



The Standards People

ETSI Research Conference 2023

Maximizing the Impact of European 6G
Research through Standardization

FIDAL project standardisation actions

Ioannis Markopoulos

NOVA

8 February 2023



1. Project Overview

- **Project Name:** **FIDAL – Field Trials beyond 5G**
- **Project website:** **fidal-he.eu**
- **Stream:** D-01-01
- **Members:** NOVA | EBOS | ISI | PIU | IQU | FORTH | TNOR | EKT | ADS | PSCE | PNET | UOP | UBI | TID | UMA | APART | STWS | OWO | ORAMA |
- **Key objective:** FIDAL key objective is to extend and deliver advanced future proof Evolved 5G test infrastructures anticipating evolution into next SNS phase, open & accessible to support 3rd party vertical experiments, and environments for rapid prototyping and largescale validation of advanced, forward-looking applications.

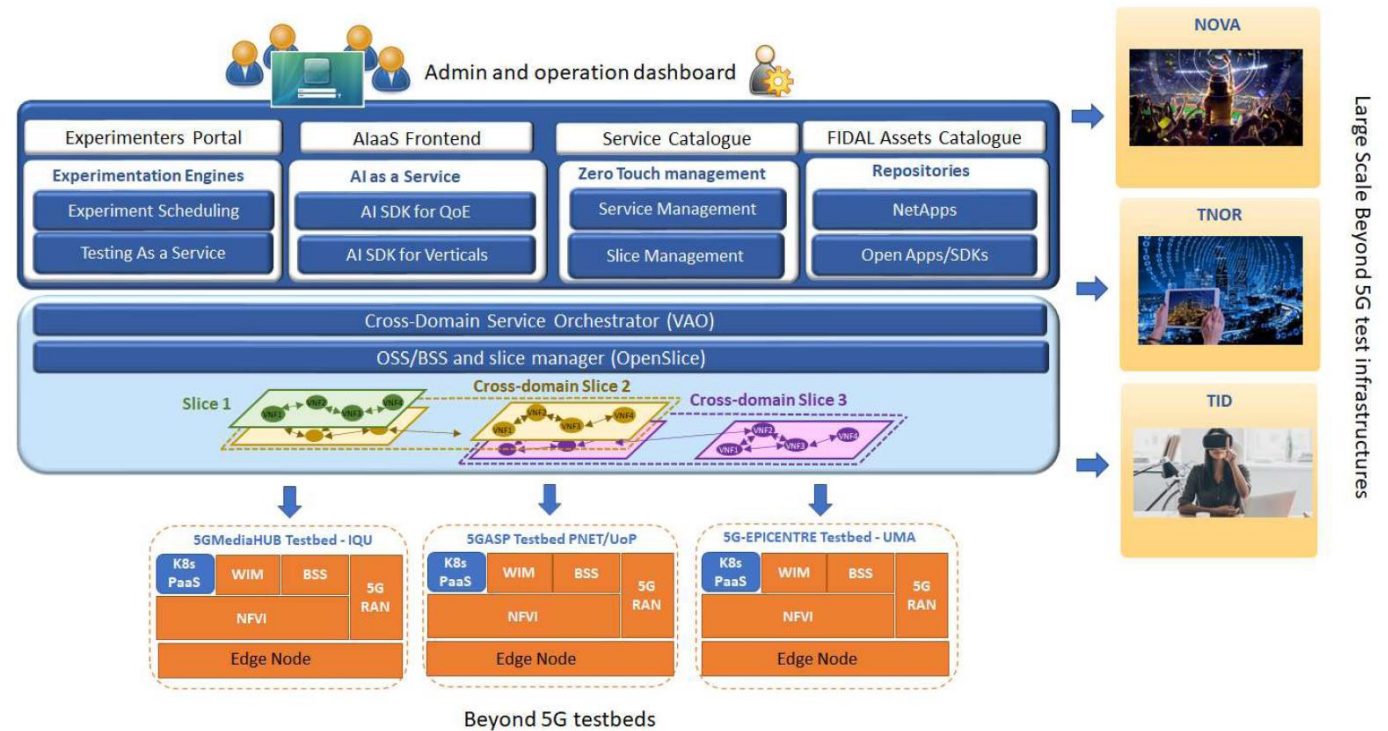
2. Targeted results

- **R1:** Deployment of 3 labs and 3 large-scale facilities demonstrating 5G evolution and 6G potential.
- **R2:** Mature 5G evolution Experimentation framework including AlaaS, Zero Touch management & Testing as a Service.
- **R3:** A repository with more than 10 Network Applications.
- **R4:** A repository for open applications & AI training data.
- **R5:** The FIDAL Repository Service for requirements, KPIs, KVIs repository and lessons learnt.
- **R6:** Holistic Security framework adapted to 5G evolution & 6G networks and services.
- **R7:** Successful trails of 7 Extreme Media & PPDR Use Cases proving in large scale the potential of 5G evolution & 6G networks.
- **R8:** Successful onboarding, trailing and analysis of approximately 28 Diverse Open Call Use Cases and related large-scale trials.
- **R9:** 3 Demonstrators targeting wide audience.

3. Technical Information

Key technologies investigated:

- Unified orchestration and service management for distributed connected edge-cloud continuum infrastructures.
- Zero Touch management for the 5G Evolution.
- Network Applications evolution towards 6G.
- AI tools and innovations for Verticals.
- Innovative Security Frameworks.



