

5G and Verticals – Accelerating Digital Transformation

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CONNECT Tech Talk
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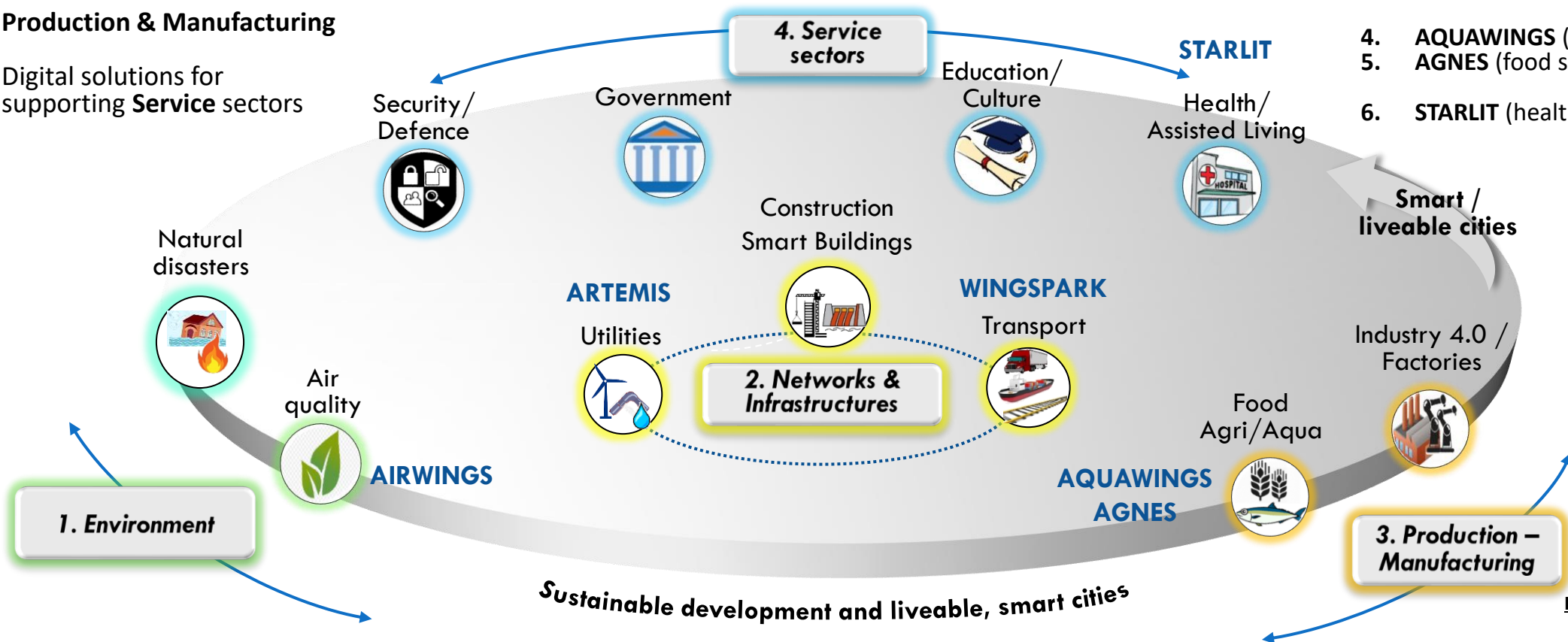
WINGS market segments and products dashboard

AREAS:

- A. Environment
- B. Networks & Infrastructures
- C. Production & Manufacturing
- D. Digital solutions for supporting **Service** sectors

