6G-SANDBOX Overview

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6G-SANDBOX Concept

Towards an experimentation ecosystem for 6G in Europe

By introducing the concept of Trial Networks:
- fully configurable, manageable and controllable E2E networks, combining digital and physical nodes

Enabling new technologies and research advancements towards 6G

Highly equipped testbed to measure any KPI
6GSANDBOX Testbeds & facility

Three layers of infrastructure
- physical connectivity
- resource management
- experimentation lifecycle

6GSANDBOX API Framework
- Ensuring security, proper authentication, ...

Open 6G Library and 6G KPI & KVI repository

Málaga
- First class 4/5G emulators, Software for 4/5G core network, Equipment to create SIM cards
- Remote heads (2.6 GHz for LTE, 3.5 GHz for micro/pico cells, 26 GHz and 28 GHz for 5G NR
- Deployment at university campus and in Málaga city

Berlin
- FOKUS, Leibniz Institute, and Humboldt University facilities
- 5G SA RAN, 3.7 – 3.8 GHz campus network, outdoor/indoor
- Integration tests (5G RAN / core), E2E performance

Athens
- E2E 5G testbed in metropolitan area
- 5G / 4G RATs - indoor and outdoor
- NFV/SDN, edge computing

Oulu
- 5G Test Network with campus wide small and macro-cells
- Distributed antenna based cellular network
- NFV based EPC and 5G backhauling solution, as a full-scale 5G test network, supporting using 5G devices

Platform starting points:
5GENESIS, 5G-VINNI projects & 6G Flagship initiative
The 6G-SANDBOX Initial deployments and use cases

- Connected Car (Dekra)
- Agro 5G (La Mayora)
- Tomatillos
- Victoria Network
- UMAR Campus
- Larios Street (City Center)
- Málaga Harbor
- Málaga Platform

- Athens Platform

- Berlin Platform

- Athens Platform

- Oulu Platform

- Athens Platform

- Oulu Platform
6GSANDBOX Open Calls

Two types of funded open calls:

a) New infrastructures and functionalities
   • Enhancing the 6SANDBOX facility with components to be made available for experimentation in subsequent open calls
     – Focused on 1\textsuperscript{st} open call, to start implementations in 2023

b) Experimentation
   • Research, service and application development, performance evaluation over the 6GSANDBOX
     – 2\textsuperscript{nd} round of open calls – implementations in 2024
     – 3\textsuperscript{rd} round of open calls – implementations in 2025

Overall budget for all open calls is 1.7M€
Thanks for your attention!!
Do not hesitate to contact us!!

Not in the mood to wait for open calls?

Contact us to use 6GSANDBOX without funding & free of charge

https://6g-sandbox.eu/contact/
Or contact@6g-sandbox.eu