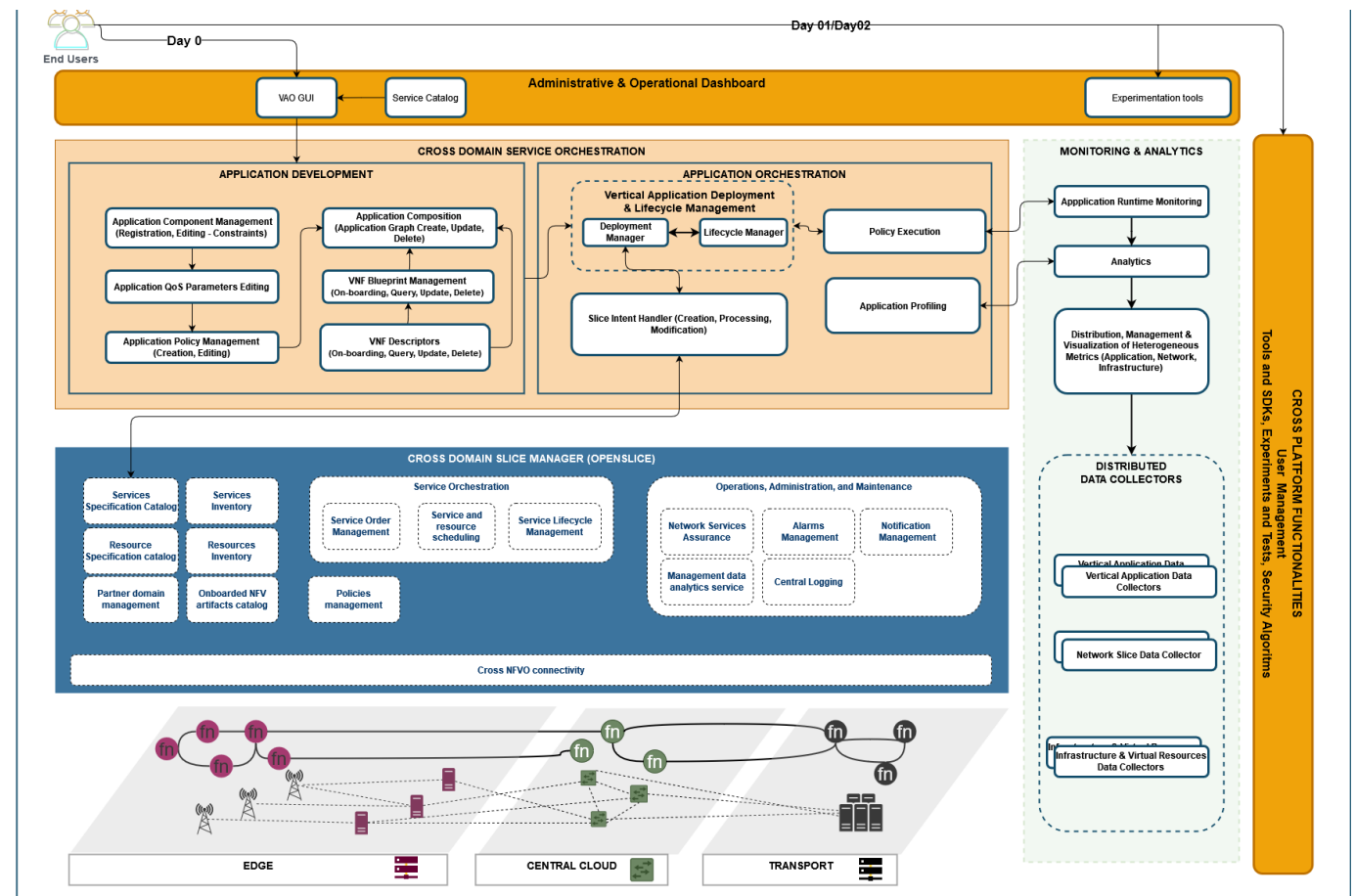
3. Zero Touch Software Stack

Key technologies investigated:

The FIDAL Service Orchestrator and OSS/BSS, are based on two mature assets:

- the Kubernetes-based VAO and
- the OpenSlice OSS/BSS

that will be integrated and upgraded with Zero Touch functionality **for the first time** within FIDAL



3. FIDAL use cases

UC #	UC title	Vertical
UC1	Internet of Senses/Haptic sensing	Media
UC2	Digital Twin for first responders	PPDR
UC3	City security event / incident	PPDR
UC4	Advanced sports area media services	Media
UC5	Virtual Reality Networked music performance	Media
UC6	XR-assisted services for public safety	PPDR
UC7	Smart village engagement services	Media

4. Planned Standardization Activities

Steps to be taken:

- Follow the 3GPP standardisation releases R17, R18 and beyond.
 - SA4: on the Media vertical.
 - SA6: on PPDR, and API exposure (CAPIF)
- Identify areas in which there is a need for standardisation, especially related to the open interfaces for the provision of concurrent and multiple service offerings across 5G evolution networks.
- Identify standardisation gaps and contribute to the relevant standardisation bodies (e.g., 3GPP, ETSI MANO, NGMN, ITU), validating the results of these groups by real field trials with real end-users.
- Devise a solid dedicated standardisation action plan, identifying relevant standardization, industry forums (e.g., TM Forum), and regulatory bodies.
- Contribute to 6G-IA WGs (pre-Standardization, TMV, Trials) with at least five (5) white papers.
