

Mission Statement

The basic task of Helsinki University of Technology is to conduct scientific research, to provide teaching of the highest level, united with research, and to promote science and art.

Helsinki University of Technology operates where research may have both scientific and technological significance.

Helsinki University of Technology shall be an internationally significant promoter of science and technology.

keh@tkk.fi



Vision

Helsinki University of Technology is an internationally renowned university of technology, known for its high standards in research and teaching, its social impact and ability to change with the times.

Helsinki University of Technology is a pioneer in facilitating cooperation with leading universities and innovative enterprises.

The researchers, teachers, and students who seek to work or study at Helsinki University of Technology rank among the best in their countries.



Values

Helsinki University of Technology

- fosters freedom of research, art and teaching
- values creativity and critical thinking
- requires an honest, responsible and ethically sustainable approach in all its activities
- respects individuality and the special characteristics of all cultures
- provides challenges in work and co-operation
- promotes the well-being of staff and students



Success Factors

- High scientific standards
- Competitive graduate schools
- High-quality first degree programmes
- > Talented students
- Ambitious co-operation with enterprises
- Attractive campus



Act on Universities

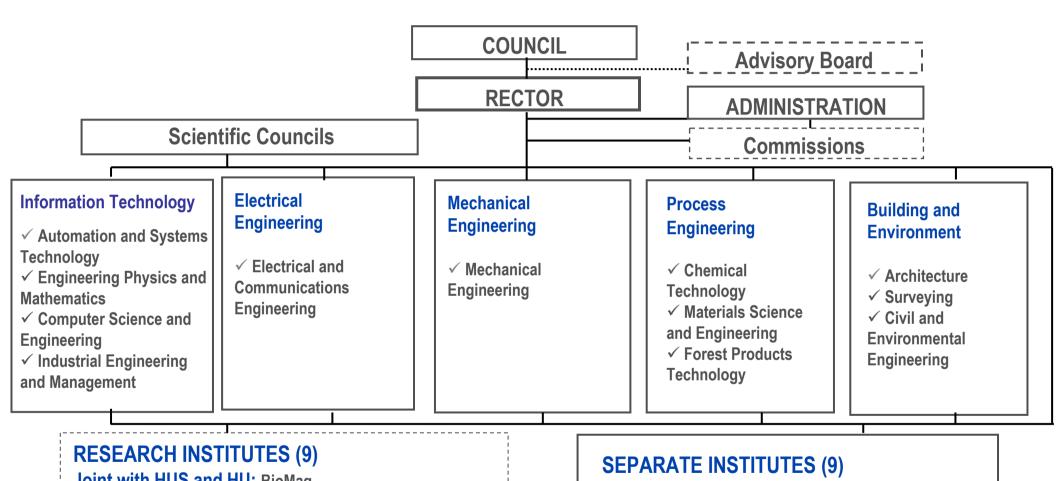
"The mission of the university shall be to promote free research and scientific and artistic education, to provide higher education based on research, and to educate students to serve their country and humanity. In carrying out their mission, the universities shall interact with the surrounding society and promote the societal impact of research findings and artistic activities.

The universities shall seek to cooperate amongst themselves with a view to a viable division of work."

Act on Universities 4 §



Organisation



Joint with HUS and HU: BioMag Joint with HU and HSEBA:

Helsinki Institute of Science and Technology HIST

Joint with VTT:

Maritime Institute of Finland Millimetre Wave Laboratory of Finland, MilliLab

Joint with HU and JU:

Helsinki Institute of Physics HIP

Joint with HU

Helsinki Institute for Information Technology HIIT

6



Departments

Architecture Automation and Systems Technology Chemical Technology Civil and Environmental Engineering Computer Science and Engineering **Electrical and Communications Engineering Engineering Physics and Mathematics** Forest Products Technology Industrial Engineering and Management Materials Science and Engineering Mechanical Engineering Surveying



Separate Institutes

Centre for Urban and Regional Studies
Computing Centre
BIT Research Centre
Language Centre
Library
Lifelong Learning Institute DIPOLI
Low Temperature Laboratory
Metsähovi Radio Observatory

Joint with University of Helsinki Helsinki Institute for Information Technology HIIT

Joint with University of Helsinki and University of Jyväskylä Helsinki Institute of Physics HIP



Research Institutes

Institute of Biomedical Engineering
Institute of Digital Communications IDC
Centre of Energy Technology
Intelligent Machines and Special Robotics Institute
Institute of Intelligent Power Electronics
Institute of Optics
Research Institute for Health Care Facilities SOTERA
HUT Centrum for Neurosystems
Centre for New Materials UMK



