

# 5G-*T*ransformer: 5G Mobile Transport Platform for Verticals

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## Project overview

# In a nutshell



- 5G-Transformer: 5G Mobile Transport Platform for Verticals
- EC Contribution: 7.985.582 €
- Duration: 30 Months
- Effort: 996 PMs
- Starting date: 01/06/2017
- 18 partners:
  - PM: Univ. Carlos III of Madrid
  - TM: NEC Europe
  - Ericsson TI
  - ATOS
  - NOKIA
  - Interdigital Europe
  - Telefonica
  - Orange
  - Centro Recherche Fiat
  - Ayuntamiento de Madrid
  - BCOM
  - Nextworks
  - Mirantis
  - CTTC
  - Politecnico di Torino
  - EURECOM
  - SSSA
  - ITRI

# Motivation



- From rigid interconnection to SDN/NFV-based 5G Mobile Transport and Computing Platform (MTP)
- Technical approach:
  - Enable Vertical Industries to meet their service requirements within customised MTP slices; and
  - Aggregate and Federate transport networking and computing fabric, from the edge up to the core and cloud, to create and manage MTP slices throughout a federated virtualized infrastructure

## Verticals



Automotive



Healthcare



Media



M(V)NO

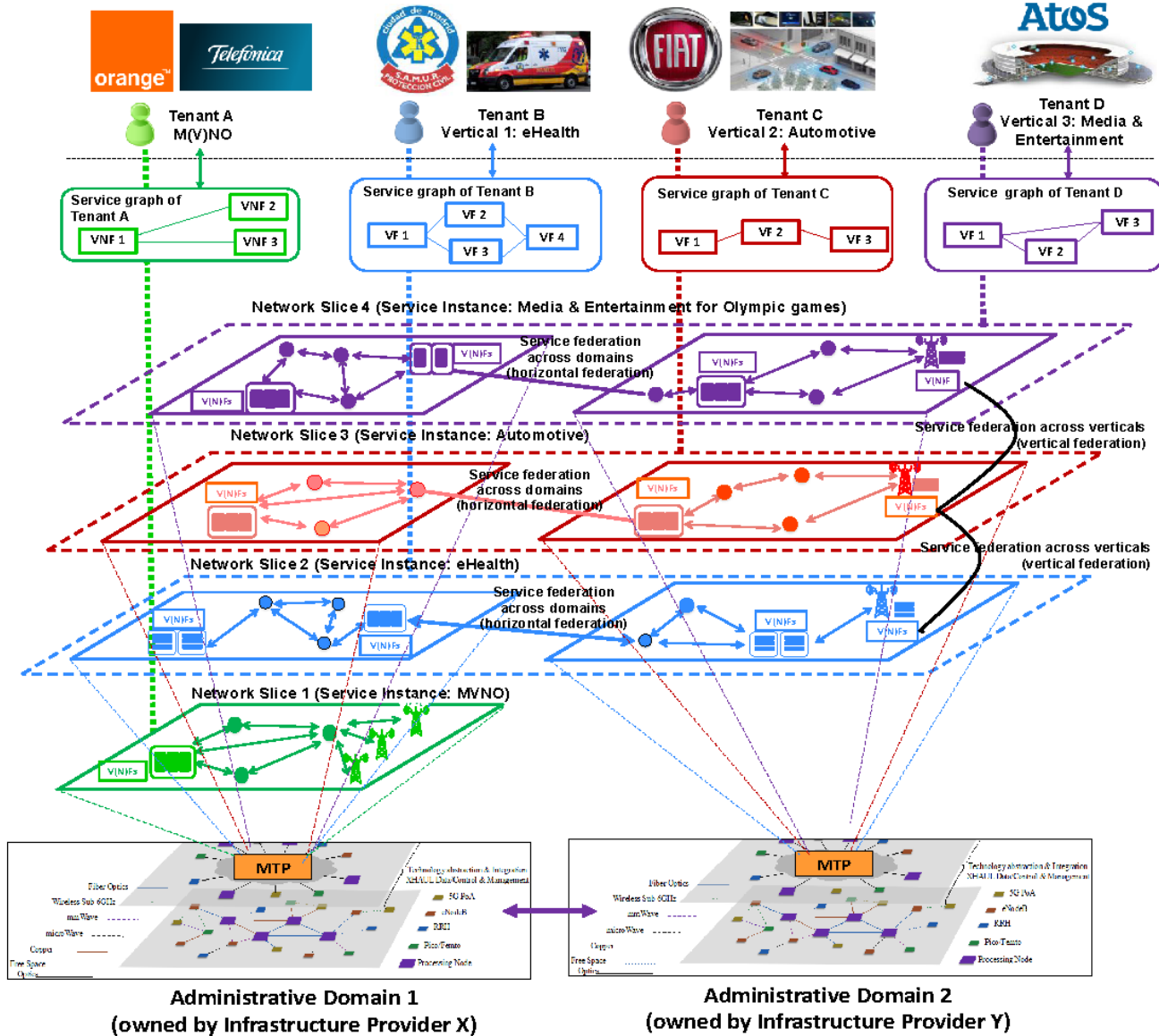
# Main building blocks



- *Vertical Slicer*
  - logical entry point for verticals to support the creation of their transport slices in a short time-scale
- *Service Orchestrator*
  - federation of transport networking and computing resources from multiple domains and allocation to slices
- *Mobile Transport and Computing Platform*
  - underlying unified transport stratum for integrated fronthaul and backhaul networks

