

Quarterly
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EURAXESS NORTH AMERICA

Dear Friends and Colleagues,

While we embrace virtual events, we remind you to subscribe to our [YouTube channel](#) to see our past 2020 webinars. We also encourage you to [send us an email](#) if you have suggestions for the types of online events you'd like us to put together. We are happy to take any and all feedback, as well as reach out to partner organizations of interest to create custom content—so let us know how we can help!

Enjoy reading the newsletter and we look forward to your feedback!

—Your EURAXESS North America Team

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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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1 EURAXESS country in focus: The spirit of research and innovation in Bulgaria



In this edition of *EURAXESS Worldwide* newsletter, we take readers on a tour of the Bulgarian research and innovation (R&I) and development landscape; the main players, priorities, strategies and mechanisms driving this Balkan nation's efforts to modernize and boost its competitive edge.

Fast facts on Bulgaria

Capital: Sofia

Government: Parliamentary Republic

Population: 7 million

Language: Bulgarian (Cyrillic script)

Motto: Unity makes strength

Size: 110,993.6km² (16th largest in Europe)

Strategy and key agencies

Starting with the strategy first, Bulgaria has devised its National Development Program, or 'BULGARIA 2030', as its main strategic document in the hierarchy of national programming documents. This strategy determines the vision and overall goals of development policies in all sectors of government, including territorial dimensions. The document sets out three strategic goals, five development areas (axes) and 13 national priorities.

"The Government's intentions in each policy area will be detailed in the full version [of] the National Development Program BULGARIA 2030, due by the end of 2020, which will include a detailed indicative financial framework, a preliminary impact assessment and a mechanism for controlling and monitoring the implementation of the strategic document," according to the [Ministry of Finance website](#).

Funding tools

Research and innovation funding is concentrated mostly through the [Bulgaria National Science Fund](#) at the Ministry of Education and Science and through the European structural and investment funds.



S&T international cooperation

The most helpful way to find your orientation in the S&T international cooperation priorities and aspects in Bulgaria is to take a look at the lists of agreements and collaborative projects on the [Bulgarian Academy of Sciences \(BAS\)](#) website, as well as on the similar pages of each Bulgarian university, for example [Sofia University](#).

Introducing the national research landscape

- In the following paragraphs, we provide an outline of the main science, technology and innovation (ST&I) framework, including the ministries involved, funding agencies, and so on.

On the [website of the Bulgarian Ministry of the Education and Science](#) there is a helpful page with all important links to the ministries and funding agencies that support research and innovation.

In terms of the academic system, there are some **50 accredited institutions** including universities, academies, colleges, etc. (September 2019). In the past, research in Bulgaria was concentrated around the institutes of the Bulgarian Academy of Sciences. Higher education institutions (HEIs) began to participate actively in scientific research and projects only after 1989. Currently, there are several recognized universities that develop scientific and applied research. **Sofia University 'St. Kliment ohridski'** (see photo) is the largest and most prestigious educational and scientific center in the country.

The **Bulgarian Academy of Sciences** is the leading scientific center and spiritual leader in this field. It conducts research, training and activities of national and international importance and solves problems related to the development of Bulgarian society and state.

The Academy has a consistent policy for the development of science and innovation as a condition for economic progress in the country. It is an active participant in the European Research Area.

Today, BAS comprises **42 autonomous scientific units** and is governed in accordance with democratic principles. The Academy employs about 3,000 scientists, accounting for about 15% of those engaged in science in Bulgaria. The Academy produces about half of the scientific output in the country.

Research priorities

National priorities in research are incorporated through the funding programs of the Bulgarian National Science Fund and the operational program (OP) 'Science and education for smart growth' (2014-2020), which support the development and modernization of two types of research centers - Centers of Excellence and Centers of Competence.

The centers seek to create the necessary conditions to attract highly qualified scientists to conduct research at the highest European level, thus significantly improving the potential for applied research, experimental development and innovation in the region, and within the thematic areas of the Bulgarian Innovation Strategy for Smart Specialization. This strategy covers mechatronics and clean technologies, informatics and ICT, industry and healthcare and biotechnologies, as well as the creative and recreative industries. All projects are prepared and implemented in partnership between different scientific organizations, including universities, academic institutes, structures of national institutions,



etc.), and they aim to improve the existing scientific infrastructure to facilitate the implementation of research and development, transfer of knowledge and technology, dissemination of research results, and provision of research business services.

Special features of R&D strategy

The OP 'Innovation and competitiveness' (2014-2020) outlines procedures for the creation and development of Regional Innovation Centers and the development of Innovation Clusters.

Innovation Clusters support innovation by sharing facilities, knowledge and experience, contributing effectively to knowledge transfer, building concrete networks of interdependent actors, often competing in the open market, disseminating information between enterprises and other organizations in the cluster.

The idea behind Regional Innovation Centers is to build and develop modern research and innovation infrastructure for conducting open, applied research, thus contributing to the accelerated socio-economic development in Bulgaria's regions. The focus of the procedure is on creating a working partnership between business and science for the benefit of the regional economy. Businesses have a leading role in creating the conditions for optimizing use of Regional Innovation Centers, by introducing and commercializing new technologies created in them. Another important aspect is the creation of a culture of innovation and technology that underpins the success of this partnership.

