



5G-MiEdge (5G-MiEdge: Millimeter-wave Edge cloud as an enabler for 5G ecosystem) is a 3 years (07.2016 – 06.2019) **EU-Japan co-funded collaborative research project**, run by a consortium composed of a group of **8 partners**, well-balanced among industry, research center, university, and operator.



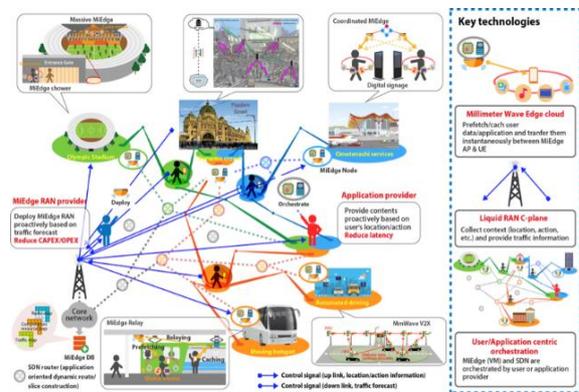
5G-MiEdge addresses the following **objectives**:

- Develop transmission schemes and protocols of **mmWave access and backhaul**, aimed to assist the mobile edge cloud with prefetching and caching, so to realize ultra-high speed and low latency service delivery,
- Develop **novel ultra-lean and inter-operable control signaling** over LTE to provide liquid ubiquitous coverage in 5G networks, based on acquisition of context information and forecasting of traffic requirements, in order to enable a proactive orchestration of communication and computation resources of the mmWave edge cloud,
- Develop **user and application centric orchestration algorithms and protocols** to adapt radio and computation resources of mmWave edge cloud in 5G networks by utilizing traffic forecast,
- Contribute to the **definition of 5G mobile communications standards**.
- **Demonstrate 5G and beyond** features in testbeds **in the city of Berlin**, and **at the 2020 Tokyo Summer Olympics**.

The **main innovation vectors** are focusing on **3 technology enablers**:

- mmWave Edge Cloud for both Access and Backhaul,
- User/Application Centric Orchestration,
- Liquid RAN Control-plane.

5G-MiEdge has identified **5 interesting use cases** that were defined with the objective of showcasing at best the innovations of the project



- Omotenashi service,
- Moving hotspot,
- 2020 Tokyo Olympic,
- Dynamic crowd,
- Automated driving.

In order to impact the ecosystem in a more effective way, **5G-MiEdge closely collaborate with other research projects**, especially with:

- The 5GPPP family of projects,
- 5GPAGODA,
- MiEdge+.

More information at: <https://5g-miedge.eu>

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