



DEEP: 5G-DIVE Elastic Edge Platform

AN INTELLIGENCE AND AUTOMATION PLATFORM
FOR EDGE AND FOG COMPUTING ENVIRONMENTS

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*“5G end-to-end
experimentation by
verticals in EU
projects”*

Online workshop

June 9th, 2020

Outline

- **DEEP Platform**
 - Goal and design principles
 - Supporting Strata
 - Interfaces
- **Integrated View with 5G-CORAL Platform**
- **Vertical Pilots and Use Cases**

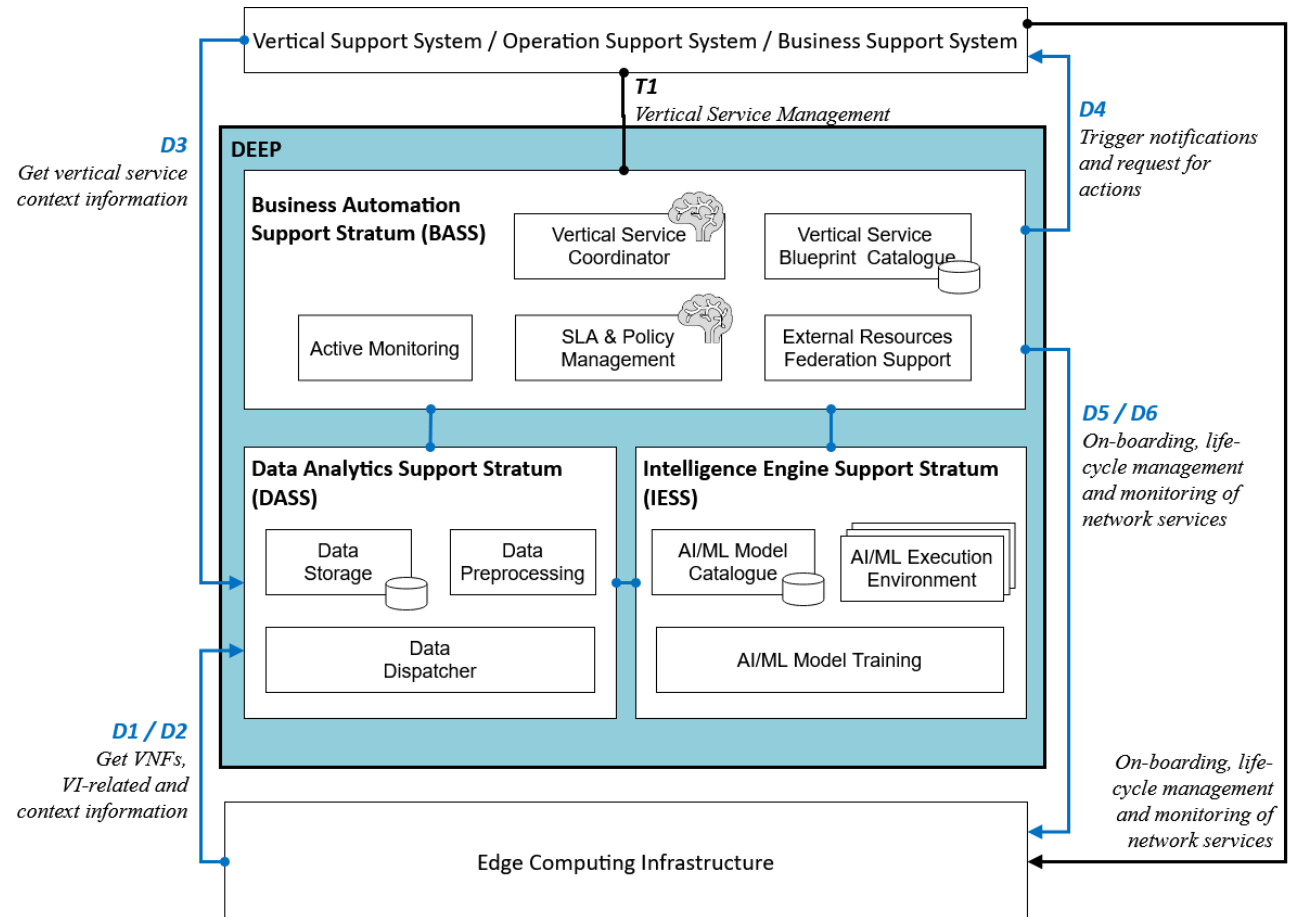
DEEP Platform: Overview

Goal

- Support vertical industries in day-by-day operations, management, and automation of businesses processes on-top of an edge and fog infrastructure

