

CONNECT Interview: Director-General Jean-Eric Paquet, European Commission

Jean-Eric Paquet is Director-General for the European Commission's DG for Research and Innovation (DG RTD). This European Commission department is responsible for EU policy on research, science and innovation, with a view to help create growth and jobs and tackle Europe's biggest societal challenges. Cathrin Stöver, GÉANT Chief Collaboration Officer spoke with Jean-Eric about Open Science, Horizon Europe and tomorrow's scientists.



Cathrin Stöver: Jean-Eric, many thanks for your time today, I do not know if you remember, but we've met once before at the launch of the European Open Science Cloud in November 2018, in the Library of the University of Vienna. What struck me sitting next to you and listening to your speech is that you come across as a very ambitious person, and so my initial question to you is: What are your ambitions for Europe?

Jean-Eric Paquet: I don't know if I'm an ambitious person, but I am indeed ambitious in developing policies for Europe! And these need to be policies which drive the transitions that our societies are confronted with, such as the ecological and climate transitions and the related social and economic transitions. This means that we need to have more conversations about the directionality of research.

What I think is lacking today is the focus on what our research is for! For me, the ambition needs to be that research outputs, such as knowledge of course, but also research solutions, are feeding into the policy process for these ecological, economic and social transitions, meaning that we need to see research much more as a key contributor to European policies. So, there is a real need to have a more strategic and more policy-oriented discussion on research and that's indeed an ambition I have.

CS: And how can GÉANT, as a community which delivers access for scientists around Europe, support you?

JEP: Yes, as you say GÉANT delivers access and that means that you also very much deliver the structure for the research space. This is not your purpose per se, but it is clearly one of the impacts which GÉANT has and that is of course a big responsibility. Being properly connected to the EOSC and GÉANT makes a big positive difference to researchers and if you are less-well connected that can also have a big downside. Therefore, we need your coverage to be as broad and open as possible to ensure that the knowledge is exchanged and used across the world. Because the transitions I mentioned earlier are not particularly European of course. Our European social fabric is our responsibility, but when you look at the economic transition, this becomes much broader. How do you create wealth in the most sustainable way within our planetary boundaries? That is clearly a global challenge.

So, harnessing research communities around the globe and exchanging knowledge is key.

CS: This is interesting and reminds me how Carlos Moedas talks about the need for reciprocity in global science. How do we create reciprocity in Open Science?

JEP: Well there is a bit of a tension there. This is clearly one of the challenges and we had a lot of discussion as we were preparing Horizon Europe. Clearly politically, the notion that science is global and open is of course accepted, but at the same time in this competitive global world the notion of reciprocity not just for policymakers but also for scientists is increasingly important. There are three dimensions to reciprocity that we are looking at: funding of underlying and interconnected infrastructure – as you have in GÉANT; reciprocity in access to funding mechanisms, such as access to research programmes, which is key. The third dimension is related to the exploitation, valorisation and results. This is clearly one of the more tricky ones, where reciprocity may not need to be absolute.

I would say that the developments in Open Science are generally very slow. We have seen great progress with EOSC over the last 18 months and a growing commitment, such as GÉANT's who supported your appointment as Co-Chair of the EOSC Executive Board, but the developments are not going to happen naturally or easily, and there is a need for much outreach effort, to be done, to ensure that the diversity of the scientific community can indeed come together. The disciplines will have to make an additional effort in making their data available so that EOSC becomes a deep reality. But making our datasets available to the world requires similar investments into Open Science from policy makers and funders across the world, in order to create real reciprocity. I am always puzzled by the figure that only 13% of research data is re-used. This is an unacceptable constraint on resources, but also intellectual and financial waste.

It is here that GÉANT and the EOSC can make a real difference.

What are Plan S and cOAlition S?

Public bodies across Europe are funding vital research in a huge range of fields. However, unless this research is accessible, the full benefits cannot be realised. Therefore, Plan S aims for full and immediate Open Access to publications from publicly funded research.

“By 2020 scientific publications that result from research funded by public grants provided by participating national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms.”

