



35th Conference
of Rectors and Presidents
of European Universities of Technology

**ASSESSING EDUCATION
AND RESEARCH
AS MAJOR ELEMENTS OF
UNIVERSITY LEADERSHIP**
September 16-17, 2016



Lodz University of Technology striving for quality

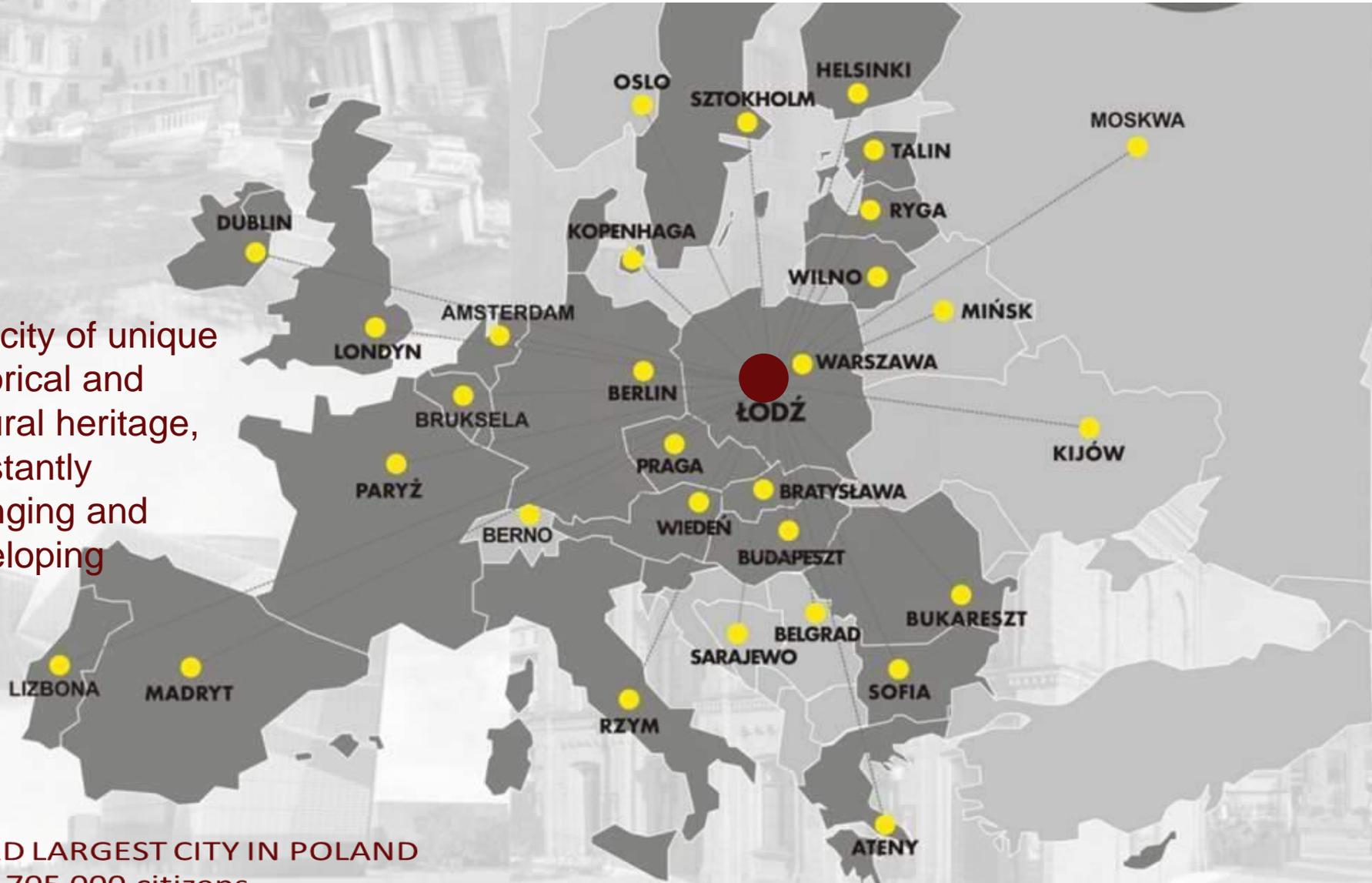
***Professor Stanisław Bielecki,
Ph. D., D. Sc.***



LODZ IS SITUATED

in the centre of Europe – one of Poland's biggest cities

The city of unique historical and cultural heritage, constantly changing and developing