Research Institutes

Joint with HUS (Helsinki and Uusimaa Hospital Group) and UH (University of Helsinki)

BioMag

Joint with UH and HSEBA Helsinki Institute of Science and Technology HIST

Joint with VTT (Technical Research Centre of Finland)

Maritime Institute of Finland Millimetre Wave Laboratory of Finland, Millilab



Degree Programmes

Architecture

Automation and Systems Technology

Bioinformation Technology

Chemical Technology

Civil and Environmental Engineering

Communications Engineering

Computer Science and Engineering

Electronics and Electrical Engineering

Engineering Physics and Mathematics

Energy and HVAC Technology

Forest Products Technology

Geomatics

Information Networks

Industrial Engineering and Management

Landscape Architecture

Materials Science

Mechanical Engineering

Real Estate Economics

Structural Engineering and Building

Technology



Centres of Excellence/Research

Nominated by the Academy of Finland

- Bio- and Nanopolymers Research Group 2002-07
- ➤ Smart and Novel Radios Research Unit 2002-07 (SMARAD)
- Computational Complex Systems Research 2006-2011
- Adaptive Informatics Research 2006-2011
- ➤ Low Temperature Nanoscience 2006-2011
- Computational Nanoscience COMP 2006-2011
- Systems Neuroscience and Neuroimaging Research (UH,TKK) 2006-2011



Centres of Excellence/Research

Joint with other Universities

- > From Data to Knowledge Research Unit 2002-07 (UH,TKK)
- Helsinki Brain Research Centre HBRC 2002-07 (UH, TKK, Helsinki and Uusimaa Hospital Group)
- Inverse Problems (TKK, UH, UKU, LUT, UO) 2006-2011



Centres of Excellence/Research

Outstanding Junior Research Groups nominated by Helsinki University of Technology

- Asymmetric Catalysis Group
- BioS Biological Physics and Soft Materials Group
- Thermomechanical Treatments
- Water and Development



Centres of Excellence/Teaching

Nominated by the Ministry of Education

- Basic studies in Information Processing Science, 2004-06
- Department of Materials Science 2007-09
- Laboratory of Urban and Regional Studies 2007-09

Nominated by Helsinki University of Technology 2004-06

- Option of Chemical Industrial Engineering
- Department of Materials Science
- Department of Forest Products Technology



Centres of Excellence

High-quality Adult Education University

Nominated by the Ministry of Education

Helsinki University of Technology, 2007-09



Bachelor of Science (Technology)

(180 cr)

Intermediate module A2 20 cr

Basic module B1 20 cr

Bachelor's thesis and seminar K 10 cr

Elective studies V 10 cr

General studies P 80 cr

Basic module A1 20 cr

Programme studies O 20 cr



Master of Science (Technology)

Basic model (120 cr)

Elective studies W 20 cr	Methodological principles M 10 cr		ter's thesis D 30 cr
Advanced module A3 20 cr	Intermediate module B2 20 cr		Special module C 20 cr



The degree structure of doctoral studies

Dissertation

Licentiate thesis

Studies in Research field T 40 cr

Studies in Supplementary field S 20cr

Studies in Scientific practices and principles
Y 10 cr



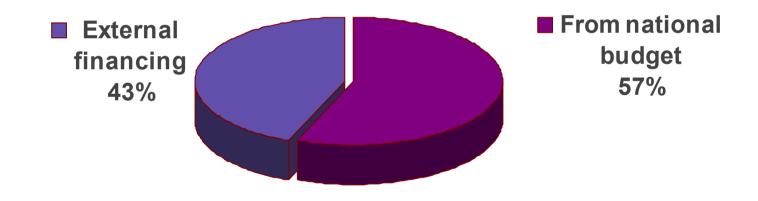
Results 2005

1 253	Number of degrees
1 017	Master's degrees (female 26.6%, foreigners 6.9%)
86	Licentiate degrees
150	Doctor's degrees (female 30.7%, foreigners 9.3%)
15 166 12 381 10 880 1 501	Number of students Undergraduates (female 19.9%, foreigners 3.7%) M.Sc B.Sc
2 785	Graduates (female 27.6%, foreigners 10.5%)
93	Statistical full-time students at the open
	university
13 328	Adult students



