

Demonstration of 5G solutions for SMART energy GRIDs of the future – Smart5Grid

The Smart5Grid platform to support developers

Hélio Simeão

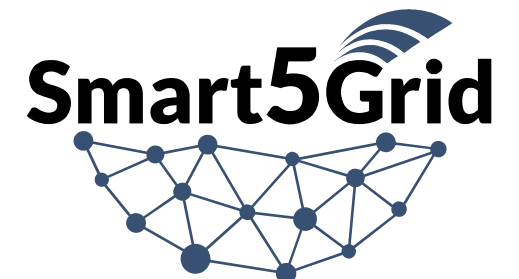
Product Owner

ubiwhere | WP4 Technology Readiness Evolution for NetworkApps Development



This project has received funding from the European Union's *Horizon 2020 research and innovation programme* under grant agreement n° 101016912

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Demonstration of **5G** solutions for **SMART** energy **GRIDs** of the future

Important concepts

Buzzwork level:



Computing continuum

Network Function Virtualization (NFV)

Network Slicing

5G

Edge Computing

Orchestration

Digital Transformation

CI/CD

Software Defined Networks (SDN)

Virtual Network Function (VNF)

SDN Controller

Service Based Architecture (SBA)

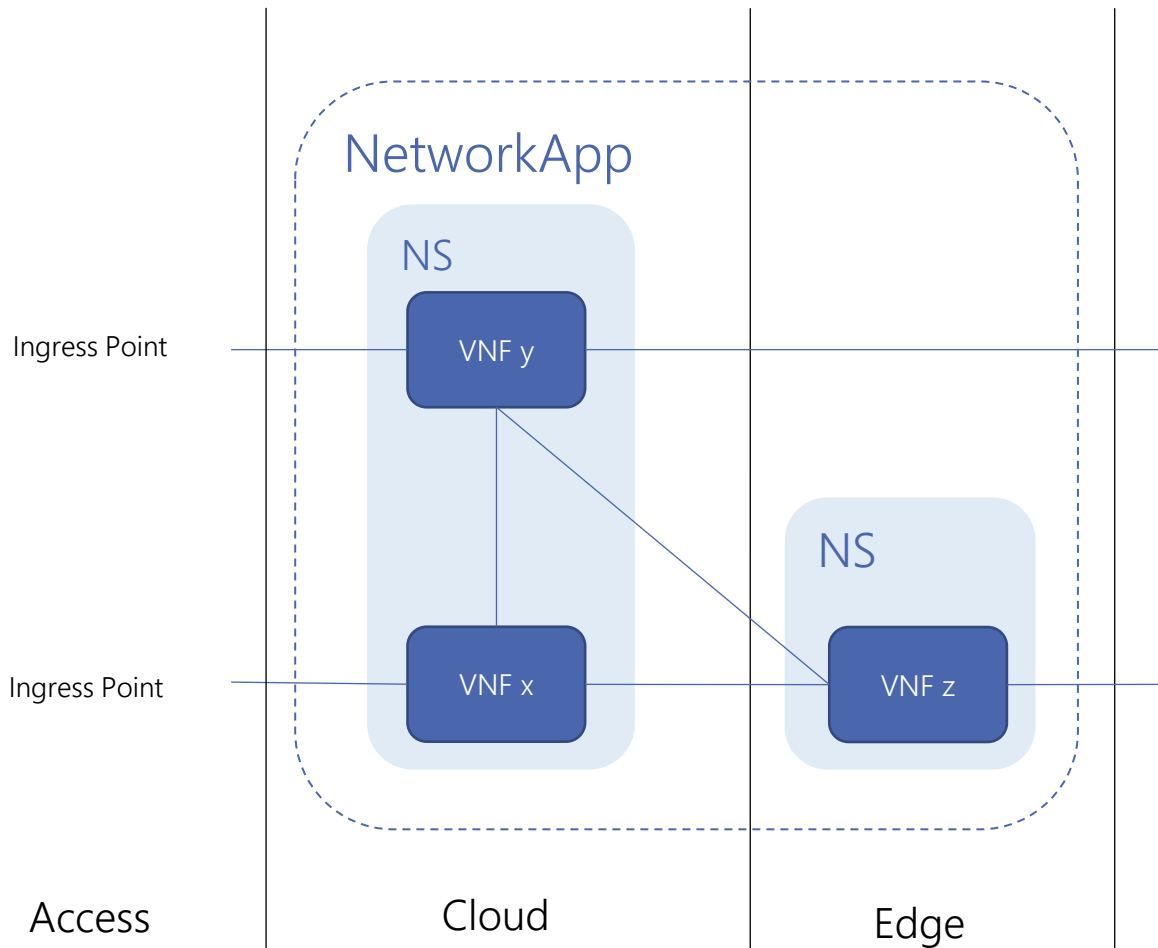
Let's catch up

Hello ETSI NFV



Let's catch up

Smart5Grid NetworkApp: means to an end..



- ✓ Facilitate developers to define vertical applications
- ✓ Abstract the complexities of the network, reducing the level of networking expertise required
- ✓ Promote reutilization of Software Functions
- ✓ Micro-services Architecture
- ✓ Efficient use of resources (typically scarce at the edge)
- ✓ Cloud-Edge continuum

