RESEARCHERS IN MOTION

Quarterly Newsletter Issue 4 2020

EURAXESS NORTH AMERICA

Dear Friends and Colleagues,

As this unique and challenging year comes to a close, we extend our warm wishes to you and express our hope to work together in 2021!

–Your EURAXESS North America Team

This newsletter is also intended as a communication tool with you all, so please do not hesitate to contact us at NorthAmerica@euraxess.net for comments, corrections, or if you want to advertise a particular funding scheme or event.

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EURAXESS North America Team

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1 EURAXESS members in focus: Germany

Germany is one of the most attractive locations for mobile researchers. The excellent infrastructure, wide variety of disciplines, well-equipped research facilities and competent staff attract scientists and researchers to Germany from all over the world.

In Germany, research takes place in a number of different settings including universities and centres for applied sciences, non-university research institutions, in companies and at institutions run by federal or state (Länder) authorities.

There are close to 400 higher education institutions (HEIs) offering a wide range of academic disciplines, including 120 universities, 213 centres of applied sciences and 57 colleges of music and art. Unique to the German higher education system is the close link between learning, teaching and research – a principle which goes back to Wilhelm von Humboldt, the founder of the Universität zu Berlin in 1810, which is today the Humboldt University in Berlin. The Research Map of the German Rector's Conference details the key research priorities of HEIs in Germany.

Other important research-performing organisations in Germany include the Fraunhofer-Gesellschaft (FhG) which currently operates 74 institutes and research institutions within Germany, the Helmholtz Association (HGF), Germany's largest scientific association with about 7,000 foreign scientists working at Helmholtz Centres, the Leibniz Association (WGL) which connects 96 research institutions that address issues of social, economic and ecological relevance, and the Max Planck Society (MPG), Germany's most successful research organization, as 20 Nobel laureates have emerged from the ranks of its scientists since its establishment in 1948.

Known for their innovation, German companies collaborate closely with universities, science institutions and non-university research organisations. Germany's industry carries out and funds at least two-thirds of research and development (R&D) activities. The automotive sector followed by the electrical engineering and mechanical engineering sectors make the largest investments. Companies such as Volkswagen, Siemens and Bayer are known for their high R&D spending.

Since January 2020, companies that are active in R&D and taxable in Germany can benefit from a tax incentive for research. The new R&D allowance for enterprises conducting research is 25% of eligible expenses. The goal behind the tax is to enhance Germany's competitiveness in innovation and to stimulate more R&D activities, particularly by small and medium-sized enterprises, which employ 16 million people in Germany.

Fun facts about Germany

Capital: Berlin

Government: Federal Parliamentary Republic

Population: 81 million

Language: German

65% of the highways (Autobahn) in Germany have no speed limit

University is free for everyone (even non-Germans)

City of Tuebingen, Source: DLR

Germany's federal ministries fund 40 R&D institutions that conduct research in almost all areas. An example is the Robert Koch Institute (RKI) in Berlin, which is the government's central scientific institution in the field of biomedicine. Research and prevention of infections is one of RKI's classic fields of work, and the Institute has played a prominent role in the current Covid-19 pandemic.

On the state level, the 16 German *Länder* act as research funding bodies and operate over 160 institutions that conduct research on a broad range of areas. On example is the German Research Centre for Artificial Intelligence.

R&D strategies and policy framework

Germany's research and innovation policy framework document, the High-Tech Strategy (HTS), was first introduced in 2006 and has since been renewed and developed further. The latest version, HTS 2025, consolidates R&I funding across all ministries and concentrates on three crucial fields of action: 1) tackling major challenges for society, 2) strengthening Germany's future competencies, and 3) establishing an open innovation and risk culture. The HTS 2025 strives for concrete goals through 12 missions which require the science community, the private sector as well as civil society to join forces.

Building on the Federal Government's Internationalization Strategy of 2008, under the leadership of the Federal Ministry of Education and Research (BMBF), a new Strategy for the Internationalization of Education, Science and Research was developed and adopted in 2017. The Strategy focuses on five target areas such as "strengthening excellence through global cooperation" and "developing Germany's strength in innovation on the international stage".

Bonn University, Source: DLR

The Pact for Research and Innovation, first adopted in 2005, was recently extended and will now run for ten years. Until 2030, the Federal Government and the *Länder* will grant the individual research organizations (DFG, MPG, FhG, HGF, WGL) an annual increase in funding of 3%, giving them long-term financial planning security.

