EURAXESS Japan Quarterly Newsletter Issue 8 Q4 2017

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This year was particularly active for EURAXESS Japan, with seminars all over Japan from Hokkaido to Kyushu and five major events: the *European Innovation Day* in March, the *Falling Walls Lab Tokyo* science communication contest in May, the *Grants In Practice* MSCA and ERC grant proposal training in July, the *ERC Synergy Grants Launch Event* in September, and the *European Research Day* in December.

This is all thanks to all of our partners: the Delegation of the EU to Japan, the Embassies and representation offices from Member States and Associated Countries, Japanese institutions such as the JSPS, JST, MEXT and numerous research performing-institutions; but of course our success is mainly due to all of you, members of the EURAXESS Japan community!

We wish you all the best for the year to come and are looking forward to seeing you agin at our events and seminars in 2018!

Sign up here to become a member of the EURAXESS Japan community (more than 2900 members!).

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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 over 40 countries, of which we will profile one in each of our quarterly EURAXESS Japan newsletters. In this edition, we will zoom in on Albania.

EURAXESS Members in Focus: Albania

Research and Development in Albania

Albania has a number of research institutions conducting cutting-edge basic research. Eleven of the Top-35 research organizations that receive funding through the EU's Framework Programme for Research and Innovation (Horizon 2020) are from Albania. The capacity of Albania's research institutes to conduct excellent research is also reflected in the relatively good performance in terms of scientific publications.

R&D performance is concentrated in public sector centres and institutes, higher education institutions, line ministries, and the government sector: UNESCO statistics indicate that in 2008, 52.1% of R&D was performed by the public sector and 47.9% by higher education. UNESCO[1] also reports that GERD funded by business enterprises totalled 13.1m ALL in 2007 and 54.3m ALL in 2008 ($0.308m and $1.311m in current PPP$, respectively, or approximately €0.225m in 2007[2] and €0.891m 2008[3]). This is the first standardised indicator of the size of BERD in the country—other estimates suggest that the ratio of gross business enterprise expenditure on RTD to GDP is around 0.0025%[4].

Albania is a democratic and developing country with an upper-middle income economy. Albania is a member of the United Nations, World Bank, UNESCO, NATO, WTO, CoE, OSCE and OIC. It is also an official candidate for membership in the European Union. Furthermore, Albania is one of the founding members of the Energy Community, including the Organization of the Black Sea Economic Cooperation, and Union for the Mediterranean.

Albania's R&D Strategy

The **New R&D&I Strategy for the Programming Period 2017-2022** aspires to strengthen the Albania research system (human capital and infrastructure), conduct research relevant to the needs of the country and thus make R&D an indispensable tool for the further development of the Albania economy. In this context, it is intended to launch programmes focusing on the development of human capital for research in a knowledge economy (including support to excellent researchers, support to mobility of researchers to work in enterprises, and support to training for innovation activities, as well as starting grants for new researchers).

Entrepreneurship and Innovation

According to the programme of National Strategy for Development, Science and Innovation, Albanian enterprises are expected to increase their Business Expenditures on Research and Development sensibly. A considerable number of enterprises is more and more undertaking Research and Innovation activities mainly in services and incremental innovations. In this line, The National Agency of Scientific Research and Innovation aims to support a close collaboration between the private businesses and the academic staffs throw the

[1] Beyond 2020 WDS - Table View

[2] Source: European Central Bank, ECB reference exchange rate, US dollar/Euro equal to $1.3705/€1, 2007 data.

[3] Source: European Central Bank, ECB reference exchange rate, US dollar/Euro equal to $1.4708/€1, 2008 data.

[4] Estimates from discussions with MES officials, 2011

implementation of The Triple Helix Project (Public + Businesses + Academia).

Funding and Recruitment Opportunities

The government constitutes the largest R&D source of funds (in 2015, 0.4% of the GERD was funded by GOV) and the third largest R&D performer (after Higher Education Institutes and Business). The National Agency for Scientific Research and Innovation www.akti.gov.al is the supreme State advisory body for national policy for research, technology and innovation. The responsibility of funding research is shared between the *Ministry of Education, Sports and Youth* and the *Minister for Europe and Foreign Affairs.*

The National Agency for Scientific Research and Innovation (NASRI) consider the scientific and technological cooperation agreements as important in increasing the national capacities of the scientific research level. There are calls launched to do justice to this importance and these calls are funded form the government's budget.

