



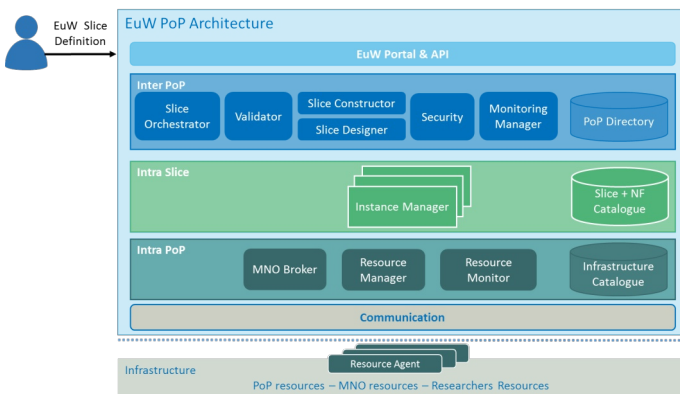
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**EuWireless Final Architecture**

The latest EuWireless architecture was published in deliverable [D2.2](#) in March 2020. The deliverable presents the final architecture with the technical proposals to implement a European level research infrastructure, which can support the EuWireless mobile network operator for research and can offer ad-hoc virtual testbeds to researchers in mobile networks. The deliverable is expected to become the main input for follow-ups of the EuWireless project.

The core of the document is the detailed description of the Point of Presence (PoP) architecture, which is the basis to implement the pan-European research network. The document includes a description of the PoP layers and components needed to offer the EuWireless main services, i.e., connectivity with global slices combining resources from researchers and mobile network operators. The document also presents the main workflows in order to implement the main management tasks and a detailed definition of the interfaces between the PoP components and with external resources.



In addition to the overall architecture, studies on technical enablers for spectrum and network sharing were published in deliverables [D2.3](#) and [D2.4](#).

**Validation with Use Cases**

To complement the technical specifications related to the overall architecture and enabling technologies, the results of the validation use case pilots were published in deliverable [D3.1](#). The document covers four use cases: i) a spectrum sharing solution for wireless research networks, ii) GTS controlling indoor/outdoor deployments, iii) connected car, and iv) multi-RAT activation through a RAN controller. The first three use cases are dedicated to validate the EuWireless design concepts. The fourth is a complementary use case to assess the RAN programmability concept for the EuWireless implementation phase.

**Deployment and Business Plan**

The deployment and financial plan for the EuWireless concept was published in deliverable [D3.2](#). The document focuses on identifying the needs for and barriers to the large-scale deployment of EuWireless. The document also looks at how the deployment of such an infrastructure could be financed and operated. In addition to the outlines defined in the deployment and financial plan, the document discusses what the precise stakeholder roles shall be and how the EuWireless can create value for operators.

**Governance and Legal Aspects**

Recommendations for the post-project development of EuWireless were formulated and published in deliverable [D3.3](#). The EuWireless infrastructure could be operated and managed as part of GÉANT, as an entity similar to GÉANT, or as an independent research infrastructure. The document analyses the different legal form options and the corresponding governance aspects, in order to determine which option could be most suited for EuWireless.

## Dissemination Activities

### Scientific Publications

B. Valera-Muros and P. Merino-Gómez, "[Is GÉANT testbeds Service compliant with ETSI MANO?](#)," in *Proc. 5GWF 2019*, 30.9.-3.10.2019, Dresden, Germany.

M. del Mar Gallardo and L. Panizo, "[Trace analysis using an Event-driven Interval Temporal Logic](#)," in *Proc. LOPSTR 2019*, 8.-10.10.2019, Porto, Portugal.

M. del Mar Gallardo, F. Luque-Schempp, P. Merino-Gómez, and L. Panizo, "[How Formal Methods can contribute to 5G Networks](#)," in *Lecture Notes in Computer Science*, vol. 11865, Springer, Cham.

J. Pinola, I. Harjula, A. Flizikowski, M. Safianowska, A. Ahmad, and S. Mhatre, "[EuWireless RAN architecture and slicing framework for virtual testbeds](#)," in *Proc. TRIDENTCOM 2019*, 7.-8.12.2019, Changsha, China.

I. Harjula, L. Panizo, B. Valera-Muros, J. Pinola, M. Hoppari, A. Flizikowski, and M. Safianowska, "Dynamic Spectrum Management for European-Wide Research Network," in *Proc. VTC 2020-Spring*, 25.-28.5.2020, Antwerp, Belgium.

M. Hoppari, I. Harjula, and J. Pinola, "The LSA Based Spectrum Sharing Solution for Wireless Research Networks Utilizing Commercial MNO Networks," in *Proc. EuCNC 2020*, 15.-18.6.2020, Dubrovnik, Croatia.

O. Castañeda, J. Dario Sarmiento, R. Trapero, and J. Baños, "Vehicle to Everything (V2X) performance test setup characterization," accepted for publication in *Proc. URSI 2020*, 2.-4.9.2020, Malaga, Spain.

## Project Deliverables

[D2.2 - Final EuWireless Architecture](#)

[D2.3 - Technical Enablers for Spectrum Sharing](#)

[D2.4 - Technical Enablers for Network Sharing](#)

[D3.1 - Validation with Use Cases](#)

[D3.2 - Deployment and Business Plan](#)

[D3.3 - Governance and Legal Aspects](#)

[D4.3 - Communication, Exploitation, and Dissemination Plan - Final Report](#)

## Presentations

Jarno Pinola (VTT), ICT Proposers' Day 2019 - Side Event, 18.9.2019, Espoo, Finland.

Bárbara Valera-Muros (UMA), JITEL 2019, 23.10.2019, Zaragoza, Spain.

Pedro Merino-Gómez (UMA), FUSECO 2019, 7.11.2019, Berlin, Germany.

## EuWireless Phase 1 Completed

The EuWireless Phase 1 was completed in March 2020. The conceptual and architectural design for the European mobile network operator for research is now available for implementation together with the initial service model and guidelines for deployment.

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### Partners



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