

**Orange**

# On the road to **5G**

2018, February 26th

Arnaud Vamparys

SVP Radio Networks



# connectivity expectation is growing

<b>Coverage</b>		the customer's expectation is increasing : a <b>high quality</b> connection <b>everywhere</b> (home, transports, rural,...)
		our customers, specially in Africa, ask for a <b>more affordable</b> basic internet access
<b>Speed</b>		new usages, like virtual reality or augmented reality, requires <b>faster speed</b>
<b>Connected Objects</b>		some objects, like driverless vehicles, drones or robots, call for <b>higher performance</b>
		low-end, low energy consumption sensors will be <b>massive</b> and should be handled properly

# Orange is leading 4G connectivity in Europe\* and MEA

**IoT**

LTE-M

- Uses cellular network
- Extends coverage

Standard LTE  
LTE-M

**SON**

**IA**



“What’s important to our customers is the **quality of the network they perceive**, in the places where they spend most time or pass through on a daily basis”

Stéphane Richard, Essentials2020



**Transport**

**Indoor**

**Vacation**

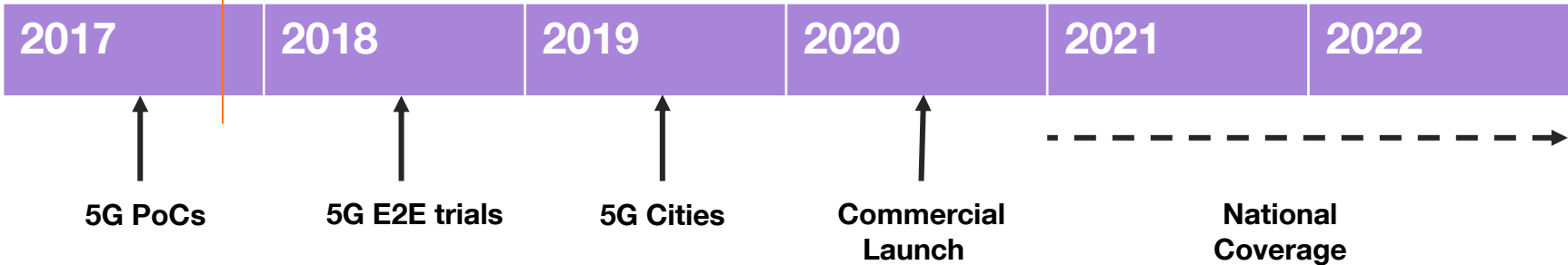
**Rural**

an unmatched customer experience thanks to fiber and LTE investments

\* Orange 2017 Best Network Awards in 6 out of 8 European countries; source ARCEP and Systemics



