



EURAXESS members in Focus: THE CZECH REPUBLIC – Land of extraordinary possibilities



The Czech Republic is building on the outstanding accomplishments of great Czech scientists while striving toward the next ground-breaking discoveries.

The Czech Republic is home to some of Europe's oldest and largest universities.

Czech R&D is not only driven by the country's history of excellent science, but also by extensive state support. Financial aid comes from national and European resources and is administered by a number of mostly national institutions (Czech Science Foundation, Technology Agency of the Czech Republic, Czech ministries; with the exception of Horizon 2020).



R&D Funding in the Czech Republic



- Czech Science Foundation (www.gacr.cz)
- Technology Agency of the Czech Republic (www.tacr.cz)

Research Excellence in the Czech Republic

New European Centres of Excellence focus mainly on international collaboration and contribution to applied results.



- **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).
- **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)
- **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).
- **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>).



Where can I find out more?



- **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 half of whom are researchers with university degrees. <http://www.avcr.cz/en/>



- **Czechinvest**

The main objective of The Business and Investment Development Agency CzechInvest is to advise and support existing and new entrepreneurs and foreign investors in the Czech Republic. <http://www.czechinvest.org/en>



CzechInvest has launched a new website <http://www.czech-research.com> in English which contains a lot of interesting information about the R&D sector of the Czech Republic.

- **EURAXESS Czech Republic**

EURAXESS Czech Republic provides information and assistance to researchers who are coming to work in the Czech Republic. EURAXESS help researchers and their families to plan and organise their move to a foreign country, providing assistance in all matters related to mobility. www.euraxess.cz



Cooperation between the Czech Republic and Brazil

There is still a large potential for growth in the collaboration between the Czech Republic and Brazil in the area of R&D. But in the last years, one common project has really stood out - the development and production of EMBRAER's new military transport and multi-mission aircraft KC390. The Czech company Aero Vodochody has been participating in the project from its very beginning in 2011 and is responsible for design and manufacturing of wing fixed leading edge and for manufacturing of all cabin doors, cargo ramp and rear fuselage of the aircraft. The project of development of KC-390 in Aero is financed by the Czech export bank and insured by EGAP. 150 technicians including engineers and hundreds of workers of Aero are involved in this project. With the dimensions of 6,5 x 4,5 x 3,3 metres, the rear fuselage is the largest aerostructure ever made in the Czech Republic. Other Czech companies are also suppliers of EMBRAER.

Nowadays, the Czech Republic offers a large scale of opportunities to study for Brazilian students. All of them can be accessed on www.studyin.cz. The Czech Republic is also a partner of Brazil in what refers to the programme Science without borders and hopes that the programme will be restarted in the near future.



Lenka Ptackova studied Mathematics at the University of West Bohemia (UWB) in Plzen, Czech Republic. During her master she spent three months as a Free-mover (funded by UWB) at the Queen Mary University of London working on her thesis. She is currently studying for her PhD at the Instituto Nacional de Matematica Pura e Aplicada (IMPA) in Rio de Janeiro with a scholarship from CNPq. She plans to finish her PhD studies in February 2017 and start her postdoctoral research at IMPA in March 2017.

Interview with a Czech researcher in Brazil, Lenka Ptackova, PhD student at IMPA (National Institute of Pure and Applied Mathematics)

You have studied in Europe and are currently working in Brazil. Could you tell us more about your research and research career so far? How did you come to Brazil? With which initiative or funding?

When I was working on my master thesis in London, my co-adviser professor F. Vivaldi of Queen Mary recommended me to pursue my PhD at IMPA. The application procedure at IMPA is done online. Moreover, all master and doctoral students accepted to study at IMPA are granted to receive a scholarship (either from CNPq or Capes). So when I got accepted, I was automatically offered a scholarship, thus I decided to move to Rio de Janeiro in January 2013 to start my doctoral studies here.

Having conducted research both in Brazil and in the Czech Republic, what are the best aspects of either research community, and how does it affect you?

During my research I have been working with five different advisers and co-advisers of three different nationalities (Czech, Italian, Brazilian) and I can only say that all of them are great researchers and advisers, but I cannot find any traits linked to their nationalities.

I am currently working with two Brazilians: Luiz Velho (full researcher at IMPA) and F. de Goes (senior research scientist at Pixar Animation Studios), so I am fully enjoying the great hospitality of Brazil, IMPA, and CNPq. In the future I hope to create more connection with European research centers and maybe enjoy some EU research funding.

In your opinion, what could be done to further enhance the mobility of international researchers? Would Europe be an option for you again?

Master and doctoral students should be better informed about the possibilities to pursue their future careers abroad.

Yes, I would be considering the option of going back to Europe. First, I would look for a research center or a researcher with similar research interests, then I would look for a funding.

Have you heard of the ERC or MSCA grants/Horizon 2020? Would these be of interest to you at some stage of your career?

Yes, I have heard about these programmes and they are very interesting to me.

What are the challenges of doing research in Brazil as a foreigner? Could you tell us more about your personal views on working in Brazil and with Brazilian researchers?

So far and compared to Brazilians, I have been having equal opportunities and equal challenges. It seems to me that Brazil treats doctoral students and postdoctoral researchers equally well without distinction of their nationality.

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Page 3 of 4



I love Brazil and I am happy to study at IMPA, which is an excellent institute.

My experience has been great, I have learned a lot - professionally and personally as well. I have met so many interesting people, made many good friends, got to know more about Brazilian culture.

I hope the findings of my PhD thesis will contribute to research in Mathematics and Computer Graphics at IMPA.

What advice would you give to Brazilian researchers seeking closer collaboration with Europe?

To get in touch with EURAXESS.

What are you going to miss if you leave Brazil?

I would miss Brazilians, Rio de Janeiro, my friends, the ocean, the music, the climate, fresh fruit and vegetable, and the lifestyle I have here.