

EURAXESS members in focus: Belgium



Some facts about Belgium

Capital: Brussels

Government: Federal State, made up of:

- 3 Communities with different languages: the Flemish Community, the French-speaking Community and the German-speaking Community
- and 3 Regions: the Flemish Region, the Brussels Capital Region and the Walloon Region.

Belgium is also a constitutional monarchy.

Population: 11.6 million

Surface area: 30,528 km²

Neighbouring countries: France, Germany, The Netherlands, Luxembourg.



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Introduction

EURAXESS – Researchers in Motion is an initiative of the European Research Area (ERA) that addresses barriers to the mobility of researchers and seeks to enhance their career development. This pan-European effort is currently supported by 41 countries. Here we focus on Belgium.

Belgium was created as an independent kingdom in 1830 but its history is much longer and has always been deeply involved in international relationships within and outside Europe. Located at the crossroads between the Latin and Germanic worlds, in the heart of Western Europe – its capital, Brussels, hosts the official seats of the European Institutions and is the home to many international businesses and organizations –, this multilingual and cosmopolitan country is well-known for its beers (around 1500 Belgian beer brands), its comics and its surrealist taste (the land of Magritte, Delvaux or Folon), but also for its first-class universities and its long-standing tradition of promoting scientific and technical research. Many Belgian scientists are involved in a wide range of international scientific programmes – for example in the fields of nuclear research at the European Organisation for Nuclear Research (CERN), research into space exploration, and environmental research at its Princess Elisabeth Station in Antarctica, but also in nanotechnology, biotechnology or vaccination research –, and are received into prestigious universities abroad, while Belgium welcomes various foreign students and researchers attracted by the high scientific level of its universities together with the quality of life in the country.

Several Belgian universities appear in the top 200 of international rankings. Recently, the Reuters ranking of Europe's most innovative universities included 7 Belgian universities, and most of all it is topped by a Belgian university.

Research and Innovation landscape in Belgium

In Belgium, approximately 148,000 persons are employed in R&D, with nearly 92,000 of these working as researchers (2019 figures). More than half of the R&D personnel and of the researchers is to be found in the business sector (respectively 58% and 53%). Since 2019, the Belgian intra-muros R&D Expenditure (known as the *R&D intensity*) has reached the Lisbon target, with 3.17% of GDP, placing the country among the most active EU Member States with respect to innovation and R&D.

For up-to-date information and indicators on research and innovation in Belgium, as well as for a full overview of the Belgian research landscape, please refer to the website of the [Monitoring and Evaluation of Research and Innovation](#) (MERI). By publishing the most recent data and indicators, this department of BELSPO shows the complexity, but also the richness of the National R&I landscape.

In Belgium, universities and other higher education institutions are managed by the language communities:

- The Dutch-speaking universities and colleges, in Flanders and Brussels, are managed by the Flemish community.

- French-speaking universities and other higher education institutions, in Wallonia and Brussels, are managed by the French-Speaking Community (Wallonia Brussels Federation).

The only exception is the Royal Military Academy, located in Brussels, which is still a federal institution.

The Federal authority

10 Federal Scientific Institutions (Museums and Research Institutes) fall under BELSPO:

- [Institute for Cultural Heritage](#)
- [Institute of Natural Sciences](#)
- [Institute for Space Aeronomy](#)
- [Meteorological Institute](#)
- [Museums for Art and History](#)
- [Museum for Central Africa](#)
- [Museums of Fine Arts](#)
- [Observatory and Planetarium](#)
- [Royal Library](#)
- [State Archives](#) (of which [SOMA-CEGES](#) is now a DG)

With its 2,800 employees, and through its major [research programmes](#), the Federal Science Policy department offers the government reliable, validated data, allowing it to take decisions with full knowledge of the facts in areas such as sustainable development, the fight against climate change, biodiversity, energy, health, mobility and the information society.