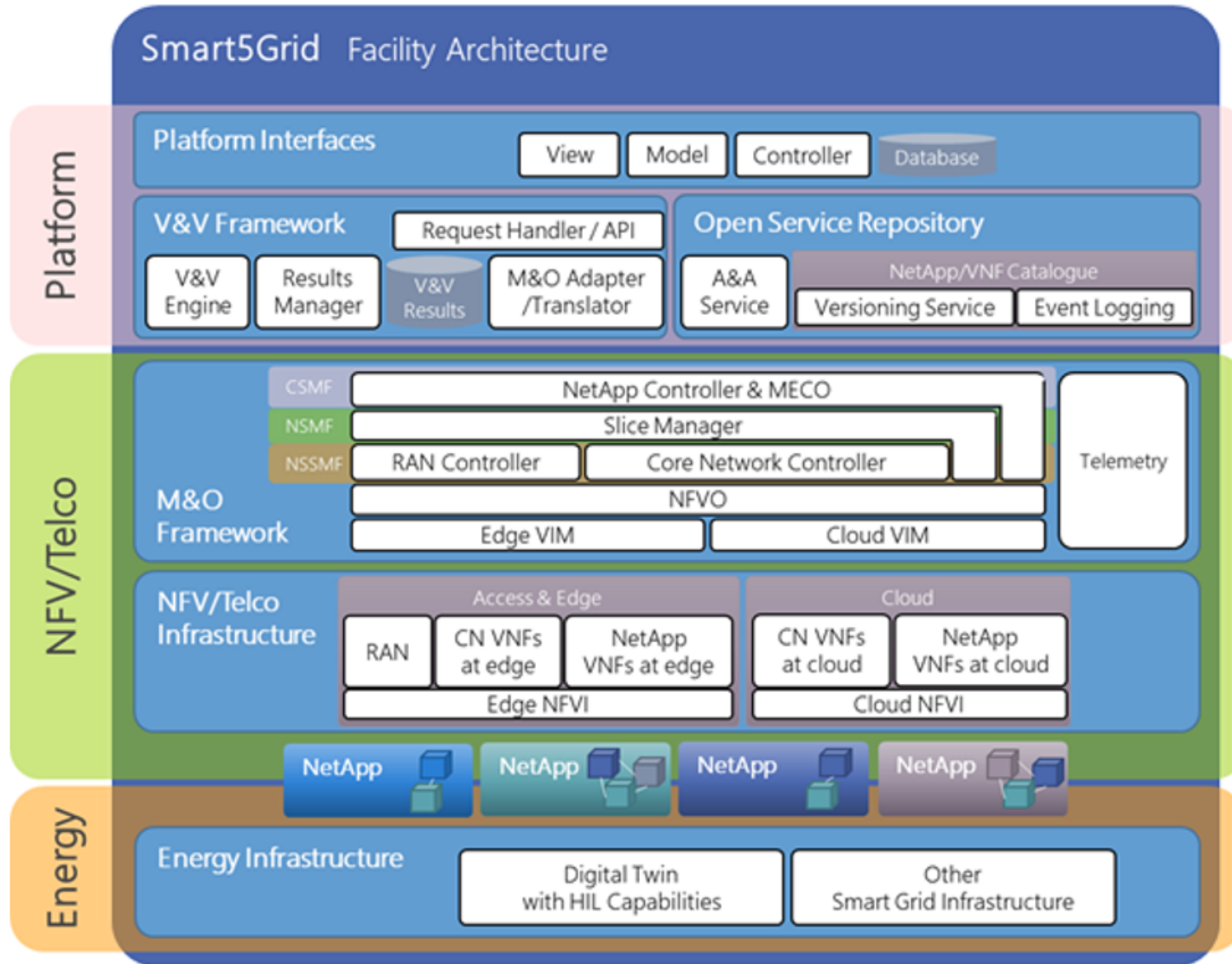
Smart5Grid Platform



Open NetworkApp Repository
Test and validation facility

Smart5Grid platform

Hello World!



“Write once, deploy everywhere”

