

EURAXESS China

Quarterly Newsletter Issue 4 2021



This newsletter is for you! Via china@euraxess.net, you can send us any **comments**, **contributions** or **suggestions**.

To become a **member** of EURAXESS, you can **sign up** <u>here</u>. You can also follow us on LinkedIn, Facebook, Twitter, Weibo and WeChat.



Dear colleagues,

In this last newsletter of 2021, we are pleased to announce <u>1st Newsletter of the Network</u> of <u>European Researchers in Biology and Medicine in China</u> (NERBIMEC). We invite the colleagues working in these fields of research and interested in getting in touch with the network to also visit <u>NERBIMEC website</u>.

In this edition you will find our usual year-end overview of the year's activities, in our "2021 in case you missed..." with highlights from January to December. We ended the year with a bang, holding the 6th EURAXESS Science Slam China in a totally new format: the event took place offline, online and also in Virtual Reality. The finalists competed with each other online, connecting from different distant regions of China, while the jury members gathered at a location in Beijing, but also joined us from Europe and even the United States. Have a look at <u>the six finalists' performance</u>: we created short clips with highlights for each of them!

We also want to bring to your attention to one of the most challenging problems we are all facing, that of climate change. To understand the EU's strong commitment and leadership in this area, we take a closer look at the COP26 backstory and what it means for research and the wider scientific landscape in our article <u>Climate Change: With Great Promise</u> <u>Comes Great Challenge</u>.

Our newsletter also includes a special feature on <u>EURAXESS members in focus: Bosnia</u> and <u>Herzegovina</u> and concludes with a final year overview: <u>2021 through our monthly</u> <u>Videocasts</u>.

Best regards,

EURAXESS China team



1st Newsletter of the Network of European Researchers in Biology and Medicine in China

EURAXESS China is pleased to share the first edition of the newsletter published by the Network of European Researchers in Biology and Medicine in China. NERBIMEC was established in June 2021 and is now formed by more than 60 members. If you want to know more about it, would like to propose collaborations and activities, or want to become part of it, visit the <u>website</u> and get in touch!



https://nerbimec.eu

We often imagine the daily life of researchers as being made of microscopes, cells and test tubes, a laborious and solitary activity punctuated by a burst of brilliant ideas. However, the reality is quite different... NERBIMEC is a network of researchers wishing to exchange their experience and work together and to cooperate with Chinese, European and international researchers.

NERBIMEC is pleased to present its quarterly newsletter. In these lines we will detail the latest publications of our members, list the upcoming events, and introduce our new members.

Any idea? You are a NERBIMEC member and you are aware of an event happening soon? Or you have an idea to improve this newsletter? Please contact Newsletter editors Dr. Montardy and Dr. Garstka to express it!

GET IN TOUCH

See the PDF version

2021



SCICOMM TRAINING

Year started with online Science Slam Science Communication Training series



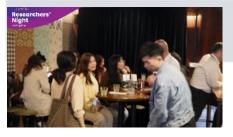




FORUM

Our biggest event of the year was the Forum of European Researchers in China







SCIENCE SLAM

The year ended with a Science Slam in virtual reality, see next page





KUNMINGEVENTS May brought a ERA information session in the R&I Tour of China in Kunming







RESEARCHERS' NIGHT

back in Shanghai & Guangzhou in the fall











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China 2021

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Science Slam China is back!

The 2021 edition of Science Slam is the first one to be held simultaneously as an on-site event, online and in virtual reality.

- See the Science Slam in 60 seconds
- See how does the VR slam work

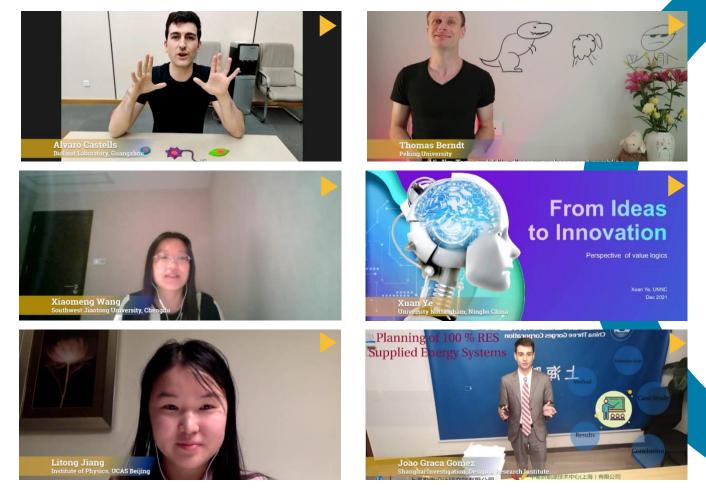
The 2021 edition of **EURAXESS Science Slam China** took place in Beijing, online and in virtual reality in the afternoon of 14 December. A science slam is a scientific talk where researchers compete to present their work in front of a non-expert audience.