# Orange is on the road to lead 5G connectivity in Europe



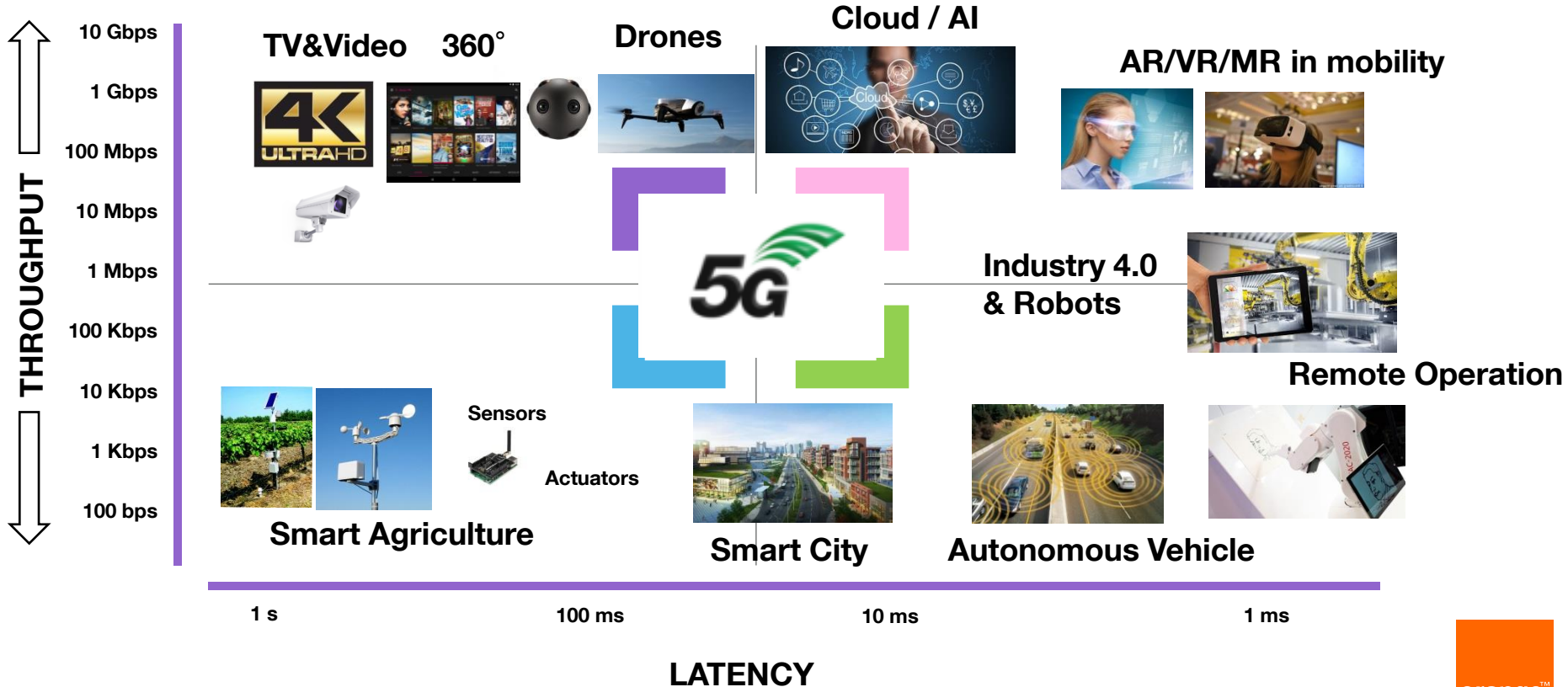
## 5G PPP

The 5G Infrastructure Public Private Partnership

- ICT-17-2018: 5G End-to-End Facility
- ICT-18-2018: 5G for Cooperative, Connected and Automated Mobility
- ICT-19-2019: Advanced 5G validation trials across multiple vertical industries



# thanks to 5G multi-service network, new usages will emerge





# allowing new opportunities

1

an acceleration of our **Internet of Things** diversification



2

a **fixed wireless access** to terminate fiber in suburban and rural areas



3

a reliable **LAN connectivity** for businesses

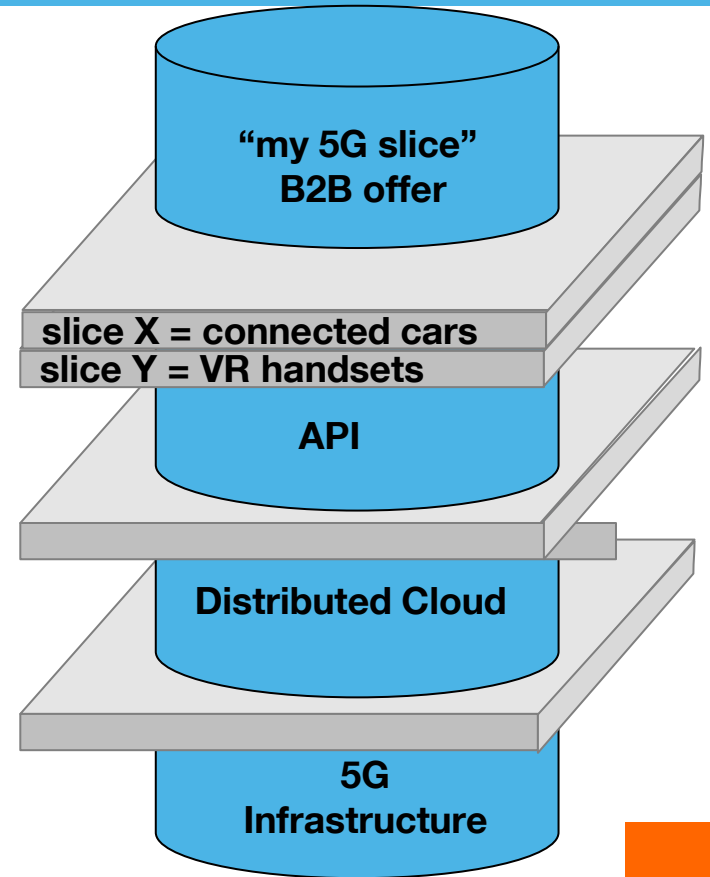


# and new business model

network slicing will generate new business models :

- On Demand Network leveraging NFV + SDN will be accessed through **APIs**
- agile and flexible 5G network empower each verticals or type of objects with specific **SLA**
- **service based** operator public network is creating more value for the customers and the industry

The European regulation is evolving :  
the first step is the possibility to create **specialized services**



On the road  
to **5G**