Resources 2005

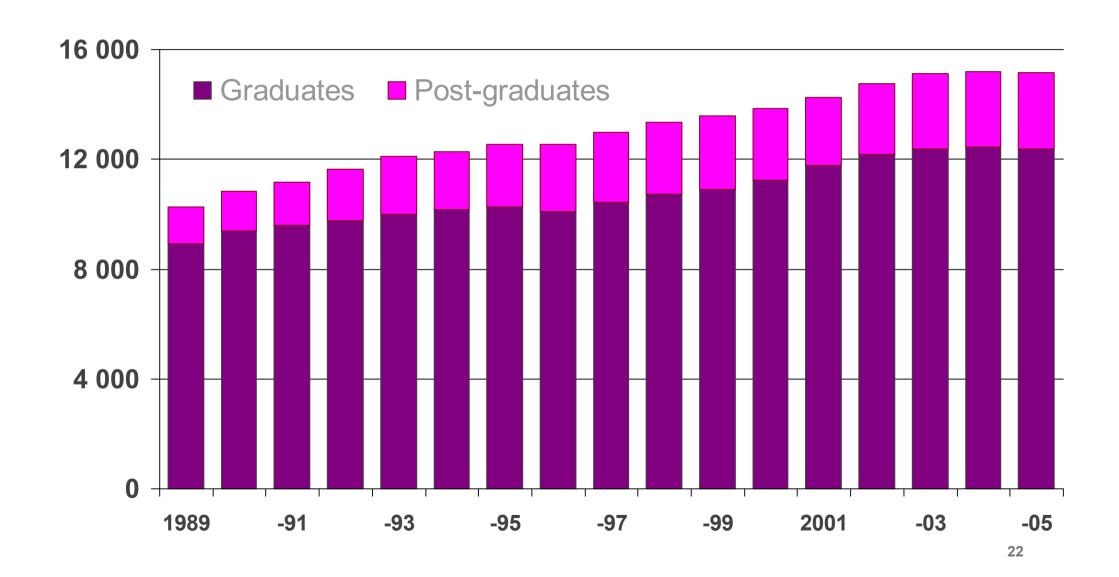
Financing total 205 003 000 EUR



3258 FTE Staff

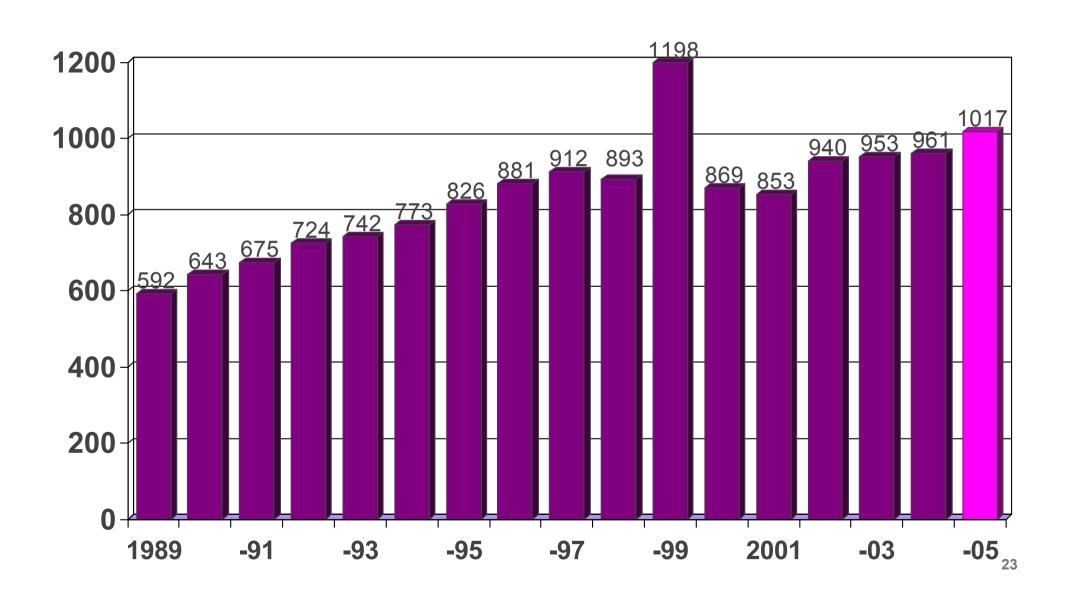


Number of Students



