



TOMSK
POLYTECHNIC
UNIVERSITY

FACTS & FIGURES EVENTS

TPU Mission: To increase Russia's competitiveness providing advanced engineering education, generation of new knowledge, innovative ideas, creation of resource-efficient technologies through internationalization and integration of research and academic activities



WORLD-CLASS UNIVERSITY IN TOMSK

tpu.ru







FOUNDED in 1896 as Tomsk Technological Institute (TTI) of Practical Engineers. The Institute was opened in 1900 by the Russian Emperor Nicholas II

CATEGORY:

National Research Tomsk Polytechnic University.
Awarded in 2009

WINNER OF THE COMPETITION on Competitiveness
Enhancement of the Leading Russian Universities among Global Leading
Research and Education Centers – 2013



					
6 Engineering Schools	2 Research Schools	School of Core Engineering Education	School of Engineering Entrepreneurship	TPU Lyceum	Reserve-Officer Training Department

2

RANKINGS

THE WORLD UNIVERSITY RANKINGS
501-600

THE WORLD UNIVERSITY RANKINGS
Physical sciences
126-150

Engineering and technology
151-175

THE RESEARCH EXCELLENCE SUMMIT EURASIA

The 3rd position in the Times Higher Education Eurasia Universities Ranking after MSU and MIPT

QS WORLD UNIVERSITY RANKINGS
373

QS WORLD UNIVERSITY RANKINGS
by subject

Engineering & Technology
285

- Engineering – Electrical & Electronic
- Engineering – Mechanical, Aeronautical & Manufacturing
- Physics & Astronomy

QS GRADUATE EMPLOYABILITY RANKINGS
301-500

ACADEMIC RANKING OF WORLD UNIVERSITIES
SINCE 2003

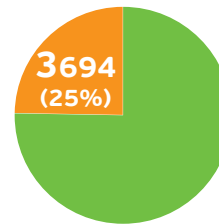
Instruments Sciences & Technology
201-300



