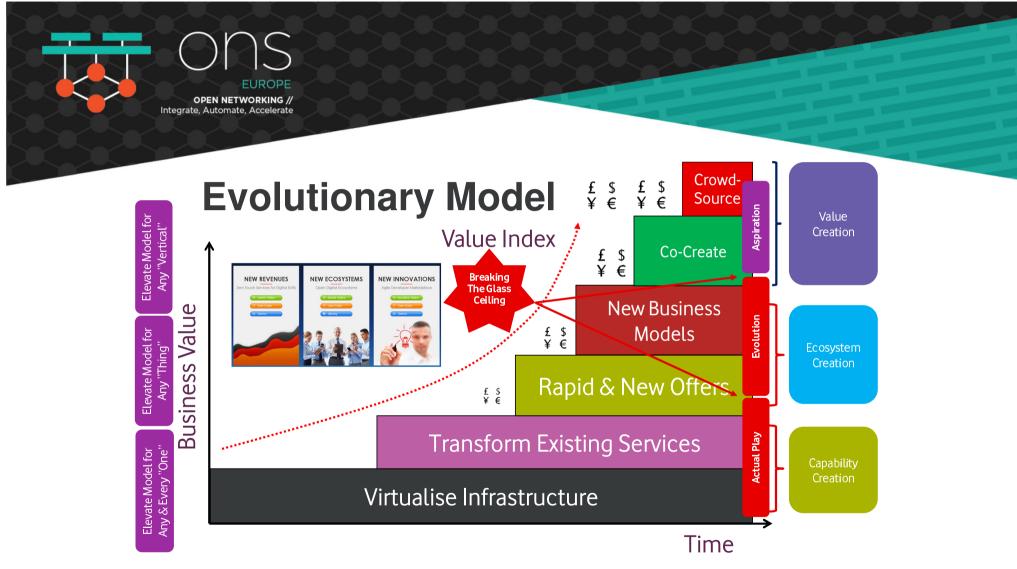




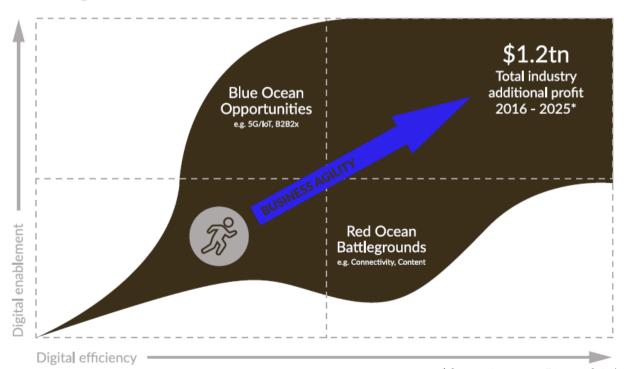
# Adopting Platforms & Model Driven Approach For Enabling 5G Use Cases

**Atul Purohit** 



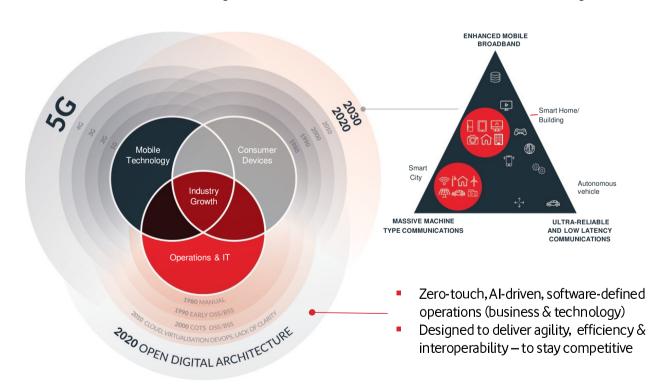


## **Digital Transformation in two dimensions**





### Future success depends on transformation of operations & IT





# Why A Platforms Play Has The Best Chance

Platform Economy "is" The Right Answer for Rapid "Anything" Rollout

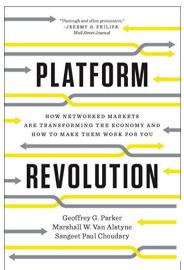
**Examples All Around Us** 

Early Platforms (App-Stores)