The Science Slam is a way to show the **engaging and fascinating side of research to the wider public.** See more at <u>http://scienceslamchina.com</u>.

EURAXESS China has been organising Science Slams in China since 2013 and this year's Slam was the 6th one to be held.

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The six finalists' performance



Six excellent researchers, three Chinese researchers and three European researchers based in China, were selected finalists after a rigorous pre-selection phase. See their presentations by watching the videos above!

In the end, a combination of an online vote and jury evaluation selected the 2021 winner of the Science Slam China: Alvaro Castells, a Spanish researcher at Dr Pia Cosma's laboratory at the Guangzhou Regenerative Medicine and Health-Guangdong Laboratory. Dr Castells' Slam told the story of how the scientific instruments in his laboratory uses reveals the structure of the DNA.

Dr Castells joins a growing group of amazing science communicators that have won the Science Slam since 2013.



Ascience slam









DR YU YANG DR WA

DR WANG YANTING WINNER OF SCIENCE SLAM CHINA 2014 DR VIKAS MALIK MS MENG XIAOTONG R OF SCIENCE SLAW CHINA 2015 WINNER OF SCIENCE SLAW 2016 DR CHENG TUNG CHONG WINNER OF SOLINCE SLAM CHINA 2015

Climate Change: With Great Promise Comes Great Challenge

That climate change is one of the most challenging problems facing society is now patently clear and undisputed. But to understand the EU's strong commitment and leadership in this area, EURAXESS WORLDWIDE takes a closer look at the COP26 backstory (goals and outcomes), and what it means for research and the wider scientific landscape.

The UN Climate Change Conference (COP26) might be over, but the vital research needed to better understand and respond to climate imperatives continues with vigour at the EU level and worldwide.

As anyone with access to the internet will know, the annual COP meeting of signatories to the UN Framework Convention on Climate Change has recently ended in Glasgow, Scotland. <u>COP26's goal</u> was to push forward progress on prior commitments as part of the <u>Paris Agreement</u> from December 2015.

Paris was hailed as ground-breaking by the UN because, for the first time, "a binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects". It set a clear and now famous target, to limit global warming to well below 2, and preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

A stark realist will point out that the planet is continuing to warm at an alarming rate, seemingly despite these targets and resulting efforts to stop pumping CO2 and other greenhouse gases into the atmosphere. Many countries and regions, such as the EU through its <u>Green Deal</u> ambitions and integrated <u>climate policies</u> and action, are going further and aiming for zero-emissions by 2050.

The Green Deal acknowledges that its 2050 "no net emissions" target needs to go hand in hand with actions to decouple economic growth from resource use (best captured by the notion of a circular economy which keeps resources in use, or a closed loop, for longer), and it is rooted in the idea that a green economy is one where "no person and no place is left behind".

"The transition to a climate-neutral society is both an urgent challenge and an opportunity to build a better future for all," notes the European Commission, the EU's executive branch, adding that "all parts of society and economic sectors will play a role – from the power sector to industry, mobility, buildings, agriculture and forestry."

Here, the EU has led the way by establishing and investing in mission-based technological solutions aligned to industrial policy, finance, and long-term research goals. The current Horizon Europe framework funding programme has dedicated research lines for climate action which includes mitigation and adaptation measures, with the latter acknowledging that climate change is already happening.

Scientists confirm evidence of faster warming

Even casual observers of the weather and news events, from deepening droughts and raging bushfires in Australia to uncharted flood levels in Europe, can see something unprecedented is going on with the climate.





