

EBU on 5G

Peter MacAvock (EBU)



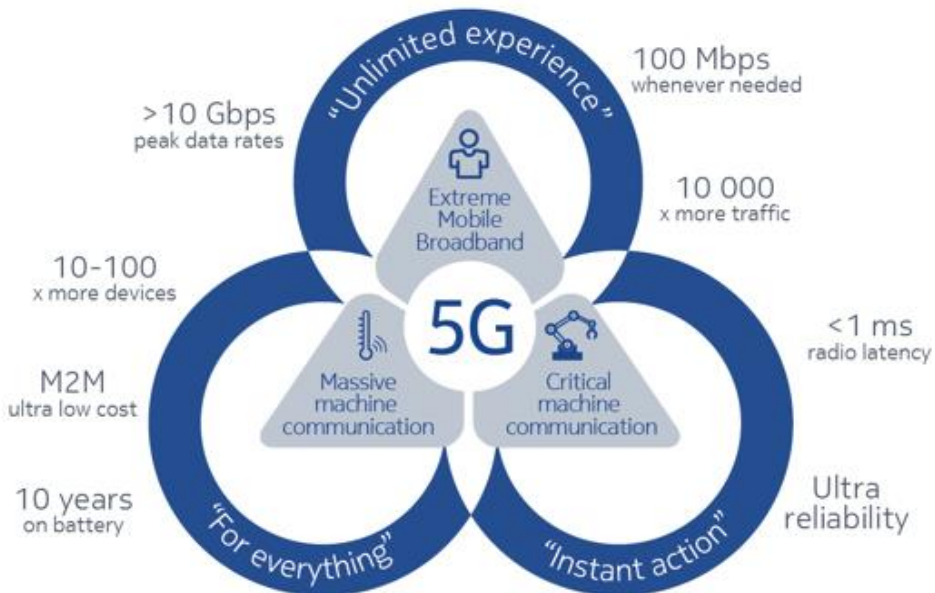
“For 5G to succeed, it needs to be a technology that can be owned and operated by others than traditional MNOs”



LA 5G TUE!!

** Source: Patrick Wauthier (EBU), location in Geneva*

5G'S PROMISE

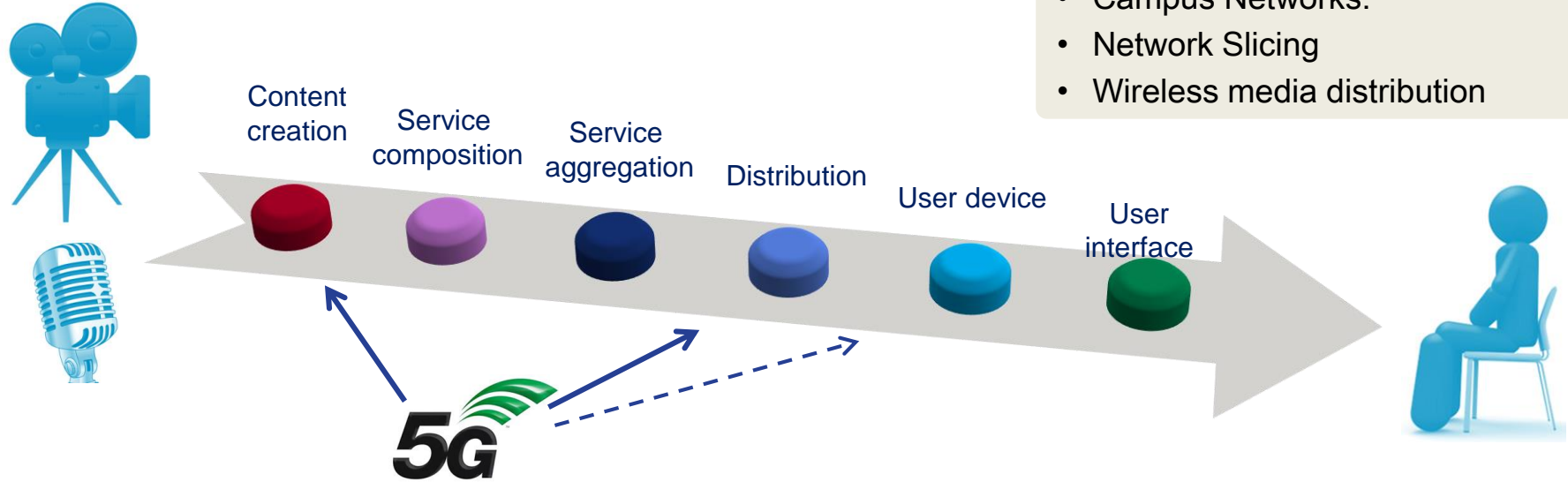


Requirements are defined in the ITU-R Report M.2410.

