

Vision - 5 Years Later

- Focus on nurturing and fostering Russian sci-tech elite
- New model for science and technology higher education in Russia
- An international institute integrated with society and industry
- Center of gravity for East and West, to accumulate ideas, educational/ scientific methods, practices and more

Education – At a Glance

704 students

427 MSc

277 PhD

Gender Ratio

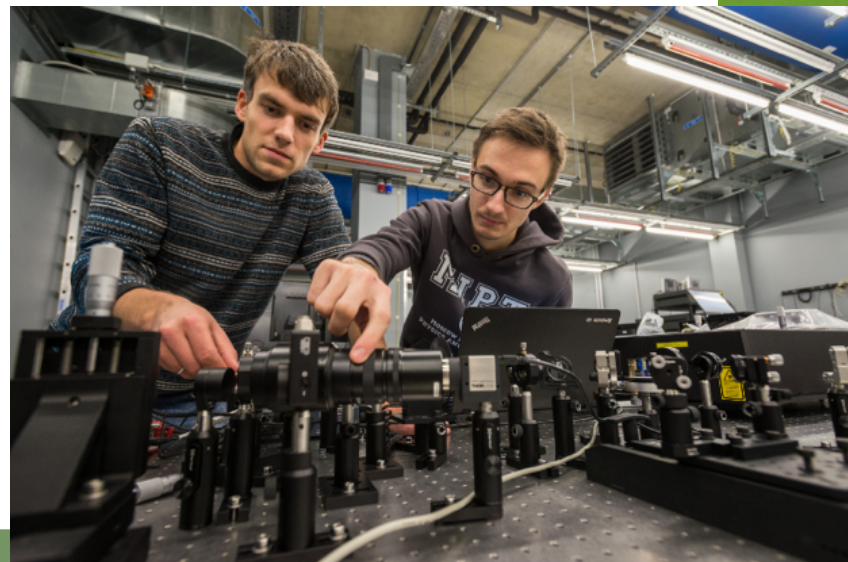
68% Male

32% Female

16% International Students

104 Faculty

170 Courses



Strategic Initiatives - Academic Excellence

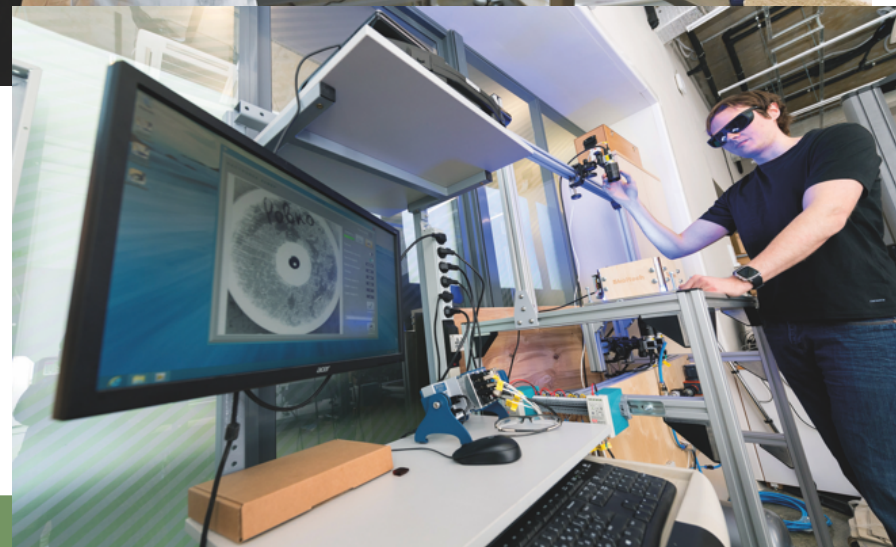
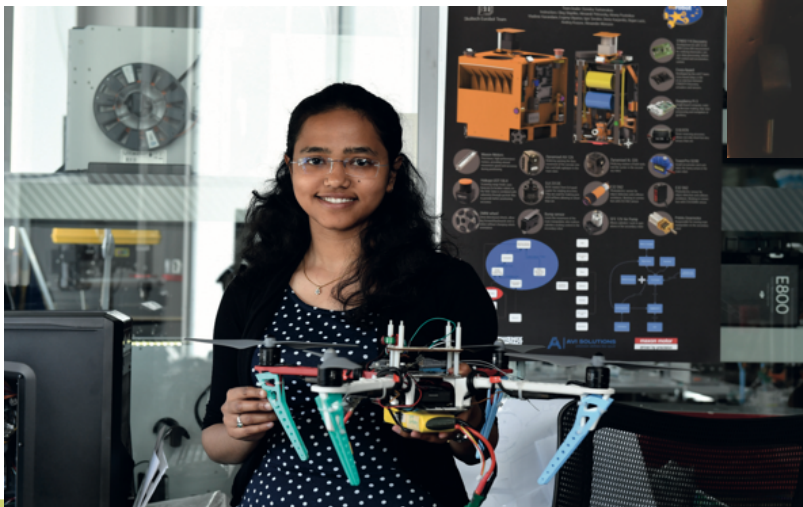
- Develop globally competitive academic programs
- Implement new technologies and practices to educate *centennials (digital natives)* effectively
- Create a unique educational environment - a “Learning Commons” of physical and digital environments
- Foster student success