Use validated technology

Test your Network Application

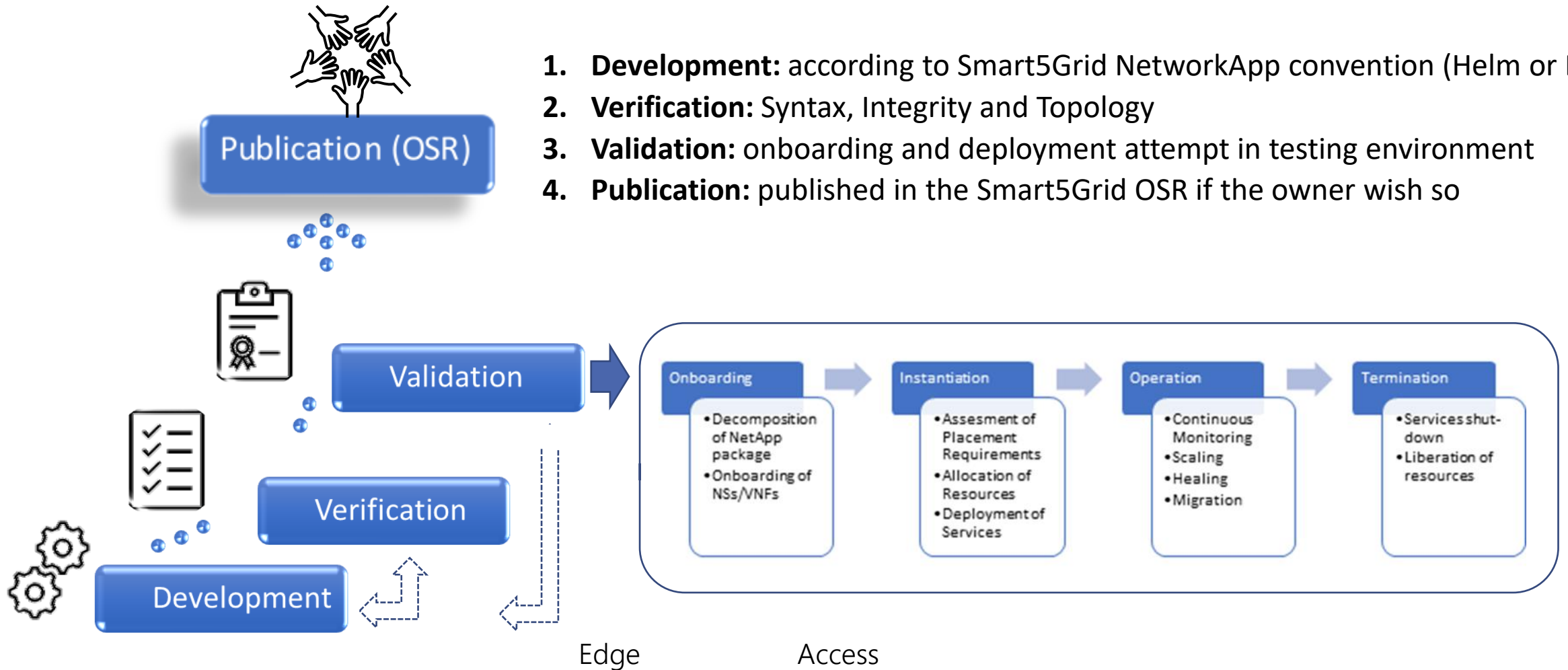
Free testing environment

Get immediate feedback

Access our User Guide


Smart5Grid platform

How can we help developers?



Smart5Grid platform

User Interface (Open Service Repository - OSR)



- Overview
- NetApps**
- VNFs
- NSs
- VDUs
- User

OSR platform

Network Applications (NetApps)

+ Create

Search netApps

<input type="checkbox"/>	ID	NAME	DESCRIPTION	VERSION	PUBLIC	OWNER	UPDATED AT	STATUS
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<input type="checkbox"/>	106	uc3netapp	Use case 3	1.0.70	Yes	No	08:49 - 07/12/23	unknown
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platform.s5g.axonlogic.eu



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Smart5Grid Open Experimentation Platform

Key takeaways



- “Write once, deploy everywhere” – Network Apps
- Free testing environment
- Build and Certify your Network App
- Support line to experts from Software, Telco and Energy domains

Smart5Grid Open Experimentation Platform

Smart5Grid project



The **Smart5Grid** project aims to investigate the potential of 5G-based Edge-Cloud Computation in the Energy industry, by introducing the concept of **Network Application** for simplifying the 5G complexity. The project testbeds are now available for third-parties' experimenters, fostering the creation of a new market-segment for Network Apps.