MosIUR
THE THREE UNIVERSITY MISSIONS
136
7th in Russia

ЭКСПЕРТ РА
РЕЙТИНГОВОЕ АГЕНТСТВО

7th in Russia
1st among nonmetropolitan universities



15,000
students and post-graduates

international students from 37 countries



1,700
staff members



170,000
graduates

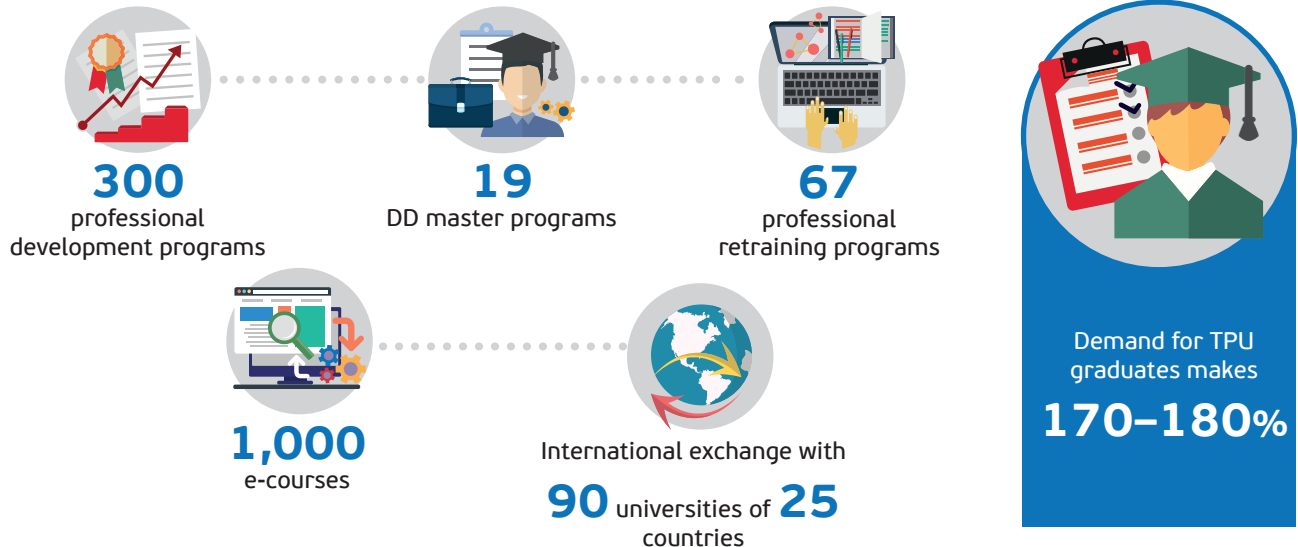
EDUCATIONAL TRAJECTORIES

- BSc
- MSc
- PhD
- DSc



SCHOOL OF CORE ENGINEERING EDUCATION	RESEARCH SCHOOLS		<ul style="list-style-type: none"> Researchers - PhD-holders Publication activity 	
	HIGH ENERGY PHYSICS	CHEMISTRY & APPLIED BIOMEDICAL SCIENCES		
	<ul style="list-style-type: none"> • integrated master and postgraduate programs • world level research 			
	ENGINEERING SCHOOLS			<ul style="list-style-type: none"> New-generation engineers New technologies R&D revenue
	NON-DESTRUCTIVE TESTING & SECURITY	ADVANCED MANUFACTURING TECHNOLOGIES	COMPUTER SCIENCE & ROBOTICS	
	<ul style="list-style-type: none"> • engineering master programs • applied postgraduate programs • engineering solutions 			
	SCHOOL OF ENGINEERING ENTREPRENEURSHIP			<ul style="list-style-type: none"> Technostarters Income from business assets Income from enterprises Innovation environment
	<ul style="list-style-type: none"> • master degree in entrepreneurship • additional minor in entrepreneurship • fostering entrepreneurship 			

STUDY PROGRAMS



2.2 bln rub. – R&D volume (2nd in Russia)

1,320 mln rub. – R&D volume for the benefit of industry (3rd in Russia)

220 mln rub. – income from international contracts (1st in Russia)

LEADER AMONG RUSSIAN UNIVERSITIES:

- in international patents
- in international contracts, programs and grants



KEY AREAS OF EXPERTISE



NUCLEAR TECHNOLOGY



SMART ENERGY



HIGH ENERGY PHYSICS



NATURAL RESOURCES



SPACE MATERIALS SCIENCE



NON-DESTRUCTIVE TESTING AND SAFETY



PEOPLE AND TECHNOLOGY



CHEMISTRY AND BIOMEDICAL TECHNOLOGY



IT AND ROBOTICS



ADVANCED MANUFACTURING TECHNOLOGY

4

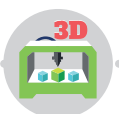
BREAKTHROUGH R&D PROJECTS



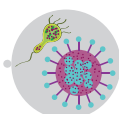
beryllium production technology – strategically valuable metal



land-shelf-atmosphere study in the Arctic



3D printing in space



antibacterial implants and materials for cell technology



nuclear technologies for customized theranostics of disseminated cancer types



commercial production of nanoceramics for high-tech sector




green chemistry – sustainable technologies and materials for chemical industry



treatment and disinfection of sewage and industrial waste waters



solid fuel conversion technology into green gas



TPU participates in experiments at the Large Hadron Collider and is the associated member of the European Organisation for Nuclear Research (CERN): NA64, RD51, LHCb, CMS, Compass

INTERNATIONAL SCIENTIFIC COUNCIL

TPU **International Scientific Council** was established in 2014. The Council is chaired by a Nobel Laureate in Chemistry *Dan Shechtman*

