



# WORLDSKILLS IN UNIVERSITIES THE EXPERIENCE OF THE MOSCOW POLYTECH

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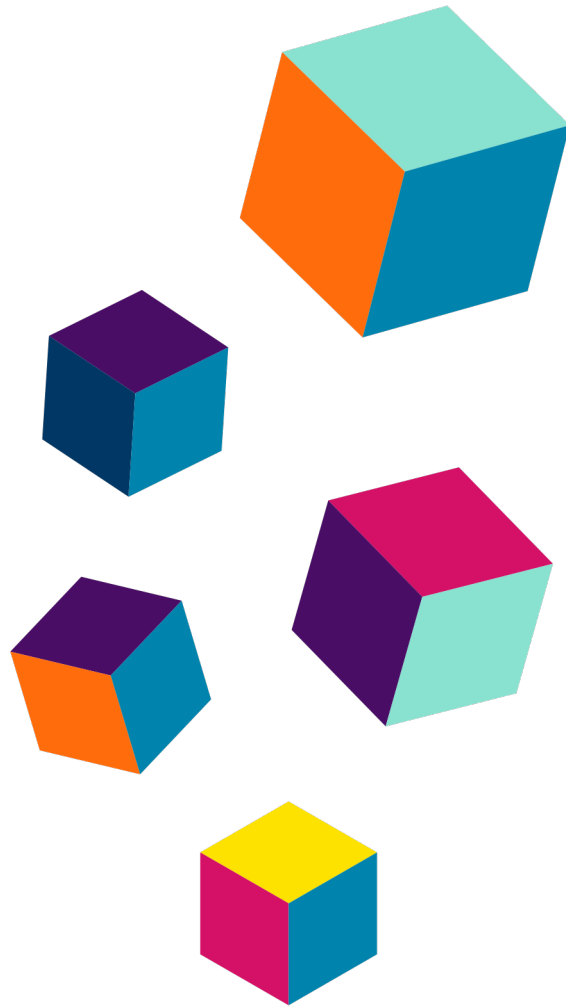
# Moscow Polytech – new university, 150+ years old

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|------|--|
| 1865 | Moscow State Technical University “MAMI”             |
| 1930 | Moscow State University of Printing Arts             |
| 1930 | Moscow State Part-time Metallurgical University      |
| 1931 | Moscow State University of Environmental Engineering |
| 1932 | Moscow State Open University                         |
| 1959 | Moscow State Industrial University                   |
| 2012 | Moscow State University of Mechanical Engineering    |
| 2017 | Moscow Polytechnic University                        |