- Feed all produced results from the large-scale trials, as well as from Open Calls, as impactful contributions to standardization bodies.

4. Planned Standardization Activities

Targeted Working Groups:

- 3GPP
 - Project Coordination Group (PCG)
 - Radio Access Network (RAN)
 - Systems Architecture (SA)
 - Communications and Services (CT)
 - SA WG4 - Multimedia Codecs, Systems and Services
 - SA WG6 - Application Enablement and Critical Communication Applications
- 5G-PPP
 - Pre-Standardization WG
 - Test, Measurement and KPIs Validation
 - Trials WG
- ETSI
 - 5G Radio Access Networks (5G-RAN)
 - 5G Core Network and Terminals (5G-CORE)
 - 5G Evolutions (5G-E)
 - SmartM2M
 - Cybersecurity (CYBER)
 - Mobile Edge Computing (MEC)
 - 6G
- MPEG
 - WG02: MPEG Requirements
 - WG03: Systems
 - WG05: JVET
 - WG04: Video

4. Planned Standardization Activities

Targeted Contributions:

- 3GPP
 - 3GPP Common API Framework (CAPIF)
 - 5G New Radio (NR)
 - 5G Core Network (5GC)
 - 5G System Architecture for the Internet of Things (5GS)
 - 5G Non-standalone (NSA)
- ETSI
 - Open Source Mano (OSM)
 - Open Source TeraFlow SDN Controller (OSG TFS)
 - ETSI TS 124 (Mission Critical Video)
 - ETSI TS 126 (Media Streaming)
 - ZSM
- MPEG
 - JVET

5. Thank you for your attention



Ioannis Markopoulos

Project Coordinator

ioannis.markopoulos@nova.gr



Christos Tranoris

Technical Manager

ctranoris@p-net.gr



David Lund

Security Manager

david.lund@psc-europe.eu



David Artuñedo Guillén

Standardisation Manager

david.artunedoguillen@telefonica.com



<https://www.linkedin.com/in/fidal-project-b21227262/>



https://twitter.com/project_FIDAL