The agency has a record on carrying out bilateral calls with Slovenia, Austria, Turkey and Italy. It is also important to note that governmental agreements on science exist with a whole range of states/countries all around the world. Furthermore, Albania has an interstate agreement with 9 of the 28 European Union member states.

International Research Cooperation and Mobility Examples

The Higher Education sector is the largest R&D performer accounting for expenditure in 2015. At the end of 2015, the Higher Education sector was composed of 12 public universities and 28 institutes subordinated to Ministries. In addition to public, there are 24 private universities of various types accredited by the *Ministry of Education, Sports and Youth* operating in the country.

The R&I strategy for the next programming period 2017-2022 focuses on the following priorities:

- Areas of traditional strength for the country (examples: tourism, energy);
- Areas of recent successes in terms of critical mass and on-going activities (examples: IT, engineering, energy);
- Areas of high added value and able to deliver major economic benefit and employment prospects (examples: energy, nutrition – food sciences); and

Areas of national interest (examples: food production, archaeology, culture, energy, defence).

Important information for incoming researchers

EURAXESS Albania is a resource for foreign researchers who plan to come to Albania. Whether you are looking for information about work, study or everyday life in Albania, EURAXESS Albania covers all matters relating to your professional and daily life, job and funding opportunities. EURAXESS Albania is also a platform for researchers, entrepreneurs, universities and businesses.

Hot topic: Launch of Horizon 2020's third Work Programme for 2018-2020

Priorities of the H2020 Work Programme 2018-2020

The European Commission announced on 27 October how it will spend €30 billion of the EU research and innovation funding programme Horizon 2020 during 2018-2020, including €2.7 billion to kick-start a European Innovation Council.

Horizon 2020, the EU's €77 billion research and innovation funding programme, supports scientific excellence in Europe and has contributed to high-profile scientific breakthroughs such as the discovery of exoplanets and gravitational waves.

Over the next 3 years, the Commission will seek greater impact of its research funding by focusing on fewer, but critical topics such as migration, security, climate, clean energy and digital economy. Horizon 2020 will also be more geared towards boosting breakthrough, market-creating innovation.

Supporting breakthrough, market-creating innovation

Since the beginning of its mandate, the Juncker Commission has been working hard to give Europe's many innovative entrepreneurs every opportunity to thrive. Now, the Commission is launching the first phase of the **European Innovation Council**.Between 2018 and 2020, the Commission will mobilise €2.7 billion from Horizon 2020 to support high-risk, high-gain innovation to create the markets of the future. Moreover, Horizon 2020 will make better use of its "crack the challenge" prizes to deliver breakthrough technology solutions to pressing problems faced by our citizens.

Focusing on political priorities

The 2018-2020 Work Programme will focus efforts on fewer topics with bigger budgets, directly supporting the Commission's political priorities:

- **A low-carbon, climate resilient future**: €3.3 billion
- **Circular Economy**: €1 billion
- **Digitising and transforming European industry and services:** €1.7 billion
- **Security Union**: €1 billion
- **Migration**: €200 million

€2.2 billion will be earmarked for **clean energy** projects in four interrelated areas: renewables, energy efficient buildings, electro-mobility and storage solutions, including €200 million to support the development and production in Europe of the next generation of electric **batteries**.

Boosting 'blue sky' research

At the same time, Horizon 2020 will continue to fund 'curiosity-driven science' (often referred to as 'blue sky science' or 'frontier research'). The annual **Work Programme of the European Research Council** for 2018, adopted in August, will enable support for excellent researchers with nearly **€1.86 billion**. **Marie Skłodowska-Curie Actions**, which fund fellowships for researchers at all stages of their careers, receive **a boost with €2.9 billion in total over three years**.

Enhancing international cooperation

The new Work Programme also **strengthens international cooperation** in research and innovation. It will **invest over €1 billion in 30 flagship initiatives** in areas of mutual benefit. Examples include working with Canada on personalised medicine, with the US, Japan, South Korea, Singapore and Australia on road transport automation, with India on water challenges and with African countries on food security and renewable energies.

