

SYNOPSIS

Science has no borders, and international cooperation is necessary to boost success. The EU's €95.5 billion Horizon Europe R&D programme mainly caters to European-based organisations, and, like its predecessor, it is open to non-European entities and researchers to get involved, too - whether in a funded or unfunded capacity.

This event gathered together international experts who have taken part in Horizon Europe or its predecessor, Horizon 2020, with a view to what future non-European collaboration in Horizon Europe projects could look like.

SPEAKERS:

- Florent Bernard, Science Counsellor, EU Delegation, Washington DC
- Michael Leskiw, Associate Director, and Rainer Frost, Strategic Transactions Officer, Office of Strategic Alliances & Technology Transfer, Massachusetts Institute of Technology
- Martha Crago, Vice-Principal for Research and Innovation, McGill University
- Toshiyasu Ichioka, Director, RIKEN Europe Office
- Isaac Holliss, Counsellor, Science and Innovation, Europe, New Zealand Mission to the EU
- Guido Pintacuda, Director of Research, Institute of Analytical Sciences, CNRS
- Moderator: Richard L. Hudson, Editorial Director & Vice Chair of the Board, Science | Business

RAPPORTEUR: Catherine Collins, Science | Business

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Report from a Science | Business online network event 24 Jan 2023

HORIZON RESEARCH CONSORTIA - THE BASICS

The European Commission is keen to promote international collaboration between researchers, mainly as part of project consortia, the way most Horizon Europe research grants are set up.

The consortia must involve organisations in at least three EU member states or countries that have formally joined, or "associated" to, the programme. Current associated countries include Israel, Norway, Iceland, Ukraine and many more, mostly EU neighbours. The EU and associated-country partners usually get Horizon funding for their work.

But those partners can also be joined in the project by public and private research organisations from around the world to work – some with, some without, EU funding. Low- and middle-income country participants are entitled to EU funding support. Those from other countries, such as the US and Australia, are encouraged to participate in the programme, but usually must secure funding by other means – for instance, from their own governments' programmes. But there are some exceptions.

Through a reciprocal agreement with the National Institutes of Health, US-based entities applying to the Health Cluster of Horizon Europe are eligible for funding. In exceptional cases where the project could not take place without a specific non-European partner, and upon evaluation by independent evaluators, that partner may receive direct EU funding. Sometimes the Commission's Calls for Proposals specify that expertise from a particular country is required. And the European Research Council can fund non-European researchers in its Synergy programme aimed at getting top scientists working together in ground-breaking, frontier research projects.

The Commission's Horizon Europe portal has more information; and a list of other sources can be found at the end of this document. There is no mandatory template for consortium agreements. However there is a Model Consortium Agreement that many groups adopt. Any type of research performing legal entity – NGO, private company, research centre etc – is eligible to take part.











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PAST EXPERIENCES

WHAT WAS IT LIKE? THE US AND CANADIAN EXPERIENCE

The speakers on the panel all had experience of working within Horizon Europe or prior EU programmes as international collaborators. Some of the main stumbling blocks they cited included heavy administrative burdens, IP issues and confusion over access to funding. But in general, they said they had figured ways around some of the difficulties, and on balance they valued the research and networking offered by participation.

"There is in general an obligation under Horizon Europe funding for the beneficiary to be the owner of the IP developed," said Rainer Frost of MIT. "At MIT, when we host a [Marie Skłodowska-Curie Action) fellow, there has historically been an obligation that all IP developed by the fellow be owned by MIT, because there are federal and policy requirements that make that so. With the EU, we have been able to compromise on those two conflicting requirements by agreeing that we will have joint IP for anything that is developed at MIT."

He also mentioned an issue with ERC Synergy grants whereby if one partner had to drop out of the project, all the other partners would be liable to take on that partner's work. "That can be very problematic for an institution that may or may not have the capacity to perform that kind of science," he said. "A much more sensible requirement was put in place that if any PI drops out, then all of the other participants have to decide whether they will go forward or not."

Martha Crago from McGill University in Canada said that a team from her university is currently being funded by Canada to be a part of a European consortium. But, unlike their European counterparts, the Canadian team did not receive communications and administrative support, although they were expected to fulfil hefty European Commission administrative obligations. "They find the administrative burden heavy," she told the webinar. "However, participating with teams from international countries was invaluable in terms of intellectual energy."

Crago hopes that Canada will become an Associated Member in the near future, which will make working with EU teams much easier. Negotiations for this are underway. "This will open up doors."











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WHAT WAS IT LIKE? THE JAPANESE, NEW ZEALAND, AND EUROPEAN EXPERIENCE

For Japanese research institution RIKEN, the benefits of participating in the Horizon programmes outweigh the negatives. Funding is not so much of a problem for RIKEN, Toshiyasu Ichioka says, but rather having the sufficient number of skilled scientists needed to carry out the research. "Our researchers are relatively well-funded. They don't necessarily need the [European] money. But they need the manpower; that's more of an issue for us." The Horizon fellowship programmes come in handy there, he says. "In terms of the Marie Sklodowska Curie Actions, the EU is paying a researcher to come to us. We can't really complain about that!"

He also spoke about the importance of IP for RIIKEN, and says that it is always a concern when submitting proposals, although "I personally believe that there won't be issues. Europe has always been generous in terms of IP."