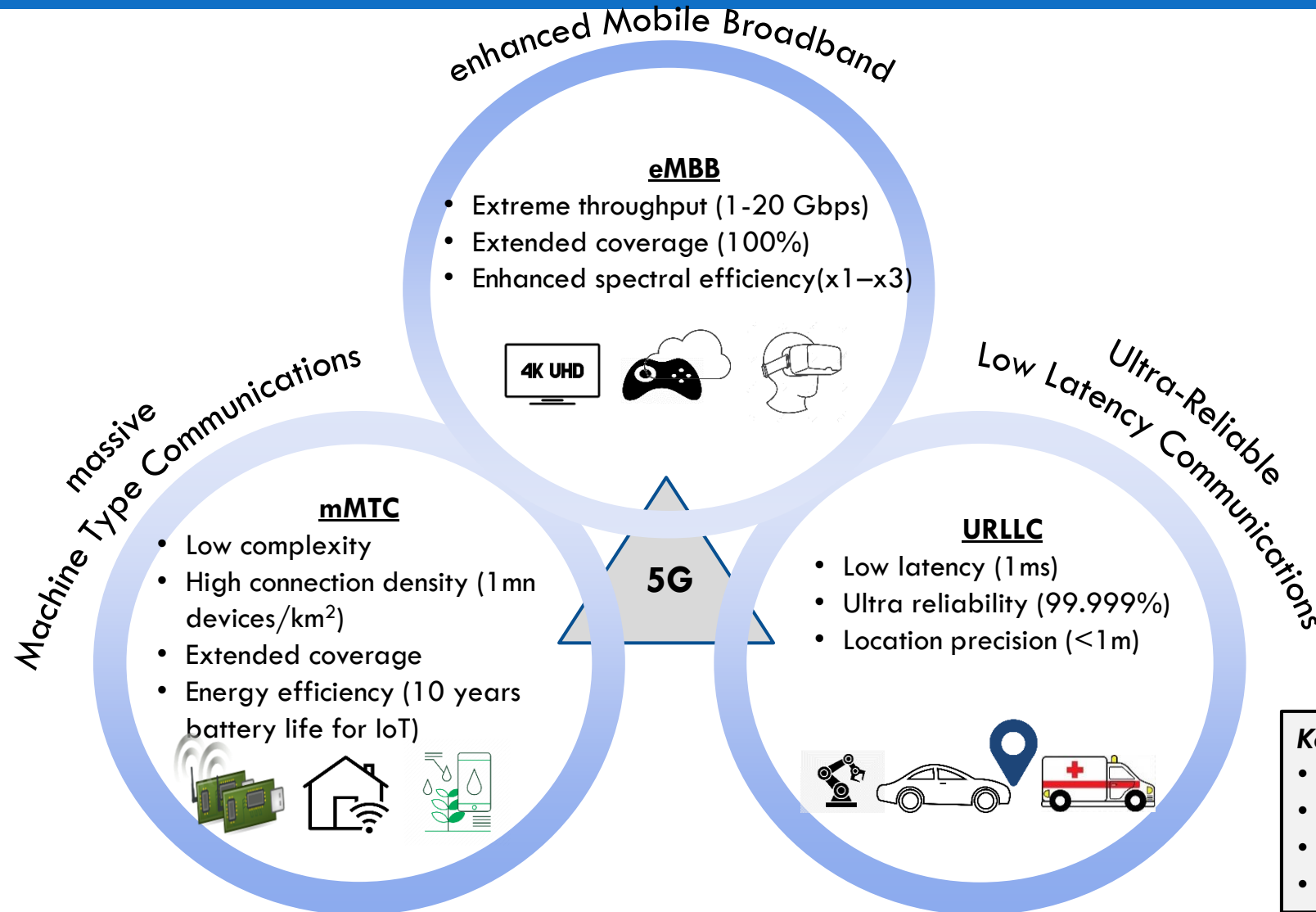
PRODUCTS (sample):

1. **AIRWINGS** (air, Area A)
2. **ARTEMIS** (utilities, Area B)
3. **PARKWINGS** (parking, Area B)
4. **AQUAWINGS** (aquaculture, Area C)
5. **AGNES** (food safety, Area C)
6. **STARLIT** (health, Area D)