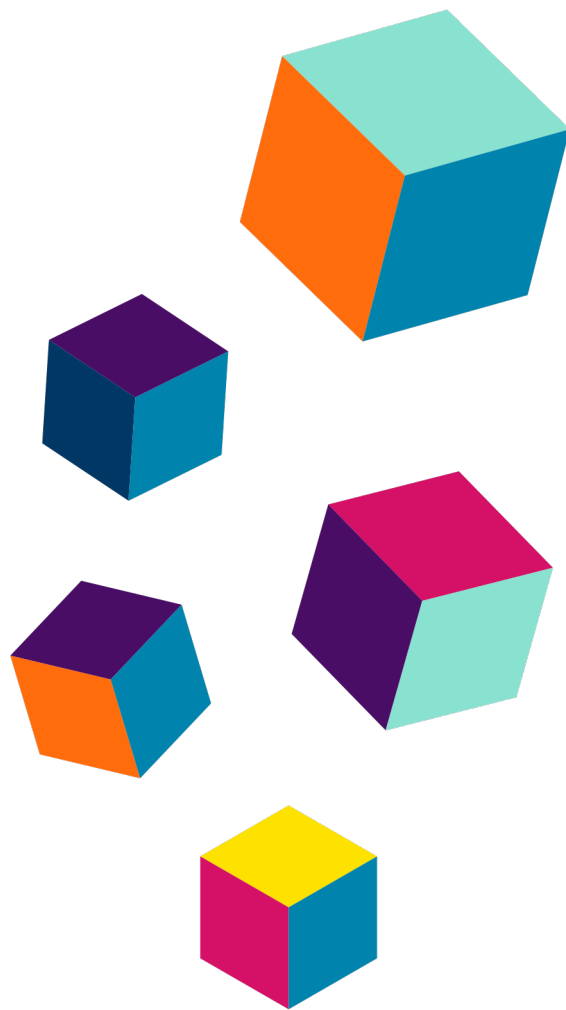
# 2014 – UNIVERSITY JOINED WORLDSKILLS

## University as a place for VET-graduates



- **30.10.2014 – 03.11.2014.** In the **WorldSkills Hi-Tech** (National Competitions) a freshman **Roman Kuzhel** scored **498 points**, took **2nd place** in the standings of educational institutions, 15 (out of 25) - in the overall standings.
- Roman is working on the project "**Investigation of welded structures using non-destructive testing methods**"  
**Redesigning of educational programs and curriculum by using WorldSkills standards**
- The first two bachelor programs have been updated based on the requirements of WorldSkills
- The concept of "**Using WorldSkills standards in the field of CAD curriculum design**" was presented as a joint project of a leading vendor and university at the international conference **Autodesk University**

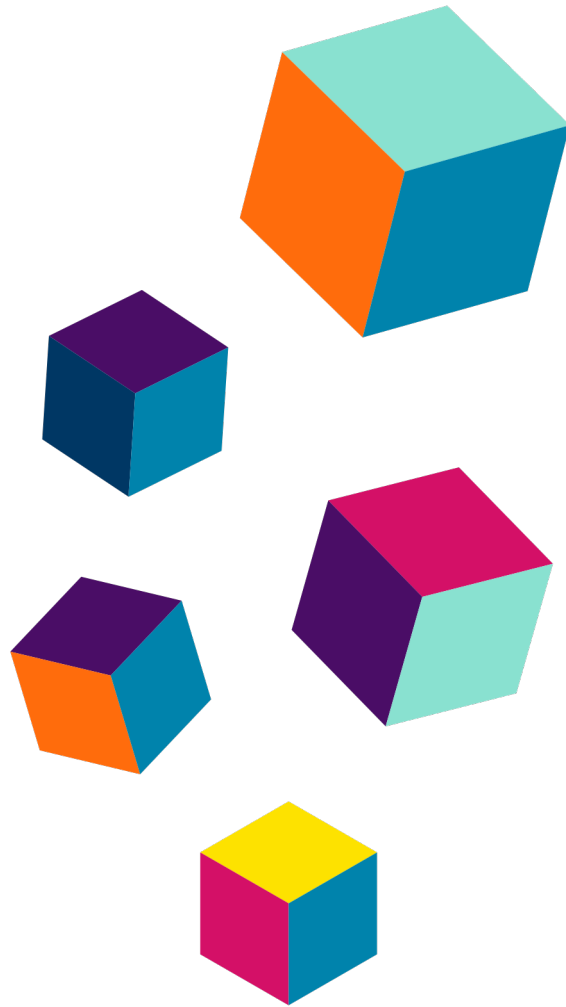
# 2015 - University as a leader in the WorldSkills Engineering Competences



- Dmitry Karasev is the winner of the III WorldSkills National Championship in Kazan in "Mechanical Engineering CAD"
- Dmitry Karasev and Ivan Hohlov ("Electronics") represented Russia at the WorldSkills competitions in San Paolo
- At the II National WorldSkills Hi-Tech competition Ilya Lavrenenko, master-student, demonstrates the best result in "Mechanical Engineering CAD" among representatives of United Shipbuilding Corporation (the largest shipbuilding company in Russia)



# 2015 - Exams based on WorldSkills ideas and rules



## The Experimental Exam:

- Duration - 2 days for 6 hours with a break for lunch
- Tasks from WS Moscow and Great Britain competitions
- 90 first-year bachelor students

## Advantages:

- **Cheating** does not help, because real skills are tested
- Complex verification of the skills in the field of Web-design
- 20% of students de facto confirmed the qualification of the «Web-designer/developer»



# From exams to new industrial certification



National skill "IT solutions for business on the platform" 1C: Enterprise 8" (1C – the biggest Russian vendor)

**Stage 1. "Distrust, doubt, persuasion to try" (02.2015))**

**Stage 2. "It is interesting, unexpected..." (03-05.16)**

- The solution to the WS task is very different from the approaches to industrial certification - Certified specialists gave way to uncertified
- Using "1C" platform does not differ from other platforms.