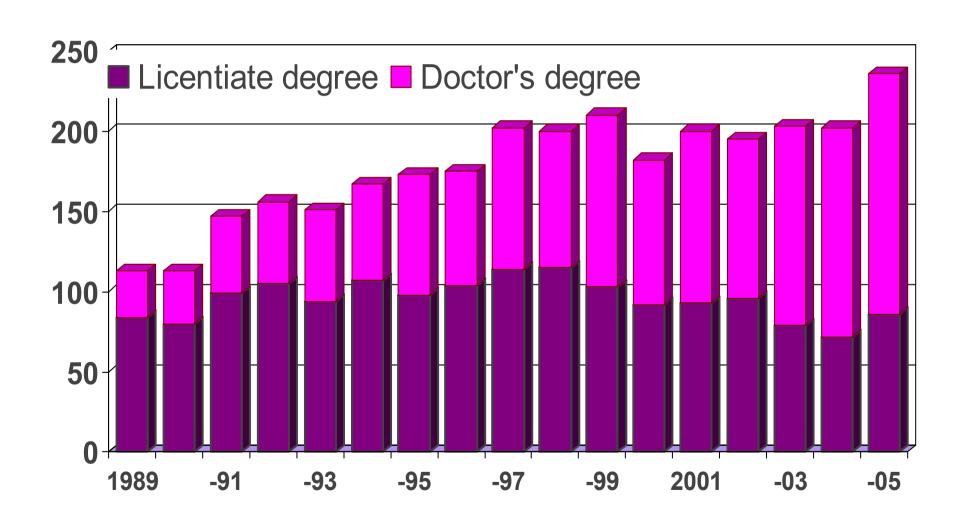


Master's Degrees



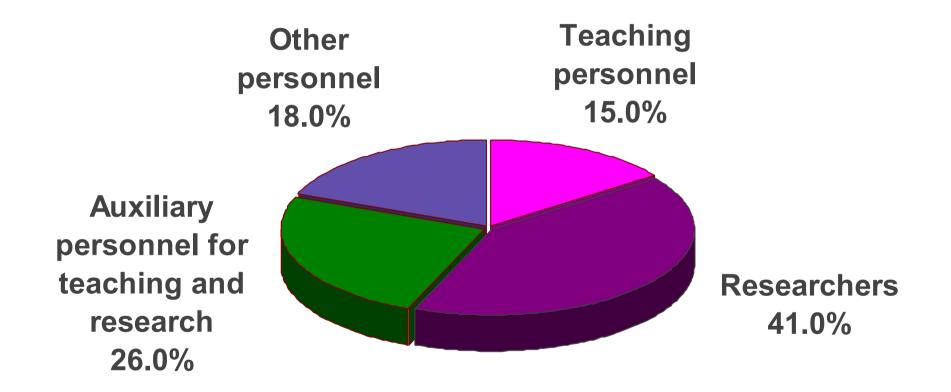


Doctor's and Licentiate Degrees





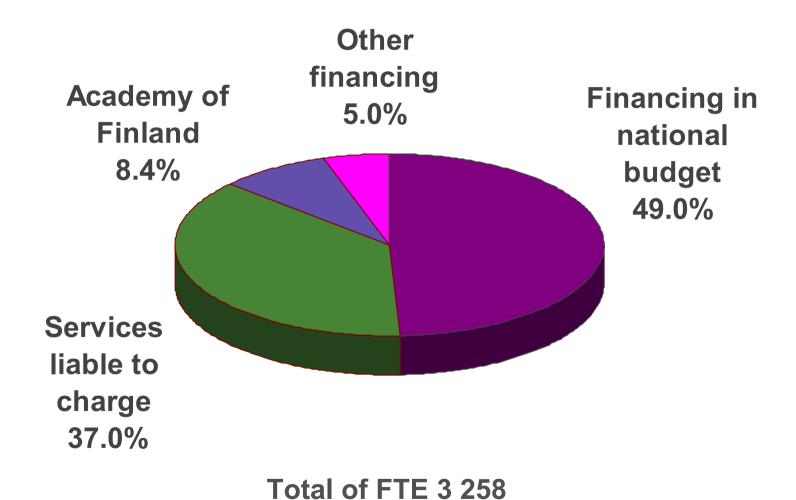