Note: Sample products are included. All areas are covered through projects

5G Services: what we are expecting from 5G



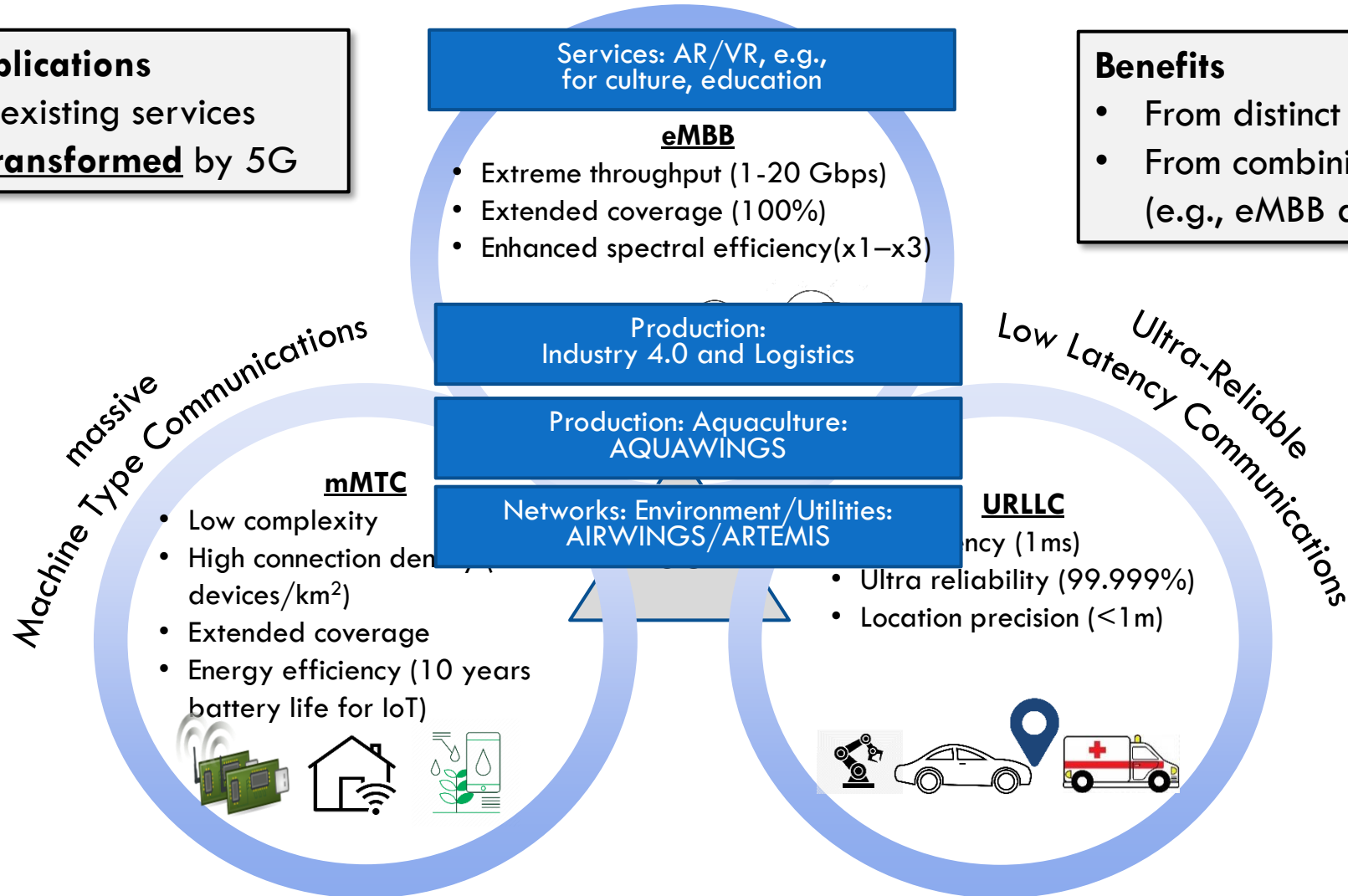
Key Features

- Spectrum 3.x GHz
- NSA and SA version
- Edge, Cloud
- Artificial Intelligence (AI)

5G Services: capability exploitation

5G Enhanced Applications

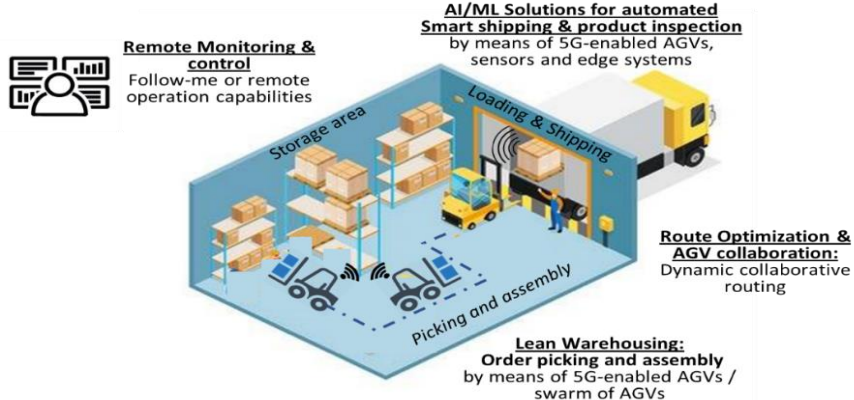
- **Enrichment** of existing services
- New services **transformed** by 5G