BELSPO also manages the Belgian contribution to the [European Space Agency](#). Since Belgium is the fifth net contributor to the ESA, this participation is strategic for our country and crucial for our companies. At the same time, BELSPO offers R&D aid to companies with the desire to participate in various AIRBUS programmes.

BELSPO supervises [10 federal scientific Institutes](#) these offer scientists an exceptional framework and research materials. They also house artistic and historical collections, which are visited by more than 1.2 million people every year.

There are four other Federal Scientific Institutes that fall under other administrations:

- [National Institute for Criminalistics and Criminology](#) (in French or Dutch),
- Penitentiary Center for Research and Clinical Observation,
- [Sciensano](#) (merger of the Scientific Institute of Public Health & the Veterinary and Agrochemical Research Centre),
- [Royal Museum of the Armed Forces and Military History](#).

BELSPO co-ordinates the research effort lead by all the country's authorities. As such, it co-ordinates R&D and innovation surveys. It also serves as the secretariat of concertation bodies involving all Belgian authorities. BELSPO monitors the R&D fiscal incentives, amounting to 1.5 billion per year. It ensures that Belgian takes part into great European and international infrastructures and network.

The Federal Science Policy is also connected to a wide range of prestigious institutions such as the Academia Belgica in Rome, the Biermans-Lapôte Foundation in Paris, the Junfrauoch in the Alps, the Académie Royale des Sciences d'Outre-Mer, the Royal Belgian Film Archive, the Euro Space Center, the Princess Elisabeth Antarctica Research Station, the Research Vessel Belgica and the Institut Von Karman. Through these infrastructures, the Federal Science Policy offers our researchers an international reputation.

At the Federal level, there is one university: the Royal Military Academy. This military institution provides education at university level that is responsible for the basic academic, military and physical training of future officers, and for the continuing advanced training of officers during their active career in the Defence department. Furthermore, though located in Flanders, the Belgian Nuclear Research Center (SCK-CEN) is a federal organization. Through its activities it remains a global leader in the field of nuclear research, services and education.

**Useful links:**

[Information on Studying, working, housing, schools, ... in Flanders](#)

[Research at Flanders' University Colleges](#)

[Research at Flanders' Universities](#)

[TTO](#) - Tech Transfer Offices Flanders

[VLIR](#) - Flemish Interuniversity Council

[ECOOM](#) - Centre for Research & Development Monitoring is an interuniversity consortium with participation of all Flemish universities

Flanders

The backbone of the Flanders' knowledge sector is shaped by 5 university associations ([UHasselt](#), [KU Leuven](#), [UAntwerpen](#), [VUB](#), [UGent](#)), 4 strategic research centres, and a number of other knowledge institutes in specific domains such as marine sciences, tropical health, agricultural research, and various collective research institutes active in specific fields. Several of these seats of knowledge in Flanders are recognized as centres of excellence in their field of activity and conduct research integrated in renowned international networks and with partners throughout the world. Some of these, such as KU Leuven, UGent, IMEC or VITO, have established subsidiary activities abroad (USA, Asia), often involving local counterparts or partners.

The main contributors in the research and innovation landscape are businesses and industries. Companies in Flanders (and Belgium) are among the most innovative in the EU: With a score of 70% (versus 68% for Belgium) Flanders ranked 2nd during the period 2016-2018 in the list of the highest proportion of enterprises with innovation activity (product innovations, business process innovations and/or ongoing or abandoned innovation activities), behind Estonia (73%) and ahead of Cyprus, Germany and Norway (all 68%). Of all people employed in Flanders, 8,8% are active in an high-tech sector. Flanders is specialised in labour intensive (plastics, diamonds) and capital intensive (vehicles) goods. The main high-tech export product is pharmaceuticals, that represented almost 60% of all high-tech exports in 2020.

If you are you looking for research topics, research teams or researchers, you'll find them on the e [Flanders Research Information Space](#).

