PAVING THE WAY FOR 5 G

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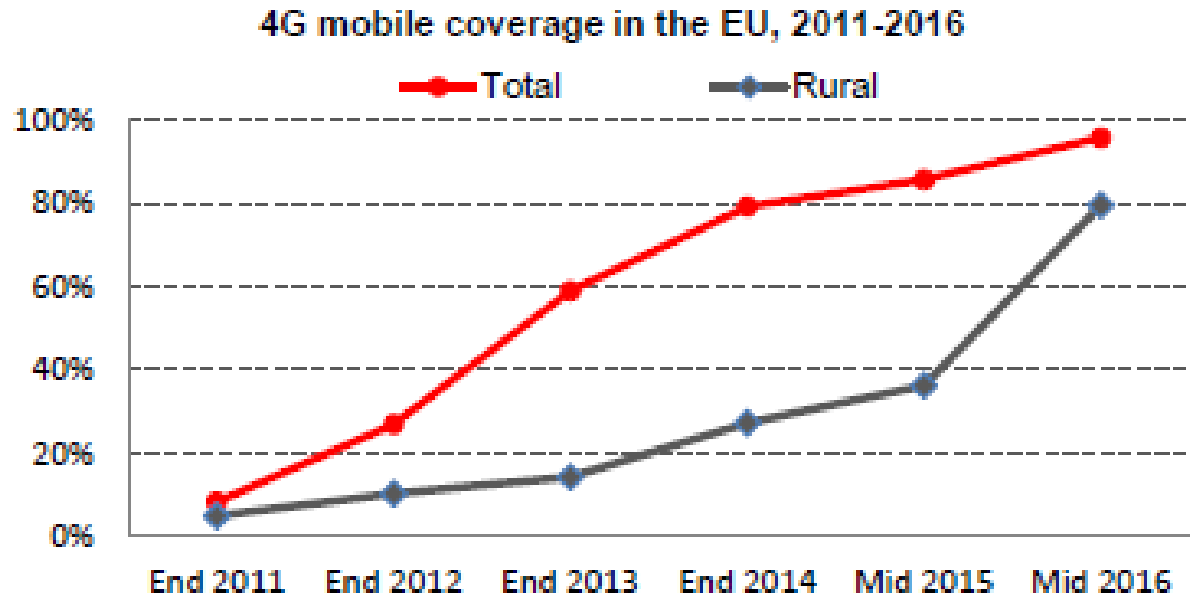
To manage a public resource as spectrum “wholesalers” .. but not only…

International Negotiation « Spectrum Diplomacy »	**Management of national Rights « Spectrum Notary »**	**Interference management, surveillance « Spectrum Police »**
Coexistence between users « Trusted third party »	**Public Exposure to Electromagnetic fields « Trusted third party »**	**Refarming « Finance »**
Euro 2016, Tour de France « Major Events »	**Innovation** **Hackathon & Open Data**	**Maritime Amateurs « Exam center »**

4G Mobile Coverage

4G Average availability reachs 84 % in the EU (average of each operator coverage)