Benefits

- From distinct 5G services (eMBB)
- From combining capabilities (e.g., eMBB and mMTC)

Production & Manufacturing: Industry 4.0 and Logistics



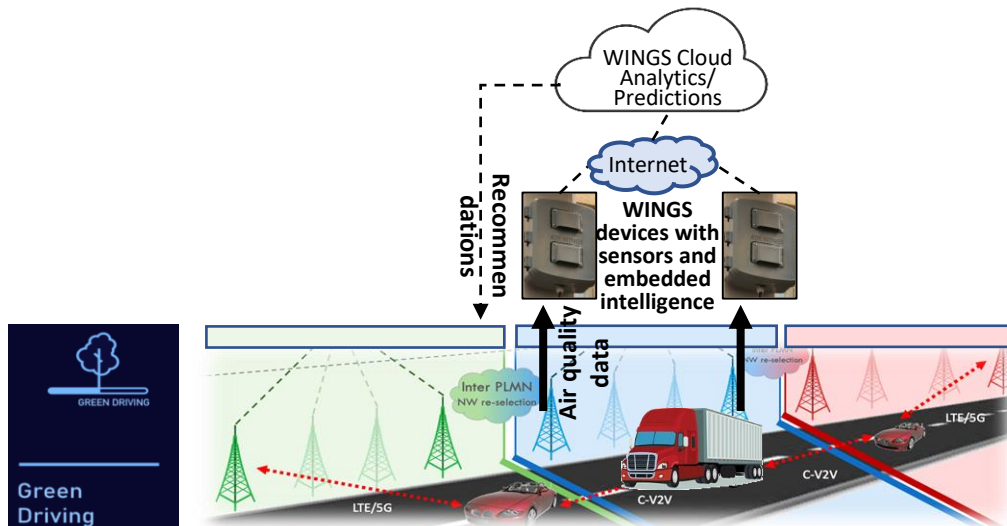
1. Warehouses

Business value proposition through 5G:

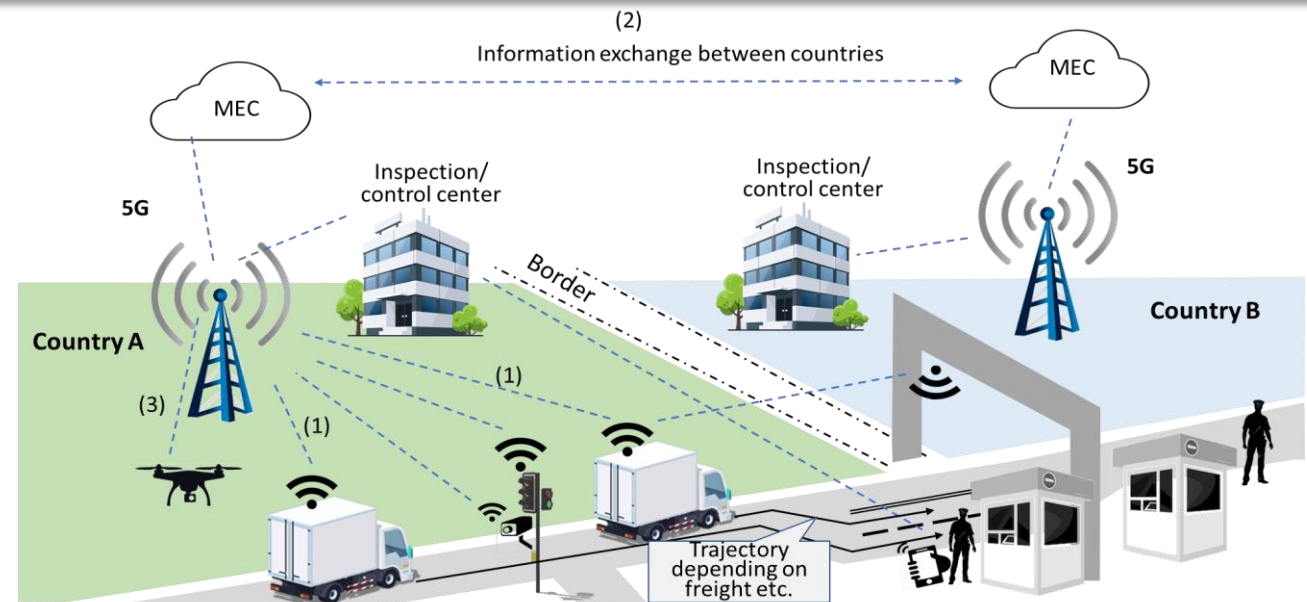
- Industry 4.0 and automated logistics
- Transform the warehouse
- Optimized driving and cargo handling



