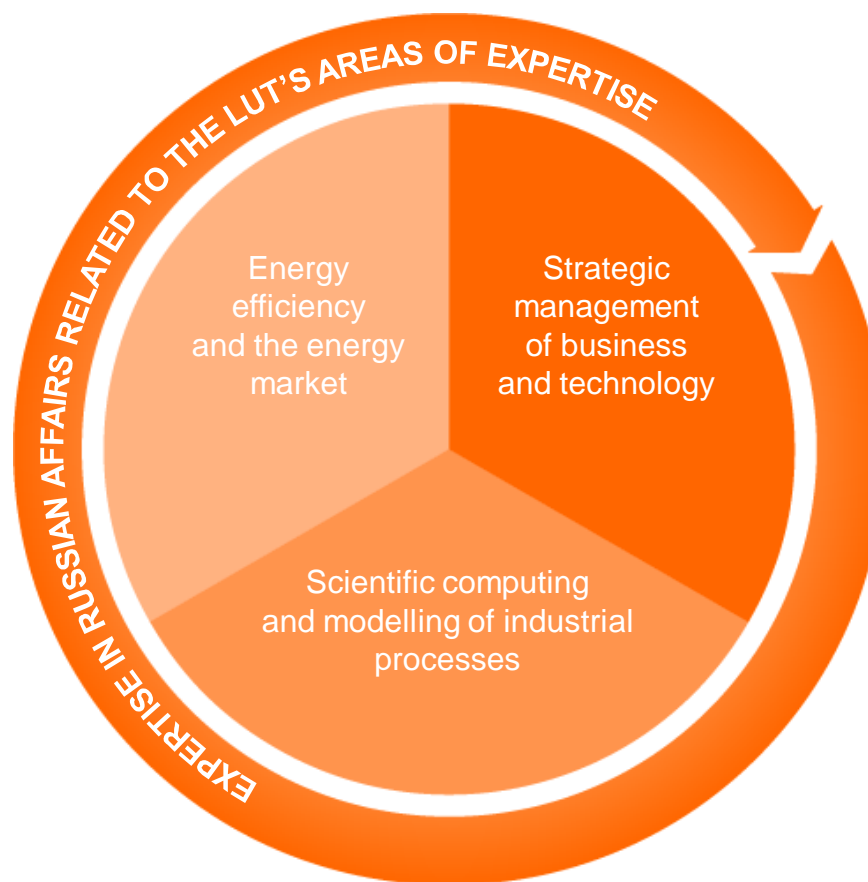


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Strategic areas of expertise





Energy efficiency and the energy market



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- LUT Energy is the leading Finnish academic research and education unit in the energy industry: Energy Technology, Electrical Engineering, Environmental Engineering
- Expertise ranges from energy sources to end-use: fuels, production technologies, electrical power networks and markets, and energy consumption
- Education and research in nuclear engineering
- Scientific Energy Research Ltd. SER: LUT and Tampere University of Technology, interest groups Cleen Ltd, EIT, EERA
- In 2009, special focus on electric cars, wind power, nuclear engineering and the utilisation of biofuels



Strategic management of business and technology



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- World-leading open innovation research and empirical, cross-disciplinary research on strategic decision-making
- Expertise in the management of global, knowledge-intensive innovation and value chains; business models of a network economy, dynamic capabilities and strategic options
- Areas of strength: support systems for decision-making, knowledge management and technological entrepreneurship
- In 2009, special focus on research on creating and maintaining a competitive edge, technology management, supply chain management and industrial marketing, and business environments in Russia and transition economies



Scientific computing and modelling of industrial processes



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- The CEID (Centre of Computational Engineering and Integrated Design) coordinates the use of computational methods in research and education
- Centre of excellence of the Academy of Finland: Applied mathematics research group in inverse problems
- Centre for Separation Technology CST: the most wide-ranging centre of expertise in separation technology in Finland
- Process development: new manufacture methods and equipment for the process industry
- Dynamics of a mechatronics machine, virtual design



