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30 Mar 2021 | News

Industrial partnership on space is grounded – and the industry wants to know why

The Commission is finalising the next generation of 40-odd public-private partnerships, with the first eleven set to launch in June, But after three years in the planning, the space partnership now finds itself in a sea of uncertainty

By Goda Naujokaitytė

The European Commission is preparing to launch of 40-odd public-private partnerships in the coming months, but the new partnership for space research may not get off the ground any time soon.

The space partnership was due to start in June, along with eleven other research partnerships between industry and the Commission, but EU member states did not approve of its current shape.

Jérémy Hallakoun, technology strategy manager at Eurospace, one of the associations representing industry in the space partnership, told Science|Business the decision took the industry partners by surprise. For the past three years, they have been working with the Commission to create the

partnership only to find out it will not start this year. “We are asking for more transparency,” Hallakoun said. “We gave a lot of resources, but we have no assurance.”

Since this form of research partnership began in 2000, it has been one of the most contentious and lobbied for EU research instruments. These public-private projects strive to strengthen EU industry by harnessing the power of science and providing access to the academic research base. In the last EU research programme, the Commission had over 120 partnerships with industry and national research funders. In Horizon Europe, the partnership portfolio has been downsized to around 49 and simplified to three kinds of structures.

The space partnership is one of 12 so-called ‘co-programmed’ partnerships. There are also 16 ‘co-funded’ partnerships between the Commission and research funding bodies in member states. Then they are ‘institutionalised’ partnerships bringing together the Commission, industry, and member states. These represent a longer-term commitment to the cause and they need to pass through the EU Council before they can come to life.

The partnerships are funded by the collaborative projects ‘pillar’ in Horizon Europe, which makes up more than half of the €95.5 billion research funding programme, as well as by contributions from industry and member states. By February, member states had already pledged (https://sciencebusiness.net/news/gabriel-says-gap-between-programmes-will-be-narrow) €10.8 billion, while industry had mobilised €12 billion for the research partnerships.

Some Horizon Europe calls are already out, and the work programmes setting out the research calls for the next two years will be published in early May. But launching the partnerships is taking a little longer. The first eleven industry partnerships are expected to start up in June, but the Commission is yet to name the date.

Ten institutionalised partnerships are being rushed through the Council as the Portuguese Presidency wants to finish up as much of the legislation as possible during its term, which ends in June. The hope is to launch these partnerships by next year.

In the meantime, industry is hoping to convince the Commission to publish draft work programmes with the calls for the institutionalised partnerships in advance, as early as September. This would give researchers clarity, ensuring they are aware of the topics before the legislation is settled, said Sophie Viscido, senior advisor for policy strategy and analysis at EARTO, an association of research and technology organisations (RTO).

Among the projects that must pass European Council scrutiny, the outlier is the eleventh partnership, EuroHPC for improving high performance computing capacity in Europe. A separate proposal for the partnership reached the Council in September, and the Portuguese Presidency hopes to seal an agreement on the €8 billion initiative, of which €3.5 billion come from the EU budget.

Co-funded partnerships are still in the making and are not expected to start up until next year, with seven foreseen to first appear only in the 2023/24 work programme.

The list is not definitive yet. A 50th partnership on pandemic preparedness is being drawn up. The Commission has yet to decide whether this will be co-funded or co-programmed, but it is investing €2 million in the next two years to test out the waters. The project has been added to the strategic plan, meaning it is likely to launch by 2024.

To boldly go… or not?

The next step for the space partnership is a series of discussions between member states and the Commission. Seven meetings are planned between now and October, but industry will not be invited to join the negotiations. “I have trust in the European Commission that they will debrief us. But for me, it’s not enough. We want to be sitting at the table as their partners,” said Hallakoun.

Science|Business asked the Commission why the partnership is being held up, but did not receive a response before publication. It appears to boil down to member states wanting to retain oversight on the partnership, as expressed in numerous meetings of the Strategic Configuration of the Horizon Europe Programme Committee, a group of Commission policymakers and member states representatives drafting the work programmes.

The address this, in a committee meeting in December, the Commission said it is "committed to working in team with the [member states] in the Space Partnership, in order to develop a stronger public sector position vis-à-vis our industrial counterparts."

A month later, some member states once again asked for the space partnership to be removed from the first Horizon Europe strategic planning effort, postponing the launch to as late as 2023. In February, the Commission and member states finally agreed to put the partnership in the strategic plan, with a footnote specifying it will not launch until at least 2022.

For Hallakoun, starting in 2022 means the space partnership will have few inputs to the next Horizon Europe work programme, which outlines calls for 2023-2024, leaving the partnership with only two years of full participation in the seven-year research programme.

