VILNIUS GEDIMINAS
TECHNICAL UNIVERSITY
Today towards tomorrow

Vilnius
2011-10-10
Contents

General facts about VGTU
Structure of the university management
Research, Studies, Internationalisation
Directions of the strategic development for 2011-2016
Vilnius Gediminas Technical university is state public institution

The 4th largest university in Lithuania (14 000 students)

Founded in 1956

Located in a capital city Vilnius (7 venues) with the main campus on Sauletekio avenue

Total number of staff is 1700

820 teaching staff (Full time equivalent) including 133 Professors, 409 Associate Professors, and 278 Lecturers and Assistants

Annual budget s 130,1 mln LTL (37.7 mln EUR) in 2010
Autonomy of the university

The **Law on Science and studies** ensures the autonomy of the universities and prescribes their functions and objectives in general terms only.

Within these limits, each university decides on the detailed organization of its administration and the decision-making power of its administrative bodies.
VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
Scheme of management

COUNCIL

SENATE

RECTOR

RECTORATE

Vice-Rector for development
Vice-Rector for Research
Vice-Rector for International relations
Vice-Rector for Studies
Chancellor

FACULTIES AND ACADEMIC INSTITUTES

Administrative divisions
Architecture
Business Management,
Civil Engineering
Electronics
Environmental Engineering
Fundamental Sciences
Mechanics
Transport Engineering
Institute of Aviation
Institute of Humanities
Development of university‘s management and structure:

- Reorganize academic departments (faculties, institutes, centers) according to its research and study quality, long-term perspectives and economic effectiveness.
- Reorganize administrative departments to improve their effectiveness.
- Improve generation and diversification of university revenue, ensuring financial viability of the university.
VGTU strategy 2011-2016 (2)

• Restructure the financial system management by establishing collegial managed fund for strategically main objectives
• Involve employees into corporate problem solving and change management processes
• Be more open to the public, position better and strengthen university image in the society
• Develop values-based organizational culture
Studies at VGTU
Study system at Lithuania

- **University Integrated Studies (5 years)**
- **Bachelor’s degree studies (4 years)**
- **Master’s degree studies (1.5 – 2 years)**
- **Professional studies (3 – 3.5 years)**
- **Doctoral degree studies (till 4 years)**

Secondary education (12 years)
Student number and total income per student 2002 - 2010

Number of students

Total income per student, LTL

2002 2003 2004 2005 2006 2007 2008 2009 2010

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Bendras studentų skaičius

Bendrosios pajamos (įplaukos) vienam studentui, Lt
Studies at VGTU: General facts

- Two cycle (4+2) studies introduced in 1992
- All study programs are accredited by the Ministry of Education and Science of the Republic of Lithuania
- 38 programmes for Bachelor’s degree with 11820 students (4 years),
- 48 programs for Master’s degree with 2 400 students (up to 2 years)
- 15 programs for Doctor’s degree with 280 students (4 years)
- Long standing tradition of teaching in English: 13 Study programmes in English (over 300 courses in total)
- Teaching staff- student ratio 17,4: 1
VGTU strategy: studies (1)

- Development of Lifelong learning concept system
- Opening new areas of study, creating new and updating current study programmes according to the 2020 and subsequent years need for specialists in Lithuania and abroad
- Creating study programmes and assuring its quality while cooperating with the business representatives
- Consult with business and industry regarding their requirements and suggestions
- Creating Joint degree programs with foreign universities
- Student-oriented education
VGTU strategy: studies (2)

- Adjustment to the study process according to study areas or groups thus solving problems of horizontal linkage among study programmes
- Mandatory web-based virtual learning environment for students and teachers
- Creation of Educational Support System for teachers to modernise teaching methods
- Long-term agreements with business organizations with the focus on improving the quality of internship and developing practical skills
Internationalisation of studies at VGTU
Strategic priorities (1)

- Balanced student mobility – 15% of graduates should have an international experience
- Teaching staff mobility (focus on the effectiveness and visibility of inward mobility)
- International competence of staff (academic and administrative) and students
  - Assessment and recognition system of international activities, institutional benchmarking of internationalisation
  - Attracting more international academic staff for work at VGTU
Strategic priorities (2)

• Development of Joint degree programmes (focus on Master degree programmes)

• Diversification of cooperation geographically (priority regions outside the EU)

• IaH - creating environment where international experience is a value, and the experience of mobile part of academic community is shared with non-mobile one
Internationalisation