Indeed, the latest Intergovernmental Panel on Climate Change (IPCC) report, *Climate Change 2021: the Physical Science Basis,* confirms observed changes in the Earth's climate in every region and across the whole climate system.

"Many of the changes observed in the climate are unprecedented in thousands, if not hundreds of thousands of years, and some of the changes already set in motion – such as continued sea level rise – are irreversible over hundreds to thousands of years," according to the <u>UN's panel of scientists</u> in charge of charting global climate change.

Based on evidence of faster warming, the planet could cross the Paris threshold in just decades unless large-scale and immediate reductions in emissions can be achieved. The report shows that greenhouse gases from human activities are responsible for around 1.1° Celsius of warming since 1850-1900: "Averaged over the next 20 years, global temperature is expected to reach or exceed 1.5°C of warming," the scientists predict.

Nobel-winning work

Modelling climate change and especially connecting it to natural disasters is notoriously complex work, but it is improving thanks to growing computing power, better data and associated statistical developments, such as stochastic equations (see <u>Nature Reviews Physics</u>) that can factor in chance events, but also smarter software and better-trained artificial intelligence to reach vast datasets (see <u>'The story behind Europe's AI ambitions</u>').

Climate modelers hail from different branches of the Earth and planetary sciences, with strengths in applied physics, mathematics, and computational science. According to *National Geographic*, they "combine physics and chemistry to create equations, feed them into supercomputers, and apply them to simulate the climate of Earth or other planets."

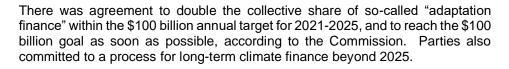
For decades, climate scepticism has been fuelled by criticism that the modelling is based on "magical thinking', but the science is too strong now for these arguments to stand up. The Nobel Committee for Physics would agree. In October, it acknowledged the contribution of pioneering climate modelers, Syukuro Manabe and Klaus Hasselman, and theoretical physicist Giorgio Parisi to the "scientific foundations [and] rigorous analysis of observations" informing robust climate and weather predictions.

<u>The Guardian</u>, a British newspaper, captures this evolution in a story debunking the arguments of climate-change deniers: "We understand the fundamentals about how the climate operates well enough to accurately reproduce the observed changes, based on solid, well-understood physical mechanisms like the increased greenhouse effect. That's not about to get overturned by magical thinking."

COP26 outcomes

The Paris Agreement carved out a path for concrete action to (re)shape policy and achieve transformation change. COP26 was all about delivering on these promises, according to a <u>Commission statement</u>, which outlined some outcomes of the conference where progress will be deterministic, whether investing in R&D for green tech or regulating the use of high-polluting and emission-generating industrial practices. One concrete achievement to come out of COP26 was to agree on a 'rulebook' for meeting the Paris Agreement which fixes the transparency and reporting requirements for all parties to track progress against their emission-reduction targets. The rulebook includes articles on how international carbon markets should function, to support further global cooperation on emission reductions.

While science is critical to both understanding the climate problem and tackling it with green solutions, ultimately much of the progress anticipated by successive COPs comes back to one thing: climate finance. Here, leaders committed to help vulnerable countries, especially low-lying islands faced with rising seas, cope with current and impending climate changes.



Commenting on the outcome, the EU's lead negotiator and Executive Vice-President, Frans Timmermans, said: "It is my firm belief that the text that has been agreed reflects a balance of the interests of all Parties, and allows us to act with the urgency that is essential for our survival."

New and improved EU commitments

Among the EU commitments announced during COP26 were a €1 billion fund for the <u>Global Forests Finance Pledge</u>, a <u>Just Energy Transition Partnership</u> with South Africa, and a <u>Global Methane Pledge</u>. The latter is a joint EU-US initiative mobilising over 100 countries to cut their collective methane emissions by at least 30% by 2030, compared to 2020 levels.

Another initiative, the <u>EU-Catalyst Partnership</u>, was announced together with the European Investment Bank to boost cooperation in climate innovation and technologies. A Climate Adaptation Fund worth €100 million was also launched. One of the biggest pledges by COP26 donors on climate adaptation, the Fund comes on top of significant contributions already announced by Member States, and also confirms the EU's supporting role to the informal Champions Group on Adaptation Finance.

