Technologies for European non-dependence and competitiveness

Specific challenge: *The space sector is a strategic asset contributing to the independence, security and prosperity of Europe and its role in the world. Europe needs non-dependent access to critical space technologies, which is a conditio-sine-qua-non for achieving Europe's strategic objectives. ""Non-dependence"" refers to the possibility for Europe to have free, unrestricted access to any required space technology. Reaching non-dependence in certain technologies will open new markets to our industries and will increase the overall competitiveness of the European Space sector.*

Scope: *Research in technologies for European non-dependence and competitiveness has been undertaken within the frame of the EC-ESA-EDA joint initiative on Critical Technologies for European non-Dependence, launched in 2008.*

Activities to be proposed in this call will address technologies identified on the list of Urgent Actions as part of the Joint EC-ESA-EDA task force on Critical Technologies (see Excerpt from Critical Space Technologies for European Strategic Non-Dependence – List of Urgent Actions for 2012/2013"" – June 2012, and the update for the 2014 call in http://ec.europa.eu/enterprise/policies/space/research *focusing on those areas that have not so far benefitted from prior Framework Programme funding and representing the highest potential for being addressed through the co-funding instruments available in Horizon 2020. A number of priority technologies have been identified for H2020 support from which proposers can choose:*

U1 - Space qualification of low shock non-explosive actuators

U2 - Advanced thermal control systems

U5 - Alternative to Hydrazine in Europe

U11 - Application Specific Integrated Circuits (ASICS) for Mixed Signal Processing

In this context, technological spin in and/or bilateral collaborations should be enhanced between European non-space and space industries and proposals are expected to provide advanced critical technologies that are of common interest to different space application domains (e.g. telecom, Earth-observation, science, etc.), or even with applicability to terrestrial domains.

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 4 million would allow this specific topic to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. A maximum of one proposal per identified Urgent Action line will be selected for funding.

Expected impact:

To reduce the dependence on critical technologies and capabilities from outside Europe for future space applications, as identified in the EC-ESA-EDA Critical Space Technologies for European Strategic Non-Dependence (see ""Critical Space Technologies for European Strategic Non-Dependence – Background Document – 2011").

To develop or regain in the mid-term the European capacity to operate independently in space, e.g. by developing in a timely manner reliable and affordable space technologies that in some cases may already exist outside Europe or in European terrestrial applications. Nevertheless, proposals should strive to go beyond the present state of the art or, preferably, the expected state of the art at the time of completion if alternative technologies are being developed outside Europe.

To enhance the technical capabilities and overall competitiveness of European space industry satellite vendors on the worldwide market. The proposals are expected to open new competition opportunities for European manufacturers by reducing the dependency on export restricted technologies that are of strategic importance to future European space efforts. They should enable the European industry to get non-restricted access to high performance technologies that will allow increasing its competitiveness and expertise in the space domain.

Proposals should include a work package dedicated to the development of a commercial evaluation of the technology, and should address how to access the commercial market with a full range (preload) of recurring products.

Proposals should improve the overall European space technology landscape and complement the activities of European and national space programmes.

Proposals should ideally include development activities up to space qualification.

Type of action: Research and innovation actions.

Ostatnia aktualizacja: 13 Listopada 2023

Permalink: https://cordis.europa.eu/programme/id/H2020_COMPET-01-2014/pl

European Union, 2025