

# «5G case study: Devising the National Strategy of Luxembourg»

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5G and its opportunities

Luxembourg 5G Strategy





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#### Who we are





















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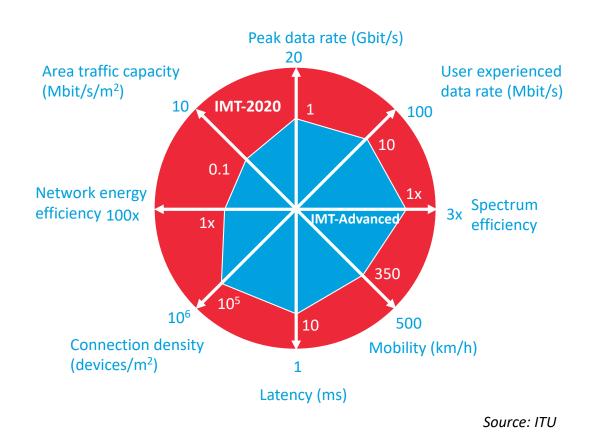
5G and its opportunities

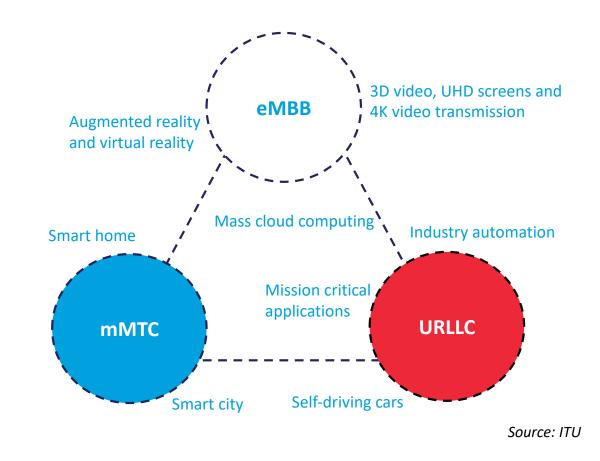
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#### 5G specs & use case families