In February 2021, the Commission adopted a foresighted <u>EU Strategy on</u> <u>Adaptation to Climate Change</u> to prepare Member States and other regions for the "unavoidable impacts of climate change" and help them become climateresilient by 2050. It charts a course to make adaptation efforts "smarter, swifter and more systemic in the years ahead, and also aims to significantly step up international action". Research and further cooperation with international partners no doubt plays a driving role in achieving these objectives.

A climate of strong research

EU and international research has already significantly furthered our understanding of the causes of climate change. Today's pressing challenge is to further explore and more accurately forecast the impacts of climate change and provide effective responses to it.

To limit warming to 1.5-2.0° Celsius, the world needs to "act now and use every tool and solution" at our disposal. Novel and strengthened research, leading to smart innovations and green solutions, plays a crucial role in our collective effort to tackle climate change. Here, the EU is committed being a leading force, according to the Commission's RTD team.



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They offer a summary of some current RTD-funded activities in climate science but also in more dedicated fields such as <u>polar and ocean research</u>, <u>climate resilience and adaptation to climate change</u>, and <u>knowledge for climate neutrality</u>. EU research also examines the nexus between climate change and natural disasters around the world, such as <u>forest fires and extreme weather events</u>, as well as <u>nature-based solutions</u> needed to tackle these challenges.



Awareness-raising and education on climate change both play an important role in preparedness and greater understanding of what lies ahead, as too research and actions to improve citizen engagement and behaviour change. The rationale here is that individual and collective choices – on everything from transport and travel modes to recycling and upcycling goods – matter in the climate change 'big picture'.

• On its climate-research webpage, the Commission also offers a handy list of networks and platforms, databases, project results, and job opportunities. These include the Joint Programming Initiative (<u>JPI-Climate</u>), which aligns national climate research programmes and funds new transnational activities, and the <u>Climate-ADAPT</u> platform for sharing data and information to improve decision-making on climate adaptation. It also profiles the EURAXESS network for mobile researchers in Europe and beyond.

• Several fora are mentioned, such as the <u>STI Forum</u> on the UN's Sustainable Development Goals, alongside a number of links to climate research projects, success stories, and opportunities for collaboration. Dedicated 'results packs', hosted on the EU's <u>CORDIS website</u>, can also be found. They illustrate the depth and breadth of EU climate research projects and activities, from innovations in photovoltaics and renewable energy to new thinking on climate services and naturebased solutions for smart/green cities of the future.

Leading by example

The EU is acutely aware that it needs to lead by example on climate action. According to progress reports, it has already cut its greenhouse gas emissions by more than 30% since 1990, while growing its economy by over 60%.

With the ultimate goal of carbon neutrality by 2050, <u>European Climate Law</u> sets an intermediate target of reducing net greenhouse gas emissions of at least 55% by 2030, compared to 1990 levels. To deliver on these commitments, the Commission presented a <u>package of proposals</u> in July 2021 to make the EU's climate, energy, land use, transport, research, and taxation policies all fit-forpurpose.

Research and innovation is, and will always be, a catalyst for impactful climate actions, from modelling and mitigating to monitoring and reporting on progress made between now and the mid-term target of 2030 and, ultimately, the 2050 zero-carbon end game.

EU climate action links

Horizon Europe's Climate Adaptation Mission Research and innovation driving the climate pact (factsheet) Q&A on the EU at COP26 Acting together for the planet (factsheet) European Commission COP26 webpage and side-events Revising EU emissions trading system (EU-ETS) Integrating land use, land-use change and forestry (LULUCF) into emissionreduction efforts



National emissions (effort-sharing) targets for sectors outside the EU-ETS and LULUCF

Renewable energy, energy efficiency and Energy Union and climate action governance

Research funding opportunities

Horizon Europe: Information, work programme and links to climate-related calls

• <u>LIFE+ Climate Action</u>: Co-financing for climate change mitigation and adaptation research

• <u>Innovation Fund</u>: Support for demonstration of innovative low-carbon technologies

• <u>European Structural and Investment Funds</u>: Climate research-related calls and regional development research

• <u>COST actions</u>: European Cooperation in Science and Technology funds for bottom-up, open R&I networks.

