

Something new on the horizon? From Horizon 2020 to Horizon Europe

The European Union has been a proponent of fostering research and innovation activities in its territory through financial efforts (and otherwise) for a long time . The primary objectives of these efforts have always been improving the competitiveness of the EU, the management of its resources, improving and sustaining scientific excellence, and addressing societal challenges. In the years following 1984 , these activities have been defined and implemented by a series of multi-annual Framework Programmes ("FP"s) (from the 1st FP (1984-1987)¹ to the 7th FP (2007-2013)² and Horizon 2020 (2014-2020)³). Each new iteration of these frameworks broadens the scope of this support: this ever-expanding budget at an EU-level has grown from 3.8 billion euros in FP1 to 77 billion euros under Horizon 2020.

This year marked the beginning of the latest EU-wide research and innovation funding framework programme "Horizon Europe": a seven-year funding programme with an impressive budget of 95.5 billion euros, and an even larger ambition than any of its predecessors. Indeed, Horizon Europe sets the scene for a renewed commitment of the European Union to remain a key world-player in the scientific and innovation field. Experience brings wisdom, and Horizon Europe has the benefit of being able to build on the lessons learned from its predecessors. This is reflected in a number of key new policies introduced by the new framework. That being said, on many levels, it is a continuation of its predecessor Horizon 2020, and should be considered an evolution rather than a revolution. In this article, we will discuss some of the most important updates vis-à-vis Horizon 2020 and how these updates might affect the considerations for participating to a Horizon Europe Project.

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1. *Voulez-vous aller au marché avec moi?* Overcoming the "Valley of Death of European Innovation" and increasing the focus on innovation and effective exploitation

One of the main points of critique in relation to Horizon 2020 and its predecessors has been its suboptimal impact in terms of exploitation and commercial uptake of publicly-funded results. While the European Union is well-known for its excellence in terms of scientific research and know-how, it is lagging behind when it comes to innovation and effective market-creation, significantly outpaced by the US and China; The EU found that the ability of small businesses and start-ups to develop and scale up their innovations is often hampered by the lack of financial resources, especially since the new sectors in which they are trying to grow are often too risky to attract private investors. The European Union does not yet have its own Silicon Valley (this financing market failure is even sometimes referred to as the "Valley of Death of European Innovation").

¹ Council Resolution of 25 July 1983 on framework programmes for Community research, development and demonstration activities and a first framework programme 1984 to 1987.

² Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities and Council Decision 969/2006/EC of 18 December 2006 concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) or nuclear research and training activities.

³ Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC.

Horizon Europe seeks to address this concern on different levels: (i) by creating additional and alternative funding modalities and accelerators for start-ups and SMEs, through the establishment of the European Innovation Council ("EIC"), and by widening EU-support to boosting activities after the EU-funded Projects have been completed; and (ii) by strengthening the legal obligations on Project participants to ensure the effective exploitation of publicly funded results.

Building on pilot initiatives launched under Horizon 2020, Horizon Europe establishes as part of the EIC Accelerator a hybrid-funding approach specifically tailored to SMEs and start-ups, providing grant funding, and interestingly, also blended-financing through venture capital investments managed by a dedicated fund under the auspices of the EIC (the EIC Fund). With a budget of 10.1 billion euros, expectations of the EIC are high. Additionally, the EU has allocated a significant budget to providing free consultancy services to build an exploitation strategy and business plan and prepare for the going-to-market, to participants to EU-funded projects, especially start-ups and SMEs under the newly established [Horizon Results Booster](#). The EIC Accelerator might prove to become an important driver for innovation in Europe. SMEs should consider making applications to participate as part of their financing strategy. If the article will be published in print at all I would put the link in brackets after this and then hyperlink that.

On the other hand, the EU expects that Project participants make extra efforts in exploiting their results after the Project lifetime and imposes a best effort obligation in that regard on each participant. This best effort obligation is not new, however, importantly, under Horizon Europe the EU has implemented two additional mechanisms to help monitor performance of this obligation. At the end of every Project, each consortium will need to indicate the ownership of every result, as well as how the result will be exploited, in the so-called Results Ownership List (ROL). Without this ROL, the final Project report will not be accepted by the European Commission. The ROL is a useful tool for the participants to have clarity on the ownership of the various results that arise within a collaborative Project; this question is not always as clear-cut as one may hope. A lack of clarity on ownership deters exploitation of the result, and risks shunning away potential investors.

2. Better together: a new approach to partnerships; simplification and rationalisation

Another important change brought about by Horizon Europe concerns the rationalisation of the European Partnership landscape. European Partnerships, which are essentially large-scale collaboration projects between the European Commission and various public or private entities, are a useful tool to allow for a coordinated approach to the biggest challenges of our time (such as health, climate change and digitalisation). They contribute to the strengthening of the European Research Area by avoiding or at least reducing the duplication and fragmentation of efforts and investments.

Under Horizon 2020, the proliferation of partnerships somewhat undermined the benefits they could produce - more than 100 partnerships were organised in many different forms - often making the framework unnecessarily complex and deterring potential participants to apply for funding due to the sheer amount of administration.

Within the Horizon Europe framework, 49 European Partnerships are organized in three distinct groups: Co-Programmed Partnerships⁴, Co-Funded Partnerships⁵ and Institutionalised Partnerships⁶.

⁴Co-Programmed Partnerships are formed between the European Commission and mostly private parties (industry). They are based on a Memorandum of Understanding specifying their governance structure, functioning and objectives. The activities of this type of partnerships are only partly financed through EU funding, complemented by non-funded in-kind contributions of the other partners at least matching the EU contribution.