TECHNOLOGICAL ENTREPRENEURSHIP

48 small university spin-offs

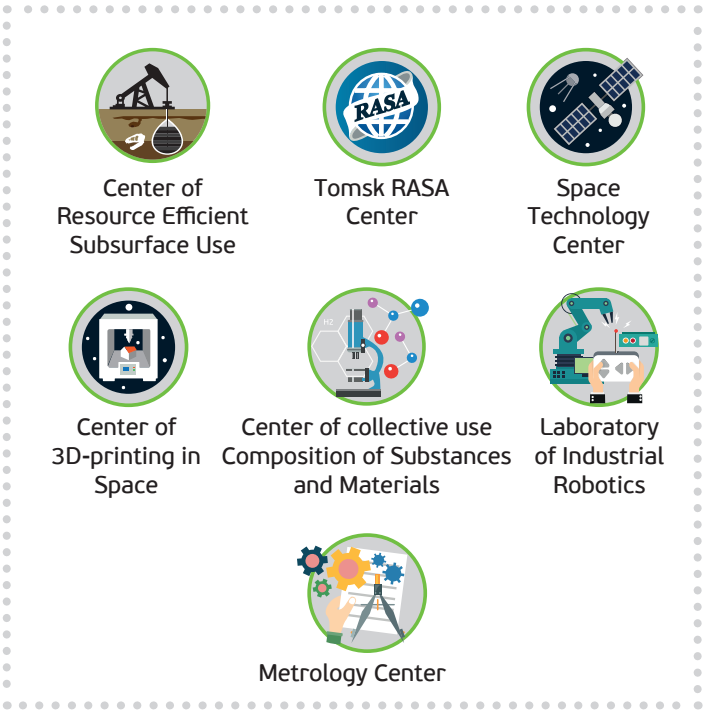
>200 work places



>100 start-ups

turnover of innovative companies is **> 1 bln rub.** per year

TPU MEGA-PLATFORMS



>1,000 cooperation agreements and joint projects with companies and organizations

454

158

357

18

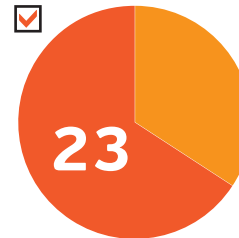
- universities and research organizations
- schools, lyceums, academic centers
- business entities
- associations and corporations

 TPU IS A BASE UNIVERSITY OF STATE CORPORATIONS



 TPU IS A PARTICIPANT OF

15 innovative development programs (IDP) of state corporations



23 out of 35 technological platforms to modernize Russia's economy and foster its sustainable development

 PARTNER COMPANIES:



 INTERNATIONAL TRAINING CENTERS



TPU is a member of 9 prestigious international organizations and consortia, including CESAER (Conference of European Schools for Advanced Engineering Education and Research) and CLUSTER (Consortium of Leading European and Asian Technical Universities)



CESAER

conference of european schools for advanced engineering education and research

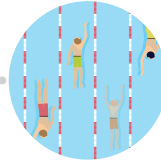
TOTAL AREA – 329,000 m².



29
university
buildings



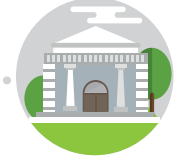
15
hostels



25-meter
swimming pool



8,424 m²
of sports facilities



International
Culture Center



7,000
computers



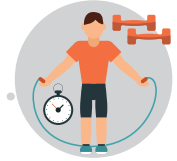
200
WiFi zones



15
NGOs



TPU Library
containing over
2.6 mln books



9
sports clubs



400-meter-long
athletic facility of the
Olympic standard



Skiing
lodge



Artificial football
pitch



Rock climbing
facility



Biathlon
shooting range



The Best Campus in Russia –

1st place in the contest of the RF Ministry of Education and Science

For more than 10 years, the Volunteer and Social Activities Center of TPU has been implementing public initiatives of the University. TPU volunteers took part in the Sochi 2014 Winter Olympics and Paralympics, and are currently preparing for 2017 World Festival of Youth and Students.