# 5G-Transformer Concept

# 5G-T



5G-Transformer users:  
Mobile (virtual) network operators, vertical industries

**Vertical Slicer (VS)**  
(Service creation & management)

**Service Orchestrator (SO)**

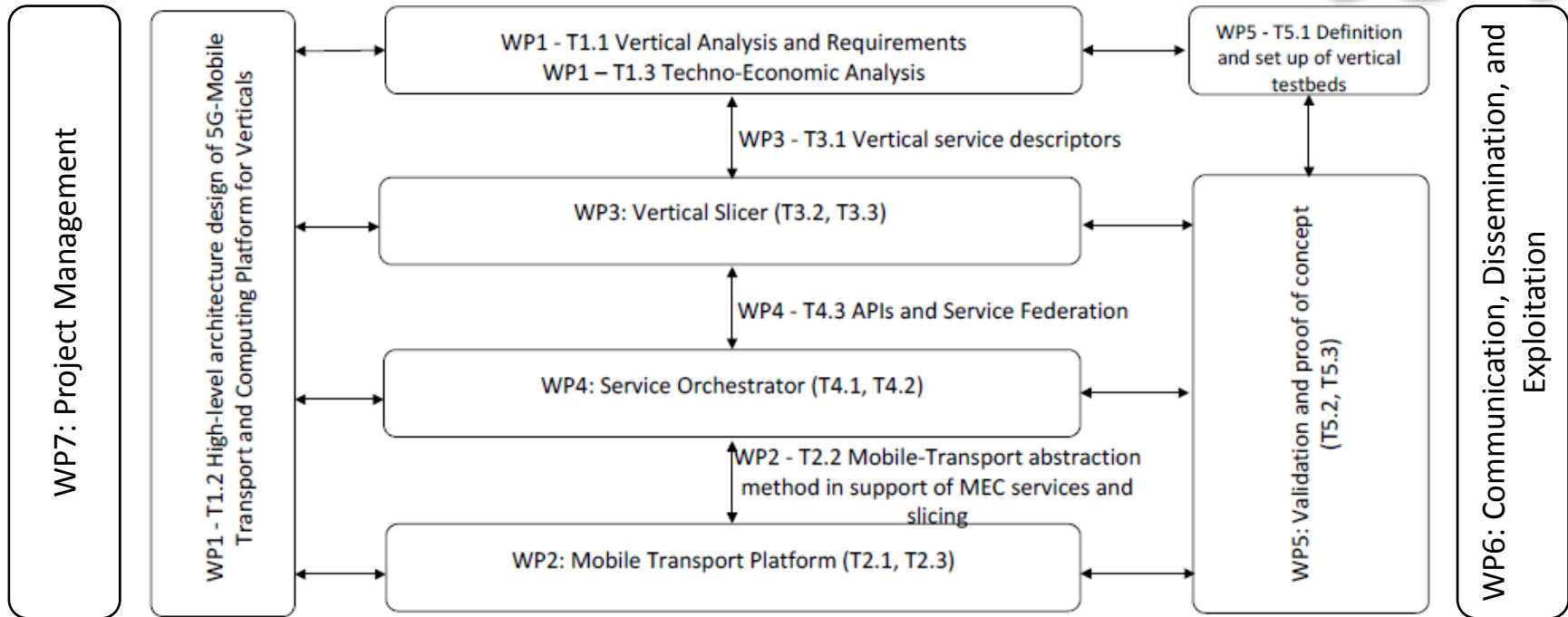
- Service composition and orchestration within a single domain
- Service federation enabling multi-domain provisioning

**Mobile Transport and Computing Platform for Verticals (MTP)**

**5G-TRANSFORMER**  
Physical Infrastructure

# WP structure

5G-T



- WP1: System Requirements, Vertical Scenarios and Economic Analysis (Orange)
- WP2: Mobile Transport and Computing Platform for Verticals (TEI)
- WP3: Vertical Slicer (NOK-N)
- WP4: Service-Aware Orchestration and Federation for Verticals (NEC)
- WP5: Validation and Proof of Concept (ATOS)
- WP6: Communication, Dissemination and Exploitation (CTTC)
- WP7: Project Management (UC3M)

# 5G-T



# Thank you!