GENERAL INFORMATION

THE CONSORTIUM

24 EUROPEAN
PARTNERS
(50% SMEs)

COVERING
7 EU STATES

DURATION

3 YEARS

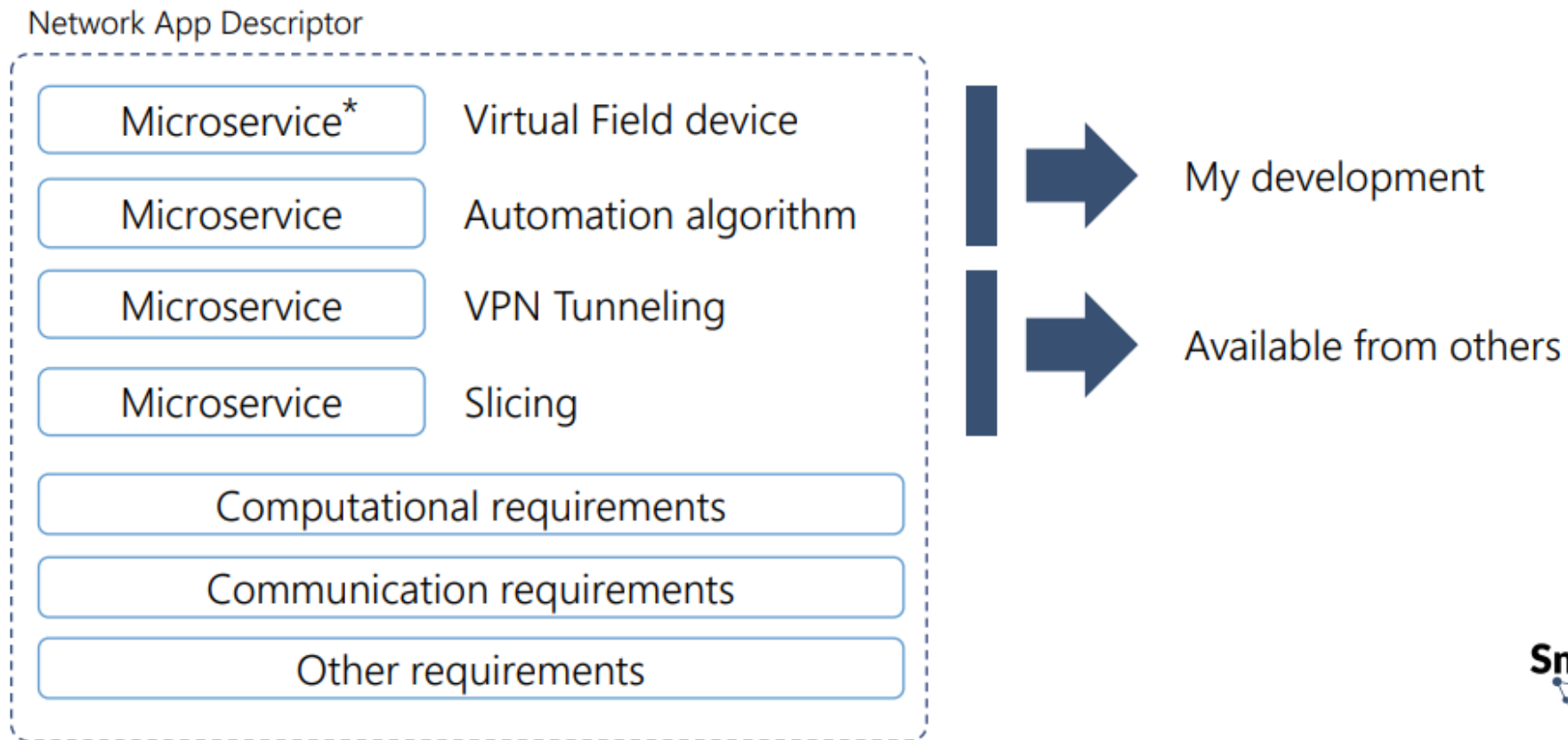
TOTAL BUDGET

8M€



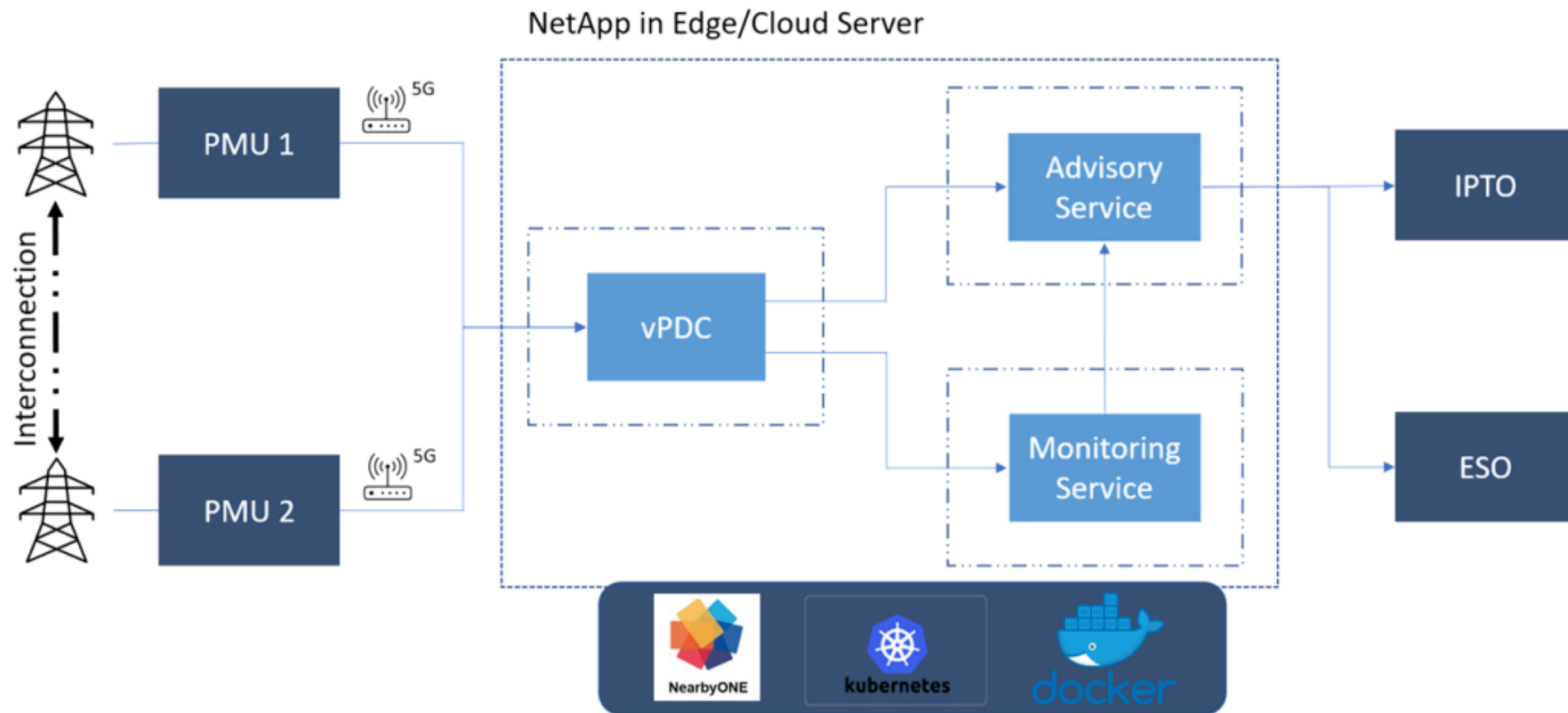
Smart5Grid Open Experimentation Platform