Personnel 2005



Total of FTE 3 258

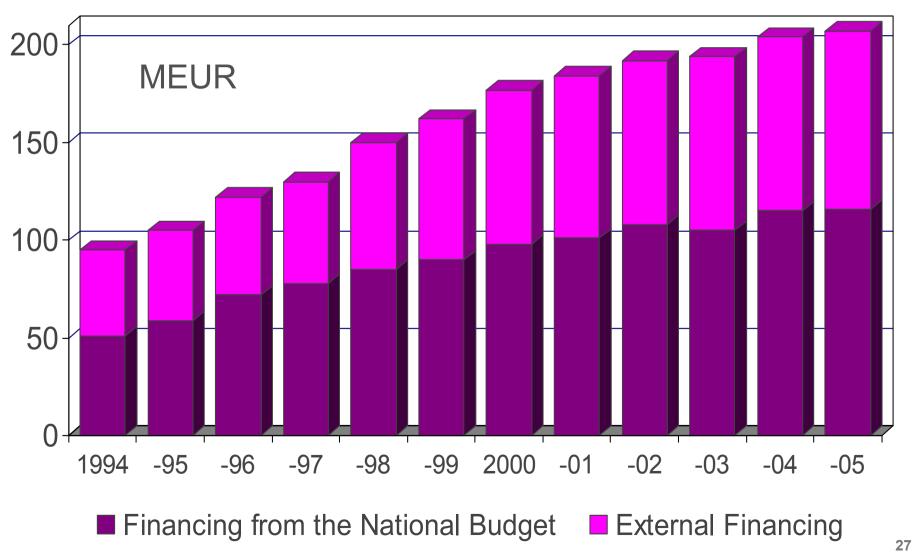


Personnel 2005



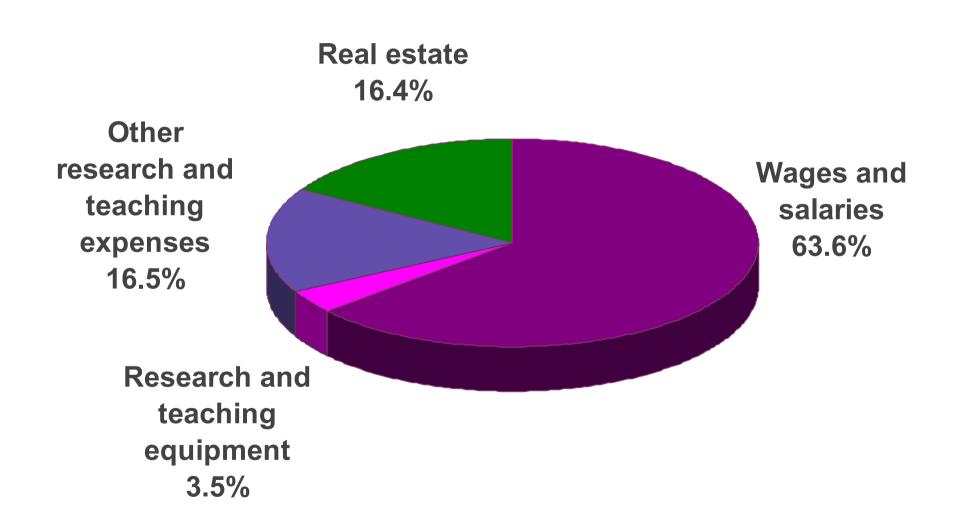


Financing 2005