**Stage 3. "These guys are real professionals" (2016-2017)**

- "We are ready to take all the finalists to work .."
- DigitalSkills - the championship among IT companies, confident leadership of 1C-technologies in the "battle" with other platforms

**Stage 4. WorldSkills Technologies - Standard Practice (2018+)**

- 1C officially recognizes the results of demo tests
- 1C introduces new industrial certification "1C: Junior" based on WorldSkills standards



# 2016 – First WorldSkills Russia University League

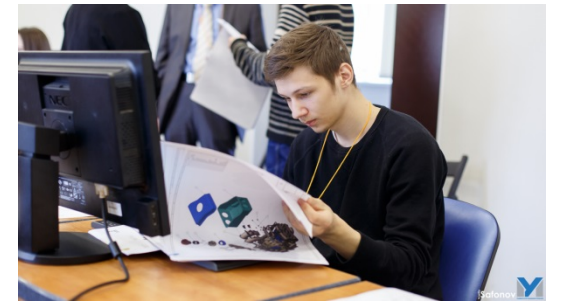


**29.03.2016 - 02.04.2016**

## All-Russian WorldSkills Russia interuniversity competitions

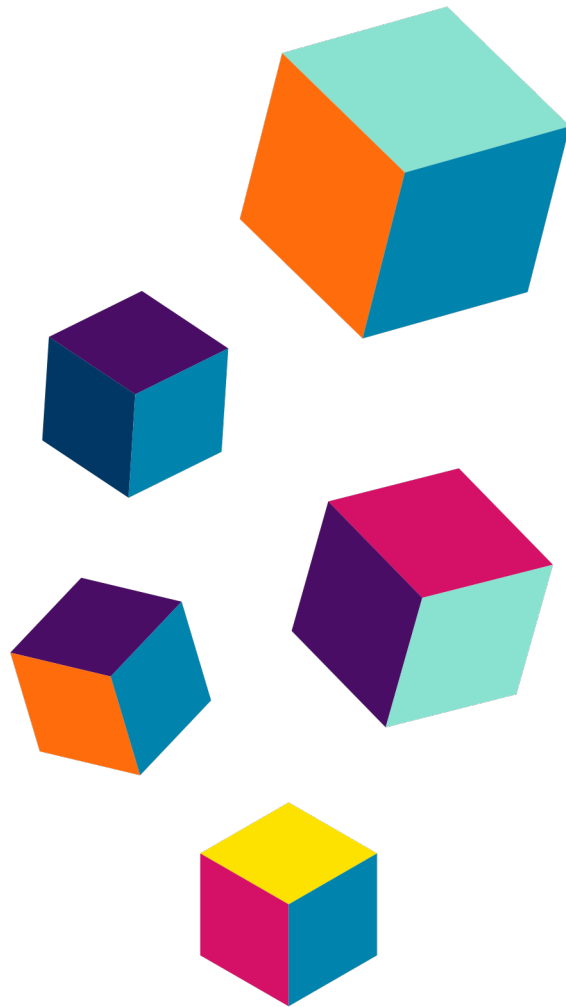
20+ universities, 12 high-tech skills, including reverse engineering, prototyping, mobile robotics, as well as the Internet of things.

- The winner in the competence of "IT solutions for business" - Anna Derbeneva , enlisted in the National team, Gold Medalist in Abu-Dhabi 2017
- Alexander Khutornoy , competence of "Mechanical Engineering CAD" - the best result, enlisted in the National team, represented Russia at EuroSkills 2016





# 2017/18 – System work with WorldSkills ecosystem



- The final of the fifth WorldSkills Russia competition - gold in "Web Design and Development", silver - "IT solutions for business on the platform 1C: Enterprise 8"
- Organization of training camps for various skills and the place of study for members of the Russian national team
- Open tournament on industrial Internet, corporate championship of RosElectronics and other events
- The leading platform of the Base Center (WorldSkills Academy) in the skills of "Mechanical Engineering CAD", "Web Design and Development", "IT solutions for business on the platform 1C: Enterprise 8"
- Helps to launch the industry championship in the field of information technology DigitalSkills
- Development of FutureSkills: "Analysis of the security of information systems from external threats" in cooperation with Kaspersky Lab





# Thank you!