



USING SCIENCE DIPLOMACY  
FOR ADDRESSING GLOBAL CHALLENGES

## INTERNATIONAL DIMENSIONS OF THE EU'S FET FLAGSHIPS: LARGE- SCALE STRATEGIC RESEARCH INVESTMENTS AS A SITE OF DE-FACTO SCIENCE DIPLOMACY

A STUDY OF FUTURE AND EMERGING TECHNOLOGY (FET) FLAGSHIP INITIATIVES AS POTENTIAL MECHANISMS OF EU SCIENCE DIPLOMACY, REVEALS THAT THEIR GOVERNANCE MODELS AND DESIGN AS RESEARCH POLICY INSTRUMENTS HAVE SECTORAL FOREIGN POLICY DYNAMICS.

The European Union's three FET Flagship projects are among the largest and most ambitious cooperative research endeavours on the globe. The European Commission launched the Flagship programme as part of its 7th Framework Programme. The first two Flagship projects (Graphene, Human Brain Project) started in 2013, the third (Quantum Flagship) kicked off in 2018 (already under the Horizon 2020 regime).

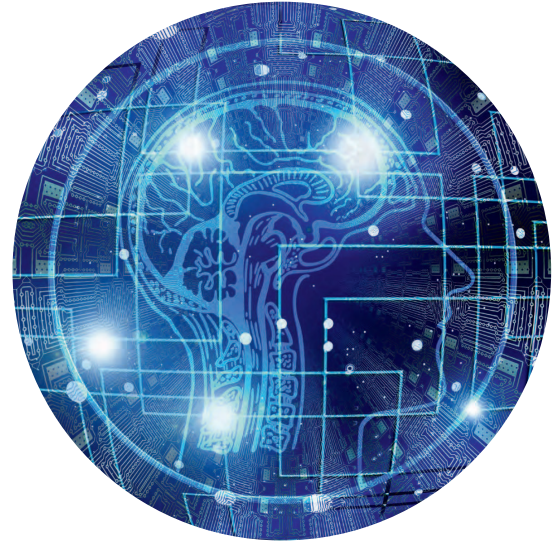
Each of the three is expected to absorb around € 1bn of public and private funding over a potential 10-year period, to transform outstanding European research into technological innovation in areas of strategic relevance, and to bring economic and societal benefit for the EU.

The Flagships' governance is rooted at the EU-level, involving DG Connect and DG Research as the relevant European Commission bodies with the EU Member States involved to varying degrees. Importantly, there are no formal links to foreign policy (on either level).

At the heart of the Flagships are the fundamental tensions of cooperation and competition, and openness and restriction: The Flagships' mandate is to generate innovation leading to economic benefits for the EU. At the same time, they build on and support transnational collaborative research, which is considered necessary to generate innovation, at a hitherto unprecedented scale. Properly defining stakeholder relations with, for instance, research policy actors outside of the EU is a challenge, as is managing information flows within the Flagship and between the Flagship and its environment. The question of how these tensions are resolved (or not) is what makes the Flagships an interesting case from a science diplomacy perspective.

Having only EU partners involved in the Flagships does not solve the tension of openness and restriction: Flagship researchers collaborate with non-EU based peers, they move geographically and sectorally (academia-industry) along their career, and non-EU researchers are involved in evaluating Flagship project proposals. Our research shows that FET Flagships as an intervention cause substantial interactions with non-EU stakeholders. Nevertheless, the FET Flagships have not found their way into formalised EU-level foreign policy-making, but have developed their own foreign policy and science diplomacy dynamics.

The European Commission is aware that research cannot be isolated. The approach is to provide the necessary regulatory environment to make sure that the economic value created by the EU-funded research actually benefits the EU. Concerns about competitiveness have taken up resources that could also have been used to define a niche for science diplomacy. There is a lack of systematic reflection on the EC level on various issues, such as the unintended consequences of ad-hoc diplomacy, potential positive effects of strategically including third country partners, and possible links to global challenges.



### KEY FINDINGS OF THIS CASE STUDY

- » The Flagships can be considered as an instance of unintended sectoral foreign policy and underexploited science diplomacy potential. Due to their size, research funding instruments like the Flagships, although never per se intended as science diplomacy interventions, can have science diplomacy impacts and effects on the EU's international relations.
- » FET Flagships developed their own foreign policy and science diplomacy dynamics. In particular, science-for-diplomacy components potentially benefit the EU's international relations with certain partners.

### KEY RECOMMENDATIONS

- » EU science diplomacy should monitor intended and unintended foreign policy consequences of large-scale research policy interventions as such, but also of the science diplomacy-related activities of its stakeholders, including non-traditional actors in diplomacy.
- » FET Flagships should be seen as windows of opportunity for science diplomacy and reflected as such.
- » As the instrument of the Flagships is to be discontinued in the next FP, Horizon Europe, the importance (symbolic, epistemic, political, etc.) of the existing ones as well as the upcoming 'Research and Innovation Missions' need to be carefully considered – in general and for the EU's international relations in particular.



Science diplomacy in large-scale public research investments can avoid potential negative effects of ad-hoc diplomacy.

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