

BUSINESS FINLAND

Smart Mobility
Horizon 2020
12 Nov 2019
Non-Confidential

What Money 4 Which Purpose?

	Finland	EU
R&D&I	BF (Gr, R&D L)	<u>Horizon 2020 (Gr)</u>
Working Capital	Finnvera (Guar, L)	EIB (Guar, L)
Investments	Finnvera (Guar, L)	EIB (Guar, L)
Transactions	Finnvera (Guar, L)	EIB (Guar, L)

RIA/IA ICT CONSORTIUM CALLS [SMART MOBILITY PICKS]

*** ICT-47-2020: Research and Innovation boosting promising robotics applications**

RIA | EUR 2-3M | Opening 19 Nov 2019 | DL 22 Apr 2020

Specific Challenge: Robotics enables a significant part of the economic impact of AI by delivering physical intelligence.

Scope: I. Development of autonomous robots at the micro- or millimetre scale; II. Integration and use of novel materials for service robotics; III. Beyond human speed, general purpose, dexterous manipulation of objects; IV. Application and integration of non-visual sensing for service robotics; V. Development of safe physical powerful robotic systems with proximity sensing capability; VI Variable autonomy systems for awareness. DIH!

* **ICT-52-2020: 5G PPP – Smart Connectivity beyond 5G**

RIA | EUR 5-12M | Opening 19 Nov 2019 | DL 22 Apr 2020

Specific Challenge: It also looks beyond 5G to prepare for the realisation of Smart Connectivity systems as a platform for a Next-Generation Internet.

Scope: E.g. it should enable novel interaction between human and digital systems based on new terminal types embedded in the daily environment, e.g. in cars, doors, mirrors, and new interfaces recognising gestures, facial expressions, sound and haptics. Impact expectation for mobility: heterogeneous networks with dynamic topologies for advanced mobility solutions.

*** ICT-41-2020: 5G PPP – 5G innovations for verticals with third party services**

IA | EUR 4-6M | Opening 19 Nov 2019 | DL 22 Apr 2020

Specific Challenge: Software networks provide high flexibility through implementation of virtual network functions (VNFs).

Scope: Experimentation facilities able to provide enhanced experimentation infrastructures on top of which third party experimenters e.g. SMEs or any service provider and target vertical users will have the opportunity to test their applications in an integrated, open, cooperative and fully featured network platform running across multiple domains, and tailored to specific vertical use case. Incl. CAM, smart factories and industry 4.0 use!

*** ICT-42-2020: 5G PPP – 5G core technologies innovation**

IA | EUR 4-6M | Opening 9 Jul 2019 | DL 16 Jan 2020

Specific Challenge: The challenge is to reap the fruits (new technologies, HW devices) of earlier R&D investments in these enabling technologies to support the emergence of new markets and new market actors in Europe.

Scope: The key 5G technological blocks under consideration are primarily hardware-based (but are not limited to), phase array antenna, array processors, millimetre wave devices and subsystems, photonics based devices, baseband processor platforms, low-cost access points, IoTs, new gen of 5G terminals.

*** DT-ICT-09-2020: Boost rural economies through cross-sector digital service platforms**

IA | EUR 15M | Opening 19 Nov 2019 | DL 22 Apr 2020

Specific Challenge: One key challenge is to overcome the barrier of missing interoperability of smart object platforms and service platforms that share and exploit data between them.

Scope: To develop and demonstrate cost-efficient and flexible cross-domain applications through large-scale pilots. These should build on an open, API-based, interoperable and federated IoT architecture and include a reference implementation supporting flexible integration of heterogeneous services. E.g. smart cities, distributed energy, smart logistics and mobility.

* **ICT-54-2020: Blockchain for the Next Generation Internet**

RIA | EUR 8/6/6M | Opening 9 Jul 2019 | DL 16 Jan Apr 2020

Specific Challenge: Developing a more human-centric Internet supporting values of openness, decentralisation, inclusiveness and protection of privacy and giving the control back to the end-users, in particular of their data.

Scope: 3 sub-topics, proposals should address only one of these:

i. Advancing research on Blockchain and Distributed Ledger Technologies; ii. Fostering trust in internet information exchange and content with blockchain; iii. Bringing forward the emergence of collective intelligence on the internet (social media).

* **ICT-56-2020: Next Generation Internet of Things**

RIA | EUR 5-8M | Opening 9 Jul 2019 | DL 16 Jan 2020

Specific Challenge: The challenge is to leverage EU technological strength to develop the next generation of IoT devices and systems which leverage progress in enabling technologies such as 5G, cyber-security, distributed computing, artificial intelligence (AI), Augmented Reality and tactile internet.

Scope: Reference implementations should include proof-of-concept, demonstrations and validation, driven by realistic use cases with advanced needs in areas such as wearables, transportation, agriculture homes, health and energy.



Further Info & Platforms

- [European Commission & Connected Automated Mobility](#)
- [Business Finland Horizon 2020 Project Preparation](#)
- Factories of the Future (<http://www.effra.eu>)
- European Green Vehicles Initiative (<http://www.egvi.eu>)
- Robotics (<https://eu-robotics.net>)
- Advanced 5G networks for the Future Internet (<https://5g-ppp.eu>)
- Big Data (<http://www.bdva.eu>)

WORLD IDEAS

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