EU Horizon Europe Framework Programme

Widening participation and strengthening the European Research Area**– Excellence Hubs**

Call “Excellence Hubs” HORIZON-WIDERA-2023-ACCESS-07-01

„Excellence Hubs for Strengthening 5G SME Innovation (5G SME Excellence Hubs)”

**project concept**

1. EU HE-WIDERA Call

Objective of the Excellence Hubs action:

* Maximize national research and innovation potential, strengthen the capacity of countries with lower research and innovation performance (so-called Widening countries).
* Widening countries: Bulgaria, Croatia, Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Albania, Armenia, Bosnia and Herzegovina, The Republic of North Macedonia, Georgia, Moldova, Montenegro, Serbia, Turkey and Ukraine.
* The project should have a regional dimension, implementing cross-border cooperation and the interconnection of innovation ecosystems. The focus is on innovation, with the main aim of strengthening cooperation between the education/research sector and the business sector.

Main details of the Call

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| Project budget  | between EUR 2.00 and 5.00/6.00 million/project  |
| Total available budget  | EUR 60.00 million  |
| EU funding  | Up to **100%** of eligible costs  |
| Type of action  | Coordination and Support Action (CSA)  |
| Submission deadline  | **07 Mar 2024**  |
| Project duration  | 48 months  |
| Project consortium | * 8-10 partners from 2 countries
* Only widening countries must participate in the project, no advanced partners are allowed
* Each ecosystem needs to include four different categories of actors (quadruple helix) i.e. a) academic institutions (universities and/or non-university research centers or labs), b) business entities (active established firms with relevant revenues), c) public authorities or authorised agencies and d) societal actors (civil society organisations, associations, citizens, end users, media, cultural actors etc.) or **one or more umbrella organisations**, whose membership comprises the four different categories of Widening country R&I actors
* Quadruple helix can be presented by umbrella organisations (e.g. clusters)
* Commercial company has to be existing at least 3 years with proven commercial revenues
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| Scope  | * Excellent and sustainable networks of place-based innovation ecosystems in widening countries involving larger communities of actors in a regional context based on the quadruple helix principle and beyond in relevant domains of cutting-edge science and innovation
* Long term cross-border joint R&I strategies underpinned by concrete action plans of European relevance, aligned with regional smart specialisation strategies
* Action and common investment plans for the implementation of the strategy including the development of business models for innovative products, service and processes
* Common, long-term investment plans for R&I including infrastructures leveraging national, regional and European funds as well as private capital in a synergetic manner
* Accompanying measures e.g. capacity building, mapping and exploitation of new business opportunities, information and technology transfer, entrepreneurship training, staff exchange.
* Beneficiaries may provide financial support to third parties.
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| Expected outcomes  | * Excellent and sustainable place-based R&I ecosystems in widening countries and beyond in relevant domains of cutting-edge science and innovation
* Innovative solutions with European/regional scale, presentation of territorial context
* R&I pilot project concept and implemented pilots alongside a joint strategy and in line with regional and national strategies, notably regional innovation strategies for smart specialisation (RIS3)
* **Long term joint R&I strategy** and related **concrete action plans** of European relevance
* Common investment plans for R&I including infrastructures leveraging national, regional and European funds as well as private capital in a synergetic manner
* New competencies and skills for researchers, entrepreneurs and professionals in R&I intensive domains
* **Improved knowledge transfer** and development of entrepreneurial skills
* Uptake of innovative technologies.
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II. Project concept

**Title of the project: „Excellence Hubs for Strengthening 5G SME Innovation (5G SME Excellence Hubs)”**

**Project duration:** 36 months

**Budget (indicative):** EUR 5-6 million

**Potential project partners (consortium members) in Hungary (quadruple-helix):**

**a) Academic institutions**

* Budapest University of Technology and Economics (BME), (Faculty of Electrical Engineering and Informatics)
* Eötvös Loránd University (ELTE), (Faculty of Informatics) ((tbc)

**b) Business entities**

* Vodafone Hungary (mobile operator)
* Nokia Solutions and Networks Ldt. (telecommunication company) (tbc)
* Annist Technologies Ltd. (SME), (tbc)
* ENTEL Engineering Research and Consulting Ltd. (SME), (tbc)

**c) Public authorities**

* National Media and Infocommunications Authority (NMHH) (regulatory authority)

**d) Civil society organisations, associations**

* Neumann János Nonprofit Ltd./Neumann Technology Platform (5G Coalition) – Project Coordinator

**Background and justification**

**5G is the latest mobile telecommunication technology**, whose effects go beyond the boundaries of infocommunications, as 5G is **essential for** the realisation of **technical solutions and applications** such as the digital transformation of healthcare, self-driving vehicles ("connected car"), the full automation and robotisation of industry (Industry 4.0/5.0), the drone ecosystem (Internet of Drones) etc.

The SME sector has been less active in 5G R&D&I and the **provision of services based on 5G technology in Central and Eastern Europe** (CEE), while their active participation and innovation activity in 5G are key factors for the technology and economic competitiveness of these countries. The involvement of SMEs in the CEE region is relatively low in the **5G RDI activities** of the EU. The market for this technology is dominated by large companies, leaving many vertical developments, industrial applications and solutions with significant market potential currently untapped and unrealised.

In view of the above, it is of paramount importance to **strengthen the innovation of SMEs in the CEE countries in the field of 5G**, as they will contribute to the growth of the telecoms market, in addition to the development of **advanced 5G applications and services**. The **development and mobilisation of the 5G ecosystem on a domestic and interregional level involving quadruple-helix stakeholders** in the widening countries represents a real need as well as the integration of domestic SMEs into the innovation value chain.

**Scope and objectives**

* + Facilitate **innovation in** **small and medium-sized enterprises** (SMEs) in the participating countries based on **5G technologies and services** through **a Quadruple Helix (Q-Helix) model** (public, academic, business, non-profit).
	+ **Promote the use of 5G services** in the operations of **SMEs**.
	+ **Develop a 5G Innovation Strategy and action plan for the SME sector** in the participating countries.
	+ Demonstrate the **innovation and application potential of 5G technology through pilot projects**. **Develop 5G innovation capacity** and **competences of SMEs** in the participating countries through the implementation of pilots and their integration into the 5G technology ecosystem.
	+ **Increase the innovation activity of SMEs by transferring know-how** through RDI cooperation with telecom companies and academic institutions.
	+ Increase **cross-border strategic, RDI and business cooperation** of the participating widening countries in the field of **5G technology**.