





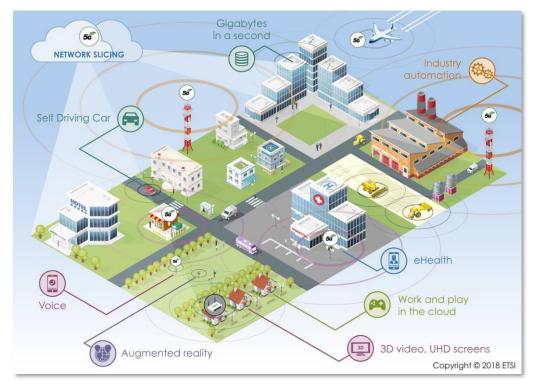
6G Key Technologies for Vertical Industries

Dr. Andreas Mueller | Robert Bosch GmbH

5G – A Reality Check



6G Key Technologies for Vertical Industries 5G Reality Check





The Vision
(Source: ETSI, 2018)

The Reality



Why?

6G Key Technologies for Vertical Industries Why is 5G for verticals not a general reality yet?



Late Start

Vertical industries started to get engaged (much) later than the ICT industry & have to catch up from scratch.



Features Pending

Many 5G features that make a difference to verticals come only with 3GPP Rel-16 and beyond (e.g., URLLC¹).



Business Cases

Strong business cases are not a no-brainer. It takes time to find a sweet spot for adequate pricing, etc.



Device Ecosystem

An ecosystem of vertical-specific devices is required and we are often facing a chicken-egg challenge.



More than New KPIs²

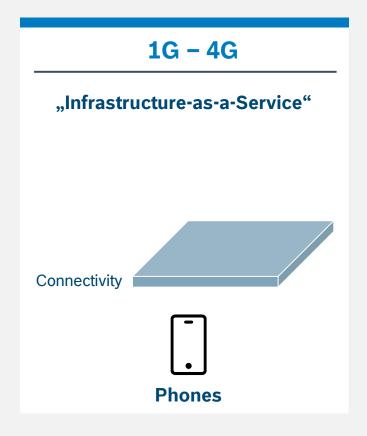
It takes more than a better air interface to succeed (e.g. private networks, new business models, etc.)

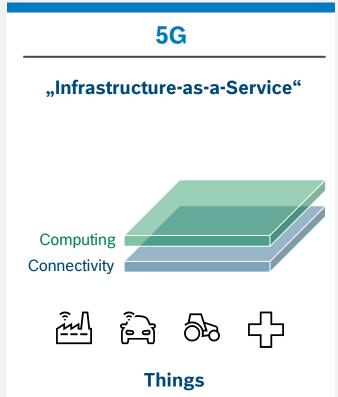


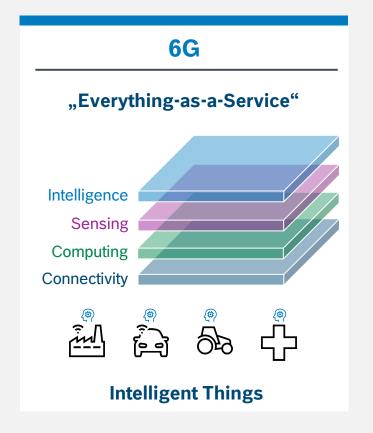
There is still work to be done to make the full 5G vision become a reality **©!**



6G Key Technologies for Vertical Industries What's in 6G for Verticals?





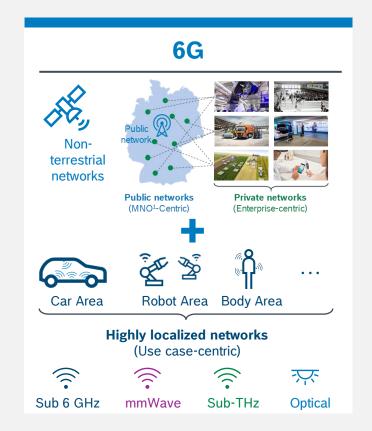




6G Key Technologies for Vertical Industries What's in 6G for Verticals?



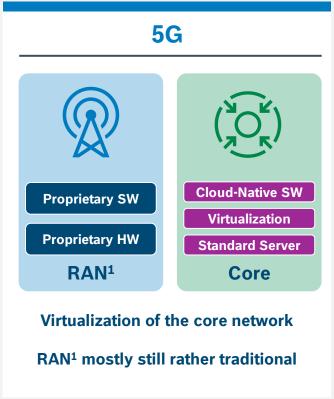


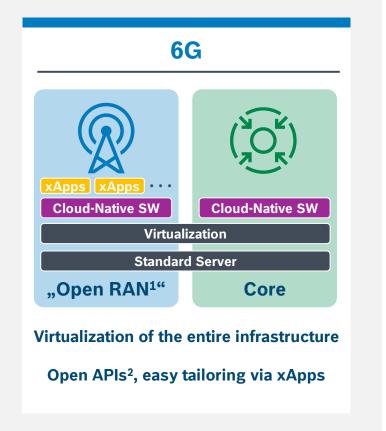




6G Key Technologies for Vertical Industries What's in 6G for Verticals?









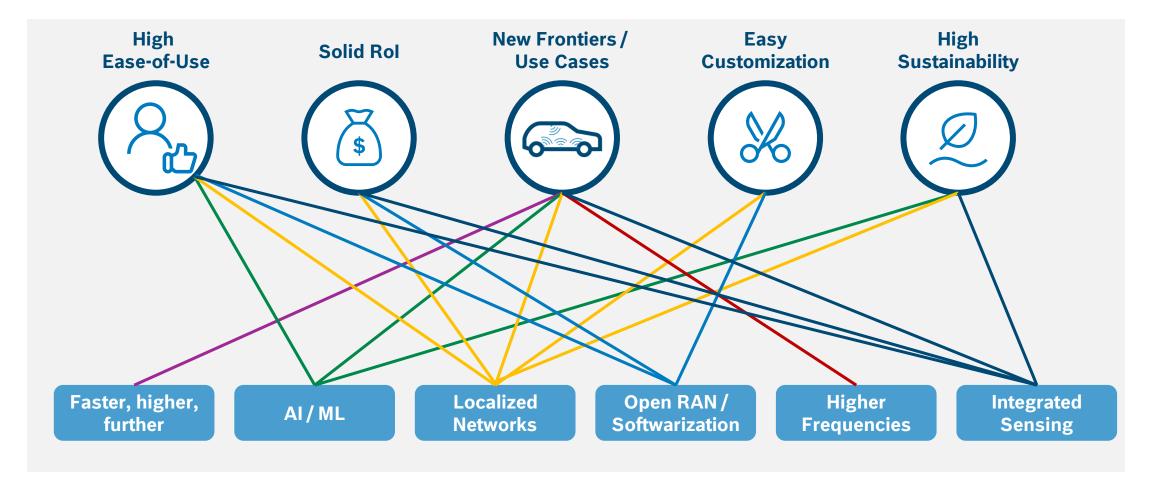
6G Key Technologies for Vertical Industries Key Drivers / Requirements

High Performance Edge Computing Distributed Al RF Sensing Wireless Connectivity High Accuracy Device Non-Terrestrial **Digital Twins** Positioning **Networks Convergent technology platform** 6G will become the ultimate platform for the digital transformation of our society & economy!



6G Key Technologies for Vertical Industries

Key Requirements & Drivers





"6G will be!"





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