Simplifying rules of participation further

Another novelty is the introduction of the lump-sum pilot, **a new, simpler approach to providing financial support to participants**. It will shift the focus of ex-ante controls from financial checks to the scientific-technical content of the projects.

Open Science

The programme marks a step change in promoting Open Science by shifting from publishing research results in scientific publications towards sharing knowledge sooner in the research process. **€2 billion will be channelled to support Open Science**, and **€600 million will be dedicated to the European Open Science Cloud,** European Data Infrastructure and High Performance Computing.

For more information:

Memo on the new Work Programme
Presentation highlighting International Cooperation
List of flagships .
Horizon 2020 participant portal
Factsheet : European Innovation Council
Factsheet : lump sum pilot
Country factsheets

Horizon 2020 and Japan

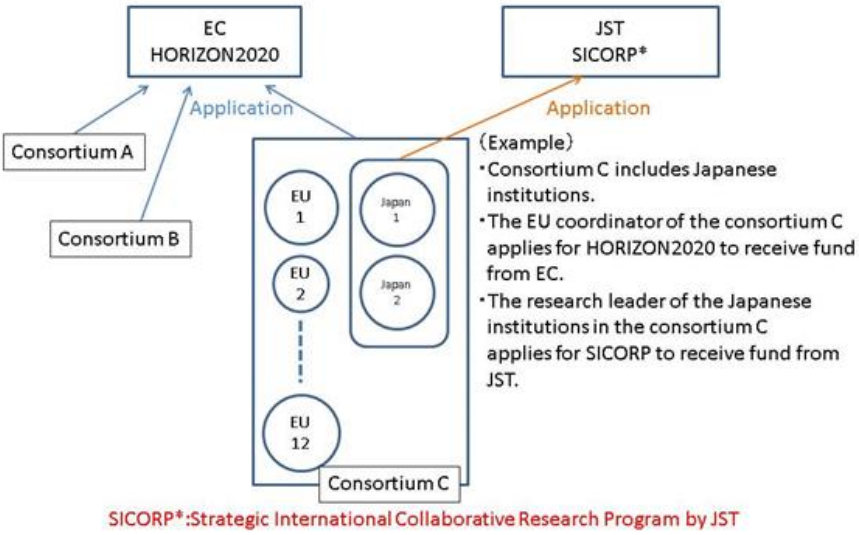
60 projects with Japanese organisations in Horizon 2020

In these 60 projects, 52 different Japanese entities are participating. Japanese universities are the largest group of organisations with 41% of the participation, followed by Japanese companies with 26% and research centers with 20%. Marie Sklodowska-Curie Actions (MSCA) related projects rank first with 25 projects, followed by 11 ICT projects and 6 Environment projects.
This number is lower as compared to FP7 (2007-2013), the programme that preceded Horizon 2020. In FP7, 159 projects included Japanese participants. This is a general trend for all participation from third countries (outside Europe).
Japanese companies are largely participating through their affiliate organisations in Europe. So far, 95 projects involving 50 different Japanese affiliate companies are currently running in Horizon 2020. ICT is the most popular area.

Coordinated EU-Japan calls in H2020 WP 2018-2020

- EUJ-01-2018: Advanced technologies (Security/Cloud/IoT/Big Data) for a hyper-connected society in the context of Smart City
  Open: 31 October 2017 -- Deadline: 31 January 2018
  (1) Advanced technologies combining Securtiy, IoT,Cloud and Big Data for a hyper connected society
  (2) Interoperable technologies for IoT devices / platforms in the context of Smart Cities
- EUJ-02-2018: 5G and beyond
  Open: 31 October 2017 -- Deadline: 31 January 2018
  (1) Large-scale demonstrations and trials towards 5G applications
  (2) Joint research on enabling technologies for beyond 5G

Co-funded call (JST SICORP)



The Japan Science and Technology Agency (JST), through its Strategic International Collaborative Research Program (SICORP), will support Japanese applicants who participate in HORIZON 2020. This is a pre-announcement, complete information will be published on JST's webpage (Japanese only).

