6G-SANDBOX Open call overview

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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

Malaga
- 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 Malaga city

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

Berlin, interconnecting
- 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

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

Malaga Platform
- Connected Car (Dekra)
- Torremolinos
- Larios Street (City Center)
- Malaga Harbor

Agro 5G (La Mayora)

Victoria Network

UMA Campus

Athens Platform

Málag Harbor

Berlin Platform

Berlin Platform

Oulu Platform

Berlin 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 1st open call, to start implementations in 2023

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

Open Call 1 key info
- Submission opens in April 2023
- Submission deadline: July 3rd 2023 at 5PM CET
  - Ability to engage in discussion with the consortium
  - Feasibility check for planned proposals offered to all proposers
- Start of implementation from 1st of September 2023
- Max. budget per partner is 60,000€
- Info day planned at EUCNC2023!

Outside of the open call process:
Unfunded experimentation is always available from summer 2023 onwards.

+ Very light administration, minimal reporting, confidentiality.
- No funding

Topics list for open call 1 (draft list)
- AI Extensions of the 6G-SANDBOX NEF emulator
- Integrating LoRaWAN in the 6G-SANDBOX connectivity infrastructure
- Adding NWDAF Capabilities to 5G Testbeds
- Adding NEF Capabilities to 5G Testbeds
- Integration of Release 16 Devices
- Location info issues
- Integrated Sensing & Communication (ISAC) to save energy
- Full ORAN solution
- OpenAirlInterface / srsRAN SDR based (O)RAN experimentation
- Integration of channel models
- Flexible core distribution with NTN LEO (starlink) connection
- Terahertz communication extension
- x-Apps extension & validation
- ... and we are open to any other good ideas
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