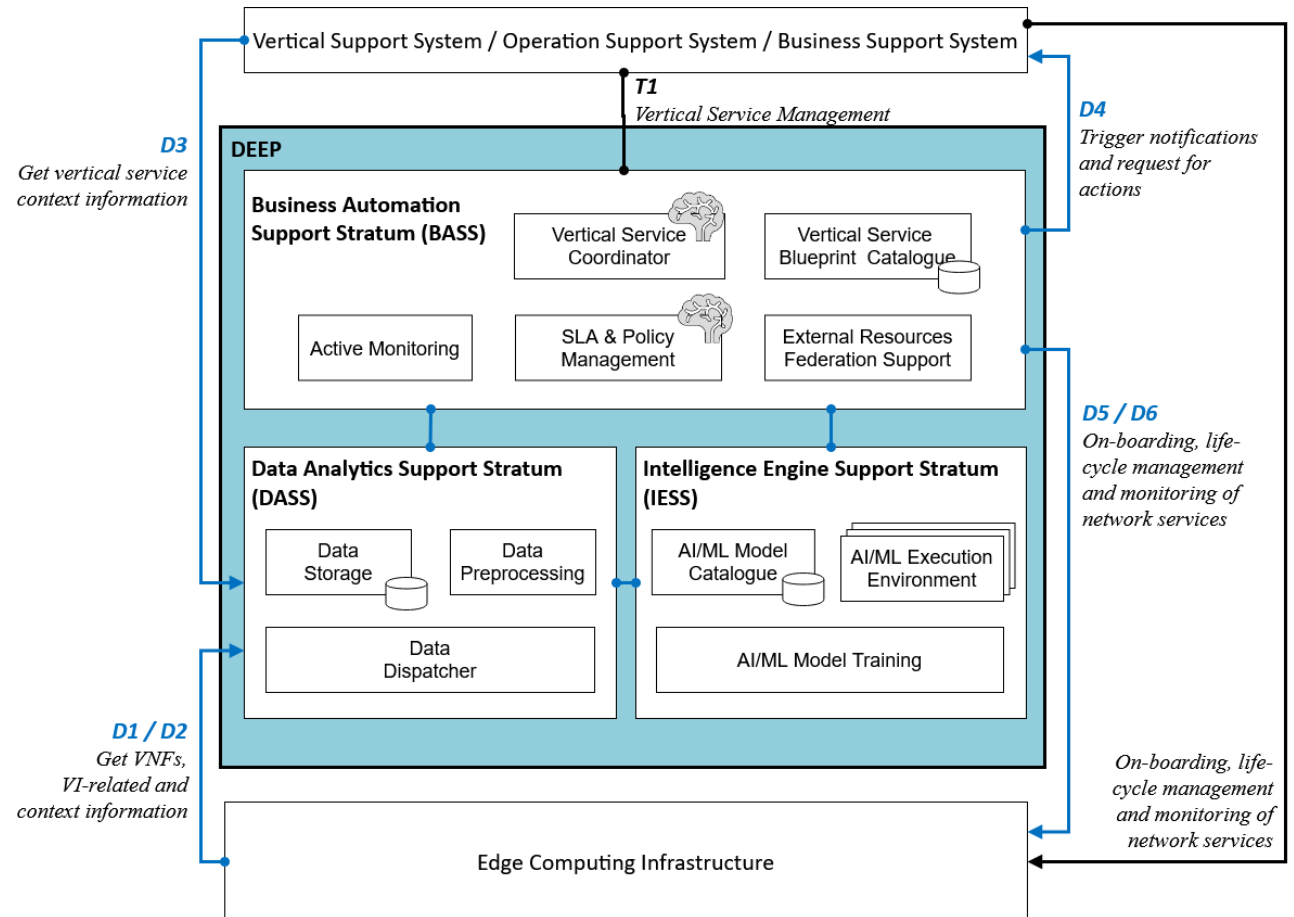
Main design principles:

- From an IaaS to a PaaS service model
- Add-on based approach
- Platform-agnostic
- Automation and AI