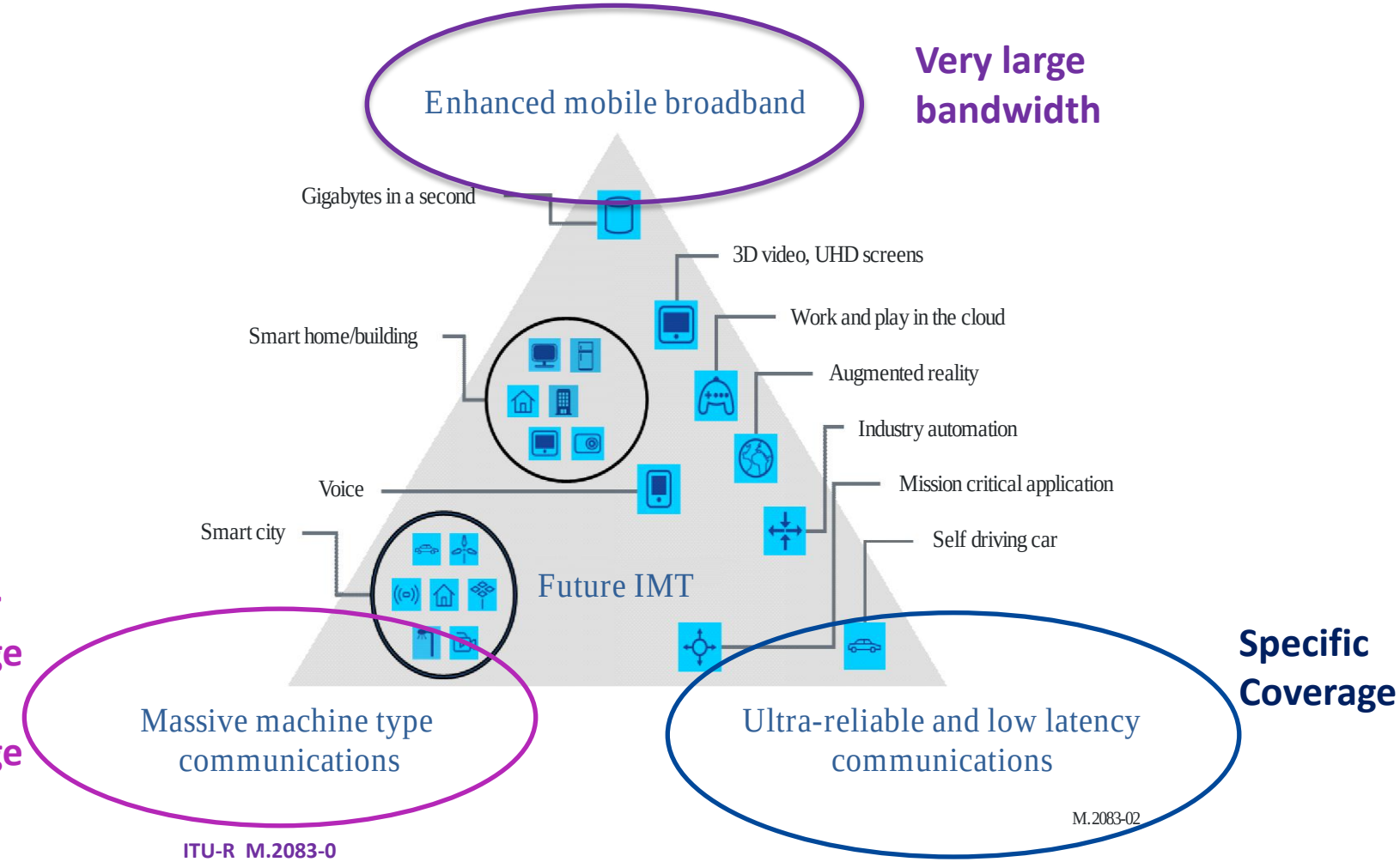
Source: IHS, VVA and Point Topic

96 % of households are covered by at least on operator in Europe (up from 86 % a year ago)

Rural coverage went up from 36% in 2015 to 80% in 2016

Still number of challenging areas in coverage
Rural areas but also railways, roads, indoor

5G to do what ?



ITU-R M.2083-0

RSPG opinion on 5G (Nov 16)

RSPG
RADIO SPECTRUM POLICY GROUP

Spectrum Policy in Europe

RSPG 16- 032

EU Member States are making recommendations to the European Commission

3.4-3.8 GHz as the primary band suitable for 5G

+

"26 GHz" as the pioneer band for launching 5G above 24 GHz in Europe before 2020

5G to be deployed also in current harmonised bands below 1 GHz (e.g. 700 MHz) Nationwide and indoor coverage

To ensure that technical and regulatory conditions for all bands already EU harmonised are fit for 5G

+

42 GHz : potential for 5G but further guidance will be delivered in the future

Spectrum for 5G above 24 GHz

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WRC 15
AI 1.13 WRC 19

7 frequency bands above 24 GHz
(studied by TG5/1)
Key industrial and strategic challenges for 5G, Defense, Space, Aeronautics …

?

WRC 19

Outside of the scope
27.5-29.5 GHz, 76-81 GHz, 86-100 GHz

Preparation of the CEPT position for WRC 19

Which Frequency band(s) for 5G in Europe?

RSPG
RADIO SPECTRUM POLICY GROUP

RSPG Opinions on 5G
(Nov 2016)
(Feb 2018)

3.4-3.8 GHz
26 GHz
technical harmonisation
before **2019**
EC Decisions &ECC Decisions

Second RSPG opinion on 5G (Feb 18)

Spectrum
Policy
In Europe

Drafting phase

26 GHz mainly for individual auth.
Higher spectrum (eg 70 GHz)
for general auth.

"26 GHz"
Authorisations of satellites earth stations after 5G authorisations

"26 GHz "
Some geographical sharing with Fixed links

Verticals
Local/national needs (industry/utilities)?

Possibility of "local" authorizations for meeting some vertical needs?

Coverage issue : combination of bands
For 5G services
(700 MHz/3.6 GHz / 26 GHz)

+

Additional frequency bands to be harmonised to be decided after WRC-19
(e.g., 42 GHz, 66-71 GHz …)

IMT2020 WRC 19 Agenda item 1.13

Initial focus
24.25 – 27.5 GHz, 31.8-33.4 GHz, 40.5-43.5 GHz

24.25 – 27.5 GHz Towards a global band for 5G

Coexistence with FSS, ISS and EESS/SRS to be addressed
Fixed links a 'non RR' issue

31.8-33.4 GHz
Radio-navigation
Makes it difficult

40.5-43.5 GHz Initial studies to be launched
Idea of tuning range 37-43.5 GHz

but…

… All bands will be studied before WRC-19

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