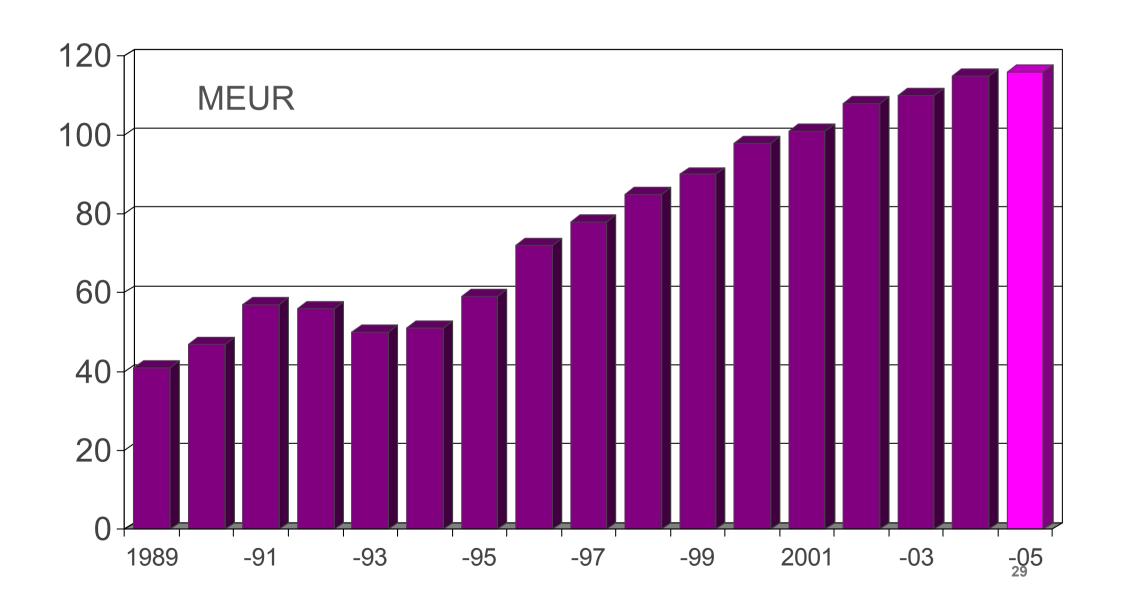


Expenditure 2005

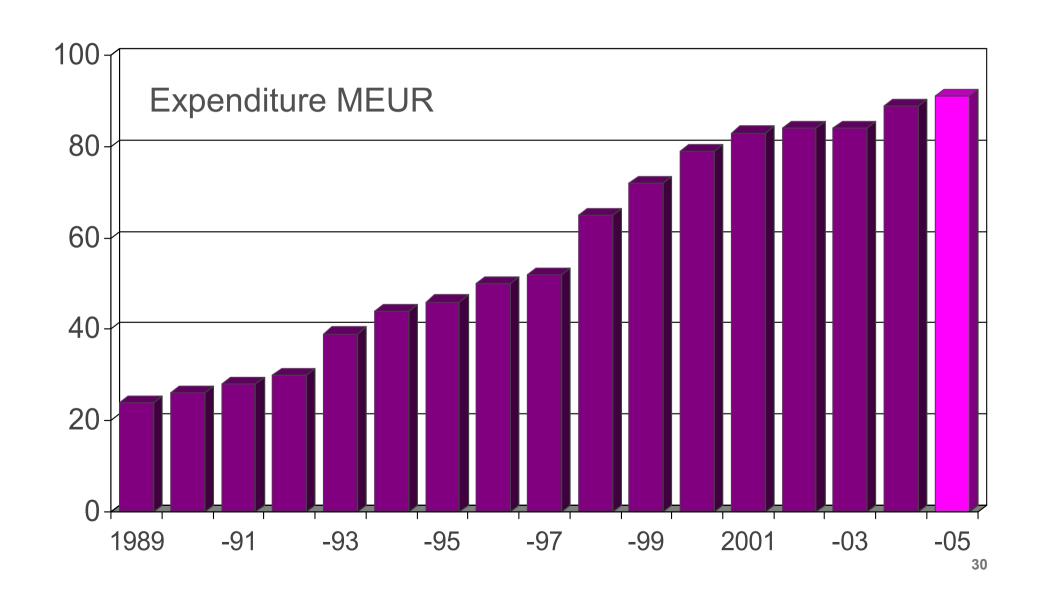




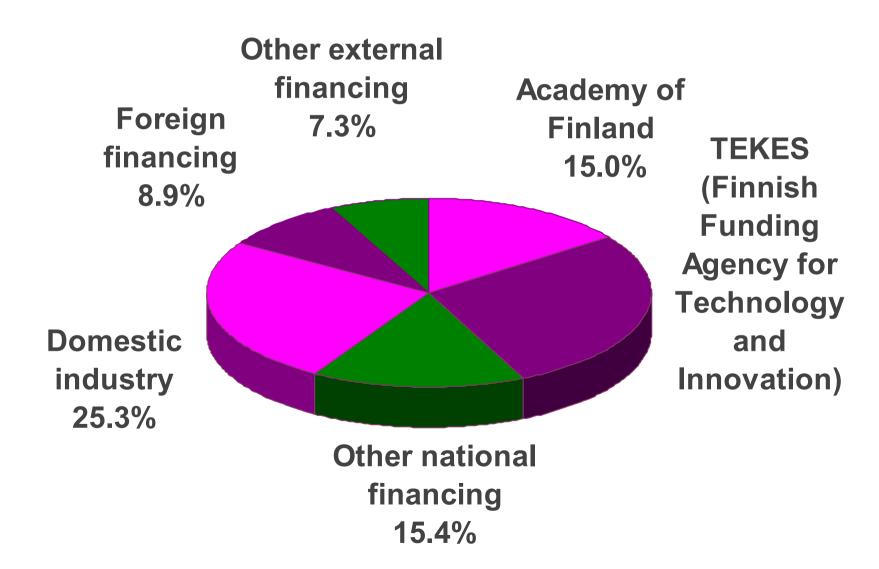
Financing (National Budget)