In addition, the publication "[STI in Flanders](#)" will give you in depth information about Science, Technology and Innovation policy in Flanders, important figures or indicators, the broad context and the performance of the research and innovation landscape, and an overview of the main actors and the public entities engaged in the field of R&D and innovation.

The French-speaking Community (Wallonia-Brussels Federation)

In the French-speaking Community, 6 universities play a key role as research performers: the Catholic University of Louvain ([UCLouvain](#)), the Free University of Brussels ([ULB](#)), the University of Liège ([ULiège](#)), the University of Mons ([UMons](#)), the University of Namur ([UNamur](#)) and Saint-Louis University, Brussels ([USL-B](#)), who participate in international university networks, whether institutional or disciplinary, and maintain numerous student exchange partnerships with universities all over the world. These university institutions, with their laboratories and research centres, enjoy access to cutting edge scientific support and top-quality infrastructure.

More than 12,000 researchers are working in the French-speaking Community. Alongside the 6 universities, there are 223 spin-off universities, 300 public and private units specialised in research and development, and 6 competitiveness clusters bringing together businesses and researchers in priority sectors for the economic and industrial development of French-speaking Belgium.



These “**competitiveness hubs**” are key elements of the economic development and innovation policy of Wallonia-Brussels, aiming to strengthen the ties between the various public and private research bodies. They group together higher education institutions, businesses, research units and other stakeholders involved in common innovative projects, over a limited territory. In this “triangle of innovation” or “triangle of knowledge”, higher education institutions play an important part. On the one hand, they provide high quality teaching with a focus on research, and on the other, they produce research and innovation. To make the most of the results obtained, each university has established a knowledge transfer office (KTO). Each of these is represented in the [LiEU Network](#) (the Businesses and University Link) network, which facilitates the pooling of resources.

Innovation

Innovation support is governed by the regions through dedicated agencies and subsidy programmes. In Flanders, Flanders Innovation and Entrepreneurship ([VLAIO](#)) acts as a one-stop-shop for all guidance and support for businesses, including innovation support, while [Innoviris](#) and the [SOWALFIN group](#) take up this role in the Brussels Capital Region and the Walloon Region, respectively.

Besides financing, the regions offer hands-on support. While the established policy is implemented by the agencies, **preparation, monitoring and evaluation of policy** happens within the administration of the respective governments, in particular the Department of Economy, Science and Innovation ([EWI](#)) and the Ministry of Education and Training ([O&V](#)) in Flanders, and the directorates ([SPW Economie, Emploi, Recherche](#) and [DGESVR](#) of the public services of the Walloon Region and the French-speaking Community, respectively.

Funding tools/opportunities

Belgium offers various recruitment opportunities for international candidates. All university research positions that are open to international researchers are listed on the job portal www.euraxess.eu

Basic research funding is largely administered by the [FWO](#) (Flemish community) and [F.R.S.-FNRS](#) (French-speaking community) agencies.

Other information on support for research projects in French-Speaking community: <https://www.objectif-recherche.be/en/funding-options>

Other information on support for research projects in Flanders: <https://www.vlaanderen.be/en/support-for-research-projects>

At the European level, Belgium is very successful in securing research funding both from the [Marie Skłodowska Marie Funding program](#) and [ERC funding](#). The 5 National Contact Points ([NCPs](#)) present in Belgium provide candidates with information and help about the latest developments in Horizon Europe, to help them find suitable project partners or join a consortium, to support them in preparing a project proposal and to provide feedback on their project proposals.

