

# EURAXESS NORTH AMERICA

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# 1 EURAXESS Country in Focus: THE CZECH REPUBLIC - Land of extraordinary possibilities



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## 1.1 Innovation Past and Future

2% of GDP is spent on R&D, which is the most in CEE region, increasing every year

R&D personnel amounts to 12,8 per 1000 FTEs (full time equivalents)

0,77% of the world's scientific papers are written in the Czech Republic (for about 0,14% of the world's population)

From the country that introduced the soft contact lens to the world and successfully developed the compounds on which current anti-AIDS drugs are based, Czech companies have already left a large footprint on ground-breaking technologies in the areas of hologram production, nanofibres, speech recognition, hyaluronic acid, cybernetics, stem-cell research and astrophysics, as the Czech Republic has with one of the densest concentrations of astronomical observatories in the world. Building on this outstanding background, Czech R&D is moving ahead rapidly, with a large increase in the number of innovative local companies matched by unprecedented growth in the number of international companies engaging in technology-intensive R&D activities here.

## 1.2 Smart Support of Smart Projects

The innovation environment of the Czech Republic is further enhanced by the Czech government and EU support. In 2004 the country became a member of the European Union, which spurred a fundamental increase of support for science and research. Along with its access to EU Structural Funds, the country has been able to surpass the EU average investment in R&D, reaching 2% of GDP in 2014. Comprehensive national policies are another key element of the country's excellent R&D environment. The National Research, Development and Innovation Policy of the Czech Republic 2016-2020 shall ensure the competitiveness of the Czech economy in conjunction with other strategies such as the Research and Innovation Strategy for Smart Specialisation. The Key



Enabling Technologies (advanced materials, nanotechnology, micro- and nano-electronics, photonics, advanced manufacturing technologies and industrial biotechnology) identified in the strategy are not the only strength of the Czech Republic, as start-ups are springing up across various sectors. The country is also keeping up with the latest trends, such as the Industry 4.0 concept, which is expected to encompass the upcoming economic transformation towards cyber-physical production systems.

### 1.3 Skilled and Educated People

The Czech Republic is home to some of Europe's oldest and largest technical universities, such as the Czech Technical University in Prague, which dates back to 1707 and currently has nearly 21,000 students. At 93%, the Czech Republic has the second largest proportion of adults completing at least upper secondary education in the OECD (OECD, 2015). The ability to draw extensive aid from European Union Structural Funds for the period 2014 to 2020 for the purpose of fostering R&D and enhancing the country's R&D infrastructure will help to ensure that the Czech Republic remains in the vanguard of skills provision.

### 1.4 R&D Funding in the Czech Republic



- **Czech Science Foundation** ([www.gacr.cz](http://www.gacr.cz))
  - Support for fundamental research
- **Technology Agency of the Czech Republic** ([www.tacr.cz](http://www.tacr.cz))
  - Support for applied research and experimental development

### 1.5 Research Excellence in the Czech Republic

**New European Centres of Excellence** focus mainly on international collaboration and contribution to applied results. You can find some examples below:



- **The Central European Institute of Technology (CEITEC)** is a multidisciplinary science centre focused on life sciences and advanced materials and technologies whose aim is to establish itself as a recognised centre for basic as well as applied research ([www.ceitec.cz](http://www.ceitec.cz)).
- **Extreme Light Infrastructure (ELI)** is part of a new generation of large European research facilities with the main goal of creating laser equipment with unique parameters ([www.eli-beams.eu](http://www.eli-beams.eu))
- **CzechGlobe - Global Change Research Institute of the Czech Academy of Sciences** is a public research institution and European Centre of Excellence investigating the ongoing global climate change and its impact on the atmosphere, biosphere and human society through the use of the latest techniques and instrumentation ([www.czechglobe.cz](http://www.czechglobe.cz)).



- **The IT4Innovations national supercomputing center** conducts research and provides state-of-the-art technologies and services in the fields of high performance computing and embedded systems (<http://www.it4i.cz>).

## 1.6 Where can I find out more?

### Czechinvest



The Investment and Business Development Agency CzechInvest is here to advise and help all foreign partners looking for cooperation in R&D and offers a concise overview of the Czech R&D landscape via its website. <http://www.czech-research.com/>

### Government Office for Science, Research and Innovation

The main objectives of the Section are as follows: science policy unification; setting up of the rules for transparent funding of institutions engaged in science, research and innovations; identification and support of excellence in science and the expansion of international scientific cooperation. <http://www.vyzkum.cz/>

### The Czech Academy of Sciences

The Czech Academy of Sciences (the CAS) is set up as a complex of 54 public research institutions. The Academy employs over 8,000 employees, more than a half of whom are researchers with university degrees. <http://www.avcr.cz/en/>

### EURAXESS Czech Republic

EURAXESS Czech Republic provides information and assistance to researchers who are coming to work in the Czech Republic. EURAXESS helps researchers and their families to plan and organize their move to a foreign country, providing assistance in all matters related to mobility. [www.euraxess.cz](http://www.euraxess.cz)

## 1.7 Cooperation with the United States

The Czech Republic is a partner country in the National Science Foundation Programme PIRE (Partnerships for International Research and Education) – the partner institutions in the Czech Republic are Technology Agency of the Czech Republic (TA CR) and the Ministry of Education, Youth and Sports. Governments of both countries also cooperate on research of advanced nuclear reactors (molten salt technology).