A Simple Network Application



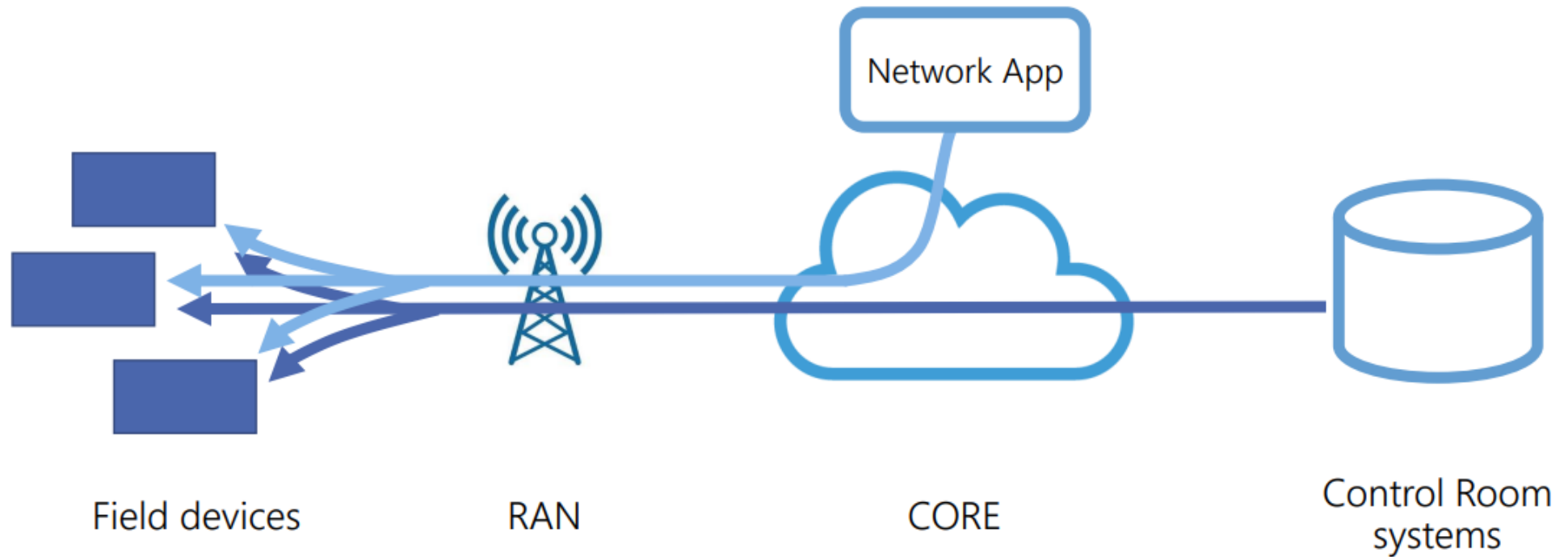
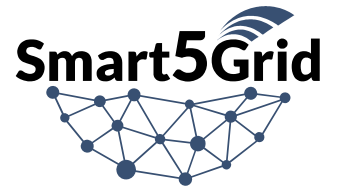
Greek-Bulgarian demo