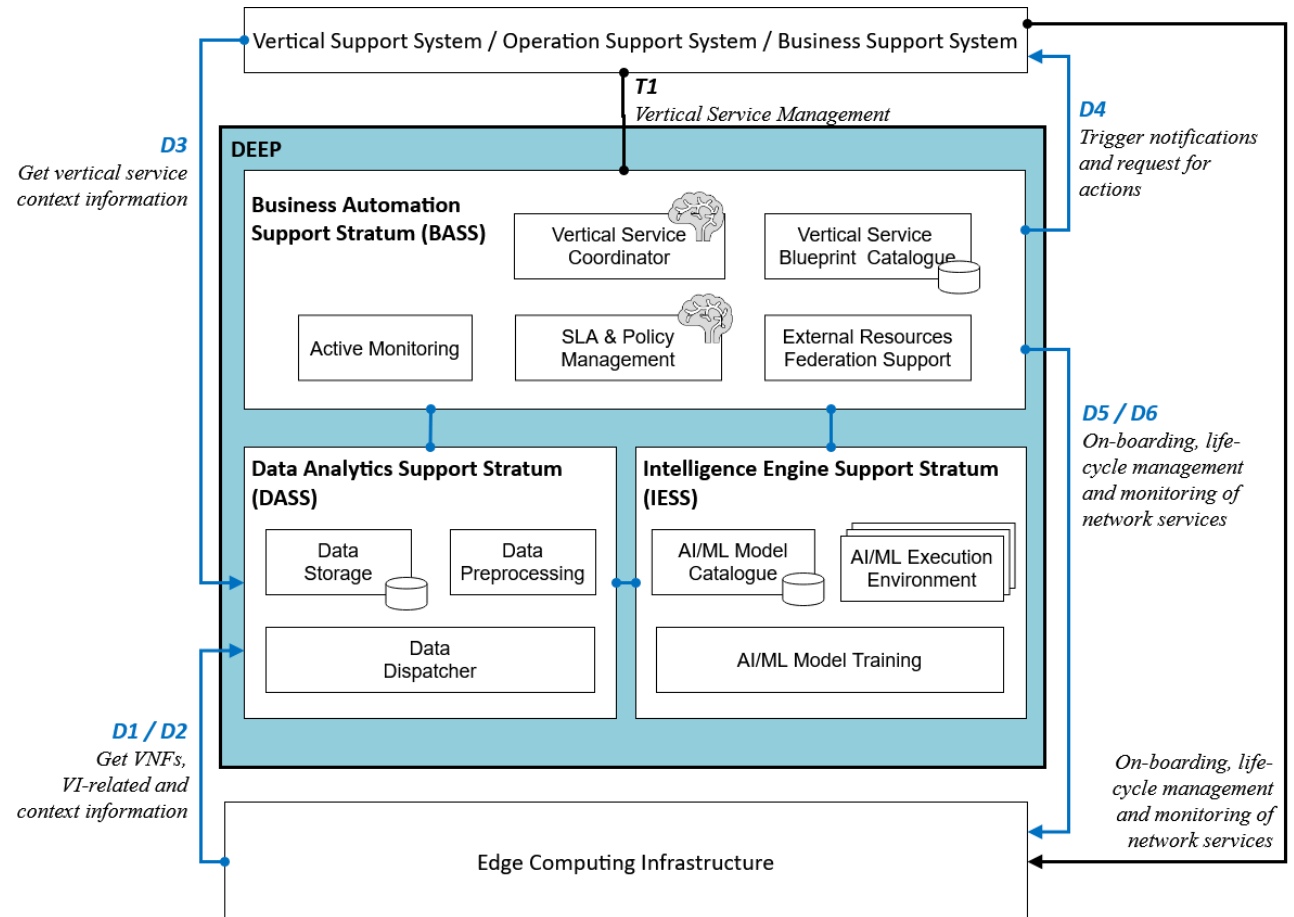
DEEP Platform: Supporting Strata

- **Business Automation Support Stratum (BASS):**
 - Responsible for business automation support (interface to OSS/BSS)
- **Data Analytics Support Stratum (DASS):**
 - Responsible for handling all aspects of data processing, storage and distribution
- **Intelligence Engine Support Stratum (IESS):**
 - Responsible for easing the provisioning of AI/ML-based capabilities