But he can understand the member states' reservations. The space market is largely public, with 60% of procurement coming through public organisations, such as the European Space Agency. EU member states have their own national space agencies and interests to protect. "It is a mixed bag, where everything is European, but at the same time the national interests stay strong," Hallakoun said.

Space funding in Horizon Europe has shrunk since 2018, when it was expected the budget could be as high as €4 billion. Now, Hallakoun calculates, it is barely €1.5 billion. With a smaller budget, the work programme is subject to numerous budgetary disputes within the Commission that cannot be supported by industry.

In the end, there is a dissonance between EU industry commissioner Thierry Breton's high ambitions for space and much smaller efforts coming out of the Commission administration. After three years of lobbying, the industry partners say they understand why the ambitions have shrunk but demand more transparency in the decision-making process as the partnership continues to be debated behind closed doors.

The wish list

The Parliament's rapporteur for the institutionalised partnerships, Portuguese MEP Maria da Graça Carvalho, says the Commission's proposal currently being

considered by the policymakers is very much in line with the previous Horizon 2020 generation of partnerships.

The big novelty, according to Carvalho, is the integrated financial management for the partnerships, which means member state contributions will be managed under the same umbrella. “Myself, I am a bit cautious about it. I need to analyse it carefully, because the partnerships were working well with separate management,” she said.

The institutionalised partnerships cover sectors including global health, clean aviation, hydrogen, smart networks and rail networks. A tenth partnership, under a separate legislation, between the Commission and member states focuses on metrology. “It’s a big challenge to have this integration in the management, so it is needs to be very simple and flexible to be successful,” Carvalho continued.

The other key aspect is ensuring the partnerships are open to different players in the research community. Earlier this month, EU research commissioner Mariya Gabriel told MEPs that the partnerships must be easy for SMEs to join.

Viscido says non-profit research actors play a key role in these partnerships, and believes RTOs are essential in helping “steer the wheel in the right direction.” She added that “the funding rates for non-profit RD&I actors participating in partnership projects cannot end up [being] lower than in the rest of the Horizon Europe programme.”

There is also a need to maintain a balance between technology readiness levels in the proposed partnerships. “We need partnerships to cover the whole TRL scale,” Viscido told Science|Business. In putting too much focus on very short-term near commercialisation activities, “the risk is that you don’t have the full competence building part which will be crucial in a few years’ time.”

Carvalho believes all stakeholders are more or less on the same page when it comes to the legislation, demanding simplification, flexibility, and an ambitious budget for the industrial research projects.

The money

The streamlined EU partnerships will be bigger than before, and the ambitions have also been taken up a notch. The EU contribution will be around €10 billion

for the next seven years, matched by comparable sums from public and private partners.

The Global Health EDCTP3 partnership will have a foreseen total budget of €1.8 billion to improve healthcare in Africa, more than twice its predecessor. The ambition will also be loftier, covering more diseases and moving towards more funding for late stage drug development. Meanwhile, the clean aviation partnership hopes to accelerate the development of carbon neutral aircraft with a €1.7 billion contribution from the Commission and €3 billion from industry.

Carvalho welcomes the ambitious plans but warns they need to be matched with appropriate funding, which currently seems to be rather low. The answer, she believes, is to create links with other programmes, such as the pandemic recovery fund, regional funds, and additional private investments.

All of this hangs on having a simple and flexible management system. "When you start putting all this together, if don't have a simple and flexible system, you have administrative and financial hurdles that will take a lot to solve," Carvalho told Science|Business. Everything else she want to push in the partnerships, such as SME participation and links to regional innovation ecosystems, depends on that, Carvalho said.

A race against time

EU research ministers are next due to discuss the institutionalised partnerships in May. Around the same time, Carvalho will present her report on the legislation to the Parliament for discussion in the industry, research and energy committee, ITRE. In mid-September, the report is expected to be presented in the Parliament plenary and will then feed into member state negotiations.

The Commission's proposal for ten institutionalised partnerships with industry was sent to the EU Council in February. The negotiations between the member states are at an early stage, but the partnerships are legally similar to EuroHPC, which is expected to ease the way for those following on behind, as the negotiations on its legislation is reaching the final stages, a Council spokesperson confirmed.

Outside the legislation, the European Institute of Innovation and Technology's (EIT) ten innovator networks in areas including raw materials and digital

technologies , called Knowledge and Innovation Communities, also act as public-private partnerships. They draft business plans for their work and have a separate legislation as part of the EIT.

Until the next generation of public-private partnerships are fully up and running, most of the partnerships have smaller efforts operating under the old Horizon 2020 legislation.

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