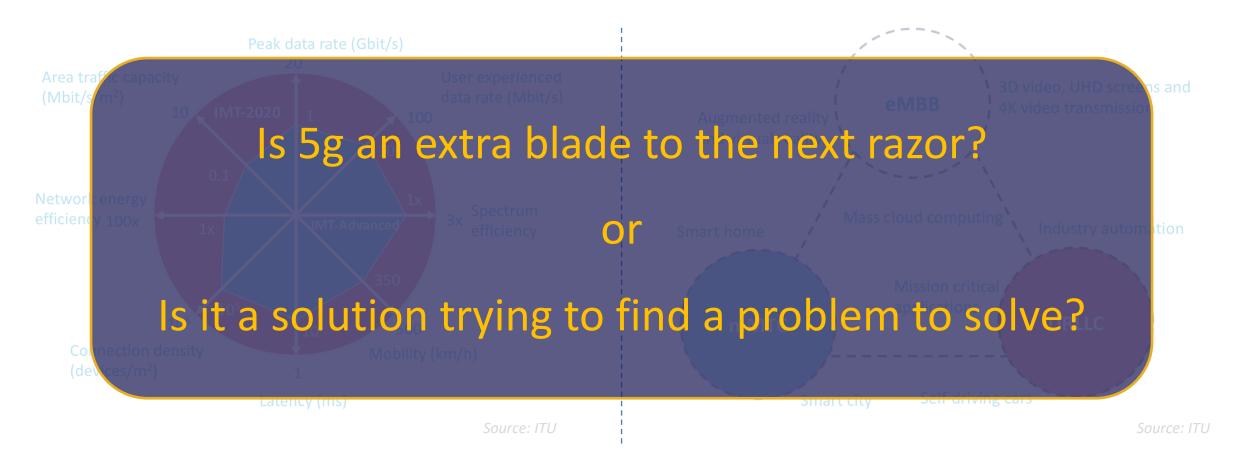








#### 5G specs & use case families

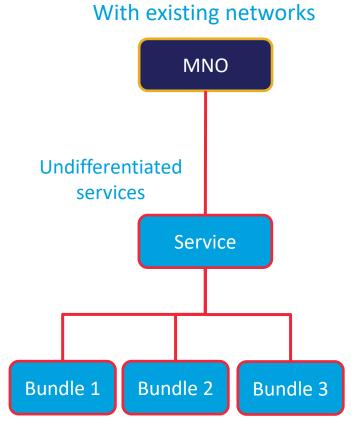


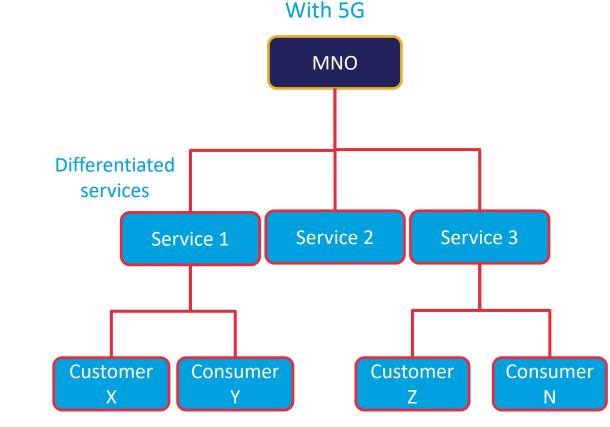




#### Business Models - 1

Service provisioning will enable various new business models in the 5G era

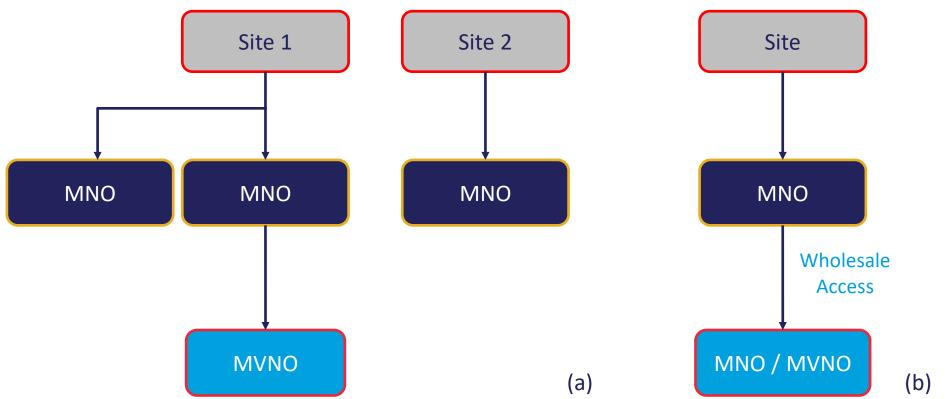


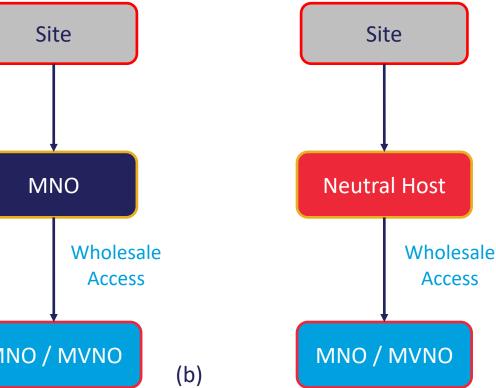




#### Business Models - 2

• The Neutral Host model will unlock new business opportunities









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#### Current market status & future opportunities

Focus on niches that the required capabilities are not readily or cost effectively met by alternatives.

#### IoT

- Agriculture
- Smart Cities
- Technical Support and B2B opportunities

#### **Connected Cars**

- Autonomous driving
- Traffic management
- Accident avoidance
- ..

#### Media

- AR / VR
- Immersive services
- Malls and stadiums connectivity
- ...

#### Fintech

- Payment gateways and alternative payment methods
- Mobile Financial Services
- Digital Only Banks
- Blockchain

No killer application – No massive deployments are expected – 5G islets



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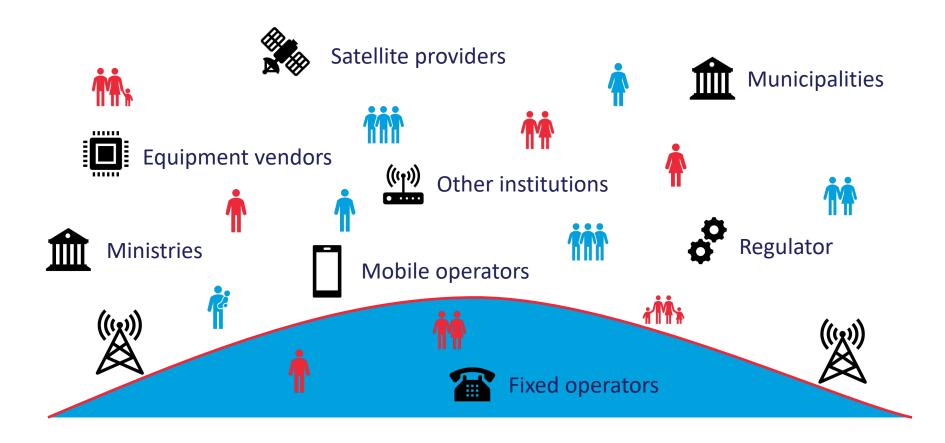
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### What about Luxembourg?