The Excellence Strategy, which was adopted in 2016, builds upon its predecessor programme – the so-called Excellence Initiative which ran from 2007 to 2017, and is planned for the long term. The Strategy aims to strengthen cutting-edge research at universities in two funding lines: 'clusters of excellence' and 'universities of excellence'. Since 2018, the Federal Government and the *Länder* have provided funding of €553 million annually to support cutting-edge research at ten universities of excellence, one excellence network and 57 clusters of excellence.

R&D spending

Germany has invested more funds in R&D in recent years than ever before. In 2018, a total of €105 billion was invested in R&D by the Federal Government and the private sector. This represents 3.13% of Germany's gross domestic product (GDP). Germany accounts for 31% of all R&D expenditure in the European Union (based on the EU28). For the year 2025, the Federal Government has set the ambitious target of investing 3.5% of the GDP in R&D.

R&D personnel

In 2018, almost 708,000 individuals were employed in R&D (full-time equivalents) of which more than 63% worked in the private sector. This marks a new peak and an increase of 45% in the last 12 years. Germany lies also well above the EU average in the share of R&D personnel in the total number of employed persons. Over 402,000 worked at German universities as academic staff in 2018. A total of 49,600 of them came from outside of Germany. The number of foreign academic staff doing research at the four largest non-university research institutions (Fraunhofer-Gesellschaft, Helmholtz Association, Leibniz Association, Max Planck Society) in Germany added up to 11,830 in 2017.

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 42 countries, of which we will profile one in each quarterly e-newsletter.

Innovation aspects

Germany is one of the leading innovation countries, which is also reflected in the European Innovation Scoreboard, produced by the European Commission, which places Germany in the group of "strong innovators." The Global Innovation Index also puts Germany among the most pioneering countries. Germany is a leader when it comes to patent applications. Almost 400 patents relevant to the world market per million inhabitants were filed in 2017 from Germany.

Funding tools/opportunities

There are various organisations in Germany funding research projects as well as individual researchers.

The largest funding organizations are the Deutsche Forschungsgemeinschaft (DFG), the German Academic Exchange Service (DAAD) and the Alexander von Humboldt-Foundation (AvH).

There are also a number of foundations which support research projects, research institutions as well as individual researchers, such as the Robert Bosch Stiftung, the Volkswagen Foundation or the German Federal Environmental Foundation (DBU), among others.

The following databases are recommended when searching for research funding opportunities:

DAAD Scholarship Base

EURAXESS Germany: Jobs & Funding

National Coordination Point at the German Aerospace Centre, DLR Project Management Agency, European and International Cooperation

Felix Beckendorf, Vitaliy Bondarenko & Christina Witt: info@euraxess.de

DLR Project Management Agency

Contact details and list of important links

Germany is part of the European initiative EURAXESS. Currently, 91 German EURAXESS centers advise international mobile researchers on mobility-related questions.

EURAXESS Germany

Federal Ministry of Education and Research (BMBF), Education and Research in Figures 2020

German Rector's Conference (HRK), Higher Education Institutions in Figures 2020

German Centre for Higher Education Research and Science Studies (DZHW) / German Academic Exchange Service (DAAD), Wissenschaft weltoffen kompakt 2020 English edition

Research in Germany

2 HOT TOPIC: COVID-19 and researcher mobility in a changing world—new study

Bright news on the international vaccine research front is cast against continuing uncertainty for international researchers in general. Will they soon be able to get on with plans to study and work abroad? New findings published this month in a EURAXESS Worldwide study suggests it takes more than a pandemic to put them off.

The world is breathing a sigh of relief at the news that international teams of scientists have developed, trialled and will soon gain approval to start distributing novel vaccines against the COVID-19 virus. There is hope that the massive disruption the pandemic has caused to lives everywhere will come to an end by Spring 2021 or earlier. But for international researchers whose plans to study and work abroad have been in a state of suspended animation, there is a sense that even that will not be soon enough.

The EURAXESS Worldwide study published on 26 November, called '*Researcher mobility in a changing world*', casts fresh light on how international researchers have been coping during COVID times, and what impact it has on their ability and willingness to pursue research and studies abroad.

It is clear from the study that they are largely undeterred in their plans to carry on with a stint abroad as soon as conditions open up. Over 85% of the nearly 1224 researchers surveyed said that international mobility was a "must" or "very helpful" as a career building block and the vast majority (75%) said their preferred destination remains unchanged.

Despite the many varied COVID-19 restrictions facing international researchers, very few have completely dropped their plans to further their research and career abroad. Most want to carry on even if it means potentially long delays, and Europe has become more attractive as a host destination, compared with pre-pandemic conditions.

