

PAVING THE WAY FOR 5 G

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Director General

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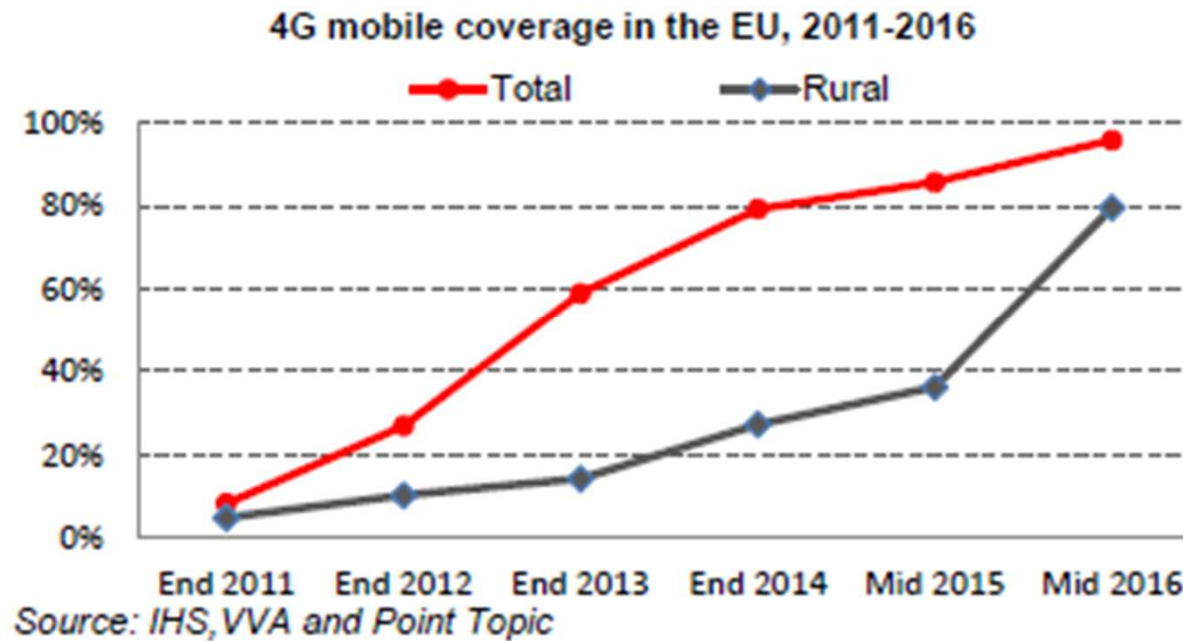
To manage a public resource as spectrum “wholesalers”
.. but not only...

International Negotiation	Management of national Rights	Interference management, surveillance
Coexistence between users	Public Exposure to Electromagnetic fields	Refarming funds
Tour de France, French Open « Major Events »	Innovation Hackathon & Open Data	Maritime Amateur