Capital	<u>Sarajevo</u>
Government	Federal Democratic Republic
Currency	Convertible Mark (BAM)
Area	51,129 sq km
Population	3,531,159 (2013)
Language	<u>Serbian,</u> Bosnian, Cr oatian
Religion	Muslims 50.7%, Orthodox Christians 30.75%, Roman Catholics 15.19%, others 3.36%
<u>Electricity</u>	220V/50Hz (European plug)
<u>Country</u> <u>code</u>	+387
Internet TLD	.ba
<u>Time Zone</u>	UTC+1



EURAXESS members in focus: Bosnia and Herzegovina



For the last edition of EURAXESS WORLDWIDE newsletter in 2021 we revisit a story about Bosnia and Herzegovina, a land steeped in heritage, natural beauty and a healthy dose of innovation fit for the 21st century.

Zmijanje embroidery, national cultural heritage

This elegant form of embroidery is famed throughout the Balkans for its blue cross-stitching technique, earning it a place on UNESCO's list of intangible cultural heritage in 2014. Today, the craft is preserved in the region of Krajina by skilled artisans. The iconic patterns can be found on traditional clothing, wedding dresses and shawls. A blouse featuring Zmijanje embroidery was declared the "most beautiful" entry at the 1936 Folk Costumes Fair in Paris.

Did you know? The name 'Bosnia' comes from an Indo-European word Bosana, which means water. This is fitting as the country is covered with beautiful lakes, rivers, waterfalls, and a strip of the Adriatic Sea.

One of the last oases of untouched nature in Europe...

When you think of rainforests, places like the Amazon and the Congo spring to mind. But Europe has a UNESCO-recognised patch of its own on the border between Bosnia and Herzegovina (BiH) and Montenegro.

Situated in the heart of the Sutjeska National Park, and hugged by the Maglić and Snježnica mountains, Perućica has resisted human development for millennia. Today, it is a strictly protected nature reserve and one of the last remaining primaeval forests in Europe. Called the "lungs of Europe", Sutjeska is the oldest and largest national park in BiH with trees that have been standing for up to 300 years.

Entrepreneurship and Innovation





Zmijanje embroidery

EURAXESS Centre BiH was formed as part of project BAMONET, Development of Bosnia and Herzegovina's Network of Service Centres.

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Sutjeska National Park



Creating future-oriented jobs based on new knowledge and technological development is a key feature and priority of programmes and support aimed at helping BiH bridge the gap between R&I and successful entrepreneurial activities that lead to fast-growing companies.

Academic and professional opportunities can be explored in a range of higher education and career-oriented centres in BiH, which are increasingly adapted to the needs of the digital economy and international collaboration both within the Western Balkans and with the European Union and further afield.

Entrepreneurship advice and support exists in several forms, including:

- <u>CERK Centre for Career Development</u>
- iDEALab, University of Banja Luka
- University Entrepreneurship Centre, University of Banja Luka
- Faculty of Economics, University of Banja Luka

School of Economics and Business, University of Sarajevo

- <u>Centre for Student Career Development, University of Sarajevo</u>
- American University in Bosnia and Herzegovina, Sarajevo
- Pan-European University Apeiron, Banja Luka
- Faculty of Economics, Internationa University Travnik

Since 2004, the Ministry of Science and Technology has applied specific evaluation criteria for awarding scientific research degrees. A Scientific Commission was made responsible for the evaluation of the candidates with criteria including scientific publications, work experience in science and research, science projects, etc. There are three categories of scientific career titles: scientific assistant, senior scientific assistant, and scientific adviser.

Information for Incoming Researchers

Temporary residence on the basis of scientific work may be granted to foreigners participating in BiH-relevant research projects, researchers and representatives of international organisations or members of international scientific missions conducting research in BiH, university professors, educators, scientists, experts, teachers and lecturers involved in a range of fields including cultural and educational cooperation.

To enter BiH as a temporary resident on these grounds, certain general conditions need to be met, including:

- Evidence that the foreigner is engaged in research projects
- Confirmation by Bosnian authorities that the project, initiative or research is important to BiH and foreign expertise is needed

http://ec.europa.eu/euraxess



In addition to the University of Banja Luka and the University of Sarajevo, five service centres have been established:

- International University Sarajevo,
- EUROPROJEKT Centre,
- Inovation Centre Banja Luka,
- City Development Agency Banja Luka,
- University of East Sarajevo.

