# End-to-End Cognitive Network Slicing and Slice Management Framework in Virtualised Multi-Domain, Multi-Tenant 5G Networks

*5G-PPP Project SLICENET*

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# Innovations

- One-stop slicing API (and P&P slice control) for verticals
- End-to-end scalable slicing as a service over multiple administrative domains
- Integrated FCAPS management in a single administrative domain
- Integrated FCAPS management in multiple administrative domains
- Cognition/intelligence based QoE management for optimising slicing
- Cross-plane, cross-domain orchestration
- Slicing-friendly infrastructure with MEC and enterprise networking support
- Representative 5G verticals' use cases

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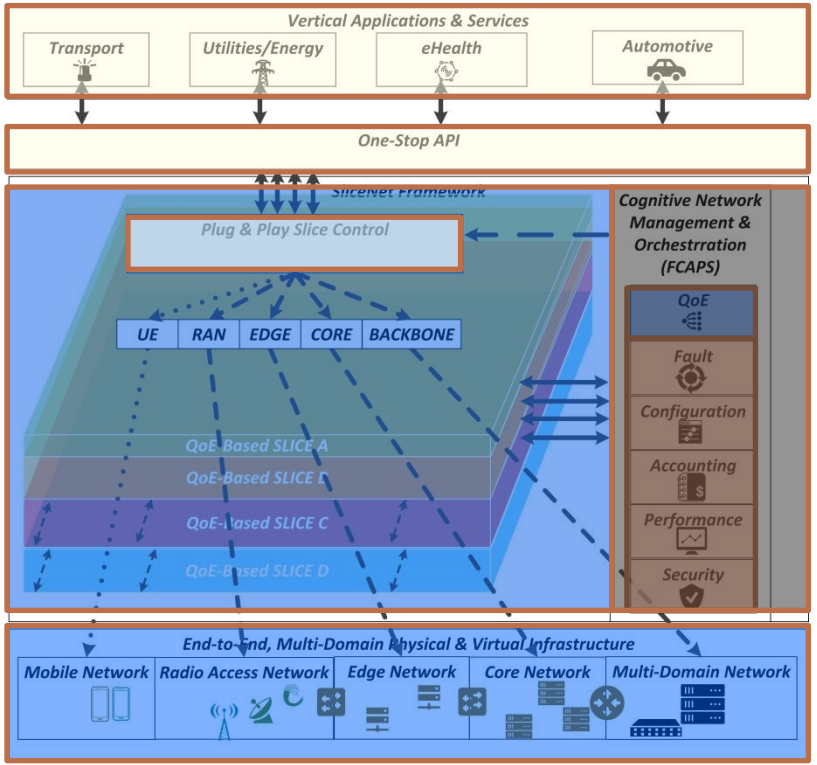
# Main Objectives

1. Achieve an innovative, cognitive, integrated **'one-stop shop' 5G slice management framework** for **vertical businesses** and co-designed by vertical sectors
2. Enable extensible, **end-to-end slice FCAPS management** across multiple planes and operator domains
3. Establish **cognitive, agile QoE management of slices** for service assurance of vertical businesses
4. Enable **slicing-friendly infrastructure**
5. Empower **orchestration** for cross-plane coordination of management, control, service and data planes to achieve **system-level slicing** control and slice operation

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# Detailed Architecture & Scope