Research Field: Disaster Resilient Society: Technologies for first responders
Corresponding call in HORIZON 2020: SU-DRS02 Technologies for first responders.
Support by JST: JST will support Japanese applicants who participate in the above-mentioned 2 sub-topics. Projects selected for funding in this call will receive support for a period of 3 years totaling no more than approximately 60 million JPY including

indirect costs of 30% of direct costs. Applicant Eligibility: Researchers working in Japanese universities, research institutions, companies, first responders' organizations etc., are eligible to apply for this call. In addition to researchers, end users and practitioners of the corresponding technologies are also eligible to apply. Application Procedure: All Japanese applicants must submit an application directly to JST through details to be posted in this site later. In addition, the coordinator of the project consortium must also submit an application via the HORIZON 2020 portal.

Evaluation: As a prerequisite for the funding from JST, the application to HORIZON 2020 must have been adopted by the EC. In addition, each proposal must also pass an independent evaluation conducted by JST

Call open: March 2018 -- Call close: August 2018.

Aside from these co-funded, coordinated calls, Japan is also specifically mentioned in 20 open calls (making of Japanese institutions a partner of choice for consortia wishing to apply to these calls. Japanese institutions and individuals can of course participate in any of the other open calls, as participation in Horizon 2020 projects is open to all public or private research-performing institutions all over the world.

European institutions looking for partners in Japan for Horizon 2020 collaborative projects

New calls for proposals are open in Horizon 2020, and some European institutions are looking for partners in Japan.

This list has been established by the office of the Horizon 2020 National Contact Point Japan. If you have interest in any of the partnering requests below, please do not hesitate to get in contact with stijn.lambrecht{-at-}eu-japan.gr.jp for more information.

EU-Japan ICT joint call EUJ-01-2018 (funding for Japanese partner from NICT):

- A Slovenian university is looking for Japanese companies to join a proposal targeting Intelligent Contextualized Adaptive Notification in order to empower developers and providers of data-intensive applications with lightweight agile programming technologies, able to suit the needs of the ever-changing environment (e.g. mobile devices and users changing the position), as well as metrics required for successful detection of the conditions, and notification or reaction to changes (events).
- A German company is looking for Japanese partners with experience in privacy to develop internationally relevant and interoperable privacy platforms for the protection of sensitive data (personal or commercial) exchange between IoT devices in the context of Smart Cities.

EU-Japan ICT joint call EUJ-02 (funding for Japanese partner from MIC):

- A French company that is coordinating a proposal with other European partners regarding "large-scale demonstrations and trials towards 5G applications: Use case scenario, 3D immersive experience" is looking for Japanese partners: 5G Infrastructure operator, research centre/university, use case provider, testbed
- A Polish company that is developing algorithms, protocols and tools for 4G and 5G mobile networks is looking for partners (Japanese and European) to develop a proposal for the call. Their main interests are in Radio Access Network and 5G.

EU-Japan research exchange project (limited funding available to host researchers from Europe):

- A university in Latvia is looking for an exchange project in the field of artificial intelligence safety for a RISE project (H2020-MSCA-RISE-2018)
- A university in France is looking for companiesworking on silicon-based devices, doping, ion-implementation, lithograhy, NIR optical spectroscopy, electronic microscopy, telecommunications, software development/simulation, in order to join a Innovative Training Network (H2020-MSCA-ITN-2018)

Cooperation with Germany (non-Horizon 2020, funding for Japanese partner from JST)

- A German research organisation is looking for partners for a project proposal regarding onoptical (bio-)sensing technology "Multiplexed and label-free biomolecule interaction analysis in real-time via whispering gallery mode analysis on suspended microparticles". Academic partner are requested for interaction analyses, spectroscopy, fluid handling etc. Industrial partners are requested for commercialization of the bioanalytical assay, optic instrument fabrication, image analysis, electronics, microfluidics etc.