Real-time Wide Area Monitoring



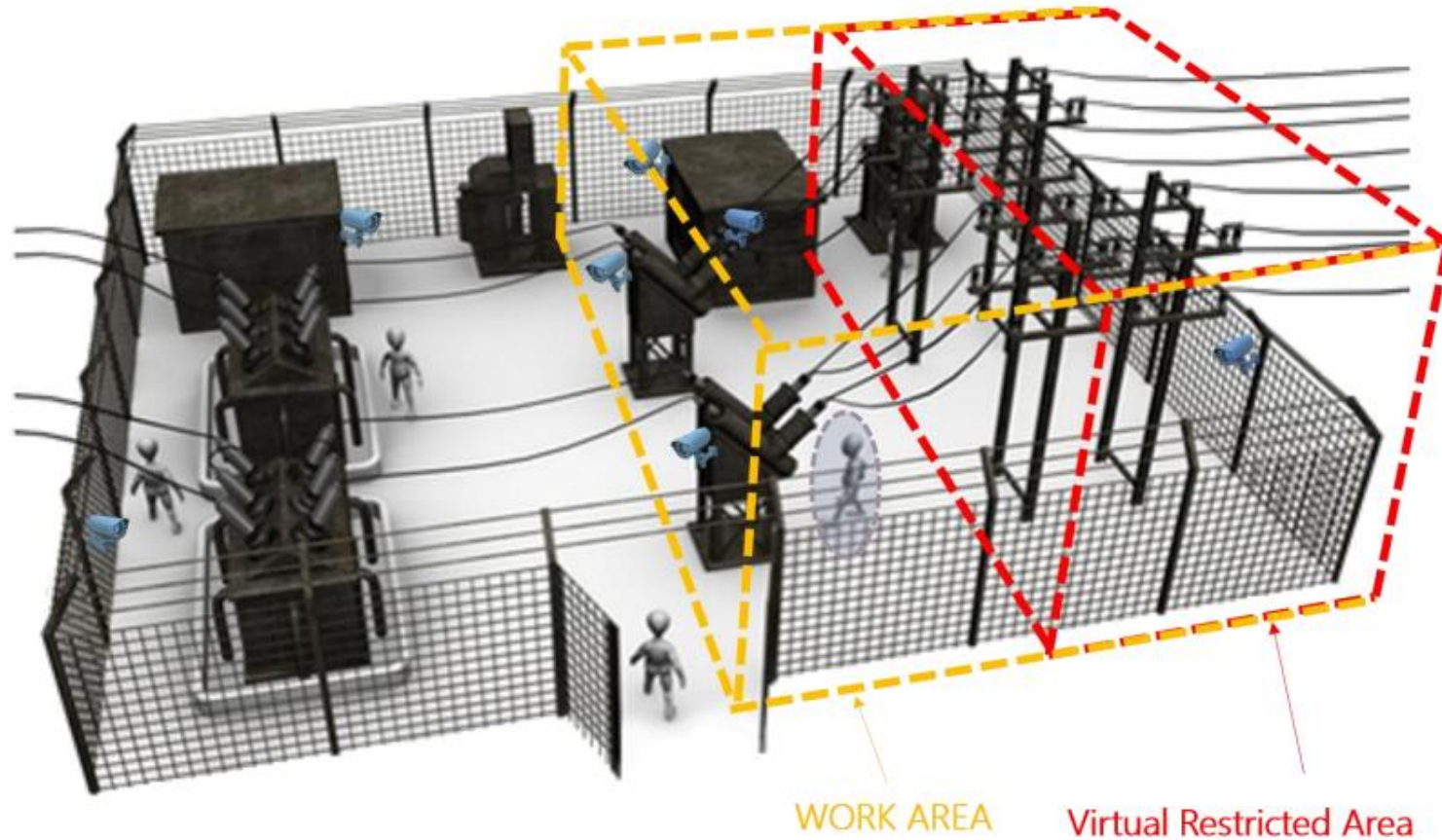
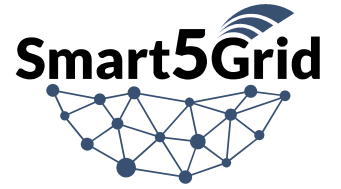
Italian demo