Educational Programs Portfolio

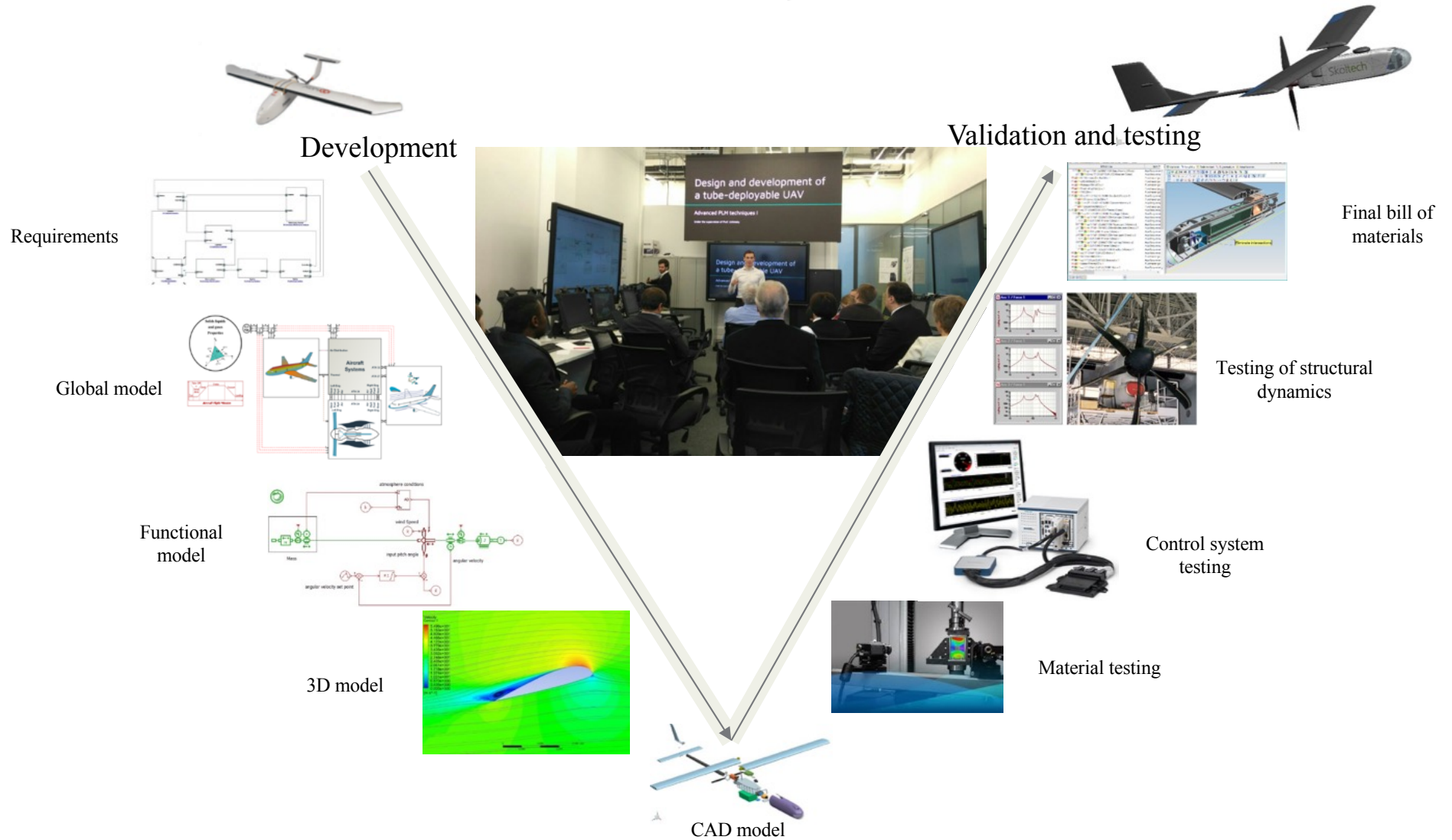
Target Domains	MSc programs	PhD programs
Life Sciences and Biomedicine	Biotechnology	Life Sciences
Data Science and AI	Data Science	Computational and Data Science and Engineering
	Computational Science and Engineering	
Cutting-edge Engineering and Advanced Materials	Space and Engineering Systems	Engineering Systems
	Advanced and Digital Engineering Technologies	
Energy Efficiency	Petroleum Engineering	Petroleum Engineering
	Energy Systems	
	Materials Science	Materials Science and Engineering
Quantum Technologies	Photonics and Quantum Materials	Physics
Advanced Studies	Mathematical and Theoretical Physics	Mathematics and Mechanics

