

#### HUAWEI ECO-CONNECT EUROPE 2020

# Inspiring 5G B2B Together

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# The standards and alliances empower 5G B2B faster than ever





- **5** industry work groups
- 2 major public groups
- incubation funds



- 9 white papers
- 30+ proposals to 3GPP
- 13 proposals @SA1 R17



- C-V2X with EU regulators
- 10 white papers

Rel-15 (enhanced Mobile Broadband)

NSA SA

Rel-16 (ultra-reliability) frozen in June

2022

#### **Rel-17 (massive connection)**



- Massive MIMO, Channel Coding
- NSA, SA



- Massive MIMO Enhancement
- Industry Digitalization (IIoT, NPN, basic positioning...)



- Positioning Enhancement : cm level accuracy
- NR-Light: e.g. wearable device

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# The ecosystem is being fostered progressively to a commercial stage





Guaranteed monitoring bandwidth >100 Mbps

5G PLC Control: Latency <20 ms

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47 Industry Modules, 14 commercial:

2021: **~\$ 20** 

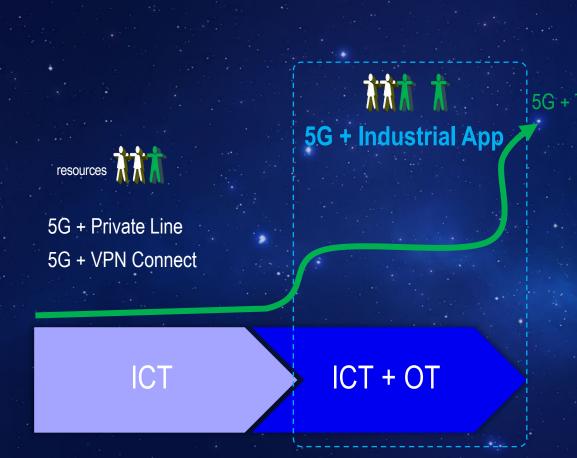
Now: 141 trials, 51 for Industry 4.0

2019: only16 trials for Industry 4.0

Source: Huawei WEU 5GtoB insight by Sept.

# And there are more differentiation beyond 5G connectivity





#### Value added Industrial application\* Production & Quality maintenance efficiency QC efficiency Engineering 5G Industrial AR **5G Machine Vision** Logistics reliability productivity 5G AGV\*\* 5G PLC\*\*\* Sales & \*: calculation per typical factory shop-floor after-sales \*\*: Automatic Guided Vehicle \*\*\*: Programmable Logical Control

## Typical 5G industry application start to integrate rapidly



2020	2021H1		2021H2

5G AR Expert

Uplink 80Mbps\*

\*: 100m\*100m shop-floor

Connected Workers to save intervention time



**5G Machine Vision** 

Uplink 200~560 Mbps

Quality Control to improve production yield



Source: Huawei trial video

5G AGV

Uplink 30Mbps, Latency 20ms

5G Geo-location for better Intralogistics





**5G PLC** 

Latency 50ms



Accelerating 5GtoB readiness with local Eco-Partners by validating the commercial E2E reliability

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# Building 5G into a new power source with better ecosystem







Carriers/System Integrators
Provide connections for future Internet of Things



#### Vendors

Strengthen network capability and meet industrial requirements



#### **Industrial Customers**

Deep 5G integration with industrial digitalization



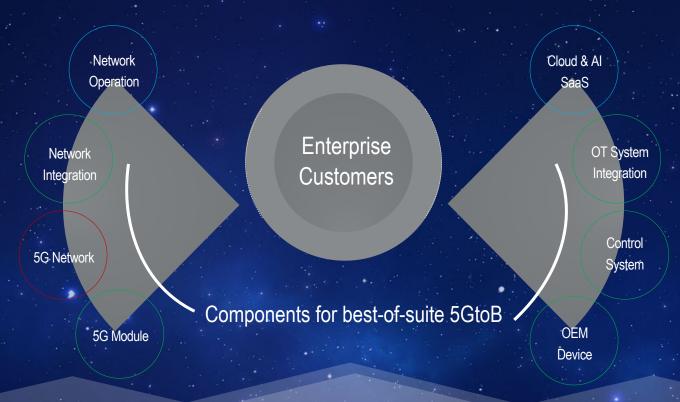
#### Regulators

Encourage advanced productivity

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## Huawei is being integrated for a best-of-suite 5GtoB to customers





Building a shared ecosystem to promote industry development





Standards & open source



Industry & alliances



Business alliances



# Thank you,



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