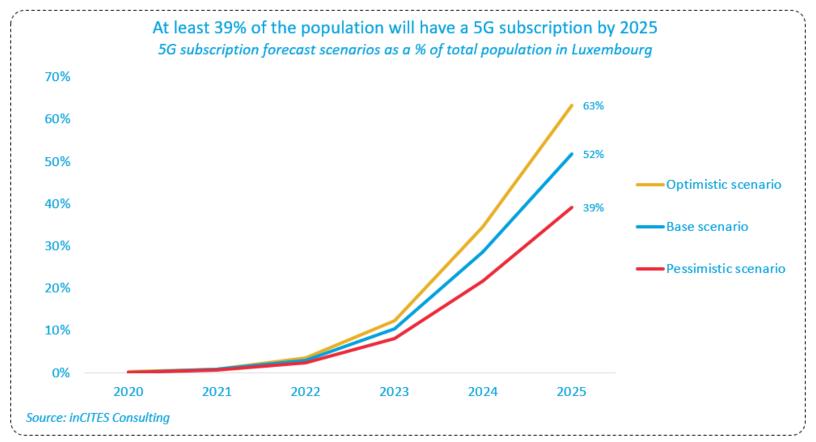






#### **5G Forecast**

• Luxembourg needs to leverage its strong digital assets to realise the potential of 5G



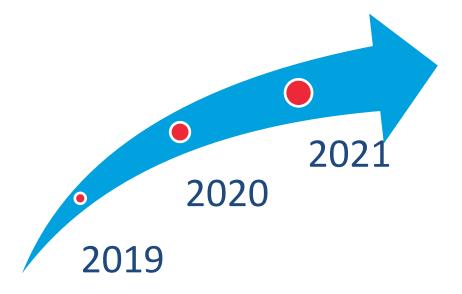


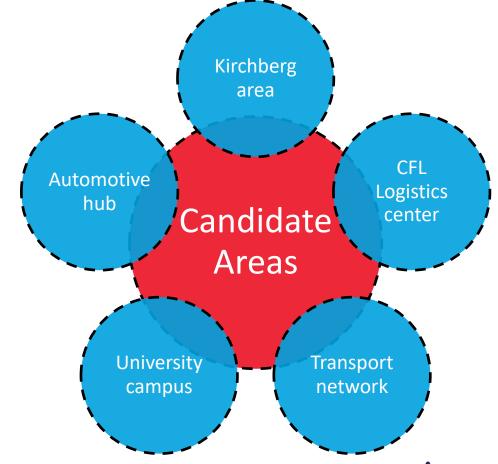


# Luxembourg 5G Pilots

The pilots vary both in sector coverage and geographic topology

#### Up to 30M€ co-funding







### Luxembourg: A fertile ground for 5G

- Extensive fibre network
- State-of-the-art data centers
- Government willingness to co-invest
- Role of satellites
- Regulatory framework





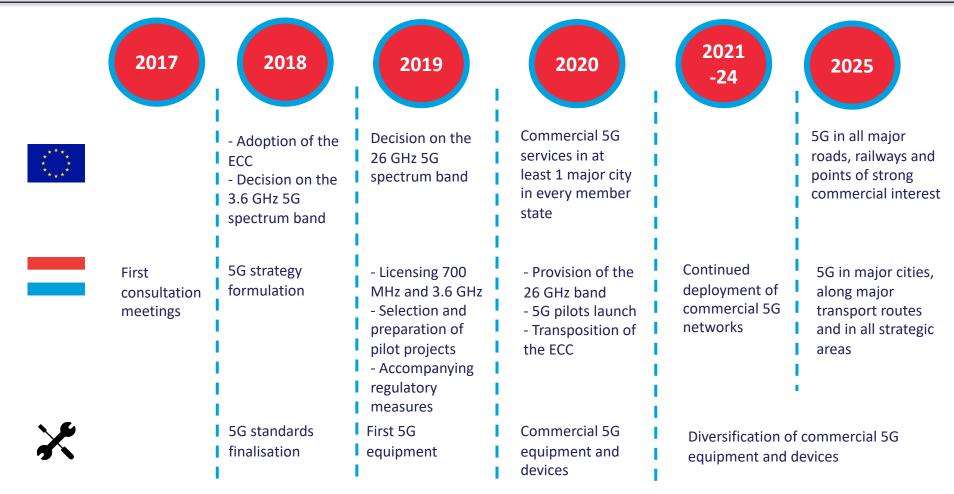
#### Next steps...

Facilitate the timely availability of spectrum Provide incentives for investments in 5G Process simplification that reduces administrative complexity Facilitate the reduction of incurred costs Alleviate public concerns Address any environmental considerations Increase the availability of sites with power and backhaul





#### 5G strategy timelines







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### Key steps for a successful strategy...

- Develop skills to unleash 5G potential
- Involve citizens to improve awareness and acceptance
- Maintain an open dialogue with all stakeholders
- SMEs and local communities
  - Build a start-up ecosystem to drive innovation









#### Greece: Are we there yet?

- Roadmap for 700GHz clearance
- 5G trial frequencies allocation
- EETT to award C-band spectrum in 4Q19
- Draft law on antennas construction licensing and monitoring
- Three 5G pilots expected in 2019 (Kalamata, Trikala and Zografou)
- Greek stakeholders participate in 3 H2020 5GPPP Phase 3 projects (5G EVE, 5G-VINNI and 5Genesis)

#### BUT

#### Lack of a clear strategy to build a 5G ecosystem





### Thank you!





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