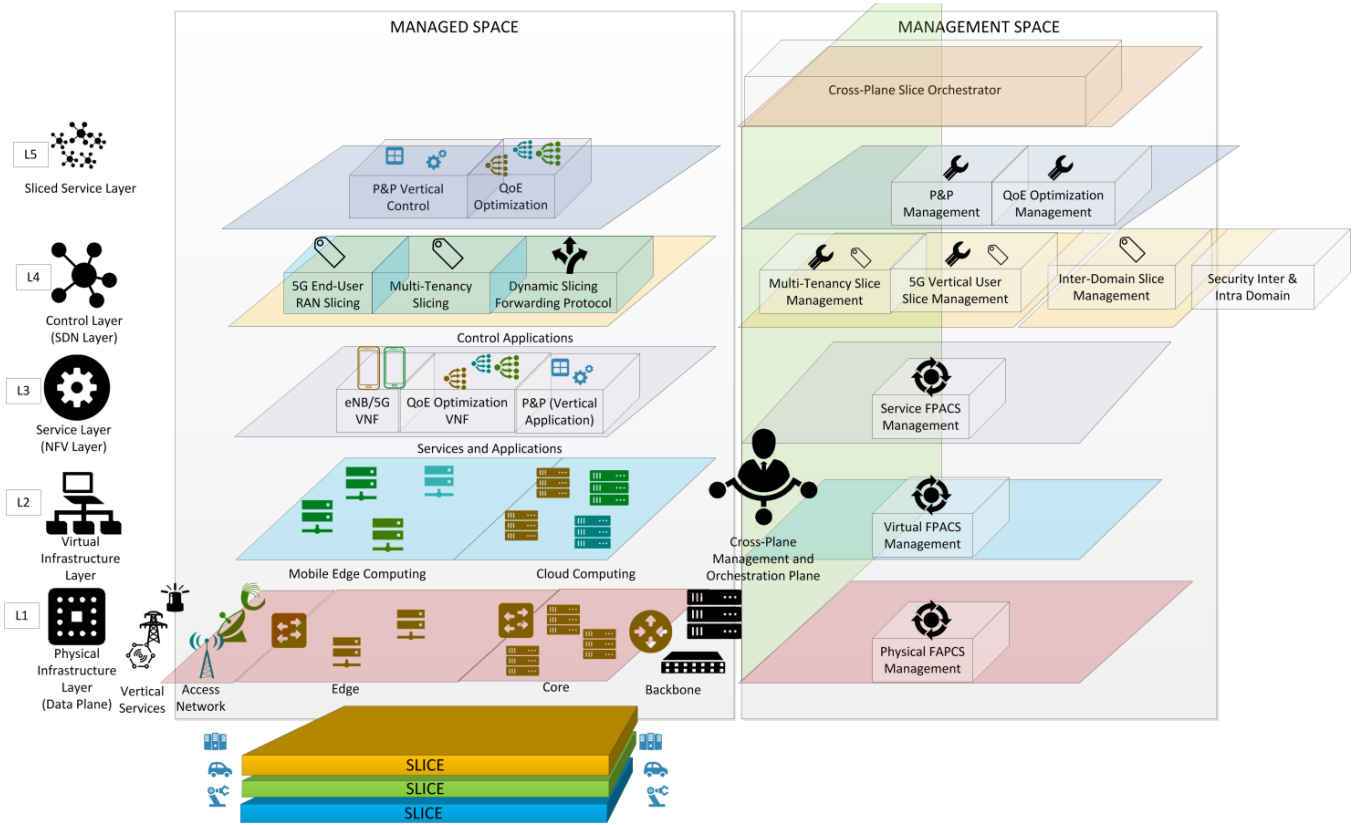
L5 – Sliced Service Layer

L4 – SDN Control Layer

L3 – NFV Data Service Layer

L2 - Virtual Infrastructure Layer

L1 - Physical Infrastructure Layer

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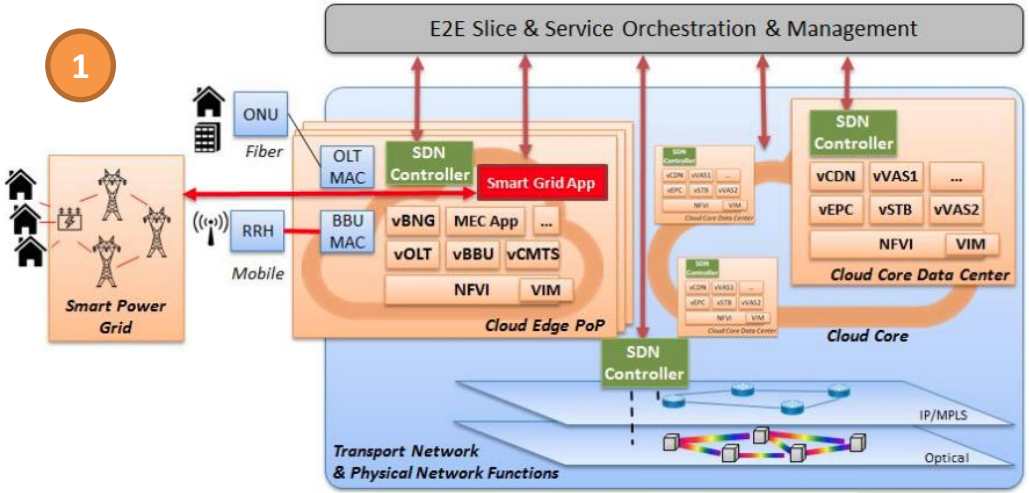
# Use Cases Overview

## 5G Smart Grid Self-Healing Use Case

1




## 5G eHealth Smart Ambulance Use Case

2

## 5G Smart City Use Case

3

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# Thank you for your attention

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