RWS-150019

3GPP TSG RAN "5G" workshop
Phoenix, USA, September 17th -18th, 2015

Vodafone's expectations for 5G

Source: Vodafone Group

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5G needs to allow us to continue to serve existing customers and help us to serve new ones!

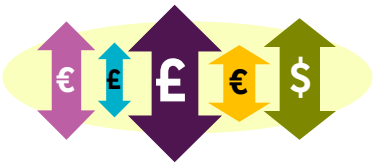
MOBILE BROADBAND (MBB)

- Consistent user experience required: throughput + latency
- Video traffic to dominate

+

SUPPORT NEW "VERTICALS"

- ESSENTIAL for generating NEW revenues – likely to be easier here than with eMBB



- We believe that 3GPP should study a new radio access for 5G that:
  - Enables support for existing & future vertical markets more effectively/easily than LTE
  - Handles MBB with an improved & more "consistent" user experience and operational performance compared to what LTE "could" offer!
- 3GPP should also continue to evolve LTE support - and consider tight interworking with 5G where appropriate

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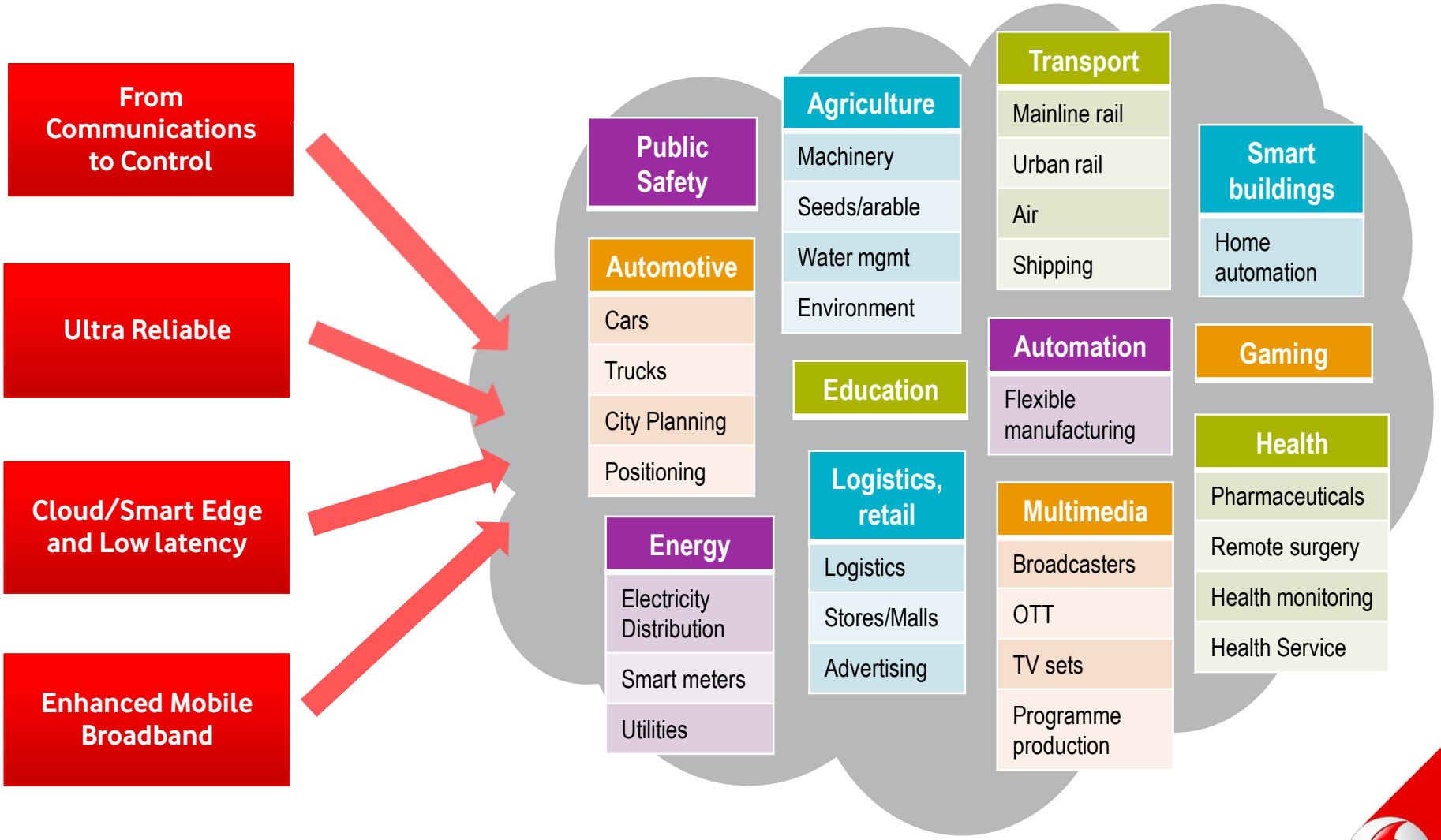
Some of the new envisaged verticals and their enablers… investigations are continuing via NGMN & SA1 SMARTER work



