



IoT and Edge Computing Research and Standardisation Convergence

Dr Monique Calisti

*CEO Martel Innovate
EU-IoT Project Coordinator*

**EU-IoT AT WORK TO BUILD
A STRONG EUROPEAN IoT AND EDGE
ECOSYSTEM**

WHO'S EU-IoT



CSA, 30 months, Started 1st October 2020

DEVELOP SYNERGIES AND FOSTER STRATEGIC COORDINATION



To support the development of **synergies and foster strategic coordination among NGIoT projects and related initiatives** having as main driver the maximisation of impact and reinforcement in the leadership of EU-made IoT to achieve Horizon 2020 goals while smoothly and effectively **transitioning to Horizon Europe**



To ensure the **growth of the NGIoT ecosystem** by engaging target stakeholders and facilitating participation for newcomers, while **fostering collaborations** among them and establishing strong liaisons at intra and inter-programme level

FOSTER ADOPTION OF IoT SOLUTIONS



To foster the development of **business models**, **innovation** activities and **skills** building lowering the barrier for adoption and development of IoT-empowered solutions



To support and coordinate **outreach and impact creation**, by orchestrating communication and dissemination, open calls promotions, events organisation and participation, contributions to **open-source, pre-normative and standardisation actions**

A VALUE CHAIN APPROACH

- Ecosystem building is one of the key components of the EC R&I Strategy
- Closing the gap between supply and demand - matching digital innovation and vertical legacy
- Allowing smaller companies and start-ups to engage with large projects



A RATHER ARTICULATED CONTEXT



COMPLEXITY FACTORS

- COVID19 crises
- Transition from Horizon 2020 to Horizon Europe
- Growing set of projects including planned third-party participants
- A diverse and still rather fragmented ecosystem
 - AIoT, ARTEMIS-IA, BDVA/AIRO, GAIA-X, 5G IA, SNS JU, ...
 - Eclipse, ETSI, FIWARE, etc.

MAJOR TRENDS AND STRATEGIC ELEMENTS

- We are assisting to a convergence of technologies - IoT, edge computing, AI, wireless and cellular 5G/6G, digital twins, etc.
- IoT is skyrocketing in several vertical domains
 - Healthcare, Smart Cities, Agriculture, Retail, Work-from-home, etc.
- EU Data Strategy - EU Industrial Strategy - EU Recovery Plan - Green Deal – Data Governance Act - Digital Market Act – Digital Services Act – Horizon Europe...



TOWARD A VIBRANT EU-IoT ECOSYSTEM



GROWING A SUSTAINABLE AND COMPREHENSIVE NEXT GENERATION IOT ECOSYSTEM

Ultimate ambition

- Connect the dots and foster synergies
- Boost industrial competitiveness and sustain the economic recovery and growth
- Promote sustainable and inclusive development of our society
- Ensure EU digital autonomy and technological sovereignty

What does it take to get there...

- Overcome diversity and fragmentation
- Leverage on success stories and best practices
- Develop adequate business models and instruments
- **Align on standardization efforts**
- Dedicated investments, both public and private!

STRATEGIC DIRECTIONS



WE DON'T PLAY ALONE!



TOWARDS A VIBRANT EU IOT ECOSYSTEM



- A critical mapping of various relevant efforts and initiatives.
- A guidance framework to capture experts' input, together with main outcomes of the first EU-IoT Expert Groups (EG) workshop.
- A structured presentation of input gathered from ongoing EC projects that highlights major trends and priorities mapping them into the same framework used with the EG.
- A wrap-up view on how the EU-IoT plans to act as a living hub connecting the various forces and stakeholders for the growth of a vibrant and sustainable European IoT ecosystem.
- The contents of this paper will be further enriched and elaborated leading to a more consolidated version that is planned to be delivered towards the end of 2021.