Research Facilities

- Electrochemical Energy Storage Lab
- IT for Advanced Manufacturing Lab
- Concurrent Engineering Design Lab
- Hybrid Photonics Lab
- Hydrocarbon Recovery Lab
- Intelligent Space Robotics Lab
- Mass Spectrometry Lab
- Energy Systems Lab
- Nanomaterials Lab



Product Lifecycle Management in IT for Advanced Manufacturing Lab



Library / E-Resources

Library serves as a central “Learning Commons” on Campus:

- Non-facilitated collaborative learning
- Social interaction
- Intense individual study

600 sq. m. accessible 24/7



nature

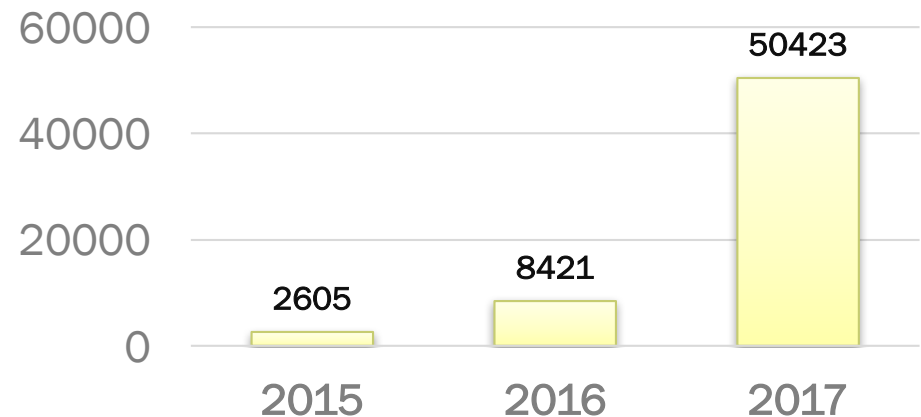
Scopus®



Wiley Online Library



Library full-text downloads



Active Learning – Examples

Independent Study Period

40 courses (mostly student-led): (1) professional hard skills; (2) E&I and soft skills; (3) enjoyable active learning



Innovation Workshop

Intense course to foster innovators, focusing on team work, group projects and sparking entrepreneurial instincts



Student Future Career Development – Industrial Immersion



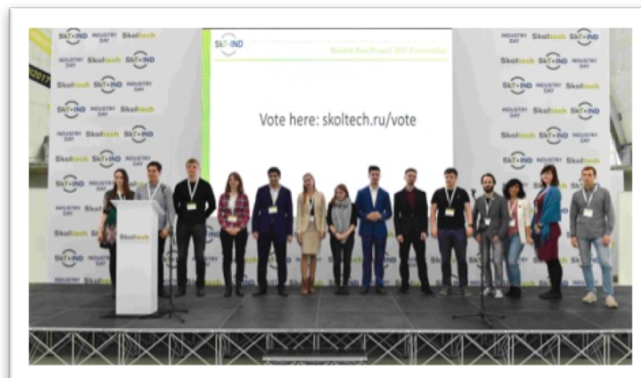
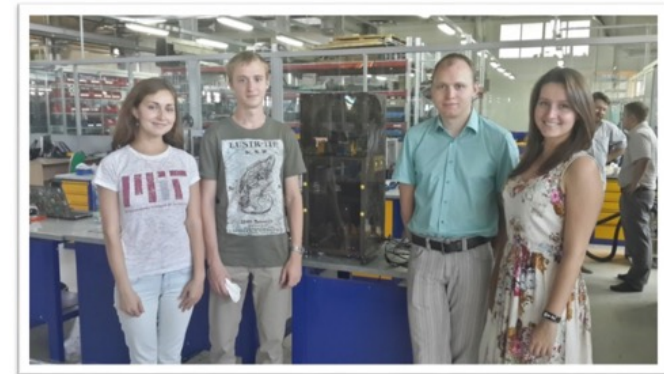
Giving students a deep vision of industry



2-month projects in high-tech companies, co-supervised by Skoltech faculty



“Big Industry Day” – presentation of final results



2017:

75 companies,
116 projects

International Experience

270 students in 2017 in **20** countries at over **80** host universities



Sergey Shmakov (Skoltech PhD 2017)
National Institutes of Health (NIH,
Bethesda, USA) Director's award 2016
for CRISPR-Cas research



MAX-PLANCK-GESELLSCHAFT



Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