Given the strategic importance of the topic, all EU Member States, including Bulgaria, signed the Declaration of Cooperation on Artificial Intelligence (AI) on Digital Day 2018. According to the Coordinated Plan on Artificial Intelligence, "By mid-2019 all Member States are encouraged to put in place – and share with other Member States and the Commission – national AI strategies or programs or add AI dimensions in other relevant strategies and programs outlining investment levels and implementation measures."

The Coordinated Plan is quite ambitious as it envisions many initiatives, funded by the EU, including through Horizon 2020 and likely its successor next year Horizon Europe. In the Bulgarian context, the relevant national institution is the Ministry of Economy (ME), which is also responsible for the Industry 4.0 Strategy. The ME intends to include an AI pillar in the Industry 4.0 Strategy, and afterwards it will develop a standalone AI Strategy.

The Ministry of Education and Science (MES) is also in the process of developing a document on AI in education and science. When the process is finalized, it can and should be used as input in the ME's strategies. The timeline of this process, however, is unclear as the topic is quite complex and sensitive, especially when it comes to education. The MES stands ready to support the ME in this exercise of common interest. The draft Strategy for Bulgaria's participation in the Fourth Industrial Revolution, or 'Industry 4.0', identifies the creation of conditions to deploy the AI technologies in industry as one of the main priorities. Accompanying measures have been planned for this priority, and they will be included in the Action Plan for the Strategy.

Innovation aspects (funding, companies, startups, Global Innovation Index)

Among the Bulgarian government's key objectives for the period up to 2030 are the technological transformation of the economy, green growth and resource efficiency, and aligning with European digitalization policies. This will be done through targeted and

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 40 countries, of which we will profile one in our quarterly e-newsletter.



focused government support, while increasing specialization in products and industries characterized by a higher intensity in R&D and innovation (and therefore higher added value). This should allow Bulgaria to **boost its competitiveness** globally and involves:

- Improving state-level international collaboration (bilateral and multilateral)
- Encouraging research organizations (ROs) and HEIs internationalize
- Implementing National Research Programs to solve social and policy issues
- Encouraging better communication strategies by ROs, HEIs, research infrastructures (RIs), centers of excellence (CoEs), and competence centers (CCs) public funding bodies, research programs, etc.
- Significant increase in support for R&I in the field of ICT (incl. RIs, CoEs, etc.)
- Improving the legal framework to promote R&I, public-private partnership and intellectual property management (a new Research and Innovation Act)
- Developing and widening the capacity and increasing the expertise of administrative and expert staff working in the field of research, innovation, technological transformation and coordination with Horizon Europe
- Promoting technology readiness level from applied research achievements to their transformation into innovative products, services or processes, and their market launch
- Fostering joint strategic innovation programs between industry and the research capital in the country for accelerating the transfer of knowledge and research results, commercialization and generating disruptive innovations

Business Enterprise Sector

The most helpful connections could be made through the Enterprise Europe Network Bulgaria:

<https://een.ec.europa.eu/about/branches/bulgaria>

Important links:

<https://www.uni-sofia.bg/>

<http://www.bas.bg/en/about-us/>

<https://www.euraxess.bg/>

<https://naukamon.eu/en/home-en/>

<https://www.fni.bg/>

<https://www.minfin.bg/en/869>

<https://een.ec.europa.eu/about/branches/bulgaria>

<http://sf.mon.bg/?go=page&pagelid=401>

<http://www.bas.bg/en/international-cooperation/>

https://www.uni-sofia.bg/index.php/eng/the_university/international_relations

Academy-industry relations

The government has opened a [national science portal](#) with information about its research programs, research infrastructures, and researchers. Furthermore, in early 2019, the government has started to put together a National Open Science Portal and national repository.

Key to promoting the commercialization of research results and fostering collaboration between academia and business are CCs and CoEs, which are also currently being created.

The Decree of the Council of Ministers on the establishment and functioning of a mechanism for the awarding and implementation of scientific consultations by the Bulgarian Academy of Sciences has been adopted. The main objective of the mechanism is to provide timely, high-quality and independent scientific expertise for the benefit of Bulgaria's executive authorities on issues of strategic importance in formulating policies and instruments for the implementation of state policy, as well as in the transposition of EU directives into the Bulgarian legislation. The mechanism underwrites evidence-based policy-making in view of the new challenges connected with increasingly interdisciplinary policies (such as in the spheres of climate, energy, transport, artificial intelligence, bioeconomy, etc.).

The Council of Ministers adopted a report, submitted by the Vice-Prime Minister in November 2019, calling for higher quality in the policies and management of the R&I system. The report proposes the establishment of a State agency for research and innovation. An inter-institutional core team was established and held its first meeting in mid-December 2019. In the course of 2020, the team is drafting the preparing the ground for

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the Agency, which will incorporate an integrated approach to R&I policy and development, and will establish long-term planning and sustainable financing for policy-making in this area.