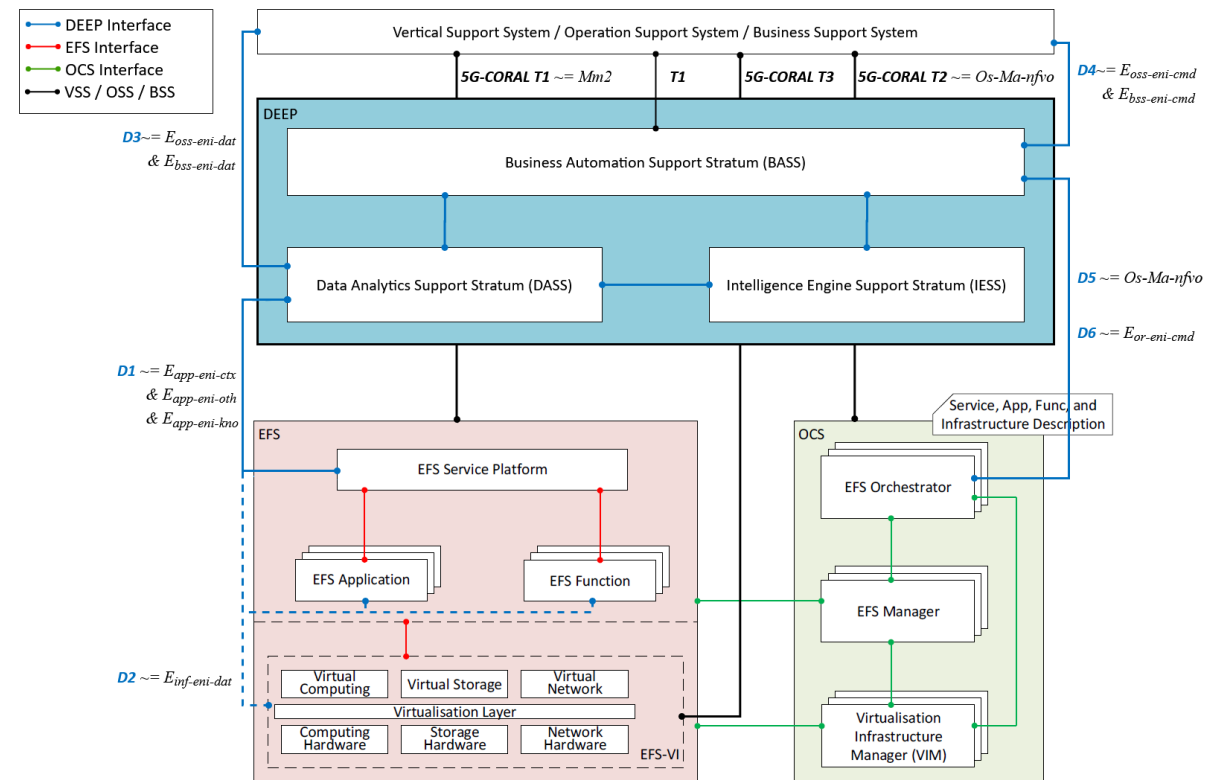
DEEP Platform: Interfaces

- External interfaces towards:
 - Vertical's OSS/BSS
 - Edge and Fog Computing Infrastructure
 - Virtualization Infrastructure
 - Orchestrator
- Mapped towards relevant ETSI ENI and ETSI NFV reference points