In September 2018, as part of this plan, a group of 15 national research funding organisations and four charitable foundations, with the support of the European Commission and the European Research Council (ERC), announced the launch of cOAlition S, an initiative to make full and immediate Open Access to research publications a reality.

<https://www.coalition-s.org>





CS: How do you judge virtual mobility offered in our digital environments, i.e. the fact that the software will bring the datasets to the scientist?

JEP: It's a great facilitation. I have been visiting all of Europe's key research infrastructures in my first year on the job here, and I think I have visited them all. Indeed there is more and more of the lab work no longer done by the scientists, but rather done by the facilities for the virtual scientific team, wherever they are based. That requires data to be immediately available wherever the scientist is based and that is of course a big challenge for GÉANT.

CS: Horizon Europe is currently under preparation. Can you share the main changes and priorities with our readers?

JEP: Let me start with highlighting the lightning speed with which the Horizon Europe negotiations with the European Parliament and Council were carried out, over only a 10-month period and with an early agreement in March 2019, which – after the agreement of the budget later this year, will allow for one year of preparation involving our stakeholders.

Of course, it all still depends on ensuring that the member states support the budget associated with this ambitious programme.

Beyond the budget, all other parameters are agreed. But Horizon Europe is very different from Horizon 2020, even though some key activities are being carried over. For the GÉANT community, it is important to understand that Horizon Europe creates the EIC (European Innovation Council), where the idea is to create a very powerful instrument to scale up the disruptive innovation. We need our innovators to grow fast and within Europe! The EIC will

tell Europe to stay in Europe to innovate – or even better: come to Europe to innovate!

The major change in Horizon Europe is that there will be no longer any standalone programmes, but a limited and well-defined set of horizontal and cross-cutting clusters in six areas:

- Food, Bio-economy, Natural Resources, Agriculture and Environment
- Climate, Energy and Mobility
- Digital, Industry and Space
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Health.

This means that in Horizon Europe, the individual DGs no longer own their own programmes or budgets, but have to cooperate, plan and agree across clusters thus avoiding the fragmentation that we see today. For Horizon Europe, we see real co-creation across the DGs, thus bringing the added value of linking Horizon Europe to all the other EU programmes, such as Digital Europe or the Connecting Europe Facility.

In that sense Horizon Europe will of course be a disruption to our stakeholders, who are used to working with specific teams in our organisation. To ensure that this will not be a problem and create the ownership in the research community, we will start a process of co-design with our stakeholders over the next year. A structured discussion will take place in our Research and Innovation Days, taking place in Brussels from 24–26 September 2019, and it will be important that the GÉANT community becomes part of the co-design process and attends the September event.

Picture

Jean-Eric Paquet and Cathrin Stöver, Brussels

The new approach will lead to hybrid data between public and research data, which will have a huge potential impact on the GÉANT network.

Another particular novelty are the five research missions:

- Adapting to climate change, including societal transformation
- Cancer
- Healthy oceans, seas, coastal and inland waters
- Climate-neutral and smart cities
- Soil health and food.

Over the summer, 15 key appointments will be made to each of the mission boards, with the responsibility to identify the specific delivery objectives for each of the five areas. The key here is to move beyond the research, as I have once been told: “a scientific publication has never cured a patient.” You need a doctor, a hospital, so you have to move into the public policy, which brings us back to the beginning of this interview and my ambitions.

CS: My last question concerns Europe's future scientists. How do we prepare our children and young adults for the future?

JEP: Just like your daughter, three of my children are studying biology. On the university level, the digital infrastructure is all there, from eduroam to access to genome sequencers. But I am quite struck that the didactics behind it are quite similar to when my generation studied. The students are not pushed to understand the interface between the content of their studies and the digitalisation of it. It is offered, of course, but it is not central. However, I have to be modest about what I say here, because this is of course in the area of education, which is largely, and for historically good reasons, member-state led. But there is of course the expectation to better connect the education world to the research world. The instruments available here are of course ERASMUS, Marie Curie and the ERC.

However, the career of researchers, outside industry, is a genuine problem in Europe, and this is well identified by Member States, but not easily brought forward. So, we work with Member States to team up better and then also help them and focus the discussion on the skills of the people.

The education and research sides of the Commission are working closer together than ever before.