6G-SANDBOX project overview

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## 6G-SANDBOX main figures

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<th>Particip. No.</th>
<th>Participant organisation name</th>
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<td>Keysight Technologies Belgium BV (KEYB)</td>
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<td>3 (TM)</td>
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<td>Keysight Technologies Denmark AsP (KEYD)</td>
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<td>18</td>
<td>The Queen’s University of Belfast (QUB)</td>
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### Project Information

- **6G-SANDBOX**
  - Grant agreement ID: 101096328
  - DOI: [10.3030/101096328](https://doi.org/10.3030/101096328)

- **Start date**: 1 January 2023
- **End date**: 31 December 2025

- **Funded under**: Digital, Industry and Space

- **Total cost**: € 8 546 551,53
- **EU contribution**: € 8 039 821,26

- **Coordinated by**: KEYSIGHT TECHNOLOGIES BELGIUM

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6G-SANDBOX Concept

(6G-SANDBOX) TRIAL NETWORK: fully configurable, manageable and controllable network which combines digital and physical nodes and provides services for 6G technology validation and 6G KPI measurements

• the experimenter can manage the lifecycle of the experiment and the trial network
• the open calls target both experimenters and component contributors
The 6G-SANDBOX Objectives

Objective 1 (Obj.1): Define and release the *architecture* and the *processes/methodology* of an experimentation facility towards 6G.

Objective 2 (Obj.2): Develop and integrate the 6G-SANDBOX end-to-end physical connectivity infrastructure around Europe, which incorporates 6G technologies.

Objective 3 (Obj.3): Develop and integrate the 6G-SANDBOX resource management framework to efficiently deploy trial networks and to control multi-domain virtualized resources - “Infrastructure as a Code”.

Objective 4 (Obj.4): Develop and integrate a framework for performing automated experimentation as a service on 6G-SANDBOX trial networks tailored to the 6G KPIs and KVIs.

Objective 5 (Obj.5): Create an ecosystem under the SNS JU umbrella, that will allow the adoption of innovative components from Stream B projects and also enable the hosting of 6G use cases (open calls and Stream D projects).

Objective 6 (Obj.6): Create tangible socioeconomical impact as well as maximize technological and business potential through targeted *communication, dissemination, and standardization*. 
The 6G-SANDBOX Ambitions

- Amb.1: Ambition in Experimentation Processes and Facilities
- Amb.2: Disruptive Wireless
- Amb.3: Fixed/RAN/NTN interaction
- Amb.4: Deterministic Networks
- Amb.5: Interaction with core
- Amb.6: AI/ML
- Amb.7: Security
- Amb.8: Edge Cloud Continuum
- Amb.9: Digital Twin
- Amb.10: XR/Haptics
The 6G-SANDBOX Initial deployments and use cases

- Malaga Platform
- Athens Platform
- Berlin Platform
- Oulu Platform
Answers to key questions

• What are the target 6G KPIs and KVIs you plan to address?
  – SRIA 2021-2027
  – the 6G-IA white paper from the VSC Work

• Will your platform be fine-tuned for specific vertical use cases or will it be able to support multiple 6G use cases?
  – No, open to any use case

• How do you plan to support openness to your platform and modularity for potential future upgrades?
  – Trial Networks (infrastructure as a code), 6G Library, Open APIs, CI/CD applied to TNs

• Will your platform be available only through the open calls?
  – No, OCs will happen in 2023 and 2024, but we expect more stakeholders to join

• What will you be looking to get out of the open calls to enhance your platforms?
  – 6G technologies (mainly from Stream B), 6G use cases, new sites

• When will your platform will be ready for testing and how do you plan to disseminate this information to the public?
  – Ready to start now!!