The big benefit for the Japanese institution is the development of high-quality networks. "Having formal consortia means a lot to us and will facilitate further collaboration," said Ichioka.

That sentiment is echoed by Isaac Holliss at the Permanent Representation of New Zealand to the EU. New Zealand has just concluded negotiations with the EU on becoming an associate member to Pillar II of the Horizon Europe programme, which deals with sector-specific research topics, called "clusters", such as health, culture, climate and food. These clusters will promote research along dedicated areas of interest (as decided by the Commission), as opposed to Pillar I which focuses on blue-sky research and research infrastructure, and Pillar III which favours the development of strong innovation ecosystems within Europe.

"We know already that the quality of New Zealand collaborations with European researchers is high," said Holliss. "About half of our collaborative research publications over the last five years have had some sort of EU member state involvement. International collaboration is really going to put you on a path to high performance."

He also spoke about the political aspect, namely how liberal democracies should ally themselves along science and technological research lines, which can be sensitive.

CNRS' Guido Pintacuda gave a European perspective on previous collaborations with Florida State University, an American partner within an EU-funded project. "We didn't speak the same language at the beginning. Not scientifically, but the language of bureaucracy is different [between the US and the EU]. The American partner needed help for things like getting set up on the participant portal, or setting up the budget." Once again, he said that the benefits outweighed the costs: "It was very important to extend the network. We brought the consortium to the next level."

The take-away message is that taking part in Horizon Europe consortia poses some challenges for non-European researchers, but the advantages of the collaborative international networks for high-quality research make it worthwhile.

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COLLABORATING IN HORIZON: THE VIEW FROM MIT

MIT's Michael Leskiw offered his university's conclusions from its experience with Horizon Europe and its predecessor programmes

POSITIVES:

- Communication between EU and US beneficiaries is critical to success: Our researchers have told us
 how helpful their EU research colleagues have been in helping navigate Horizon Europe terms. When
 we issue sub-awards to university grantees in Europe or elsewhere who are not familiar with US
 government funding, we often help our colleagues navigate expectations, and we are pleased to enjoy
 such great similar support on Horizon Europe.
- Open research opens doors to participation: Willingness among EU beneficiaries to conduct "open" research (agreeing in advance to not protect project IP) has significantly improved MIT's ability to participate in research. Conducting open research obviates US private institution concerns about the EU's right to object to the transfer or exclusive licensing of IP developed during the project.
- ERC Synergy termination clause reduces concern for collaborating with less-well-known partners: The
 ERC Synergy grant provides that if a beneficiary withdraws, then the other beneficiaries may decide
 with the ERC whether to end the award or to continue with the remaining beneficiaries. This is
 preferable when pursuing research where one beneficiary has research capabilities others lack (for
 example, MIT does not have a medical school or a law school).

AREAS FOR IMPROVEMENT:

- Funded research for EU citizens at MIT: Many MIT researchers, including faculty, are citizens of EU member states. It would be helpful if EU citizens, through their home institutions, were better able to receive funding from their governments, regardless of their location in the world.
- Improved guidance for when MIT participation is "essential" and therefore can receive funding: Page 10 of the General Annexes to the Horizon Work Programme 2023-2024 has a provision under which legal entities in countries not named (not member states, associated countries, or low-middle income countries) can receive funding. For MIT faculty, preparing a collaborative statement of work with multiple parties is very time consuming. MIT faculty typically can only participate if their research costs can be reimbursed. We would like to know in advance whether our participation would be "essential" if the proposal is selected for funding. Most faculty have expressed an unwillingness to prepare proposals unless they know in advance that they will be funded.
- Improved awareness of the funding availability to MIT in the "Health" cluster of Horizon Europe: Speaking personally, I would like to do more to share the ability of our researchers to receive funding in this cluster. I don't think it is widely known at MIT or other US institutions that we are eligible to be funded under most or all opportunities in this cluster.

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FOR FURTHER INFORMATION:

EXTERNAL LINKS

- International Cooperation within Horizon Europe (overview)
- <u>List of countries eligible for participation within Horizon Europe</u>
- <u>UK participation latest</u>
- IP in Horizon Europe
- Horizon Europe Info Days
- Horizon Europe National Contact Points
- Horizon Europe budget
- Existing Horizon Europe projects
- EU-Africa collaboration in R&I

SCIENCE | BUSINESS

- Horizon Europe Guide: Science | Business will soon be updating its regular, accessible guide to all of Horizon Europe in plain language, informed by our team of specialised R&D policy journalists. The last edition, in Autumn 2021, is available immediately. (Free for those in Science | Business Network member institutions, €65 for non-members.)
- The Science | Business Bulletin: In addition, you can subscribe at www.sciencebusiness.net for free to our open access newsletter, a twice-weekly journalistic update on all things Horizon.
- The Network: Science | Business is a Brussels- and London-based media and communications company focused on R&D policy and funding. With our 75 member universities, companies and public-sector research organisations, we organise more than 30 events a year on various R&D topics, publish regular guides and news and generally help members from across the globe network, get informed and be visible.

If you would like to find out about the membership opportunities for your institution, contact info@sciencebusiness.net.

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