

UKRO Horizon 2020 Condensed

Space

What is 'Space' in Horizon 2020?

The Space Work Programme is the third element of Pillar 2 of Horizon 2020 - Leadership in Enabling and Industrial Technologies.

The primary aim of the Space Work Programme is to foster a cost-effective competitive and innovative space industry and research community to develop and exploit space infrastructure to meet future EU policy and societal needs.

Increasing industrial participation is expected across the 2018-2020 Work Programme. Actions will be carried out in conjunction with research activities of the Member States and European Space Agency (ESA), aimed at building up complementarity among different actors.

The Commission proposal for Horizon 2020 sets the following motto for EU Space R&D for 2014 to 2020: to 'Prepare for the increasing role of space in the future and reap the benefits of space now'.

The Work Programme has been structured to;

- Prioritise the existing two EU Space flagships: the European Global Navigation Satellite System (EGNSS) and Earth Observation.
- Ensure support for the protection of space infrastructure and, in particular, the setting up of a Space Surveillance and Tracking system (SST) at a European level.
- Ensure support to EU industry to meet the objectives defined in the Commission communication on Space Industrial Policy.
- Ensure that Europe's investments made in space infrastructure are exploited to the benefit of citizens.
- Enhance Europe's standing as an attractive partner for international collaboration in space science and exploration.

What will be funded?

In the light of the strategic orientations of Horizon 2020 for the final three years, the space part of the LEIT Work Programme will:

- Support the market uptake and evolution of Copernicus and EGNSS (Galileo/EGNOS);
- Underpin space business, entrepreneurship, space technologies and science;
- Support security aspects and access to space;

Topics in 2019-2020

- Earth Observation (4 topics 2019/ 4 topics 2020)
- Space technologies, science and exploration (3 topics 2019/ 4 topics 2020)
- Space business, entrepreneurship, outreach and education (1 topic 2019/ 1 topic 2020)
- Secure and Safe Space Environment (3 topics 2019, 1 topic 2020)
- EGNSS market uptake 2019-2020 (4 topics 2019, 4 topics for 2020)
- ‘Other Actions’ (15 topics)
Covering areas such as EGNSS, ESA support, ISEP, IoD and SST in the form of prizes, public procurements, expert contracts etc.

Call timings

All of the topics above are organised under two calls: ‘Space’ and ‘EGNSS Market Uptake’. All topics are single-stage submissions.

Space topics in the Work Programme in 2019 opened on 16 October 2018 and closed on 12 March 2019. The EGNSS market uptake call in 2019 opened on 16 October 2018 and closed on 5 March 2019.

Results of both calls are expected by the end of August 2019, with new calls for 2020 expected to open in autumn 2019.

Funding, eligibility and project details

Funding for Space under the 2018-20 Work Programme is primarily through Research and Innovation actions (RIA), Innovation actions (IA) and Co-ordination and Support actions (CSA).

While the manner in which applicants choose to address a specific topic challenge is largely at their discretion, generic minimum consortium requirements are listed in the Work Programme and any specific individual topic requirements are given in the description of the topic scope.

Relevant EU policy areas and developments

In 2011, the European Commission published the communication "**Towards a space strategy for the European Union that benefits its citizens**", which reflects the crucial role of space for the economy and society. The communication sets out the main priorities for EU space policy, which includes ensuring the success of the EU's two flagship space programmes Galileo (successor to the European Global Navigation Satellite System – EGNSS) and Copernicus (previously known as Global Monitoring for Environment and Security - GMES), the protection of space infrastructures, and space exploration. The communication also calls for the development of an industrial space policy in close cooperation with EU Member States and the European Space Agency. EU Space industrial policy was subsequently addressed in the 2013 communication: "**EU Space Industrial Policy: Releasing the potential for Growth in the Space sector**".

The ESA operates separately to the European Commission Space programme, though there are close ties between the two. ESA is an intergovernmental organisation, with different (though overlapping) member states to the EU and different rules and procedures. The legal basis for cooperation between the EU and ESA is provided in a Framework Agreement and the jointly prepared European Space Policy sets out the basic vision and strategy for the European space sector, addressing issues such as security and defence, access to space and exploration.