- 1994 - first study programmes in English launched
- 2011 - 8 at BSc+ 4 at MSc programs in English out of 86 study programmes
- 97 bilateral institutional cooperation agreements
- 280 partners for LLP/Erasmus staff and student exchange
- 350 incoming international students at VGTU in 2010-2011 (degree and exchange) + 80 students of IPs
- Over 550 outgoing students in 2010-2011 (studies and placements); 124 placements 2010-2011
- Over 130 Erasmus staff visits abroad within Erasmus
- Participation in EU Asia-link, ALFA III, Tempus, LLP/Erasmus, Leonardo da Vinci, Erasmus/Mundus
- Annual budget managed by IRO in 2011 - 1,17 mil. Euro
Studies in English (1)

Bachelor degree programs (8)
– Architecture
– Business Management
– Building Energetic
– Information Systems Engineering
– Electronics (Informatics Engineering)
– Mechanical Engineering
– Civil Engineering
– Transport Engineering Economics and Management

Local students
International degree students
International exchange students
Studies in English (2)

Master degree programs (5)
- Environmental Management & Clean Production
- Industry Engineering and Management
- Investment Management
- International Business
- Electrical Energetic Systems Engineering
Internationalisation results

• Every 6th mobile exchange student in Lithuania is VGTU student
• ECTS label for 2006-2008
• E – Quality label: Erasmus Quality label (1st place, 2007)
• VGTU is No. 28 among European Top 100 sending HEIs for student placement within Erasmus (acc. results of 2008-2009)
• 2008 completed EUA evaluation procedure
• Diploma Supplement label for 2009-2013
VGTU strategy: internationalisation

• Focus of research and studies internationalization development (to reach the international level)
• Invite more foreign teachers and researchers to take part in university’s activities
• Study programme internationalization (focus on PhD and master)
• Not less than 10 % international students (exchange and full degree)
• Motivate teachers and researchers to seek for international level
• Start organizing studies abroad together with local or foreign university
• Improve university’s international visibility and image
Networks and associations (1)

- Cooperation platform of central and east European Metropolitan Universities of Technology
- BALTECH Consortium in Science and Technology
- BSRUN – the Baltic Sea Region University Network
- UNEECC – the University Network of the European Capitals of Culture
- EUA – European University Association
- SEFI - European Society for Engineering Education
Networks and associations (2)

- CIB – International Council for Building Research Studies and Documentation
- EUREF – International Association of Geodesy
- IEEE – Institute of European Electrical and Electronic Engineering
- IABSE – International Association of Bridge Structures
RESEARCH AT VGTU
Research in brief (1)

- 59 departments; 9 research institutes; 4 research centres incl. Civil Engineering Center, Competence Centre of Inter-modal Transport and Logistics, Traffic Safety Centre, Telecommunication Research Centre.

- Over 40 projects per year FTP7, COST, EUREKA, INTERREG III (Baltic sea region programe 2007-2013).

- VGTU is a member of 12 national technology platforms, leading 3 of them.

- Partner in 6 National Integrated Programmes
Research Institutes

- Research Institute of Internet and Intelligent Technologies
- Institute of Open Source Research
- Research Institute of Territorial Planning
- Transport Research Institute
- Research Institute of Environment Protection
- Research Institute of Geodesy
- Innovatory Scientific Institute of Special Structures “Kompozitas”
- Research institute of Welding and Materials Science
- Institute of Architecture
- Scientific Institute of Thermal Insulation
- Road Research Institute
56 PhD thesis were defended at the University in 2010
30 scientific conferences per year incl. 11 international ones (over 3000 participants)
9% of the total gross budget of university comes for industry through contract-based research services

1065 articles published in 2010, out of them 214 articles published in the journals inscribed in the ISI Master Journal List and the database ISI Web of Science
17 international scientific journals published by the university (8 included into Web of Science database): www.vgtu.lt/english/editions
Research Fields (1)

- R&D and application of building materials, structures and technologies
- Experimental and theoretical research of environmental systems and R&D of environment protection technologies
- Information technologies, statistical analysis and methods of modelling physical processes
- Synergy between social and economic, cultural and technological processes
- Research, development and artistic creation in architecture, urban planning and their heritable objects
Research Fields (2)

- Transport system strategy and transport technologies (incl. multimodal)
- Investigation, development and application of technologies of geodesy and cartography and measuring methods of physical quantities
- Development, improvement and optimization of electric and electronic devices and systems
- Research, design and improvement of mechanical, mechatronic and biomechatronic materials, systems and technological processes
- Energy supply and its application methods, processes and systems
- Territorial planning and estimating the sustainability
Areas of PhD studies (1)

Humanities:
* History and Theory of Arts (Sculpture and Architecture)