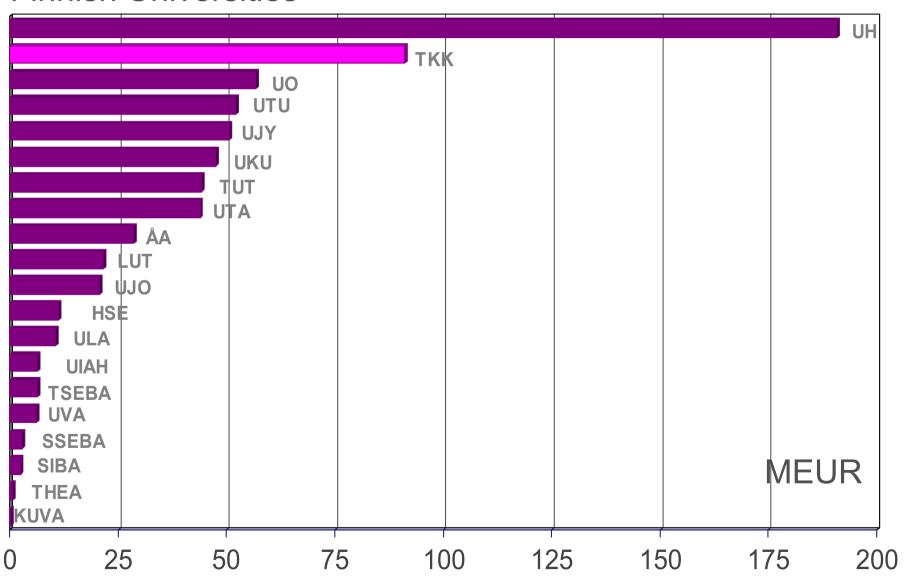






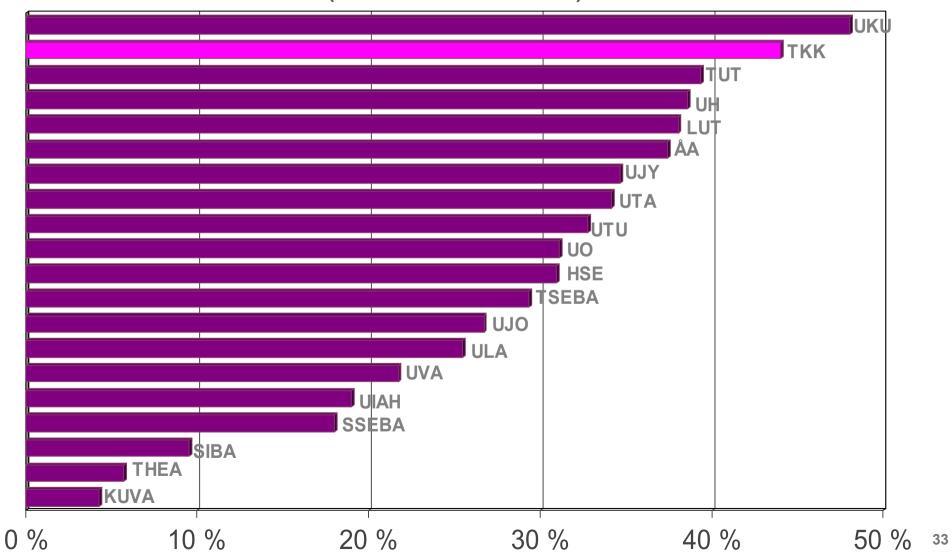


Finnish Universities





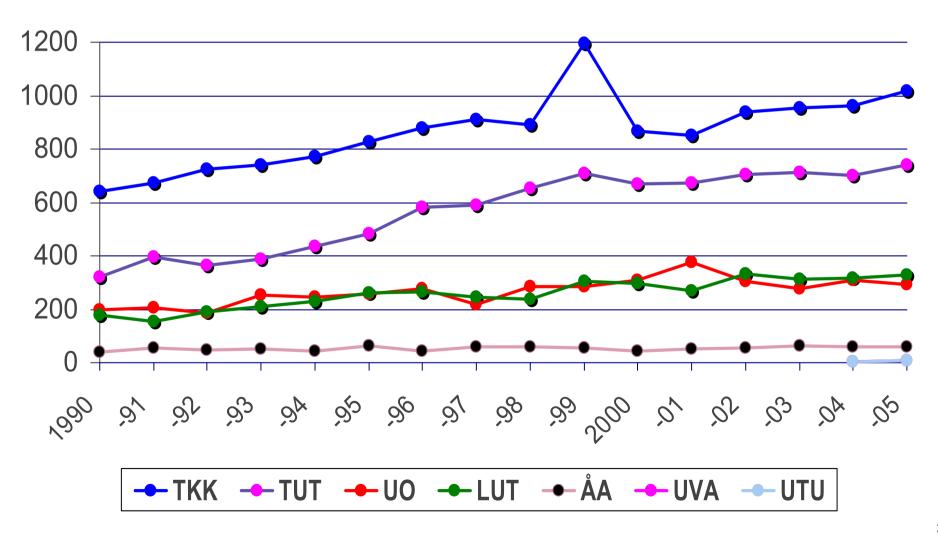
Finnish Universities (% of the income)





Master's Degrees 1990 - 2005

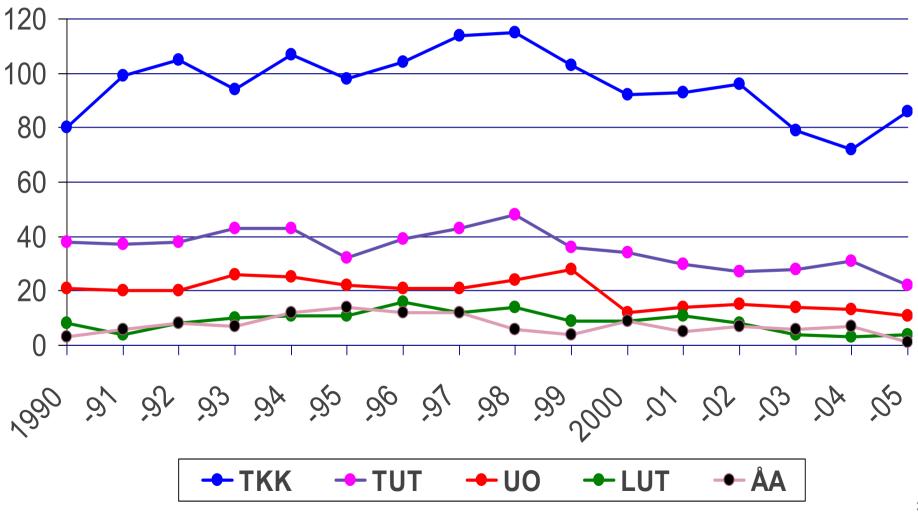