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 A contract or cooperation agreement between the competent authority/institution and a foreigner with details about the foreign expert's stay*

• A specified period of stay in the contract of engagement, typically not more than one year (conditions and exceptions apply)

* Information includes rights, obligations guarantees for example on accommodation, medical and other costs incurred by foreigners during their stay, and that they will leave BiH upon completion of the assignment.

Introduction of the National Research Landscape

Two main entities – the Federation of Bosnia and Herzegovina (FBiH) and Republic of Srpska (RS) – and a regional authority, Brčko District, are responsible for education in the country.

In FBiH, this responsibility is further devolved into ten autonomous Cantons. There are also several education management subsystems as well as administrations within the public universities.

Following the Council of Ministers' decision, Bosnia and Herzegovina is embracing a <u>Smart Specialisation Strategy</u> (S3) to strengthen innovation-led territorial development. The S3 process will follow the EU's <u>Joint Research</u> <u>Centre's (JRC) methodological framework</u> for Smart Specialisation in the EU Enlargement and Neighbourhood countries.

Scholarships and education funding opportunities

Several universities in Bosnia and Herzegovina offer various scholarships and tuition waivers to many international students every year. Scholarships are provided to encourage high-achieving young individuals in their academic pursuit, and to promote other successful young talents in leadership, entrepreneurship, artistry, and research. Although scholarships are available all year long, interested candidates who require some sort of funding must indicate early on in their application.

The BiH government also awards scholarships to international students via its Ministry of Education, under which students are given specific funds towards their education and living costs in the country. Many post-graduate students have benefitted from this scholarship due to its favourable application procedure.

Other private organisations and companies offer scholarships to both local and international students in BiH, thanks to a number of streamlined funding schemes. These entities offer annual or biannual grants and scholarships to applicants meeting the requirements. Successful candidates receive between \$5,000 and \$20,000 towards their education and stay in the country.

Universities also offer special tuition discounts for early payment, special needs, post-grad students (masters), specific countries, and other grounds.

2021 through our monthly Videocasts

In January 2021, the EURAXESS China team started what we are calling "Videocasts". The Videocasts are podcast-style videos lasting approximately 30-40 minutes broadcast live on various streaming platforms on a monthly basis.

In each episode we introduce a couple of topics related to the European Research Area, EURAXESS activities and funding opportunities for China-based researchers in a friendly and laid-back atmosphere.

Our videocasts also featured videos and media, either produced by us or by our partners, and other elements like in-person interviews with interesting EURAXESS members and key personalities in the EU-China Science and Technology landscape.

You can see the 12 episodes below:



We started by providing an overview of our activities in 2020 and sharing our plans for 2021



Launch EU Research and Innovation Days and of our Forum in Beijing taking place in June 2021



Interview with Dr Philippe Vialatte, Science Counsellor at the EU Delegation for 8 years from 2010-2021



Launch of 2021 EURAXESS Science Slam China



Launch of Horizon Europe and EURAXESS China's Science Communication Trainings



Tour of China brought us to Kunming, where we interviewed Dr Ahimsa Campos-Arceiz



New Network of European Researchers in China in Biology and Medicine and interview with its representatives



Science Slam Winner and Science Slam in Virtual Reality



European Research Council and Interview with ERC Grantee Dr Manuel Perez Garcia



Presentation of the Forum for European Researchers in China and interviews to participants



ERC Grants and Marie Curie Fellowships and our webinar on these funding opportunities



Merry Christmas and Happy New Year!



About us

EURAXESS China is a networking tool for European researchers active in China and for Chinese and international researchers wishing to collaborate and/or pursue a career in Europe. EURAXESS China provides information about research in Europe, European research policy, opportunities for research funding, for EU-China and international collaboration and for trans-national mobility. **Membership is free**.

Visit us at <u>china.euraxess.org</u> and join the EURAXESS China community.

EURAXESS Worldwide has dedicated teams in the following countries and regions ready to assist you: ASEAN (focus on Singapore, Thailand, Indonesia, Malaysia, and Vietnam), Latin America and the Caribbean (LAC, focus on Brazil, Argentina, Chile, Mexico, and Colombia), China, India, Japan, North America (USA and Canada), South Korea, Australia and New Zealand.