2 HOT TOPIC: A big 'green' deal for research and innovation

We explore the current opportunities under the Horizon 2020 "Green Deal" call and scan ahead at how Horizon Europe, the European Union's next seven-year framework program for research and innovation (R&I) funding, will potentially embrace new 'green' imperatives.

As the European Green Deal begins to take shape, focus is turning to the importance of R&I as a catalyst for the necessary changes demanded by such an ambitious agenda aimed at making Europe the first climate-neutral continent by 2050 and preparing the economy for a sustainable future.

A step change is required to deliver on the green transitions. There is also a need to rethink policies for clean energy supply across the economy, industry, production and consumption, large-scale infrastructure, transport, food and agriculture, construction, taxation and social benefits.

In its Communication ([COM\(2019\) 640 final](#)), the Commission highlights the greater value that needs to be given to protecting and restoring natural ecosystems, improving human health, and promoting and investing in digital transformation as enablers and drivers of the changes needed.

Advancing Europe together! The Green Deal call seeks to mobilize R&I to foster a "just and sustainable societal transition". Consortia are invited to submit proposals corresponding to the 11 priority areas (eight thematic and three horizontal) that broadly reflect the main streams of the Green Deal. Emphasis is on showing how R&I can provide concrete solutions matching the Green Deal's main priorities.

Pilot applications, demonstration projects, tangible products and innovative projects should be able to boost governance of the



green and digital transition. Experimentation and social innovation to find new ways of engaging civil society and empowering citizens is also encouraged.

The call addresses new challenges emerging from the Covid-19 pandemic, seeking R&I contributions to increasing societal resilience in agriculture, biodiversity and modernization efforts working towards greener, more circular industry. (See our side story to this feature for the Green Deal call themes and timeline.)

More information

Questions can also be sent to the European Commission's service at: RTD-H2020-GREEN-DEAL-CALL@ec.europa.eu

Green Deal call themes

The European Commission has issued a dedicated 'Green Deal-related' call for projects under Horizon 2020, the EU's current research and innovation funding program. The call themes reflect the general priorities of the European Green Deal, as shown with links to the relevant fact sheets below:

- [Call area 1: Increasing climate ambition: cross-sectoral challenges](#)
- [Call area 2: Clean, affordable and secure energy](#)
- [Call area 3: Industry for a clean and circular economy](#)
- [Call area 4: Energy and resource-efficient buildings](#)
- [Call area 5: Sustainable and smart mobility](#)
- [Call area 6: Farm to fork](#)
- [Call area 7: Restoring biodiversity and ecosystem services](#)
- [Call area 8: Zero-pollution, toxic-free environment](#)
- [Call area 9: Strengthening our knowledge in support of the European Green Deal](#)
- [Call area 10: Empowering citizens for transition towards a climate neutral, sustainable Europe](#)
- [Call area 11: Accelerating the clean energy transition and access in partnership with Africa](#)

No time to waste!

Announced at the beginning of the summer, stakeholders were first invited to consult on the approach the call should take before the official launch was scheduled to take place. The milestones were presented as follows:

- 3 June 2020: Deadline for sending online feedback about the call



- ➔ Mid-September 2020: Formal adoption of Green Deal call, amending the Horizon 2020 work program (2018-20)
- ➔ Mid-September 2020: Publication and opening of the call
- ➔ 22-24 September 2020: Opportunity to find partners at [EU R&I Days](#)
- ➔ End-January 2021: Deadline for submitting project proposals

3 In case you missed it...

Upcoming webinars

While not a complete list, below are a few upcoming virtual events of ours for which you can sign up to attend now or save the date.

<u>Event</u>	<u>When</u>	<u>Where</u>	<u>Organized by</u>	<u>URL</u>
EURAXESS Virtual Coffee Chat with a Science Diplomat: Switzerland Interview	21 October 2020	Virtual	EURAXESS North America, in partnership with the Science Office of the Swiss Embassy to the U.S.	Link
European Research Days	24-25 November 2020	Virtual	EURAXESS North America and Simon Fraser University	Save the date

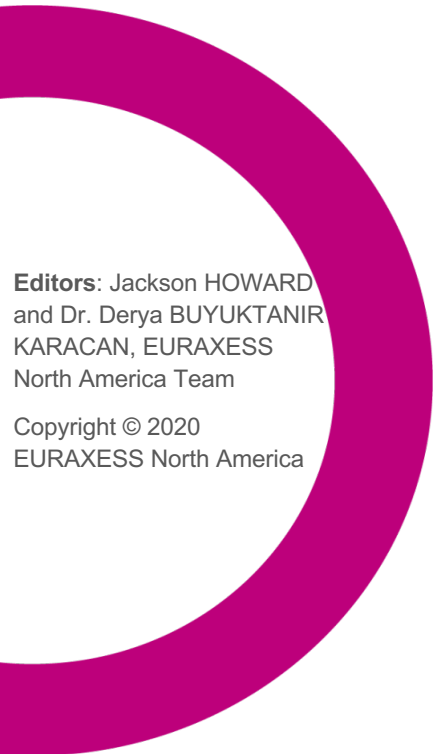
About EURAXESS North America

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](#).

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