General overview



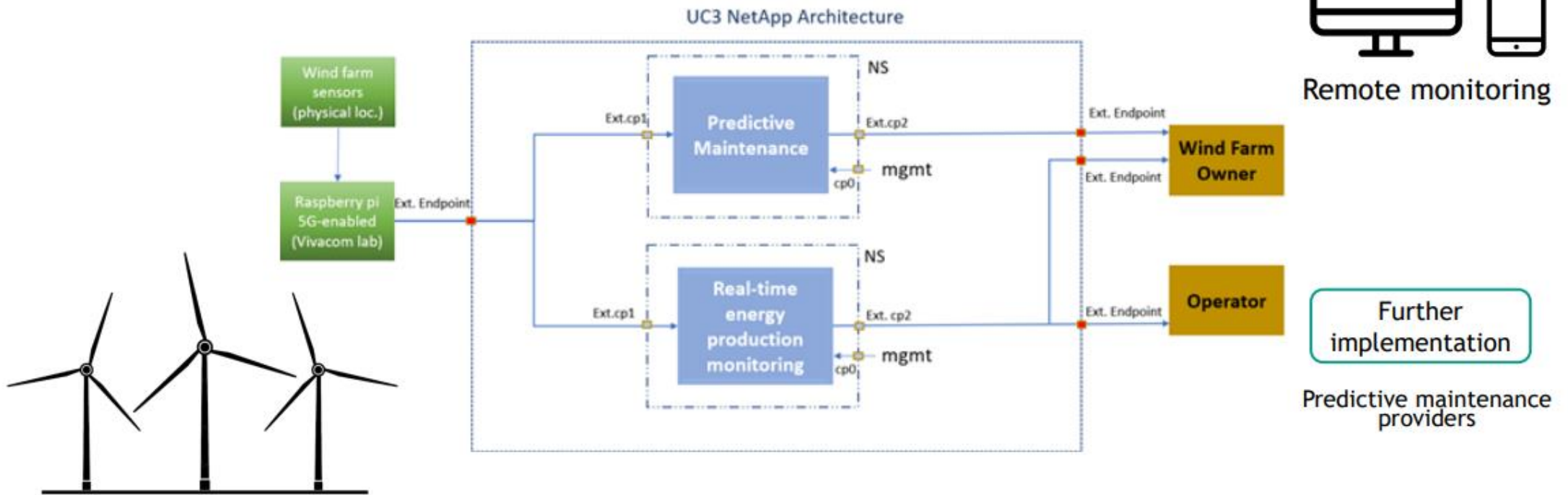
Spanish demo

Remote Inspection of Automatically Delimited Working Areas at Distribution Level



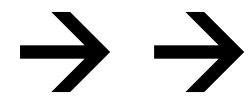
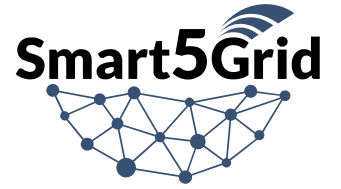
Bulgarian demo

Real-time Wide Area Monitoring

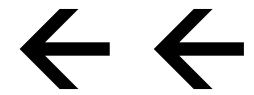


Sound interesting?

Check out our channels!



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