Business value: Increased productivity and less costs for stakeholders, 5G impacting sales of more than \$627bn* in the domain of transport-storage



2. Optimized green driving and cargo handling

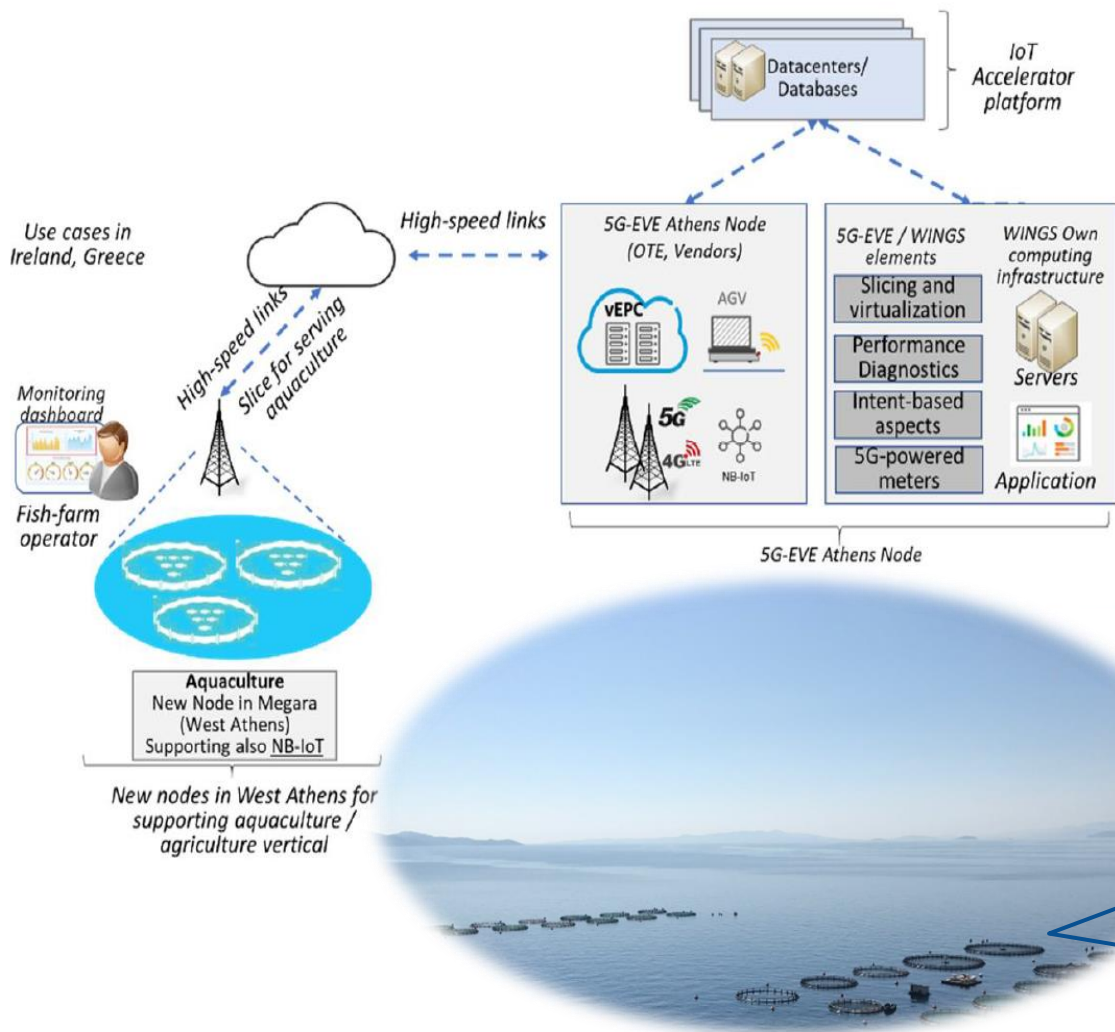


3. Zero-touch and automated logistics / x-border contexts

* Sales Source: Raconteur Publishing, 2020

Production & Manufacturing:

5G for Connected Aquaculture: AQUAWINGS

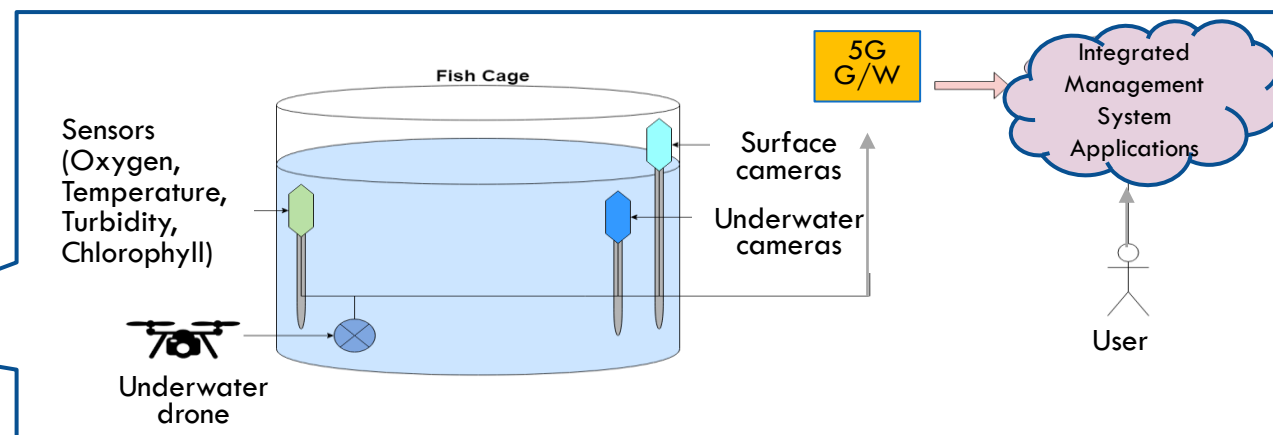


Business value proposition through 5G:

- Advanced, HD videos
- Real-time **high-definition** monitoring of production welfare
- Underwater drones



Business value: Increased turnover and potentially market share for stakeholders, 5G impacting sales of more than \$389bn* in the domain of agriculture, forestry, fishing)



* Sales Source: Raconteur Publishing, 2020

Networks & Infrastructure – Environment: Energy & Gas Networks – Air Quality

Utilities (ARTEMIS)

- Management of critical (gas) infrastructures in rural/underserved areas
 - IoT, dynamic slicing, UAV (drone) control, URLLC
 - GSMA MWC2018 “IoT & 5G Use Cases” Session
- Smart grid electricity management
 - Resolving Outages and Ensuring the Stability of Smart Grids by means of 5G
 - Pilots and lab-scale demonstrations



AIRWINGS

- End-to-End platforms
- Nexus of devices
- AI powered functions: correlations, insights, predictions
- Decisions: notifications, direct/indirect actions
- In support of the economy, society
 - Pressing needs, also for federations and worldwide footprint: [Link ATT NOAA](#)



Service Sectors:

Enhanced Cultural Experience – Education - Entertainment



Business value proposition through 5G:

- AR/VR for enhanced cultural experience
- Ultra-HD images and videos



Business value: Preservation and promotion of culture heritage, enhanced experience for users, new stakeholders introduced in the value chain (AR/VR app providers)

Conclusions – Way Forward

- Wireless is a key component for Digital Transformations
 - ▣ NB-IoT introduces us to the 5G era
 - ▣ 5G NR and versions to follow will accelerate and open up opportunities
 - ▣ Blending with IoT, AI, edge/cloud gives
- 5G-PPP have been instrumental in the development of 5G competences in Europe
 - ▣ Phase 1 and 2 projects, Phase 3 projects like 5G-EVE, 5G-Tours, 5G-Heart, 5G-Carmen and 5G-Mobix, and the newer ones to follow
- Novel features / services
 - ▣ Video components, large information streams, reliability
- Call for action: Infinite possibilities

Contact information



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