In 2016, the European Commission formally adopted a comprehensive **Space Strategy for Europe**, which proposes a range of actions, including the four main priorities to:

- Maximise the benefits of space for society and the EU economy, by promoting the use of Galileo services in mobile phones and cars, as well as by improving access to space data for start-ups;

- Ensure a globally competitive and innovative European space sector, by making it easier for companies and start-ups to access space data via dedicated industry-led platforms so that they can develop services and applications; by promoting more private investment for start-ups;
- Reinforce Europe's autonomy in accessing space in a safe and secure environment, by supporting the development of cost-effective, reliable and competitive European launchers;
- Strengthen Europe's role as a global actor and promoting international cooperation.

The Space part of the Horizon 2020 Work Programme for 2018-20 supports the delivery of these four key areas.

The SPACE part of LEIT supports two of the H2020 'focus areas' for the last three years of the work programme:

- **Digitising and Transforming European Industry and Services Focus Area:** Aims to increase industrial competitiveness, growth and jobs by combining digital technologies with KETs and other advanced technologies. Enables all sectors to adapt, transform and benefit from digitisation and foster the uptake of digital technologies and innovations.
- **Security Union Focus Area:** The Focus Area will support implementation of Security Union priorities, including reacting to and recovering from disasters; preventing, investigating and prosecuting crime including organised crime and terrorism; improving border entry security; protecting infrastructure against natural and man-made threats, including cyber-attacks; digital security and privacy and space-related research.

The Commission has now published information 'booklets' on how each focus area influences the various aspects of the work programme. Those relevant to SPACE can be found via the links below.

The next major development in EU Space Policy will be the **adoption of the Space19+ agenda** by relevant Ministers in November 2019. Space 19+ will be an opportunity to direct Europe's 'next generation' ambitions in space, and address the challenges faced by the European space sector. Space 19+ builds on the Space Strategy for Europe and defines long-term objectives alongside the development of the EU Space programme under the next EU budget for 2021-2027.

EU Space Programme 2021-2027

In December 2018, The EU Council **announced** it had approved all the details of the **2021-2027 space programme**, which, once a budget is finalised, will establish a new EU Agency for the space programme, to be based in Prague. This will replace the current Global Navigational Satellite Systems agency. Having now been adopted (in June 2018), the Commission's proposal outlines a budget of €16 billion over seven years. However, negotiations are ongoing as part of the wider discussions on the EU's future budget.

Work programme update -2019 & 2020

The draft 'updated' work programme for 2018-20 in this area does not include any major changes from those foreseen in July 2018. Namely, the alterations to call sub-topics and inclusion of one new action. These changes largely reflect the continuing maturation and commercial uptake of services provided by the EU's flagship Earth observation system 'Copernicus'.

In addition, a new sub-topic has been introduced under the security element of the SPACE call with funding available for a 'Space Traffic Management' call.

Other suggested minor changes in the wording of various call sub-topics have been introduced to signify the importance of utilising the new DIAS data service provided by Copernicus.

For specific topics under Earth Observation, applicants are now invited to investigate synergies with the Knowledge and Innovation Communities (KICs), in particular the Raw Materials and Climate KICs.

More information:

- European Commission Research and Innovation Participant Portal for:
 - Calls for proposals
ec.europa.eu/research/participants/portal/desktop/en/opportunities
 - Space Work Programme 2018-2020 (updated in July 2019)
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-space_en.pdf
- The European Commission provides information on the EU Space programme (including links to key policy documents and to research calls) on the following website: ec.europa.eu/growth/sectors/space/
- The European Space Agency website: esa.int/ESA
- Space Strategy for Europe: ec.europa.eu/docsroom/documents/19442
- Sign up to the UKRO Portal to stay up to date on Space in Horizon 2020: ukro.ac.uk
- **H2020 Focus Area booklets:**
https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/dt_booklet.pdf
https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/su_booklet.pdf
- For specific questions, contact your assigned UKRO European Advisor.