

JOIN THE INDUSTRY-DRIVEN ICT RESEARCH PROGRAMME





CELTIC-NEXT with its end-to-end approach is key for allowing the development of dedicated applications using the network with all the required features for a given economic sector.



CELTIC 16 years of sucess



Key strengths of the Clusters: large community of like-minded people to cooperate with globally; continuous work on prioritised topics is possible; high flexibility; market relevance.

CELTIC-NEXT is for you if ...

- You want to define the content of your project proposal according to your own research interests and priorities. Without beeing bount to a specific call text.
- You want to perform a projects that is close to the market and has a track record of exploiting results fast after the end of the project. So far the CELTIC projects have led to more than 1000 new or improved products and services.
- High-quality proposals have an excellent chance of receiving funding, with an average success rate of 60 %.

CELTIC-NEXT gives proposers almost limitless freedom in regard to what research topic they can explore in their ICT research project. The philosophy of the programme is to facilitate projects in a bottom-up way, thus offering projects the chance of both evolutionary as well as disruptive innovation in all relevant ICT areas, without limiting their creativity and ambition. CELTIC-NEXT focuses on telecommunication and ICT connecting people and businesses in a secure and reliable way. The topics listed here are not prescriptive and are only meant to give you some idea of the scope of CELTIC-NEXT projects.

We expect that many of the CELTIC-NEXT projects will define and develop selfadaptable solutions, able to fit the needs of many different sectors and societal challenges. CELTIC-NEXT with its endto-end approach is key for allowing the development of dedicated applications using the network with all the required features for a given economic sector.



CELTIC-NEXT in the Research & Innovation Landscape

CELTIC-NEXT is based on the core values that have been supporting the CELTIC community for 16 years, i.e. a bottomup industry-driven approach, along with large "flagship" projects aimed at solving issues of strategic importance through a combined effort and coordinated approach of public authorities and industry.

There are critical technological and societal issues that need to be addressed in the coming years, that are not addressed by other EUREKA instruments, and only partially by other instruments in Europe. From a technological standpoint, Networking and Cloud Enablers addressing and using technology from such areas as cyber security, artificial intelligence, 5G and beyond, FinTech, big data, business analytics, and IoT are considered as important orientations to develop.

Thematically relevant cooperation of bi- and multi-national interest can be limited to a (few) participating countries that have more influence than in other EU instruments.

A special focus of CELTIC-NEXT is on applications and services serving vertical sectors such as content (video, gaming), e-health, smart cities, agriculture, mobility, energy, automotive, e-commerce, and industry/manufacturing. Those verticals are equally important to advance, along with optimising and improving efficiency and reliability with the best end-to-end connectivity and security. The evolution of ICT services over the next period will be achieved via a partnership model where the vertical sectors collaborate in determining their ICT solutions. This is a key focus of the CELTIC-NEXT endto-end perspective.

Another key issue for CELTIC-NEXT develop communications IS to and infrastructures services that can adapt to the requirements of various business sectors. The need of communications between vehicles are indeed quite different than the needs for piloting electrical power in buildings and houses. The same applies to the virtual and immersive reality techniques, that will become a critical element in the health and media industry in the coming years. There will be many unique challenges behind innovative manufacturing processes that must be supported by one ubiquitous infrastructure.

Representatives from vertical sectors will be invited to participate in the CELTIC-NEXT Industry Core Group to ensure the continuous crossfertilisation of ideas. In parallel, the telecommunications industry shall exploit the full power of cross sectors technologies such as Artificial Intelligence and Big Data, to define and provide customised and smart solutions for the different economic sectors and the whole society.

> The flagship approach allows European countries to team up together and to strategically advance on key challenges and key technologies.