Apple App Store turns 10











Telco Opportunities / IoT Growth. Rapid New Services Rollout







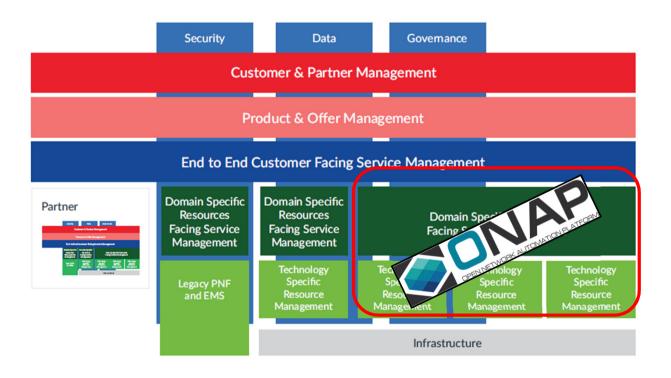
# **Evolution to 5G**

Industry	Illustrative applications	Case studies
Healthcare	Bioelectronic medicine     Personal health systems     Telecare and telemedicine     Connected ambulance	TJHM for dementia
Manufacturing	Remote control and monitoring of stationary and mobile equipment     Machine-to-machine communication     Augmented reality support in design, maintenance and repair	5GEM  SKF  ERICSSON
Media and entertainment	- Immersive experiences - On site 'stadium' experiences - User/machine generated content - Cooperative media production	VISION EURO EURO EURO EURO EURO EURO EURO EURO
Agriculture	Distributed soil sensors     Crop monitoring     Drones for farming     Connected farming machinery	vodafone CHAP
Automotive	Infotainment     Platooning     Autonomous vehicles     Remote monitoring and predictive maintenance	vodofone Audi
Energy and utilities	- Grid monitoring, control and protection - Connecting remote windfarms - Smart electric vehicle charging - Control of edge-of-grid generation	IBERDROLA a2a  Scottish 5 Southern Electricity Networks
Public transport	- Infotainment - Coverage of rail corridors - CCTV for platform clearing - Automatic train operations	NetworkRall icomera
Security	- CCTV systems - Automated threat detection - Facial, iris, fingerprint or palm recognition systems	NEC





## **Awesome Reference Architectures**



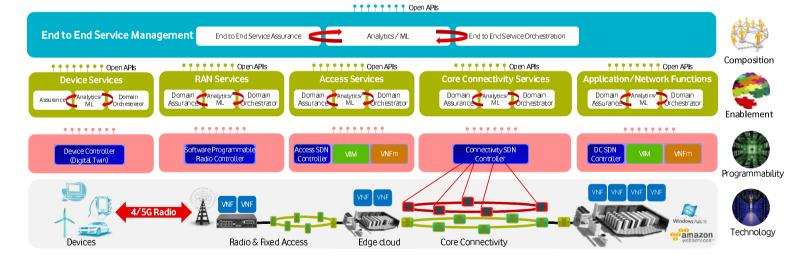












#### Vodafone Reference Architecture

- Programmable
  Software Platform to
  Enable Innovative
  Services
- Seamless service to customers
- Federated
   Programmable
   Environments
- System to system communication via APIs



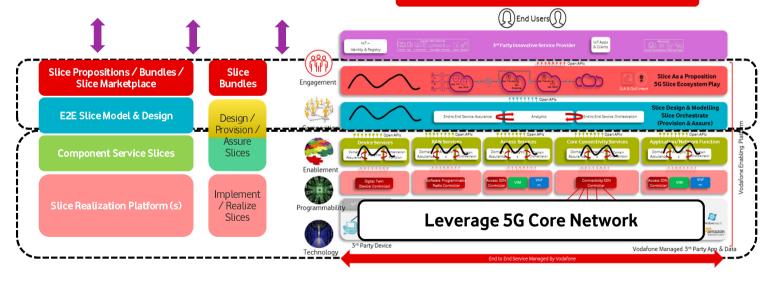
#### **Verticals & Models**

- ✓ Creation of New Services underpinning <u>5G NR / Spectrum / Core Network</u>
- ✓ Ecosystem Play / Is "5G Platform" the Killer Use Case? TMF ODA / Ocean / APIs
- ✓ <u>Slice Management</u> (Model / Design, Provision & Assure, Exposure / Verticalize)
- ✓ Hierarchical Slice Management (E2E Service Slice / Component Service Slices)
- ✓ SLA / QoS / Automated Provisioning & Management of Slices
- ✓ Hot Spots for 5G Development / Focus in <a>IT /Automation Set Up</a> (BSS and OSS Stack)
- ✓ <u>Service Responsiveness</u> over 5G from Customer's Perspective