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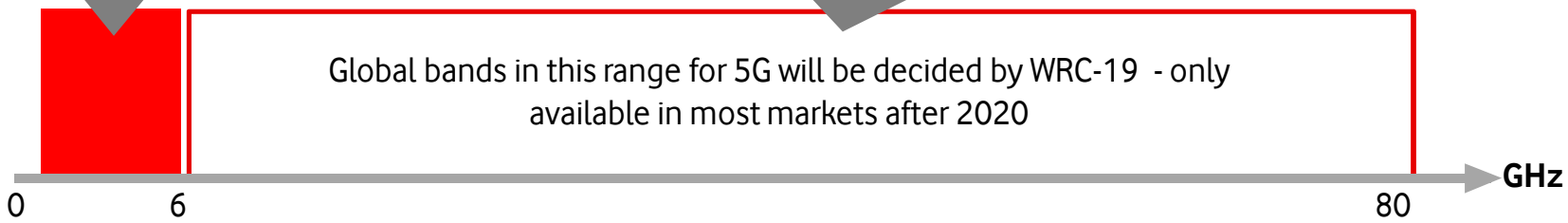
Spectrum and deployment related aspects for 5G radio access

Initial focus on 5G support in sub-6GHz frequency bands

- Many verticals will require contiguous wide area coverage rather than large data volume

Bands above 6GHz are a key enabler for 5G. Early consensus on frequency range needed if detailed work is to progress in advance of WRC '19

- It appears unlikely that higher bands can reliably serve indoor users directly from outdoor sites – yet a large proportion of users will be indoors



5G system design needs to dramatically improve network energy efficiency

- Must compensate for the increased network activity as mobile data traffic increases by an order of magnitude

5G system design needs to cater for realistic deployment constraints

- Practical constraints/implications regarding antenna configurations, fronthaul/backhaul availability must be considered

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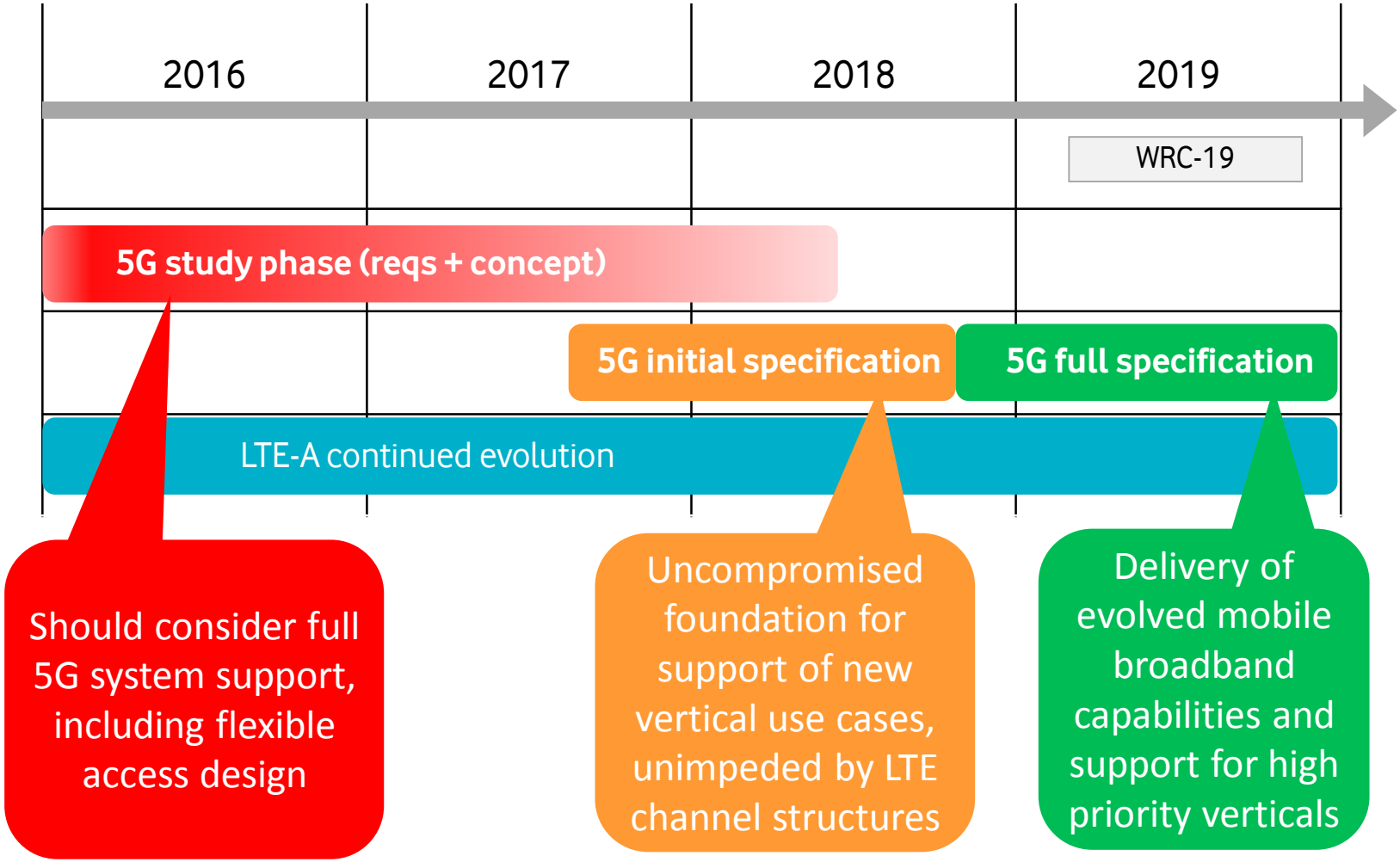
Our view on how 5G studies should evolve to normative work



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Thank you!

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