Physical Sciences:
* Mathematics
* Physics (Condensed Matters)

Social Sciences:
* Management and Administration
* Economics
Areas of PhD studies (2)

Technological Sciences:
* Electrical and Electronic Engineering
* Civil Engineering
* Transport Engineering
* Environmental Engineering
* Chemical Engineering (Biotechnology)
* Energetics and Power Engineering
* Informatics Engineering
* Materials Engineering
* Mechanical Engineering
* Measurement Engineering
Representing Lithuania in the EU technology platforms:

- **ENIAC** - European Nanoelectronics Initiative Advisory Council
- **ACARE** - Advisory Council for Aeronautics Research in Europe
- **ESTP** - The European Steel Technology Platform
- **ERTRAC** - European Road Transport Research Advisory Council
- **ETPIS** - The European Technology Platform on Industrial Safety
- **ECTP** - European Construction Technology Platform

Membership in international organizations (over 60 in 2010).
Cooperation with the society

VGTU, Vilnius university, Vilnius city municipality and private companies in year 2003 set up knowledge economy cluster “Saulėtekio slėnis” (Sunrise Valley)

Objectives for the Sunrise Valley

• Provide modern conditions for high quality education and research linked to professional activity and business environment
• Commercialize R&D
• Strengthen links between industry and higher education
• Attract foreign direct investment
• Promote entrepreneurship
• Create high quality jobs
VGTU strategy: research (1)

- Create long-term research development priority areas and prioritise regarding its financing, infrastructure development, etc.
- Create friendly environment for research initiatives, cooperation, competition in national and international level
- Encourage integration of fundamental and applied research into international research level. Improve interaction between research and practice
- Focus researchers on strategic research priority areas of the university
- Expand existing PhD studies and create new strong research areas ("research schools")
VGTU strategy: research (2)

- Develop university-industry cooperation in research, concentrating on specific research areas for the scientists to solve major economic problems on national level. Offer the results of applied research to foster competitiveness and innovation in business sector.
- Strengthen research projects management on institutional and faculty level.
- Create for research commercialisation and marketing system.
- Encourage university researchers to take a part in the development of national strategy development, feasibility studies, etc.
FINANCE AND INFRASTRUCTURE
Income structure in 2010 (thous LTL)

- **State budget subsidies**: 71994 (55,2%)
- **Fees from hostels residents**: 397 (0,31%)
- **Income from services**: 35366 (27,2%)
- **Other incomes**: 22527 (17,3%)

Total budget in 2010 was 130,1 mln LTL (37.7 mln EUR) including: 55,2 % from the State budget and 44.8 % of income earned from services and tuition fees.
Infrastructure of facilities at VGTU

Vilnius Gediminas Technical University comprises 50 buildings. Total floor area of the buildings is 122623,31 sqm (heated area – 112625,21 sqm):

- total area of education and research premises (classroom, laboratories, other buildings – 88, 89 thou sqm;
- total area of student dormitories – 33,7 thou sqm.
VGTU strategy: Infrastructure

• Develop the objects for VGTU research and academic infrastructure (new Research, Studies and Administration Centre)

• Continue development Sunrise Valley cluster of Knowledge Economy in Saulėtekio av. (Science and Technology Park, etc.).

• Construct the building complex in the Linkmenų str. for the Faculty of Business Management, Institute for Life Long Learning.

• Move the Faculties of Mechanics and Transport Engineering as soon as the laboratory and the auditorium buildings have been completed on campus.
Plan of VGTU campus in Saulėtekio avenue
OTHER DEVELOPMENTS
VGTU strategy: Human resource (1)

- Envolve all the members of academic community to participate in development and implementing the strategic goals
- Foster the leadership of professionals
- Development of better tailored to the university needs human resource policy, improve HR training and development
- Elaborate the system for developing and improving the qualification of the academic and administrative staff members
VGTU strategy: human resource (2)

• Renewal and professionalisation of the staff especially the managerial and administrative staff
• Development of academic, researchers and other staff evaluation system in order to evaluate not only quantitative but also qualitative results
• Development of personnel motivation system through new salary setting and promotion system
VGTU strategy: Public relations

- Development of public relations with the community, companies and social partners with the focus on priority areas of study and research
- Strengthening of the understanding of the academic community that society and business is the main customer of the university
- Knowledge, innovation results transfer to the public, businesses and social partners
- Enhancement and development of mutually beneficial long-term agreements with external partners
VGTU strategy 2011-2016

- Quality assurance system
  - Implement international standards for performance evaluation of HEI
  - Develop progress evaluation system
  - Increase human capacity of the units responsible for quality assurance management
Thank you