Meet Tetsuya Komabayashi, ERC Grantee, Reader at the University of Edinburgh

About Tetsuya Komabayashi:

I'm a theoretical petrologist at the University of Edinburgh. I study equilibrium properties of deep Earth materials based on experiment and thermodynamics. As part of my Ph.D. at the Tokyo Institute of Technology in 2000-2005, I studied stability of hydrous phases in a peridotite system at high pressure. After a one year post-doc, I became a non-tenured assistant professor at the same institute. During a sabbatical leave in 2007-2008, I stayed at the Carnegie Institution of Washington to work on phase relations of iron. I moved to the UK when I took up a tenure-track Lecturership (Chancellor's Fellow) in 2013 at the University of Edinburgh and was promoted to Reader in 2017. I was awarded an ERC Consolidator grant (2015-2020) and am developing my own group and setting up an ultrahigh-pressure laboratory at Edinburgh.

- Tetsuya, can you introduce your research interests to our readers?

I'm interested in the origin, structure, and evolution of solid Earth and other planets. I believe that key information lies in the deep Earth where we cannot directly sample the materials from. Therefore, I study equilibrium properties of Earth-forming materials under deep Earth conditions based on high-pressure and high-temperature experiments.

- You are currently under an ERC grant in Europe. Can you tell us a bit about your career path before (and after) the grant?

One year after I received my Ph.D. at a university in Japan, I became a non-tenured assistant professor at the same institution. Seven years after that, I moved to the UK to take up a tenure-track Lecturership (Chancellor's fellowship) at the University of Edinburgh in 2013. I was awarded an ERC Consolidator Grant of the 2014 call and was promoted to a tenured Reader in 2017.

- Apart from the availability of this (or other) grants, what led you to come to Europe?

After spending several years as a non-tenured assistant professor, I started applying for tenured positions in Japan. Meanwhile I had an idea to move to another country to expand my horizons. Before that, I stayed at the University of Bayreuth (6 months) and Carnegie Institution of Washington (18 months) as a visiting investigator and became fascinated with working in Europe and US. I was not shortlisted by any institution in Japan that I sent my application to, which made me change my strategy to expand the job hunting field towards the US and Europe. I decided to move to Europe when I was offered a tenure-track position at Edinburgh.

- About your ERC proposal: can you let us know about your experience in writing the proposal?

Honest be told: I did not realise such a huge opportunity was available until one month before the deadline. I quickly wrote the proposal in two weeks and sent it to one of my colleagues for comments and feedback. I do not want readers to receive the wrong message from this; you should take time to revise your proposal. I was able to do this mostly because my proposal was based on my application to the position at Edinburgh, which means that my research

proposal was already well considered. Also the financial part was written with a great help of administrative staff at the University of Edinburgh, e.g., I did not prepare a cost table for personnel, which would have been quite time-consuming.

- It seems you have interesting views about the second step of evaluation, the interview. Can you let us know about your experience?

I had only a one-time experience of ERC interview and I would not like to generalise, but I'm happy to share my experience with you. After registration at the reception, I was brought to a waiting room where 7-10 people were nervously waiting. An ERC staff came to the room inviting me to the interview room. Just before she opened the door of the interview room, she smiled at me saying 'good luck!'.

[note: there is no specific structure to these interviews; it can change depending on the candidate's proposal and the jury members. The ERC Frontier Research Grants Information for Applicants states:

"The review methodology for the ERC Starting/Consolidator Grant includes interviews with PIs of proposals at step 2 conducted by the relevant ERC evaluation panel.

Depending on the panel, interviews will last approximately 30 minutes in total. The first part will be devoted to a presentation on the outline of the research project by the PI. The remaining time will be devoted to a question and answer session. The PI should expect questions also related to the content of the budget table, which is part of the application.

Panels will take into account the results of the interviews alongside the individual reviews."]

The interview structure, in my case, was 5 min presentation + 25 min Q and A session. I had 16 questions during the Q and A session, all about my science; they did not ask about the research timetable, costing, or impact. Some questions were very technical which makes me believe that they had comments from the remote reviewers who must be experts in my field.

- Would you say that, as Japanese, there were specific hurdles that you managed to overcome in order to secure the funding?

None of the steps was easy with getting an ERC grant. But if I have to say something was difficult "because I'm a Japanese researcher", that must be the language and cultural difference.

English is always an issue for the Japanese people who were born and raised in Japan, like me. Although I had some experience in writing a proposal and having an interview in English before, they were still much work for me.