<https://www.ngiot.eu/download/towards-a-vibrant-eu-iot-ecosystem>

NGIOT OPEN CALLS

ABOUT THE EU NGIoT CONTEXT



The European Next Generation Internet of Things (NGIoT) initiative is a growing community of projects and related initiatives at work to promote trustworthy, secure and sustainable IoT. It gathers several R&I projects and offers funding opportunities to work for a **human-centric and sustainable digital transition** across areas such as:



CITIES



PORTS



AUTOMOTIVE



SMART HOMES



e-HEALTH



MANUFACTURING



AGRICULTURE

- NGIoT is sharing best practices and building a growing 'network of networks' for knowledge and technology transfer, at the intersection of different research and innovation communities and industrial-driven initiatives.
- NGIOT projects are working to achieve H2020 goals and align with Horizon Europe ambition in close collaboration with related technology networks including Cloud, Edge, Artificial Intelligence, 5G, cybersecurity and blockchain.

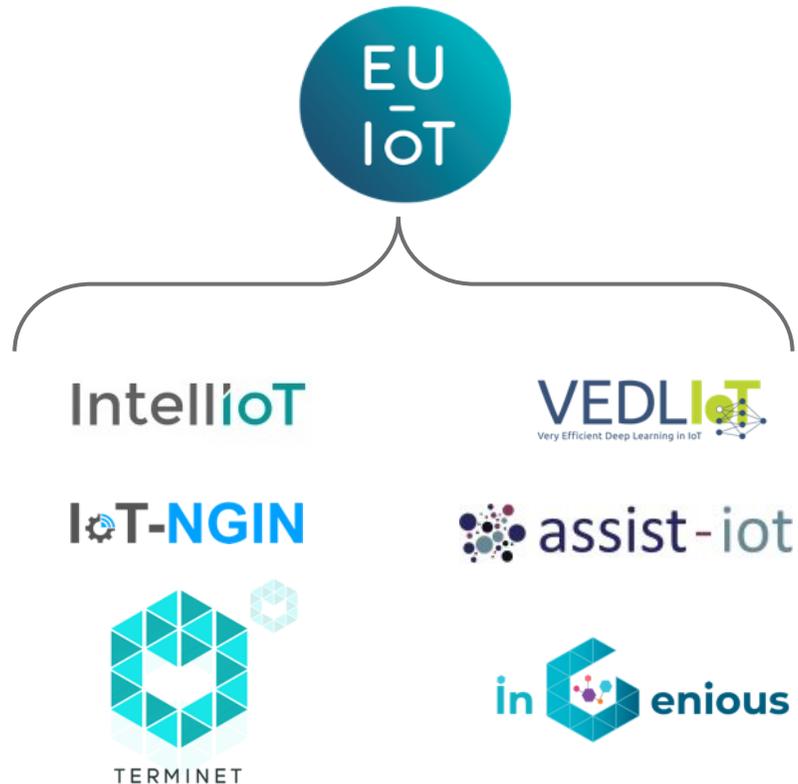
6 Research and
Innovation Actions

48.5 Million Euro
investment

NGIoT PROJECTS AND FOCUS



NGIoT PROJECTS



TECHNOLOGY FOCUS

- Decentralised architectures and frameworks
- Low-power devices and hardware accelerators
- Federated and distributed intelligence
- DLTs enabled data management
- Active and proactive cybersecurity
- 5G: smart networking, VFN, orchestrators
- Tactile IoT, human-in-the-loop
- Explainable and trustworthy AI

ICT 56-RIAS: UPCOMING OPEN-CALLS



Boosting the European NGIoT ecosystem through casacade funding

3.75 Million Euro
total budget

60.000 to Euro per 3rd
150.000 Party project



A LOOK AHEAD

WHERE TO MEET THE NGIoT NEXT



NEXT RELEVANT EVENTS/DATES

- **30.09:** NGIOT IDEathon/Hackathon, deadline for submission of project proposals
- **21-22.10,** Digital Around the World 2021
- **29.11-3.12** The European Big Data Value Forum
- **6-10.12** IGF 2021
- **7-11.12** IEEE GLOBECOM 2021

<https://www.ngiot.eu/events/>



THANK YOU FOR YOUR ATTENTION

