

Brussels, 22 July 2021

Response to the public consultation on Roadmap Digital Compass Policy Programme

Introduction

The Alliance for Internet of Things Innovation (AIOTI) welcomes the Commission's Communication 2030 Digital Compass: the European way for the Digital Decade and its four main objectives.

AIOTI is in particular interested in the following:

1. Secure and performant sustainable digital infrastructures, in particular Intelligent edge computing – applications;
2. Digital transformation of business;
3. Multi-country projects;
4. International partnerships.

Intelligent edge computing – applications

AIOTI is actively working on IoT and Edge computing solutions. In [our paper](#) published in October 2020, we proposed:

- Europe must build on its strengths in electronic control systems, safety-critical systems, sensing and automation, mechatronics and microelectronics/microsystems, privacy-preserving technologies, and intelligent connectivity;
- A single market for IoT/IIoT edge computing is required. There is a need for a single market for IoT/edge devices and systems founded on open standards, able to connect seamlessly and on a plug-and-play basis to the edge and the cloud;
- Europe needs a trustworthy infrastructure that builds on flexible federation and a “fair business offer” to manage vast amount of IoT-generated data and change how ownership and location of data are treated. The EU needs to identify the catalysts that may speed up innovation at the edge, to scale-up and invest in infrastructure, enable orchestration across relevant players in the value chain, and facilitate coordination on horizontal issues such as interoperability and open standards;
- Europe needs to capitalise on the shift of value creation to the edge. It can do this by further accelerating the technological developments of IoT and edge computing, and supporting the convergence of technologies such as artificial intelligence (AI), digital twins, distributed ledger technologies (DLTs) and intelligent connectivity at the edge by creating large-scale open edge IoT projects.

Digital transformation of business

Intelligent connectivity is essential for the achievement of the United Nation's (UN's) Broadband Commission agenda for 17 UN Sustainable Development Goals, having set deployment targets for 2025 to underline the importance of communication systems and networks on addressing economic growth and addressing social challenges.

IoT is a key enabler to accelerate the realization of the European Green Deal and to decrease energy and carbon footprint of various vertical industries. For example, the Global e-Sustainability Initiative (GeSI) shows that the estimated carbon reduction accomplished in ten different vertical domains is enabled by the use of mechanisms, such as machine-to-machine (M2M) connections and the functionality of smart devices. GeSI also mentions that 70% of the estimated carbon reduction savings currently being made, come from the use of M2M technologies.

In the IoT domain the impact of the Green Deal would be two-fold: (1) using IoT and Edge Computing technologies to improve the environment impact of other domains, and (2) improving the energy footprint of IoT based systems, including their use and energy consumption, the disposal or refurbishing of obsolete devices, the design and manufacturing of energy and environment-friendly new devices.

Digital transformation of Society

While the Roadmap has a very technical focus, AIOTI suggests to connect the Roadmap to the most pressing societal priority that we are facing: transforming our lives and behaviour within the boundaries that the Earth is providing us.

As businesses are experiencing the value of IoT solutions, as described in the previous section, there is even more to gain in society. Think of achieving comfortable and low-carbon living, while [decoupling energy use and economic development](#).

IoT solutions are key in several aspects, for instance from more efficiently growing crops to maintaining healthy air quality in homes, from minimizing the impact of wildfires outbreaks and flooding, to keeping elderly care affordable and at a high-level standard. It is the drastic reduction of carbon consumption that requires IoT solutions, so that quality of life can be maintained for all within the Earth boundaries.

To reach that scale of impact IoT solutions are essential in helping us to optimize living at minimum environmental impact, as well as to Influence towards low-carbon, impact-conscious behaviour. For example, the increasing number of Distributed Ledger Technology (DLT) based smart contracts are opening numerous promising and novel applications in this direction, providing foundations for completely new business models and fruitful economic relationships.

Multi-country projects

We support the idea of the multi-country projects that, with support of EU funding, could provide the scale that is needed to build much more effecting projects, Increase their Impact on the ecosystem, and implement available and new technologies in real-world scenarios.

We are interested in the following areas mentioned in the Communication:

1. Building a common and multi-purpose pan-European interconnected data processing infrastructure, to be used in full compliance with fundamental rights developing real-time (very low latency) edge capacities to serve end-users' needs close to where data is generated (i.e. at the edge of telecom networks), designing secure, low power and interoperable middleware platforms for sectoral uses, and enabling easy exchange and sharing of data, notably for Common European Data Spaces;
2. Pan-European deployment of 5G corridors for advanced digital rail operations and Connected and Automated Mobility contributing to road safety and green deal objectives;
3. European Blockchain Services Infrastructure: develop, deploy and operate a pan-European blockchain-based infrastructure that is green, secure, in full compliance with EU values and the EU legal framework, making cross-border and national/local public service provision more efficient and reliable and finally promoting new business models;
4. European Digital Innovation Hubs: support the digitisation of European Industry through completing an EU-wide network of "European Digital Innovation Hubs" (EDIHs), which are "one-stop-shops" to provide to Small and Medium enterprises (SMEs) technical expertise, opportunities to "test before invest", financing advice, training and more;

International partnerships

AIOTI is an active participant in the Smart Networks and Services partnership that is chartered to build on 5G and beyond (6G) technologies. It is important for the Improvement of the European ecosystem and the success of such partnerships to establish international collaborations to achieve truly global standard for connectivity that will support the European gigabit society targets.

Conclusion

We support the aims of the initiative as mentioned in the Commission Roadmap. We believe that stakeholders such as AIOTI, including innovative SMEs and startups, researchers and academia and renowned industry players, could be a good fit for the stakeholder forum envisaged in the Roadmap.

About AIOTI

AIOTI is the multi-stakeholder platform for stimulating IoT Innovation in Europe, bringing together small and large companies, start-ups and scale-ups, academia, policy makers and end-users and representatives of society in an end-to-end approach. We work with partners in a global context. We strive to leverage, share and promote best practices in the IoT ecosystems, be a one-stop point of information on all relevant aspects of IoT Innovation to its members while proactively addressing key issues and roadblocks for economic growth, acceptance and adoption of IoT Innovation in society.

AIOTI's contribution goes beyond technology and addresses horizontal elements across application domains, such as matchmaking and stimulating cooperation in IoT ecosystems, creating joint research roadmaps, driving convergence of standards and interoperability and defining policies. We also put them in practice in vertical application domains with societal and economic relevance.

AIOTI is a partner for the European Commission on IoT policies and stimulus programs, helping to identifying and removing obstacles and fast learning, deployment and replication of IoT Innovation in Real Scale Experimentation in Europe from a global perspective.

AIOTI is a member driven organisation with equal rights for all members, striving for a well-balanced representation from all stakeholders in IoT and recognizing the different needs and capabilities. Our members believe that we are the most relevant platform for connecting to the European IoT Innovation ecosystems in general and the best platform to find partners for Real Scale Experimentation.