

Enable the Edge  
*Orchestration and automation for Edge Computing*

# Introduction to Edge Computing

Fundamentals, Standardization and Analytical Tools

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# Smart5Grid - General Information

## THE CONSORTIUM

24 EUROPEAN PARTNERS COVERING 7 EU STATES

## DURATION

3 YEARS

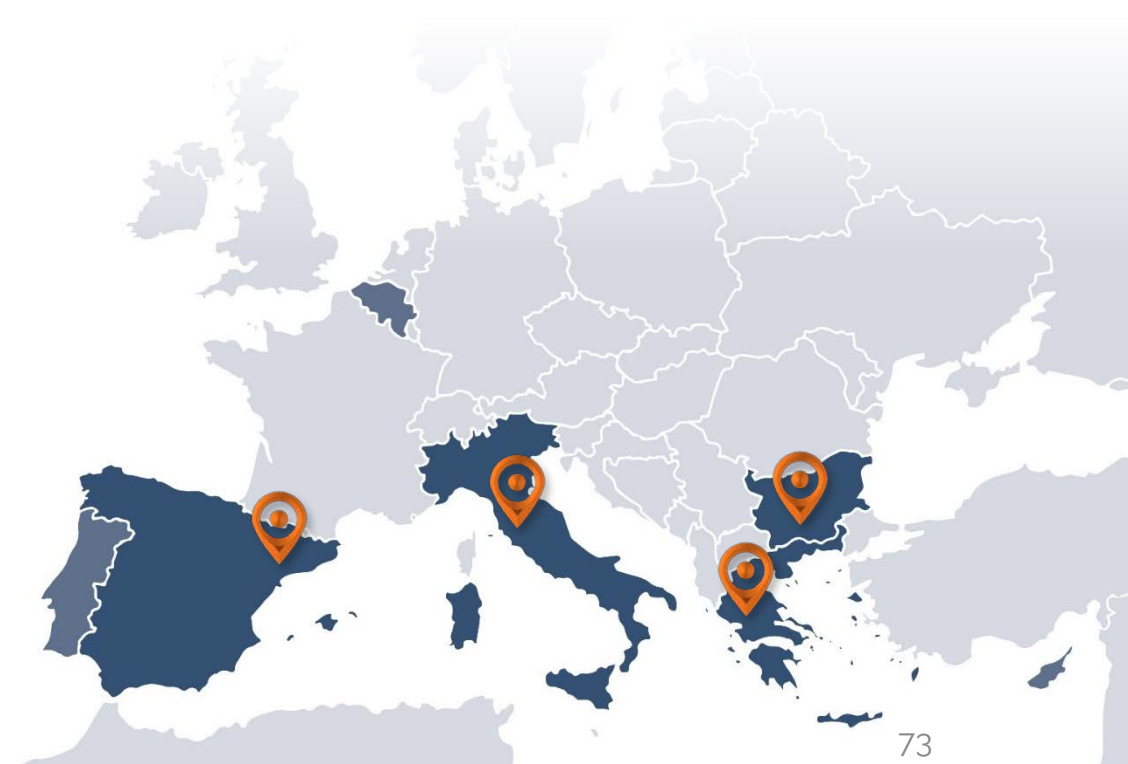
## TOTAL BUDGET

8M€



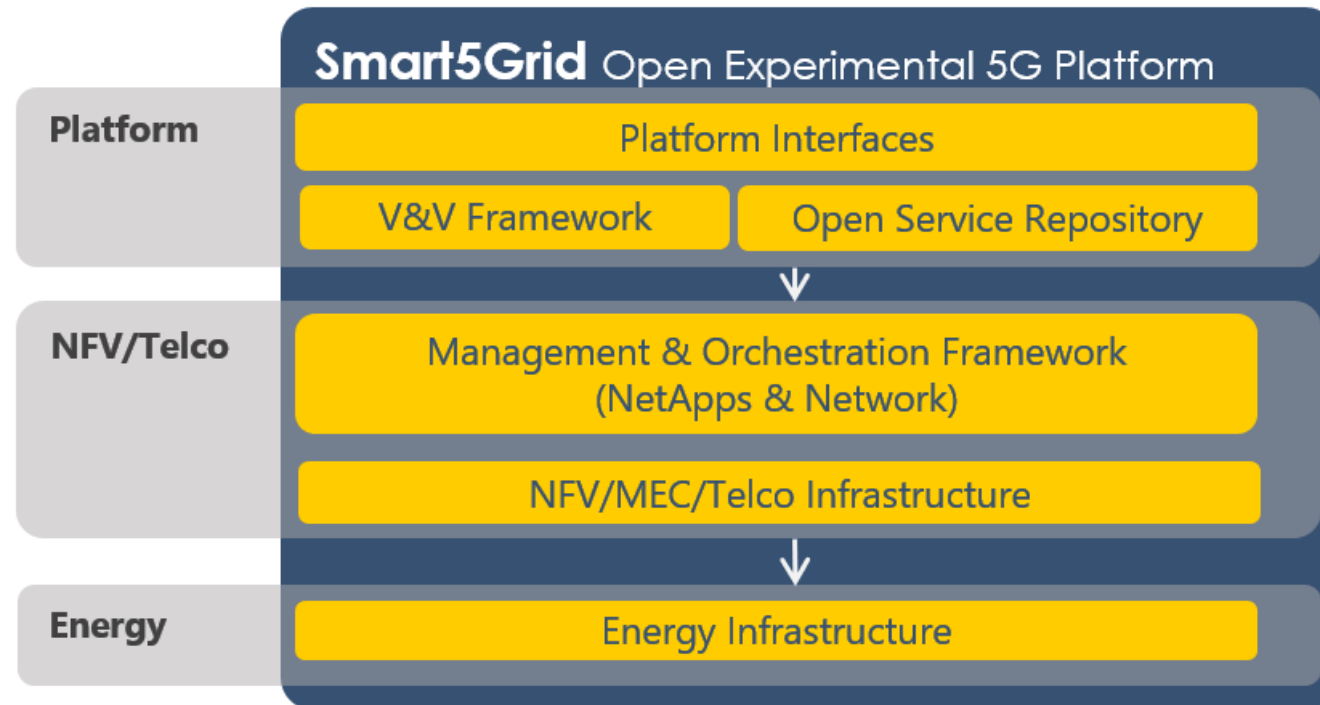
<b>Coordinator</b> 	<b>TELCOs</b>    	<b>SMEs</b>    
<b>Tech Companies</b>  	<b>Universities/Research institutions</b>    	  
<b>DSOs</b>  	<b>TSOs</b>  	  
  		

(Linked third-parties of Enel G8&N)





# Smart5Grid Architecture



The **Smart5Grid platform** will embrace DevOps practices and leverage the latest NFV, MEC and Slicing technologies to allow developers to validate 5G enabled **NetApps** specifically designed for energy focused scenarios. The validated NetApps will then be made available on **an Open Service Repository** for discovery, inspection and consumption by 3<sup>rd</sup> parties.