These are the six competitiveness hubs in the WBF:

- [Skywin](#) – Wallonia– Aeronautics and space sector
- [Logistics in Wallonia](#) – Transport and logistics sector
- [GreenWin](#) – Green chemistry, sustainable construction and environmental technologies sector
- [BioWin](#) – Nutrition and health sector
- [WagrALIM](#) – Agricultural-industry sector
- [MecaTech](#) – Transversal technologies sector



Important information for incoming researchers

Belgium belongs to the EURAXESS initiative that provides support to researchers and their families when coming to Belgium (in key areas such as visas, housing, schooling, etc.). Additional information can be found at <https://www.euraxess.be/>

About the immigration procedures system, see also the following pages:

- [Work permits for foreign workers](#) | Flanders.be (vlaanderen.be)
- [Work permit to hire foreign workers from outside the European Union](#) | Wallonie.be
- [Work Permits](#) | Brussels Regional Public Service
- [Working in Belgium](#) | International.socialsecurity.be

Interview with Prof. Christiani Andrade Amorim, a Brazilian researcher in Belgium

Twists and turns of a (mobile) research career

EURAXESS LAC team speaks with Prof. Christiani Andrade Amorim about the unpredictability of life and how careers can take some fascinating twists and turns. We thank Julie Dumont, Science and Technology Advisor at Wallonie-Bruxelles International, for connecting us with Christiani.

For Christiani, moving abroad started out as something of a career stopgap while she was waiting for news about a veterinary science professorship back in Brazil. One opportunity led to another, an unexpected change from animal reproduction to human fertility research, and before she knew it 15 years had gone by!

Today, she is a lecturer and leading ovarian specialist working with a team at UCLouvain to develop novel fertility treatments. Despite the distance and the weather, Christiani says she feels at home in multicultural Belgium. The fact that there are plenty of Brazilian restaurants around keeps the homesickness at bay.

Could you tell us a bit about your experience within your research field and what you do today?

I am originally a veterinarian who specialised in animal reproduction. When I moved to Belgium for my postdoc, I made the transition to human fertility. However, my focus has always been the ovary. In my opinion, this is the most fascinating organ in the mammalian body!

At UCLouvain, I have been working mainly on developing alternatives to restore fertility in cancer patients. But now that my group is growing, I have the opportunity to explore other topics related to the ovary, such as ovarian ageing and tissue engineering, photodynamic therapy in ovarian biopsies, ovarian cell differentiation, and alternatives to hormone replacement therapy.

Why did you decide to go to Belgium and how did you find out about career opportunities in the country?



Prof. Christiani Andrade Amorim



Before moving to Belgium, I was a postdoc at the University of Brasília and I was waiting for a professor position in my area of expertise. I found out about a postdoc position in UCLouvain through an international mailing list dedicated to assisted reproductive technology, and I thought of applying to enrich my CV for the position in Brazil.

However, I felt so touched by the cancer patients' struggle to become mothers after cancer remission that this became my mission and I decided to stay.

Could you share a bit about your impressions of doing research in Belgium?

Belgium is a good place for doing research. I find Belgians quite open-minded, probably because there is an increasing number of foreign scientists working here. It is very nice to have an international environment because we learn a lot from other cultures. The country is small and, at least in life sciences, there is a lot going on here, so it is pretty easy to reach out for collaborations.

What tips would you give to researchers from your home country who are willing to pursue either a research stay or a career in Belgium?

I highly recommend a research stay in Belgium. It is a very nice place to live and work and there are excellent universities and laboratories here. Moreover, there are different Belgian funding [opportunities] to apply for a research stay in Belgium, for instance, the calls from the Wallonie-Bruxelles International (WBI) for PhD students and postdoctoral fellows.

A career in Belgium is much more complicated. It is harder to get a permanent position here than in Brazil. Postdoctoral fellowships are very difficult to obtain and there is a lot of competition. So, one needs to have a very competitive CV, an ambitious project and good networking.

How is life in Belgium apart from work?

For Brazilians, the most difficult thing to get used to is probably the limited amount of sunlight and Belgium is quite a rainy country. But in general, this is a nice place to live.

It is easy to make friends and there are many things to do during the weekends. Belgium is calm and safe and not really expensive compared to the neighbouring countries, like the Netherlands and France. Plus, it is in the middle of Europe, so it is very easy to travel around.

There is a big Brazilian community here and, therefore, several Brazilian restaurants and shops. So, we can always feel a bit 'at home' even so far away!