⁵Co-Funded Partnerships involve public bodies from member states and/or associated countries, which provide at least 50% of the funding for the project. They are based on a joint programme agreed and implemented by all partners.

⁶Institutionalised Partnerships are joint ventures between the European Commission, member states and/or associated countries and industry, pooling financial or in-kind contributions from all partners. Their creation requires a Council Regulation or a Decision by the European Parliament and Council and is based on the need for long-term, intensive collaboration.

This further extends the budget and innovation opportunities of the European scientific community. In their conception, the European Commission expressed the need for an aligned approach between partnerships, aiming for simplification of the frameworks and increased synergies between partnerships. This aligned approach between partnerships is also reflected through the adoption of the first 9 institutionalised partnerships (some of which are a successor of the JUs under Horizon 2020, e.g. the Innovative Health Initiative, born out of the Innovative Medicines Initiative) through the Single Basic Act⁷ last month, which sets the common ground rules between the Joint Undertakings established thereunder. Nevertheless, the proclaimed simplification remains to be seen: the specific legal frameworks for these partnerships will need to be further developed over the next few months and will necessarily be adapted to the needs of each partnership, which each operate in different fields. Legal counsel and other stakeholders may find themselves yet again confronted with a multitude of legal frameworks they need to familiarise themselves with, or engage external counsel for expert advice in relation to their partnership of interest, despite the aim for simplification.

3. Sharing is caring : towards a stronger open science policy

As a way of maximising the return on investments in research and innovation, 'open science' is a key policy priority of the European Commission and will be the default for results of projects funded under Horizon Europe more than ever before. Moreover, implementation of the open science approach will need to be expressly addressed in each project proposal under Horizon Europe and is now part of the evaluation criteria. The underlying philosophy is that openness improves the efficiency, quality, and responsiveness of research by allowing other researchers to review and build on the results of earlier projects. Knowledge generated with public funding should benefit the scientific community as a whole.

In EU-funded Projects, this typically translates into two main obligations for participants: (i) the obligation to ensure open access to all peer-reviewed scientific publications relating to the results of their projects; and (ii) the obligation to provide open access to the research data ("ORD") generated in the projects. These two elements are not new under Horizon Europe but were part already of the Horizon 2020 framework. In relation to the open access to scientific publications requirements, no particular changes have been implemented in the new framework. The requirement to ensure open access to research data however has been subject to some changes.

The key requirement under ORD entails that any research data generated under an EU-funded project needs be uploaded into a trusted, publicly accessible, repository, in accordance with multiple predefined structuring requirements (the data must be well documented, curated and managed, in accordance with responsible data management principles, in a way consistent with the FAIR principles, making the data as findable, accessible, interoperable, and reusable as possible) and the Data Management Plan each Project is required to establish. This ORD often conflicts with the desire of private companies to keep their data closed and keep a competitive advantage, as data is more and more a key asset of many industries.

Most importantly, where under Horizon 2020 participants had the option to opt-out of the ORD, no general opt-out is possible under Horizon Europe.

⁷ Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe.

⁸ See also Directive (Eu) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information, which further seeks to enshrine open access of publicly funded research data throughout the Union.

Private companies often sought to opt-out entirely of the ORD under Horizon 2020, ensuring that open access to research data was always a conscious and controlled decision. Under Horizon Europe, not committing to granting access to a certain dataset is a conscious decision. That being said, the principle that access should be “as open as possible, as closed as needed” still applies, hence exceptions are still allowable with due justification: for example there is an exception if participants can show that they have legitimate reasons not to grant such access (the data is commercially sensitive, contains personal data, etc.). However, it remains to be seen how flexible the Commission will be in accepting e.g. the need to safeguard commercial interests or the sensitive nature of information as being legitimate reasons for keeping the data closed. In any event, this means that legal counsel and IP attorneys will need to be extra careful when their client is engaging in EU-funded projects, and will need to define a strategy and prepare adequate justifications for all sensitive data that may be generated under a Horizon Europe Project.

Another novelty of note is the establishment of a public emergency open access requirement. Following the critique and discussions in relation to the (lack of) access to knowledge and IP by the broad scientific community to combat the covid-19 pandemic, the EU has embedded the possibility to impose in the call conditions open access to any Projects’ research output into its framework. In case of a public emergency regarding the security, public order or public health of the EU, participants must (if requested by the granting authority) immediately deposit any research output in a repository and provide open access to it. As an exception, if the access would be against the participants’ legitimate interests, they must grant non-exclusive licenses — under fair and reasonable conditions — to legal entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions. It will be interesting to see in which instances the European Commission will call upon this obligation, and how useful it will prove to be to effectively combat public emergencies, bearing in mind that it does not impose any obligations regarding private assets of Project participants. In the end, this novelty may prove to be virtue signalling rather than providing a hard tool for combatting public emergencies.

4. Something new on the Horizon?

In many ways, Horizon Europe is a continuation of the previous framework. Nevertheless, some important novelties have been added that have the potential to impact the R&I field throughout Europe. More focus is routed to less sophisticated prospective participants to benefit from the various funding opportunities and support to get them and their innovative products to the market. Moreover, the new framework seeks to further push for an open science approach, building on the initiatives started under Horizon 2020. However, despite the efforts for simplification of the framework, specific administrative and legal expertise is still required to navigate the different instruments and ensure that your interests as a participant are safeguarded.

Authors



Pieter Wyckmans
Partner
Pieter.wyckmans@quinz.be
+32 2 255 73 80



Olivier Van Obberghen
Partner
Olivier.vanobberghen@quinz.be
+32 2 255 73 80



Michiel D'herde
Associate
Michiel.dherde@quinz.be
+32 2 255 73 80



Chaline Sempels
Associate
Chaline.sempels@quinz.be
+32 2 255 73 80