4G Mobile Coverage

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

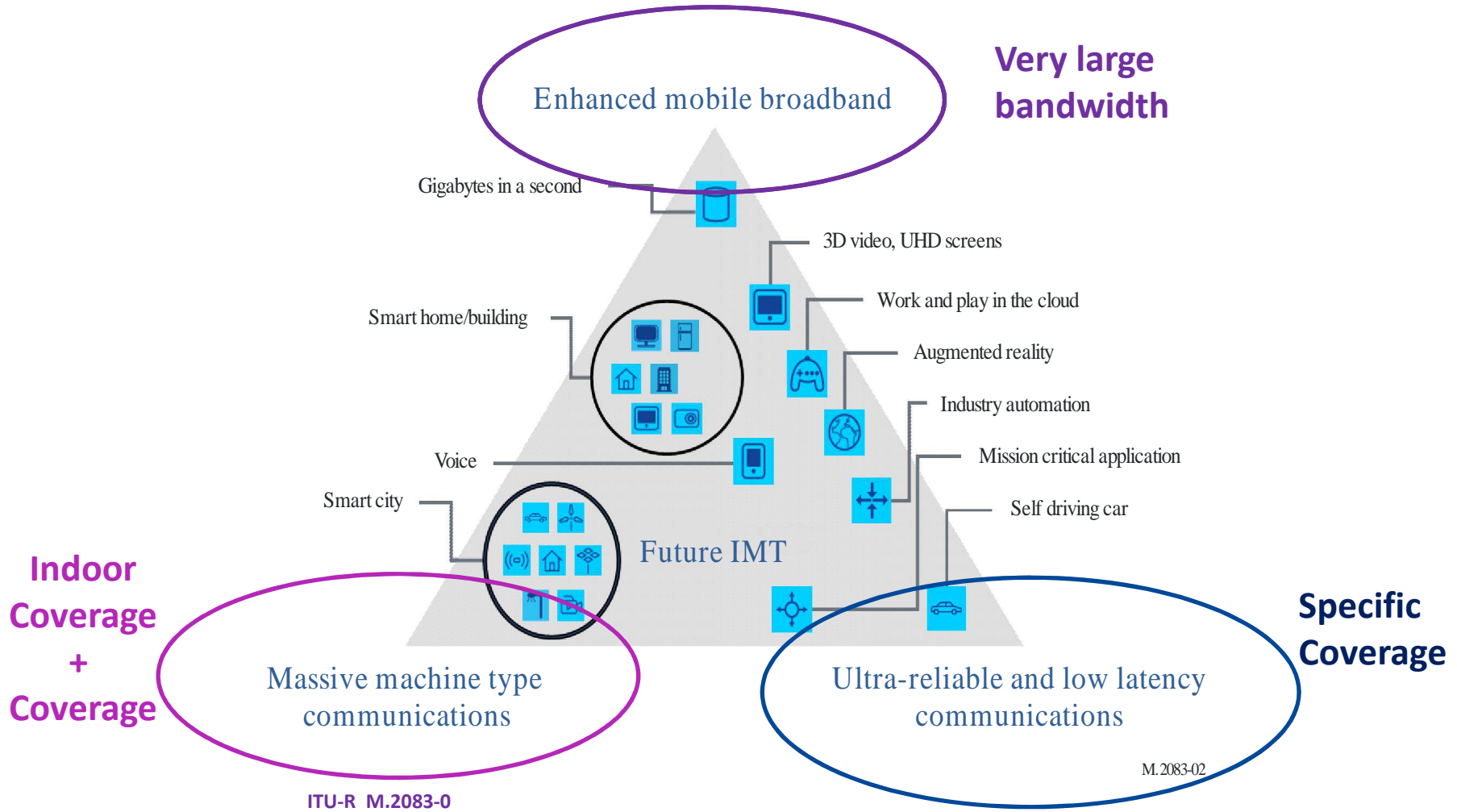


96 % of households are covered by at least on operator in Europe (up from 86 % a year ago)

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 ?



RSPG opinion on 5G (Nov 16)



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

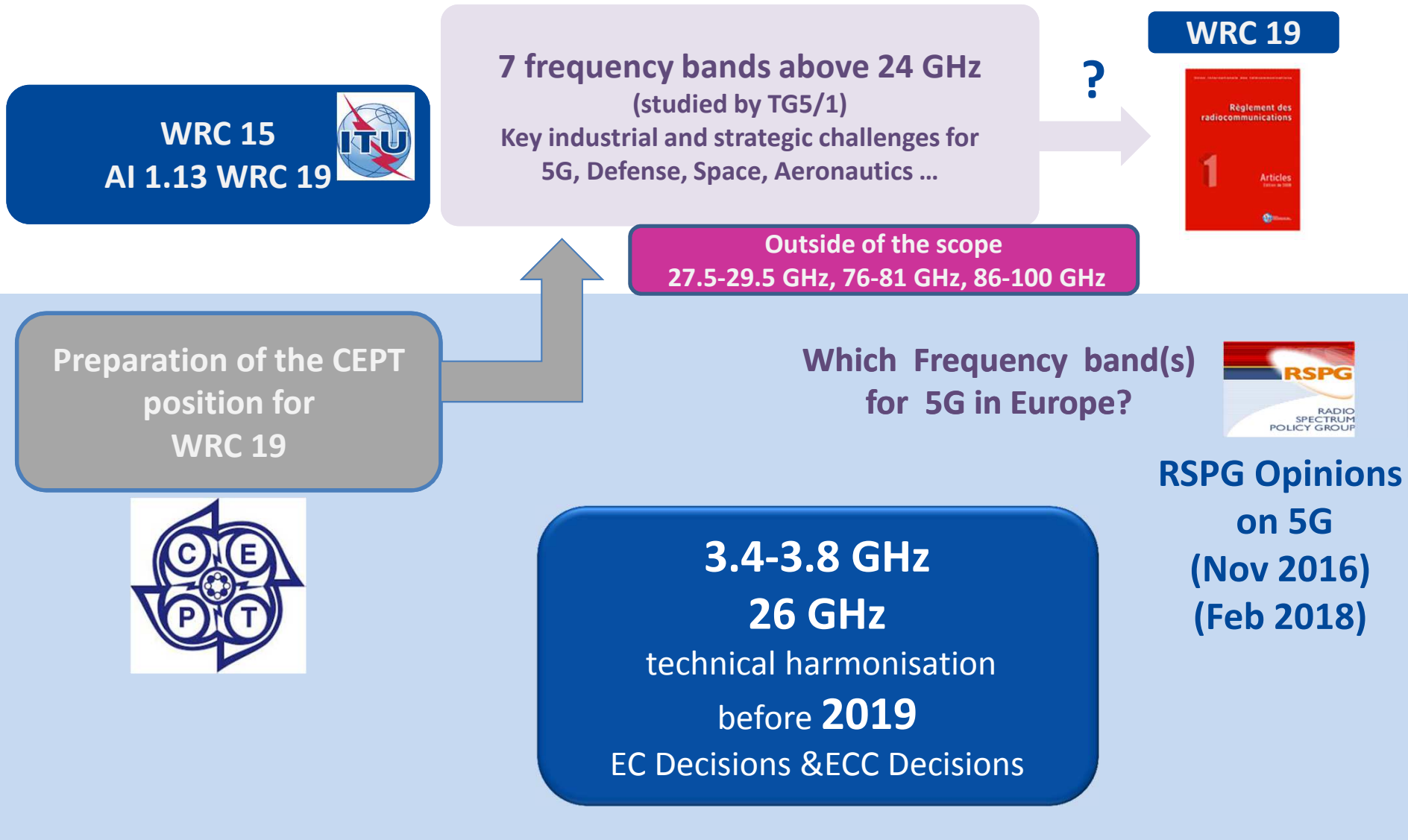
“26 GHz” as the pioneer band for launching 5G above 24 GHz in Europe before 2020

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



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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