research and development in Estonia

research and innovation

Estonia has a broad, innovative and diverse research landscape. Research is primarily carried out by universities, other public and private sector education and research institutions. Currently, the Research and Development and Innovation Strategy 2014–2020 “Knowledge-based Estonia” is being implemented.

7.4 researchers per thousand employed (2017)

excellent conditions for carrying out research projects

highly qualified staff at the research institutes

3x growth in the number of international researchers employed in Estonia since 2008

DID YOU KNOW?

- Starship Technologies in cooperation with Tallinn University of Technology developed a package delivery robot, which has been tested in more than hundred cities all over the world.
- Global Cleantech 100 club member and European Space Agency’s supplier Skeleton Technologies is European market leader in ultra-capacitor-based energy storage that was created by University of Tartu scientists.

scientific publications and citations

The high quality of Estonian research and researchers is also visible in research output.

The 10 most cited fields according to WoS (InCites) in 2009–2019:
(compared to global average of the field)

1. clinical medicine
2. physics
3. plant and animal sciences
4. psychiatry and psychology
5. space science
6. environmental sciences and ecology
7. microbiology
8. pharmacology and toxicology
9. immunology
10. molecular biology and genetics

for the publications published in 2009–2016 by Estonian authors

9.99% reached the 10% of the world’s most cited publications

this places Estonia #13 in the EU*

*according to European Innovation Scoreboard 2019

education

According to OECD PISA test results, in 2015 Estonian students performed the best out of all European countries in science, reading and mathematics, while securing a spot in the TOP 3 on the global scale alongside Singapore and Japan.

tertiary educational attainment

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Research in Estonia is primarily financed on the basis of quality competition. Financing comes mainly from the state budget; but also from companies, foreign funds (mainly the EU’s Framework Programme for Research and Innovation Horizon 2020), and other EU initiatives. Estonian Research Council (ETAg) is the main body responsible for the funding of R&D, supports researchers’ mobility and external cooperation offering various segment of grants.

EU financial contribution for participants from a country in relation to GDP (EU28=100%)

Expenditures on R&D by source of funds 2017 (mln eur)

Expenditures on R&D by source of funds 2017 (mln eur)

R&D funding is focused on programs that are developing:

**ICT**
- start-ups
- cyber security
- robotics
- smart textiles

**HEALTH TECH**
- personal medicine
- digital prescriptions
- genetics research
- e-Health

**EFFECTIVE USE OF RESOURCES**
- materials science and industry
- innovative construction
- healthy and functional food
- chemical industry

MORE THAN 2/3 of the publications by Estonian researchers have been published in collaboration with foreign colleagues.

Being highly valued partners in the international cooperation projects they are actively participating in European Organization for Nuclear Research (CERN), European Space Agency, European Social Survey, European Spallation Source and other various science and R&D projects.