TPU 2020 – TRIANGLE OF INNOVATIONS

TOMSK
POLYTECHNIC
UNIVERSITY

IS A LEADING
INCENTER

ENGINEERING
INTELLECTUAL
INNOVATIVE

CENTER

IN RUSSIA-ASIA-EURASIA

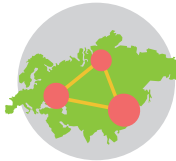
2015 2020 2025



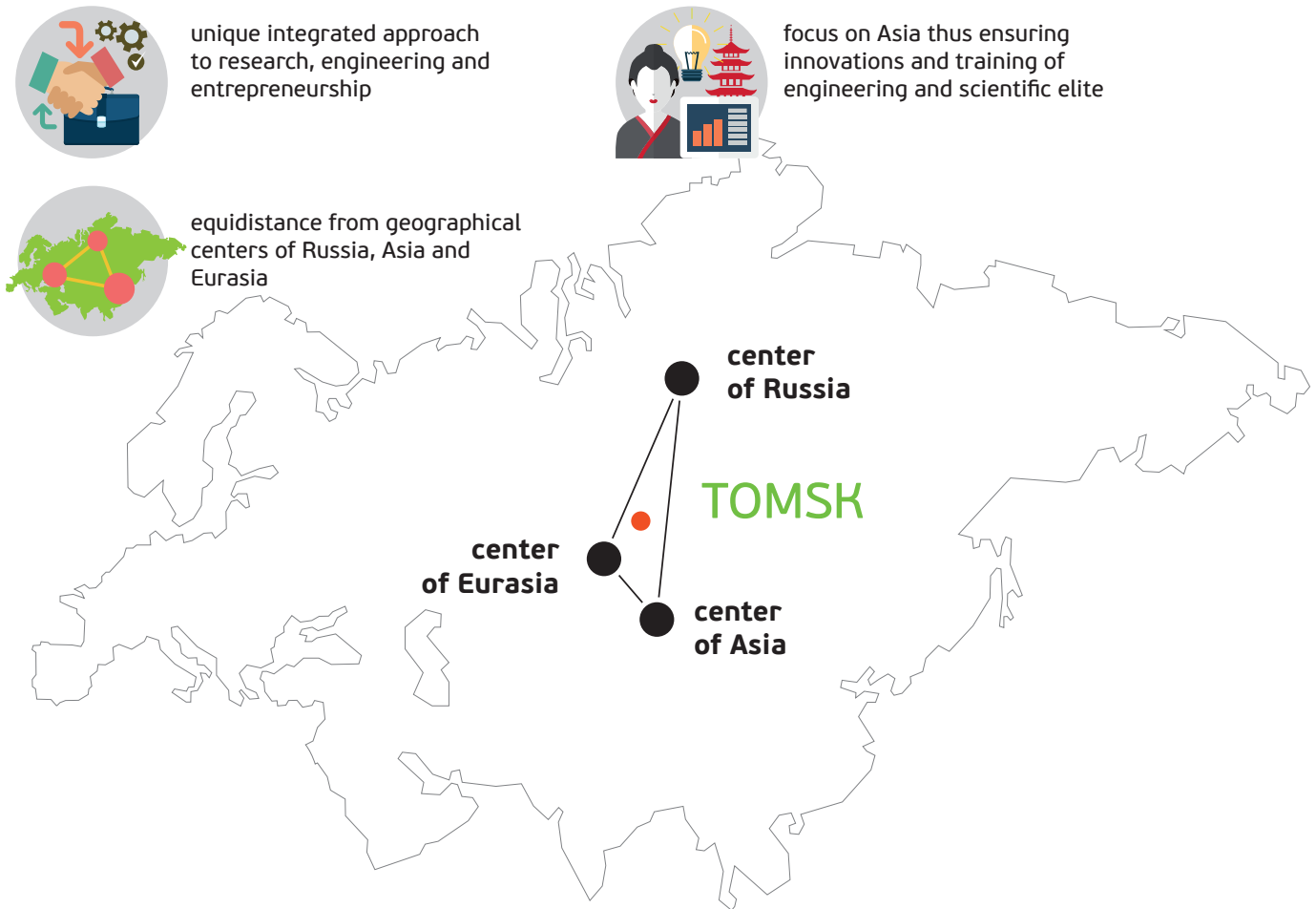
unique integrated approach to research, engineering and entrepreneurship



focus on Asia thus ensuring innovations and training of engineering and scientific elite



equidistance from geographical centers of Russia, Asia and Eurasia



TOMSK

center
of Russia

center
of Eurasia

center
of Asia