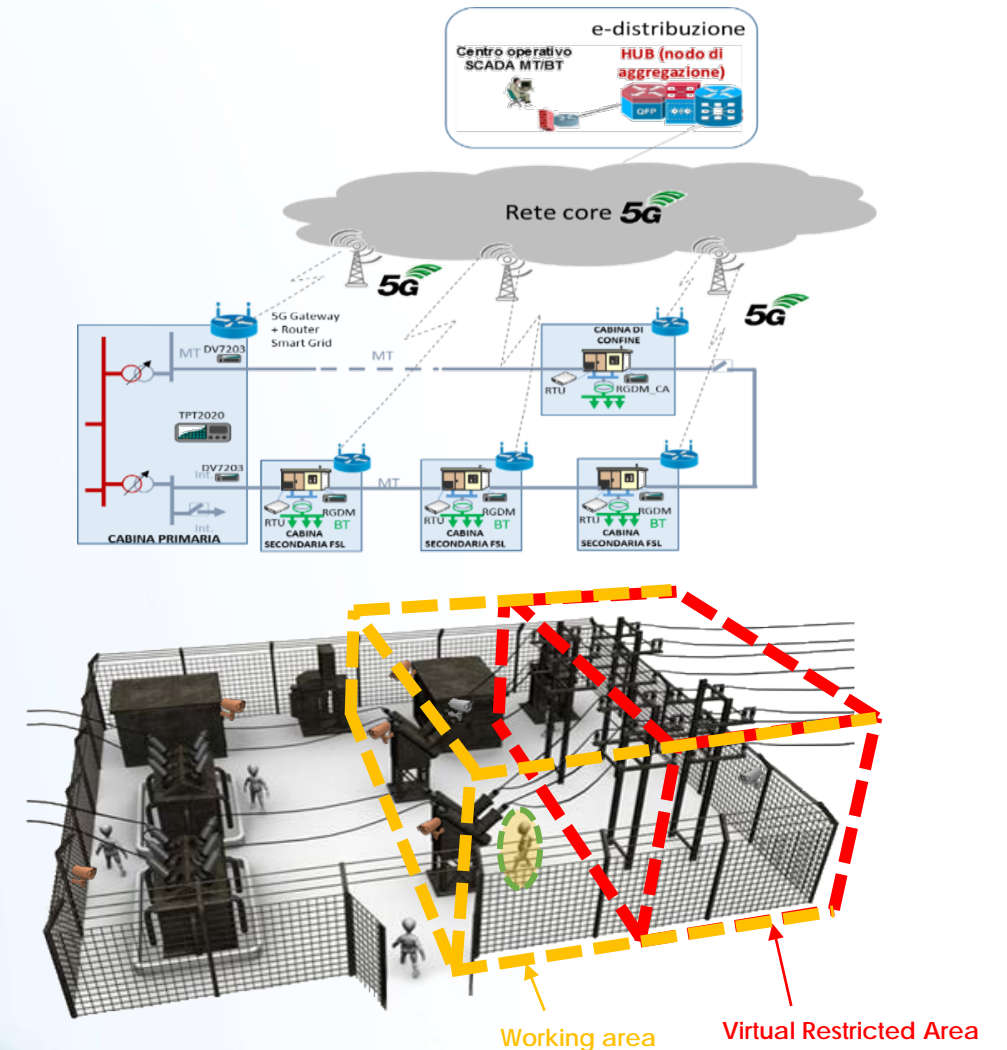
# Italian and Spanish demos

## UC1 (DSO - Operations) Automatic Power Distribution Grid Fault Detection

E-Distribuzione developed the most advanced grid automation system, that is able to reconfigure the grid during an outage, minimizing the number of affected customers. This system will be tested using the 5G infrastructure in a real life environment.

## UC2 (DSO - Safety) Remote Inspection of Automatically Delimited Working Areas at Distribution Level

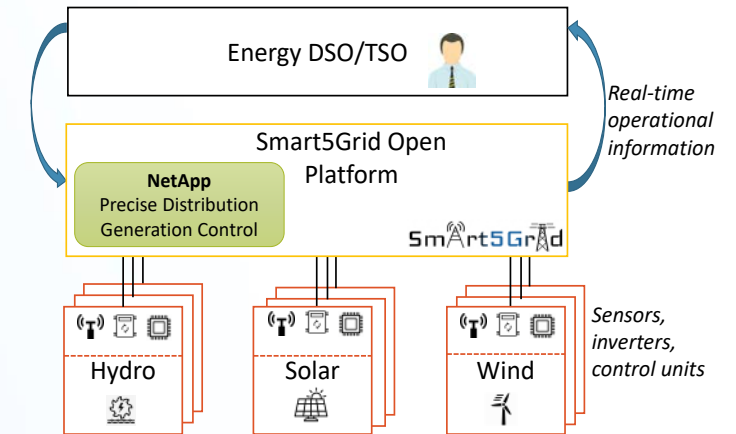
A system for monitoring the safety of people working in a power plant will be implemented using a private 5G facility. High resolution 3D sensors combined with AI will support workers during maintenance, avoiding to reach live parts of the power plant.



# Bulgarian and Greek demos

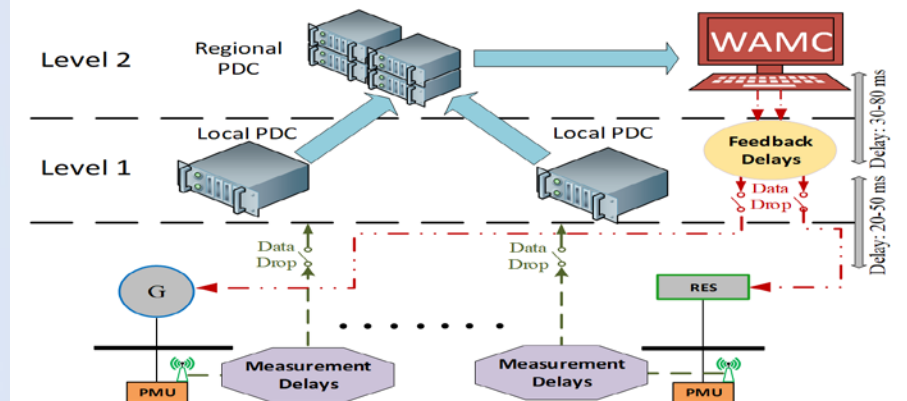
## UC3 (Aggregator) Millisecond Level Precise Distribution Generation Control

Smart5Grid will enable the connection of thousands of Medium Voltage (MV) and High Voltage (HV) level decentralised RESs units and their inverters, to a platform with installed 5G communication protocols, which will allow their aggregation and control in millisecond rates



## UC4 (TSO-TSO) Real-time Wide Area Monitoring

Smart5Grid aims to demonstrate the 5G virtual PDC capabilities for serving the Wide Area Monitoring of end-to-end electricity networks: from Distributed Energy Resources at Medium Voltage level operated by DSOs, to High Voltage level operated by TSOs, as well as inter-TSO cross border Regional Security Coordination.



# Get in Touch

Check out our channels



[smart5grid.eu]



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# Thank you for your attendance!

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