All regions of the world are represented in the study, but the highest share of responses came from Europe, and in particular the Slovak Republic, Italy, Germany and Denmark (n=126, 115, 73 and 55 respectively). Outside Europe, India (85) and Vietnam (51) returned the most completed surveys.

A quarter of the respondents' nationalities does not correspond with where they list as their work location. "Obviously this means they are currently not working in their home countries," the report's authors helpfully explain. Of the 788 respondents with at least one previous research stay abroad, again Europe was the most popular destination, followed by North America.

According to the study team, a large majority of the respondents say their motives for international mobility involve the pursuit of long-term career objectives in academic research. In fact, the vast majority of responses were provided by researchers from universities and research institutes and their long-term career objectives not surprisingly orientate around "academic research." More than half listed their age as between 20 and 35, which is a strong correlation to earlier career stages and over 78% possess a Master's degree or below.

Towards EU-centric mobility

Chapter 3 of the study report drills down to possible avenues for improving EU-centric mobility in the context of Covid-19. These include reinforcing the financial and political commitment to tackling the pandemic and, presumably, others like it, which the EU Recovery Plan and dedicated Covid-19 ERA Research Calls under Horizon 2020 as well as the ERAvsCovid Action Plan's ten priorities all clearly seek to achieve.

An unequivocable outcome of the Covid-19 pandemic, according to a majority of researchers is that they expect "profound changes" in how their work will be organised in the future and what conditions they will need to succeed.

The findings also point to the need to explore new formats for making research communication truly interactive and "live", and to address the specific needs and interests of different researcher categories within EURAXESS Worldwide target groups, both regional and sectoral. The importance of extended interactive dialogue with these groups of researchers is also stressed in the study. This translates into a need for more creative use of media and communications tools, and more targeted follow-up with universities, research institutions and policymakers.

Indeed, in an increasingly interconnected world, through its information and services EURAXESS Worldwide offers researchers an unrivalled opportunity to interact on a global scale. As a networking tool it supports researchers working outside Europe who wish to connect or stay connected with Europe. Through networking, information-sharing and 'happenings', researchers can help to boost European research and scientific cooperation with the rest of the world.

According to the team, the survey findings will help EURAXESS Worldwide to communicate more effectively with researchers, especially with those contemplating an international stint. The results will also signal where changes may be needed to strategies and policies aimed at addressing the special conditions facing researchers today, and how the Network can better serve the deepening and widening ambitions of the European Research Area.

More information

Learn about the 'Researcher mobility in a changing world' survey process.

Consult the final report on the EURAXESS Worldwide web-site.

Read the Communication (COM(2020) 628 final), 'New ERA for Research and Innovation.'

The report's findings are also being disseminated throughout the EURAXESS Worldwide's regional hubs: ASEAN (focusing on Singapore, Thailand, Indonesia, Malaysia, and Vietnam), Australia and New Zealand, Latin America and the Caribbean (focusing on Brazil, Argentina, Chile, Mexico, and Colombia), China, India, Japan, Korea, and North America (USA and Canada).

EURAXESS Worldwide wishes to thank Dr. Michael Braun (EURAXESS Worldwide ASEAN Regional Representative for Vietnam and Thailand), with the collaboration of MINH DANG BUI - MRES - Economics - FBE- Macquarie University (Vietnam) for their contributions to the study and report.

3 In case you missed it…

Recent webinars

While not a complete list, here are a few recent virtual events of ours—watch the recordings available on the event webpages below!

Event	When	Where	Organized by	URL
Applying for an ERC Grant: Perspectives from Grantees and Evaluators	16 November 2020	Virtual	EURAXESS North America	Link
European Research Days	24-25 November 2020	Virtual	EURAXESS North America and Simon Fraser University	Link
Sixth Annual Meeting of the European Scientific Diasporas in North America	10 December 2020	Virtual	EURAXESS North America	Link
Science Diplomacy in the Post-COVID Era: Current Challenges and Future Prospects from the EU	16 December 2020	Virtual	EURAXESS North America	Link

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About EURAXESS North America

EURAXESS North America is a network of thousands of European and non-European researchers, scientists, and scholars throughout North America (USA and Canada). This multidisciplinary network includes members at all stages of their careers. It allows them to connect with each other and with Europe, ensuring that they are recognized as an important resource for European research, whether they remain in North America or return to Europe.

For further information about EURAXESS North America, please visit: http://northamerica.euraxess.org.

To sign up for membership in our network, subscribe here.

Content in this quarterly newsletter includes pieces produced by EURAXESS Worldwide.