Source: Nokia <https://networks.nokia.com/5g/get-ready>

- 1. HIGH CAPACITY**
- 2. LOW LATENCY**
- 3. HIGH AVAILABILITY**
- 4. FREE TO AIR**
- 5. HTHP COMPATIBILITY**

5G's role in the Media Sector



Opportunities

- Wireless and remote production.
- PMSE.
- Campus Networks.
- Network Slicing
- Wireless media distribution

INSIGHT

- 5G has the potential to be used in content production and distribution, with an impact on user devices.
- Production and distribution requirements are substantially different and must be considered separately.
- Broadcasters and other media organisations have an opportunity to influence 5G developments.

3GPP specification release timeline

2017

2018

2019

2020

TSG#	75	76	77	78	TSG#	79	80	81	82	TSG#	83	84	85	86	TSG#	87	88
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Release 14

Rel-14 St.3

Extension

Release 15 (5G Phase 1)

Rel-15 Stage 1

Rel-15 Stage 2

Rel-15 Stage 3

Early drop here

Rel-15 ASN.1

Release 16 (5G Phase 2)

Rel-16 Stage 1

Rel-16 Stage 2

Rel-16 Stage 3 (TSG#87)

Rel-16 ASN.1 (TSG#88)

New LTE eMBMS features in 3GPP Release 14 (published in 2017)*

Large inter-site
distances

Dedicated
eMBMS carrier

Shared eMBMS
network

Stand-alone
eMBMS network

Free-to-air
services

Receive-only
devices

Transport-only
mode

Support to
standard TV
formats

Standardised
xMB interface

New
MBMS-API

...

*the work
continues*

* Source: Darko Ratkaj (EBU)

3GPP WORK ON 5G FOR TERRESTRIAL BROADCAST IN REL16

3GPP TR 36.776 V16.0.0 (2019-03)

Technical Report

3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Evolved Universal Terrestrial Radio Access (E-UTRA);
Study on LTE-based 5G terrestrial broadcast
(Release 16)



3GPP TSG-RAN Meeting #83
Shenzhen, China, March 18-21, 2019

RP-190732

Source: → Qualcomm Incorporated
Title: → New-WID on LTE-based 5G terrestrial broadcast
Document for: → Approval
Agenda Item: → 10.1.1

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](#), article 39 and the TSG Working Methods in [3GPP TR 21.900](#)

Title: → LTE-based 5G terrestrial broadcast

Acronym: → LTE_terr_bcast

Unique identifier: →

- NOTE: → For new WIs/SIs leave the Unique identifier empty and make a proposal for an Acronym.
- For a revised WIS: Take Unique identifier and acronym as shown in 3GPP workplan.
- If this is a RAN-WID including Core and Perf. part, then Title, Acronym and Unique identifier refer to the feature 'WI'.
- Please tick (X) the applicable box(es) in the table below.
- Either:

This WID includes a Core part	<input checked="" type="checkbox"/>
This WID includes a Performance part	<input checked="" type="checkbox"/>

or:

■ This WID includes a Testing part		<input type="checkbox"/>
■ and it addresses the following 3GPP work area:	Radio Access	<input checked="" type="checkbox"/>
	Core Network	<input type="checkbox"/>
	Services	<input type="checkbox"/>

1 → Impacts: → {For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study.}

Affects:	UICC/apps	ME	AN	CN	Others (specify)
Yes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5G related EBU publications



<https://tech.ebu.ch/publications/tr044>

EBU

OPERATING EUROVISION AND EURORADIO

BPN 119

5G BROADCASTING SYSTEM:
ANALYSIS OF 3GPP RELEASE 14

Geneva
November 2019

HOW TO MAKE 5G A SUCCESS FOR THE MEDIA SECTOR?



The EBU facilitates collaboration between

- EBU Members (Public Service Media)
- technology providers and equipment vendors
- network operators (mobile, broadcast, satellite)
- R&D institutions and academia
- commercial media
- regulators and policy makers

Goal:

*Identify and activate the key market drivers
and find viable business arrangements for
cost-effective use of 5G for media applications*

The need for cross-industry efforts with a global scope, so ...



BROADCASTERS SAY ...

1

5G IS A GREAT OPPORTUNITY

It can have significant influence on Production and wireless Distribution for media applications

2

EBU REPRESENTS THE MEDIA SECTOR

We coordinate use-case capture, technical inputs to 3GPP, coordination of trials, Media industry representation on 5G

3

But EBU needs help

Enter 5G-MAG

4

Media features won't be implemented automatically

The industry needs to ensure that “media-friendly” features in 3GPP releases are implemented by showing appropriate commercial justifications and innovative applications.