Finnish Universities and Faculties of Technology





Licentiate Degrees 1990 - 2005

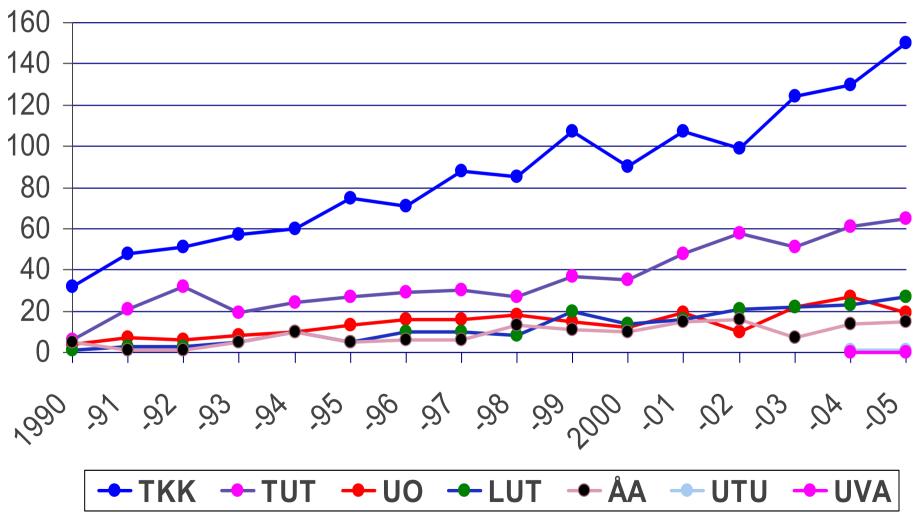
Finnish Universities and Faculties of Technology





Doctor's Degrees 1990 - 2005

Finnish Universities and Faculties of Technology





1990 - 2005

Doctor's Degrees per Master's Degrees (%)

