End-to-end satellite communication systems and associated services

The expected outcomes of this topic will enable flexible end-to-end satellite communication system (including both space and ground segment) with high productivity and growing data and service requirements. Security aspects should be considered in all targeted developments.

Scope:

Adress one area of R&I:

- R&I on secure quantum communications through the development of components for quantum satellite communication systems as well as of space technology components and systems necessary for Quantum Key Distributions (QKD);
- R&I on ground segment, infrastructures, protocols, development of virtual network and application functions as well as networks including end-user terminals and equipment considering the handling of a range of new needs providing scalable and resilient solutions while reducing costs.

Topics:

- Capture 50% of global accessible Telecom satellite market by 2028;
- Showcasing a secure, flexible and competitive end-to-end-system aiming a ground demonstrator by 2026/27;
- Full inclusion and utilisation of satellite communication in 5G/6G network
- Short to mid-term disruptive development and maturation of key technologies (up to TRL6) for high performance and secure communication systems;
- Support the EU space policy and end-to-end secure communication by paving the way for the deployment of a future EU secure and global quantum satellite communication capacity;
- Contribute to EU non-dependence for the development of quantum communication technology in space;
- Enhance the TRL to 5-6 of the components necessary to build a quantum satellitecommunication capacity using EU technology in preparation of an IOD/V.





The indicative budget for this category is EUR 12.00 (Million).

Reference:

HORIZON-CL4-2021-SPACE-01-11

Research and Innovation Opening: 28 Oct 28 2021 Deadline: 16 Feb 2022

Call overview, Produced 04/10/2021. Visit our website www.opencalls.space

Countries



EU member states, Iceland, Norway

Technology



Quantum satellite communication systems, quantum communications, virtual networks, Space technology components, ICT, 5G 6G, <TRL 6

Activities



R&I, component development, Infrastructures/ Protocols development, Cost reduction

Contact



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