Integrated View with 5G-CORAL Platform

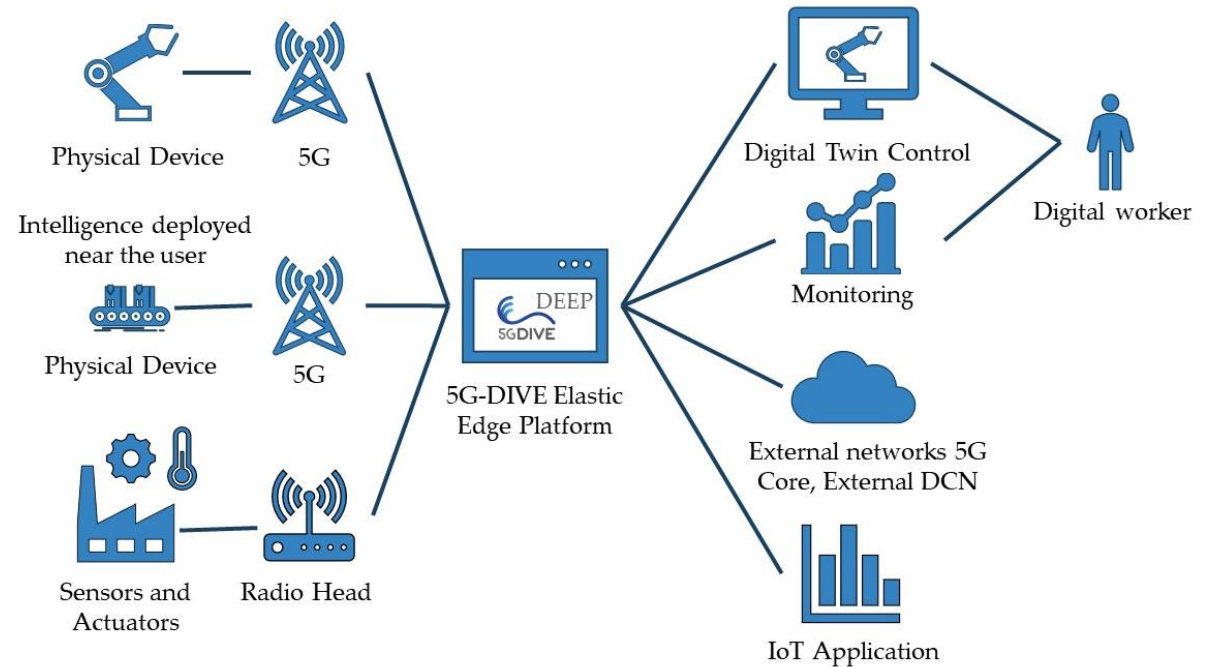
- Integration guidelines:
 - Add-on based approach
 - Use of (standardized) interfaces
 - Data is key for automation and intelligence
 - Control-loop stability



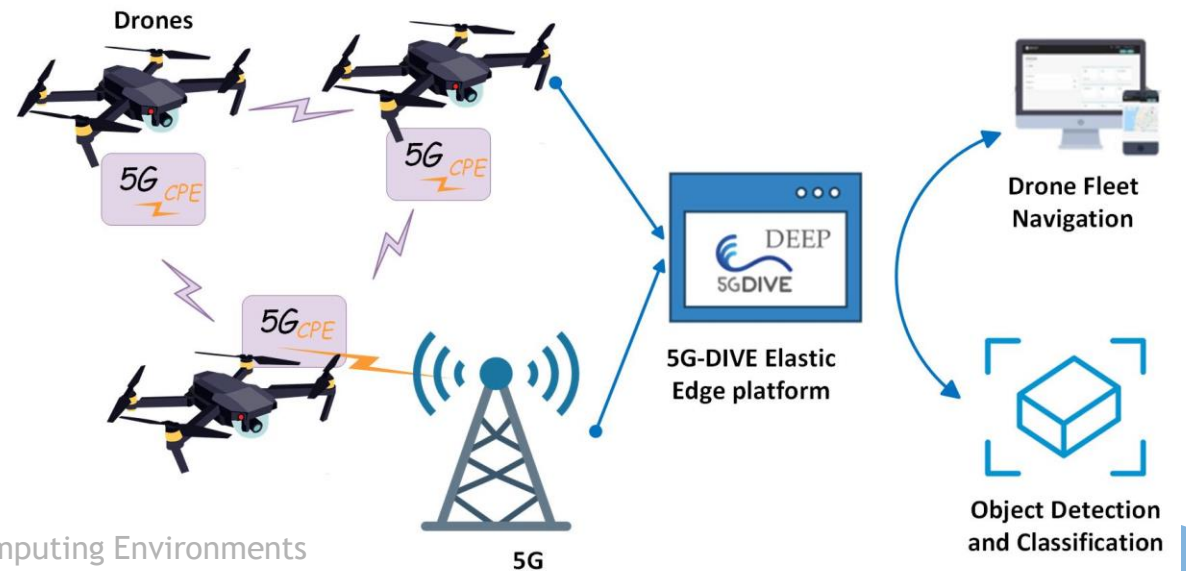
Vertical Pilots

- Targets end-to-end 5G trials in relevant industry segments
 - Manufacturing (I4.0)
 - Public safety (ADS)
- Industry 4.0 (I4.0):
 - Digital Twin Application
 - Augmented Zero Defect Manufacturing
 - Massive Machine Type Communications
- Autonomous Drone Scouting (ADS):
 - Drones Fleet Navigation
 - Intelligent Image Processing for Drones

I4.0:



ADS:



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ADLINK
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