Expertise in Russian affairs



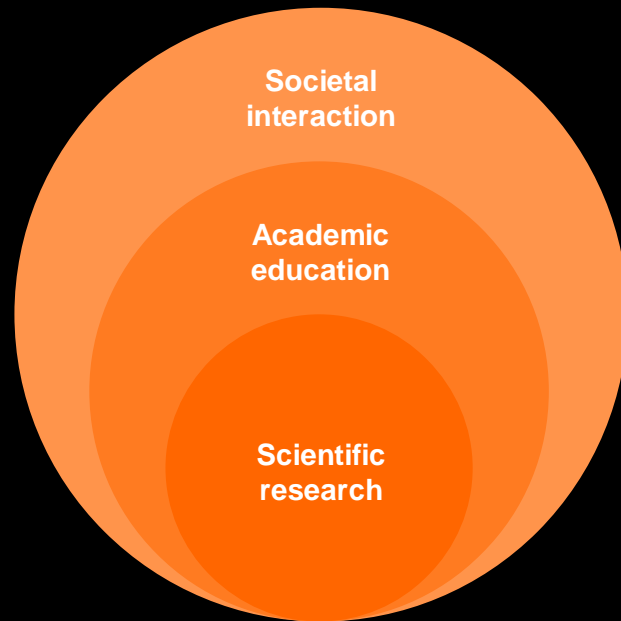
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- Coordinated by the Northern Dimension Research Centre NORDI
- Northern Dimension Institute (NDI): an open network which can be joined by universities, research institutes and researchers from around the world
- Finnish-Russian Innovation University (FRIU): includes LUT, Tampere University of Technology and six universities from St. Petersburg
 - the Russia-EU axis
 - FRIU specialises in technology, design and business
- Collaboration in education: Master's programmes in English, double degrees, MITIM-programme



Basic mission of the university

Scientific research is the cornerstone
of all activity at the university



Academic education: The university provides academic undergraduate, postgraduate and continuing education based on research

By interacting with external stakeholders, the university sees to its societal responsibilities: producing expertise and experts and research results for utilisation

Research and innovation networks



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- Top international universities:
 - Massachusetts Institute of Technology (MIT)
 - Nihon University
 - Georgia Institute of Technology
- Finnish-Russian Innovation University FRIU
- Northern Dimension Institute
- 7th EU framework programme – LUT joins an internationally funded research programme
- National strategic clusters of expertise: Forest Cluster Ltd., Cleen Ltd. (energy and environmental industries), Fimecc Ltd. (metals and engineering), TIVIT Ltd. (Information and Communication industries)
- National centre of expertise programmes: Intelligent Machines, Forest Industry Future, Maritime Cluster
- Tampere University of Technology and Scientific Energy Research Ltd. SER

FRIU Partners



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- The Bonch-Bruевич St. Petersburg State University of Telecommunications
- St. Petersburg State Polytechnical University
- St. Petersburg State Technological University of Plant Polymers
- St. Petersburg State University of Aerospace Instrumentation
- St. Petersburg State University of Economics and Finance
- Lappeenranta University of Technology
- Stieglitz St. Petersburg State Arts and Industrial Academy
- Tampere University of Technology
- Aalto university (Design)

Northern Dimension Institute (NDI)



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- Is an **open network society** of universities, research institutes, local and EU level policy authorities combining expertise in the priority sectors of **the Northern Dimension Policy**, i.e. providing high-quality research, and later also education, primarily in the fields of
 - Energy and the environment
 - Public health
 - Transport and logistics
 - Culture and higher education

NDI: current situation



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- The NDI Steering Group had its first meeting on May 24, 2010 in Lappeenranta. The discussions at the NDI SG meeting focused mainly on funding possibilities.
- The NDI STG on Energy and the Environment had its first meeting as part of the Calotte Academy 2010 on April 12, 2010, in Kirkenes, Norway. The leader of the group is the Barents Institute, Norway (senior researcher Urban Wråkberg)
- The NDI STG on Culture and Society had its first meeting on May 24, 2010 in Lappeenranta. The leadership of the NDI STG on Culture and Society is divided between the Lund University (Professor Rikard Bengtsson) and the St. Petersburg State University (Associate Professor Dmitri Lanko)
- A search for the leaders for the NDI STG:s on Transport and Logistics and Public Health and Social Well-being is currently in process. LUT is interested in taking the lead in the NDI STG on Transporta and Logistics.