THIRD LARGEST CITY IN POLAND
over 705 000 citizens



LODZ UNIVERSITY OF TECHNOLOGY



1 535 *academic staff*



18 698 *students,*

698 *Ph.D. students*



98 000 *graduates*



45 *fields of study, 9 faculties, 3 colleges,*

International Faculty of Engineering (IFE),

International Doctoral School (IDS)

70% of faculties with „A” category in parametric rating



STRONG POSITION IN RANKINGS

- **4th BEST TECHNICAL UNIVERSITY IN POLAND**

Perspektywy magazine university ranking

- **4th MOST FREQUENTLY SELECTED UNIVERSITY**

Ministry of Science and Higher Education report



REASONS FOR POSITIVE EVOLUTION- INNOVATION



INNOVATIVE

- **3th HIGHER EDUCATION INSTITUTION/RESEARCH INSTITUTE**

in the number of invention applications and utility model applications filed with the Patent Office of the Republic of Poland under the national and international procedures (Polish Patent Office report).

- **4th HIGHER EDUCATION INSTITUTION/RESEARCH INSTITUTE**

in the number of patents and rights of protection for utility models granted by the Patent Office of the Republic of Poland (Polish Patent Office report).



QUALITY IN HIGHER EDUCATION INSTITUTIONS IN POLAND

Managed by Measuring and assigning weight to the following Indicators:

<i>Indicator</i>	<i>Weight</i>
<i>Prestige</i> <i>employers preferences, evaluation by academic staff, international recognition</i>	<i>27%</i>
<i>Scientific Efficiency</i> <i>own staff development, awarded degrees and scientific titles, efficiency of acquisition external funds for research financing, publications, citation, modified Hirsch factor, PhD studies</i>	<i>25%</i>
<i>Scientific Potential</i> <i>parametric rating, staff saturation with people with highest qualifications, habilitation permissions, PhD permissions</i>	<i>15%</i>
<i>Internationalisation</i> <i>study programs conducted in foreign languages, studying in foreign language, foreign students, foreign academic teachers, student exchange (departures), student exchange (arrivals), multicultural academic society</i>	<i>15%</i>
<i>Education conditions</i> <i>availability of highly qualified staff, accreditations</i>	<i>9%</i>
<i>Innovation</i> <i>patents, protection rights, obtained EU funds, sold licenses, spin-off and spin-out companies</i>	<i>9%</i>

Results allows the RANKING of HEI on a National Basis.



Lodz University of Technology ***Performance in 2015 with Key Indicators and RANK***

Indicator (# of tasks)	2015
<i>Prestige (17)</i>	<i>38.89</i>
<i>Scientific Efficiency (21)</i>	<i>64.68</i>
<i>Scientific Potential (10)</i>	<i>80.13</i>
<i>Internationalization (14)</i>	<i>47.67</i>
<i>Educational Conditions (8)</i>	<i>54.25</i>
<i>Innovation (8)</i>	<i>65.88</i>
<i>Total Weight (%)</i>	<i>64.80</i>
<i>RANK (among 90 HEI)</i>	<i>11</i>
<i>RANK (among 21 TU's)</i>	<i>4</i>



HIGHLIGHTS OF INDICATORS

CONTEXT

- ***PRESTIGE***

- *Only Polish Technical University awarded ECTS Label and Diploma Supplement Label by the European Commission.*
- *1st Polish Technical University and 3d Polish University recognized by European Commission with HR Excellence in Research badge.*



HIGHLIGHTS OF INDICATORS

CONTEXT

• **SCIENTIFIC EFFICIENCY**

- *awarded degrees and scientific titles*
 - *8 professor titles in 2015 and 15 habilitation degrees in 2015*
 - *27 PhD degrees in 2015*
- *efficiency of acquisition external funds for research financing- in 2015 realisation of 214 scientific projects in the 37,5 millions of zloty,*
- *1685 publications in 2015 in other languages and 1521 in Polish*
- *9306 citations of TUL's employees in 2015,*
- *Hirsch factor- 88 for whole TUL in 2015, including:*
 - *prof. Tomasz Kapitaniak- h=30*
 - *prof. Janusz Rosiak- h=28*
 - *prof. Jacek Ulański- h=24*
 - *prof. Piotr Ulański- h=23*
 - *prof. Piotr Paneth and prof. Stanisław Ledakowicz- h=21*
- *677 PhD studies (among them 27 foreign PhD students) in 2015*