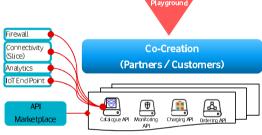


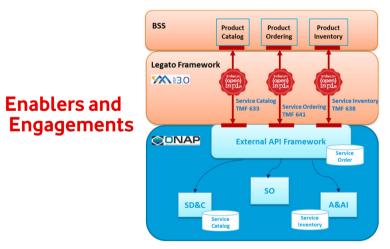
**Exponential Value Creation (Opening Up Ecosystem)** 

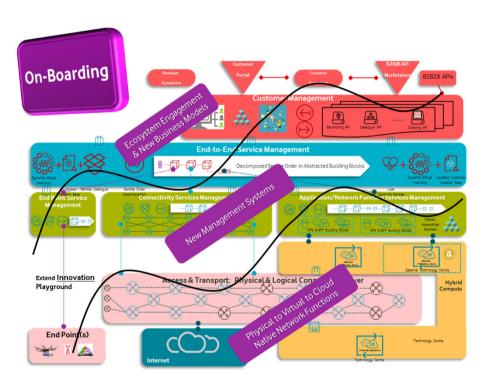




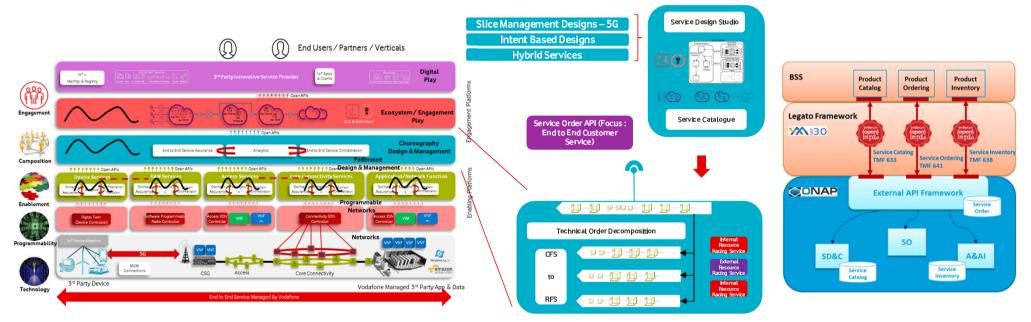


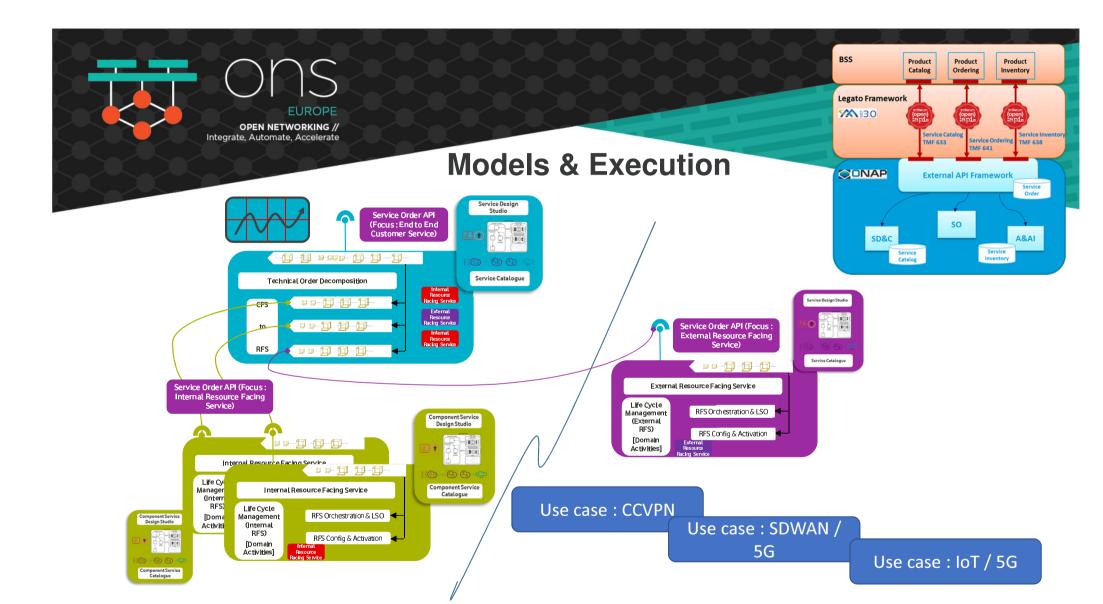
















**Questions?** 

Thoughts?

Suggestions?