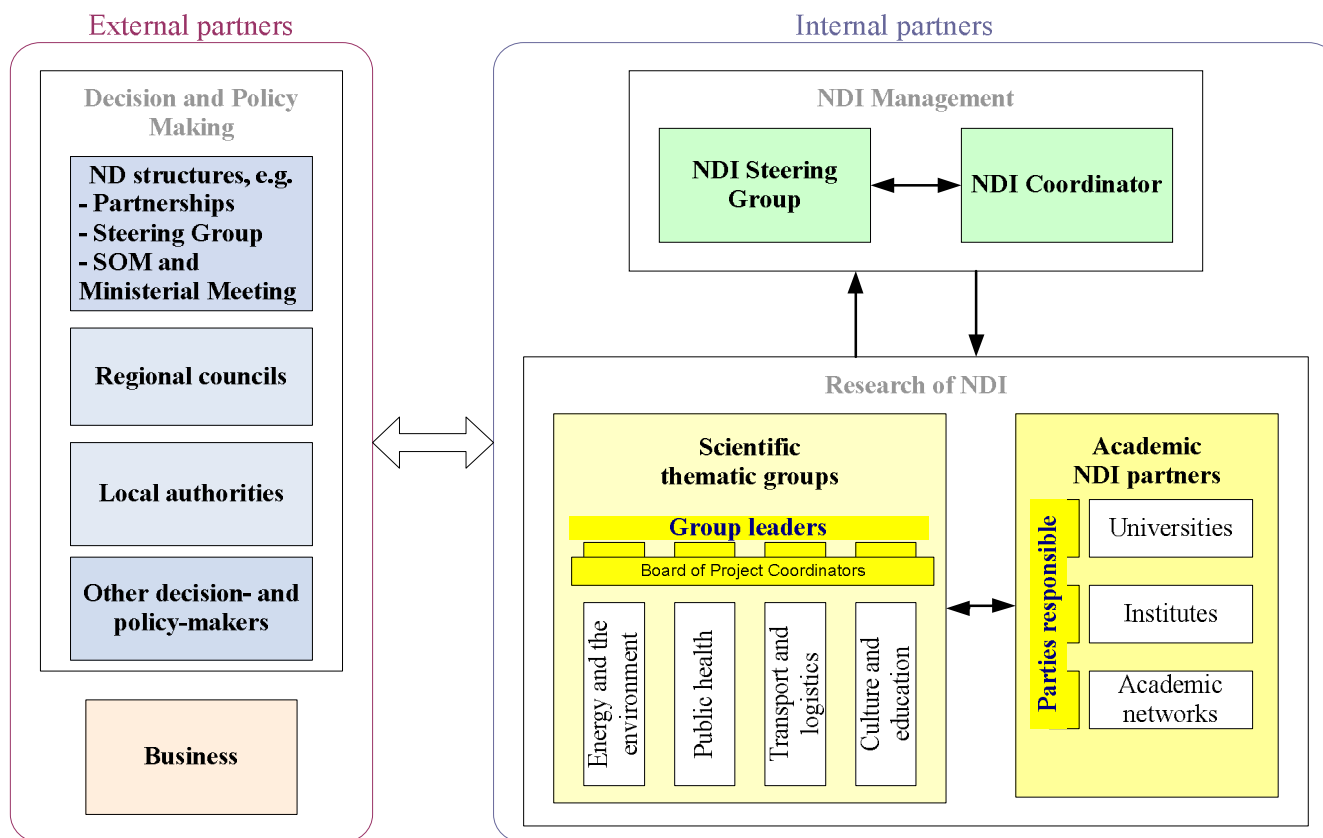
NDI: next steps



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- NDI Scientific Thematic Groups on Transport and Logistics as well as on Public Health and Social Well-being be formed
- The NDI Coordinator will continue negotiations with potential partners in the ND region
- The next NDI SG meeting will be held in December 2010 in Kaunas, Lithuania, organised by the Vytautas Magnus University
- To find funding for the coordination of NDI for the next 2 years (For the networking and coordination activities, funding will be sought from national or regional funding agencies).

NDI Network and Action Plans



NDI: Preliminary Project Proposals



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1. Energy and the Environment

- Energy and Bioeconomy Development Environment
- Risks in the Liberalized Electricity Market in Russia (budget: € 80 000/annum)

2. Transport and Logistics

- Emergency Logistics (budget: € 72 000-230 000/annum, depending on the later defined scope of the project)
- Reduction and Unification of Administrative Burdens in Cross-border cooperation (budget: €800 000)



LAPPEENRANTA
INTERNATIONAL UNIVERSITY CITY