HIGHLIGHTS OF INDICATORS

CONTEXT

- **SCIENTIFIC POTENTIAL**
- *parametric rating- 70% of rated units with „A” category,*
- *staff saturation with people with highest qualifications (professors, doctors with habilitation degree)- 26% of all employees,*
- *21 given by the TUL and 15 received habilitarion permissions by employees,*
- *69 given by the TUL and 27 received PhD permissions by employees*



CONTEXT

• **INTERNATIONALIZATION**

- *study programs conducted in foreign languages, in 2014/15 academic year : 10 in English and 1 in French all conducted at the International Faculty of Engineering,*
- *studying in foreign language, 144 students studying in foreign languages in 2014/15 academic year,*
- *56 foreign students,*
- *15 foreign academic teachers,*
- *394 student exchange (departures), departure for more than one semester in 2013/14 academic year including Erasmus*
- *333 student exchange (arrivals), come for more than one semester in 2013/14 academic year including Erasmus*
- *multicultural academic society- French, Spanish, Portuguese, Ukraine, Belarus, China and Russian Federation- countries from which comes more than 10 foreign students*



HIGHLIGHTS OF INDICATORS

CONTEXT

INNOVATION

- *56 inventions and 1 utility model in 2015*
- *85 patents obtained by Polish Patent Office*
- *2 European patents*
- *3 applications for European patent*
- *134,696 zloty gained for using the TUL's inventions*
- *71,181 zloty paid to TUL inventors*
- *Technology Transfer Centre, Ltd. -the first technology transfer company in Poland operating within the University. Established in August 2009*
- *Models filed with the Polish Patent Office*

	2011	2012	2013	2014	2015
Applications	67	69	86	69	56
Patents Granted	70	66	79	46	85



TUL'S DEVELOPMENT STRATEGY

Strategic Objectives:

- *Competent academic staff and global standards in scientific achievements*
- *High level of education and modern educational offer*
- *Active interaction with the environment*
- *Active Student environment*
- *Modern and efficient management of the University*



THANK YOU!



Quality of the degree in Science and Technology –TUL'S development strategy

Professor Sławomir Wiak, Ph. D., D. Sc.



What is quality of degree dependent on?

- **prestige of the university** - its academic and didactic activity together with its implementation and cooperation with the local and global market
- **quality of the degree/qualification** awarded to the graduates



Integrated Qualification System in Poland

- New law on „Integrated Qualification System” in the phase of implementation (approved in December 2015)
- System based on learning outcomes on all levels of Qualification Framework and all „types” of qualifications



New concept of the Quality for qualifications (also in engineering and Technology)

- Shift from
**quality and quality assurance of provided education
and training as well as study program.**
- To
**quality and quality assurance of qualification awarded
to the person**



Why is such change in the approach needed?

1. The final result of the process **(of learning and validation)** is the qualification awarded to the person - **so we have to assure it's quality.**
2. Qualifications can be reached by
 - Non-formal education and training
 - Informal learning
3. The focus has to be on
 - The „standard of the qualification,,
 - Validation of learning outcomes



Factors determining the quality of a





What does Lodz University of Technology intend to do in the face of these new contexts?

- Different educational paths adjusted to the students' needs (also on the 8th level of Qualifications Framework) - Fast track to degree + International Doctoral School
- Particular attention paid to ensuring the quality of the assessment and validation of learning outcomes - also cooperation with local and global environment, introduction of external examiners (ICT cluster)
- Strong endeavours to ensure that our graduates are employed by reputable companies that will continue to invest in our graduates' development.



What does Lodz University of Technology intend to do in the face of these new contexts?

Creating optimal conditions to obtain real learning outcomes and then verify them efficiently - modern teaching/learning methods, innovative approaches towards research and education

- **School of innovations-** supports, encourages, promotes academic entrepreneurship among researchers, doctoral candidates and students engages scientific community in process of creating and developing new enterprises based on innovative ideas
- **Problem Based Learning – since 2007**
- **Design Thinking – since 2013**
- **Work Based Learning**
- **Research Based Learning**
- **Experiential Project in cooperation with Industry and Research Institutes**



What does Lodz University of Technology intend to do in the face of these new contexts?

- Willingness to benefit from vast opportunities of sharing best practices among the members of academic staff of our universities
- Building quality through introduction of consortia and double diplomas as an important external factor of assuring quality of the degree.



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THANK YOU!

Lodz University of Technology