Talking about cultural difference in academia, different grant schemes have different cultures/philosophies. The ERC grant scheme is high-risk and high-return, which might be challenging as most people never wrote a high-risk project.

- Are you satisfied with the grant? Can you let us know if --aside from funding-- there were other positive aspects to obtaining ERC funding?

Yes, I'm very much satisfied with the grant so far. Thanks to this grant, I was able to set up numbers of instruments, employ people, and travel around the world. Because this is a sole investigator-led project, every decision is at my discretion, which is massive responsibility, but at the same time, makes me proud.

Other than the funding and the project itself, I am happy that many opportunities are coming up to me as an ERC grantee, including this interview. I met many

people who I would never meet without the ERC grant. This is really important as meeting new people always expands my horizons.

- How would you say research environment compare between Europe (UK) and Japan? And, what are the challenges of doing research in Europe as a Japanese national?

There is a very large difference between the two countries in terms of leading a research group at a higher education institution (university). In Japan, a number of universities still take a hierarchic academic structure, namely, in order to fully lead one research group, you need to be a (full) professor. Besides, in most universities, an assistant professor cannot be a formal supervisor of a Ph.D. student. Indeed, I practically supervised several Ph.D. students in Japan but this activity is not registered in the university. In the UK, the structure is flatter, lecturers can lead their own research group including supervision of Ph.D. students.

The most challenging issue regarding to research to me was getting used to the new environment. As I explained above, the language and academic culture are very different from in my previous place.

- From your perspective, how can/should researchers mobility flows between Europe and Japan (both ways) be improved?

This is what I want to know the answer to. I raise here potential problems.

Let's start from Japan to Europe. I opened several positions with my grant and no Japanese researcher has sent me an application. Also, some of my friends in Europe offered Japanese researchers post-doc positions but they refused to come to Europe. There must be several factors, but I assume that they are satisfied with the circumnstances in Japan. There are many term-limited positions available in Japan and this is part of the reason for less people going out of Japan these days; they do not have to go out. Also they have a fear that once they have come out of Japan, that would reduce their chance of getting a position in Japan in the future.

Talking about from Europe to Japan, I'm under the impression that for many European people, Japan is too far, geographically and culturally. The inverse is true as well, but I think the distance affects more Europeans when they think about staying a few years abroad. One of the biggest challenges for them might be the language barrier as many Japanese people including researchers don't speak other languages (primarily English) well. For female researchers, there may be another concern that women and men might not be treated equally in Japan as the proportion of the female line managers in the society is very low. Getting the gender balance right is an important issue in the world but Japan seems not to be catching up with other advanced countries.

As such, both parties might not be able to see clear advantages in moving to Europe/Japan. None of those problems can easily be solved immediately. One

potential way to improve the situation is increased opportunities of interaction between researchers who have and have not stayed in Europe/Japan. If they obtain more information and can grasp what it meansto be mobile there, they might findit more attractive to move out.

- Finally, do you have a short message of encouragement to other Japanese researchers potentially interested in applying to ERC?

Getting an ERC grant is a life-changing event. There are many hurdles to get past, but I would say it's worth it. Such a huge opportunity is not for everyone, but you should remember that I never got a permanent position in Japan, so you have your chances!

Thank you very much for your time Tetsuya!

EURAXESS Japan Activities Update

The European Research Day 2018 is going local!

The 2017 edition, held on 4 December and kindly hosted, as always, by the Delegation of the EU to Japan, was again –for the third time-- a great success, thanks to the 16 researchers who participated in the 'Researchers Sessions', but also the European Research Area countries representatives who came to showcase their countries' research and innovation landscape, to the animators of the other special sessions and of course all the attendees from diverse backgrounds!

As a follow-up of this event, we sent a survey to previous participants and decided to tweak our formula a bit: in 2018, the event will be held on a Saturday, earlier in the year (sometime between September and November). In addition, local, smaller scale sub-events will be held in Tokyo at regular occasions; and in other regions of Japan when EURAXESS Japan events are planned outside of Tokyo. We'll let you know all about these when time comes!

Although very short-otice, the first event in this series will take place in the last week of January, in Kansai. Contact us if you're in the region and willing to help: we're looking for a room and for interested speakers!