

Marcus Brunner

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Marcus Brunner received his Ph.D. from ETH Zurich. He is active in research, development, and standardization with detailed experience in a variety of fields (Broadband, Cloud, 5G).

He is contributing to various international organizations on future networking technologies including ETSI ISG F5G (Fifth Generation Fixed Networks Vice-Chair), ITU-T SG15, and the World Broadband Association (WBBA WG chair).



ISG F5G Standard Roadmap

Dr. Marcus Brunner

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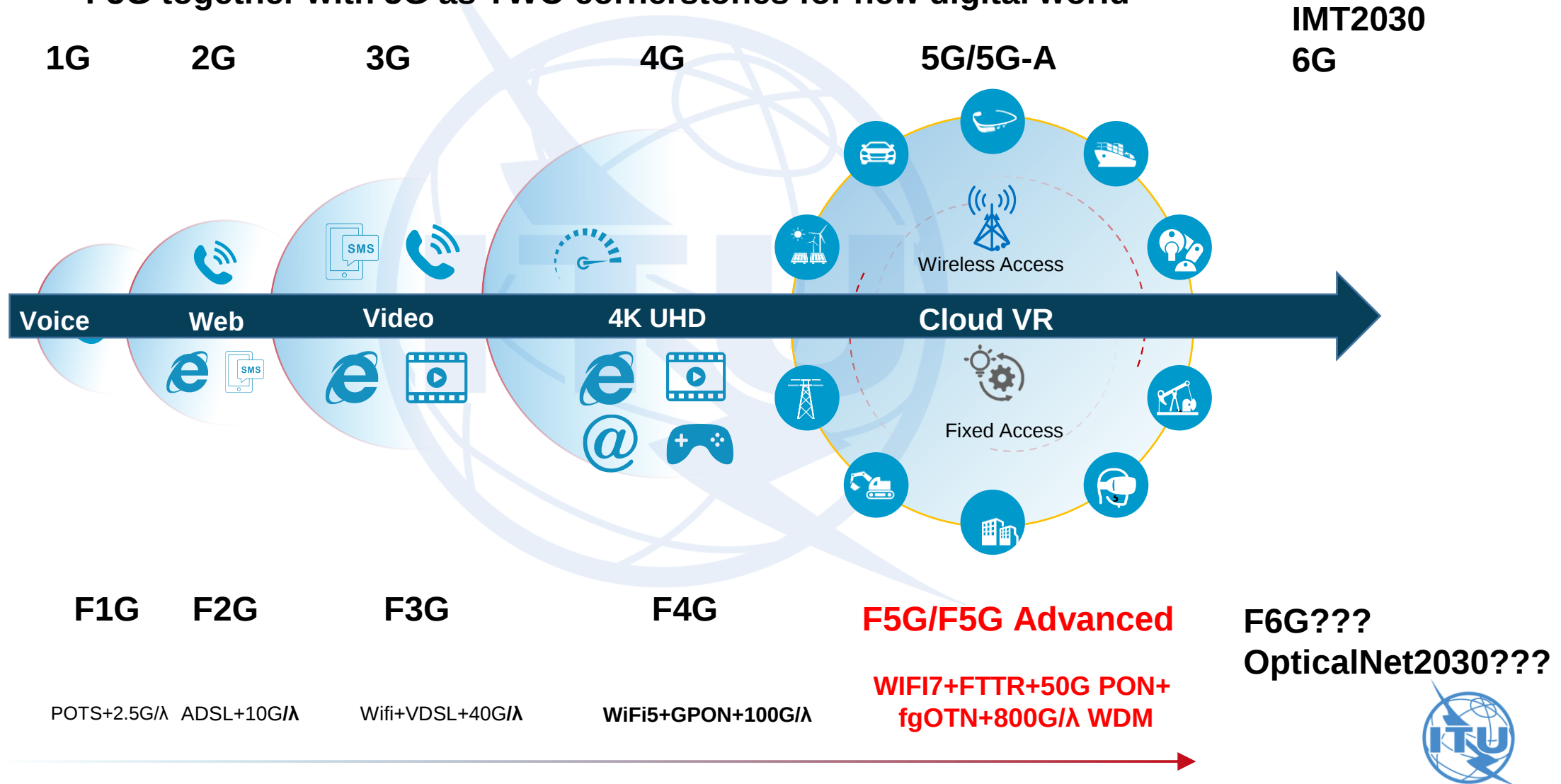
ITU Workshop, Hong Kong, Nov 20, 2024



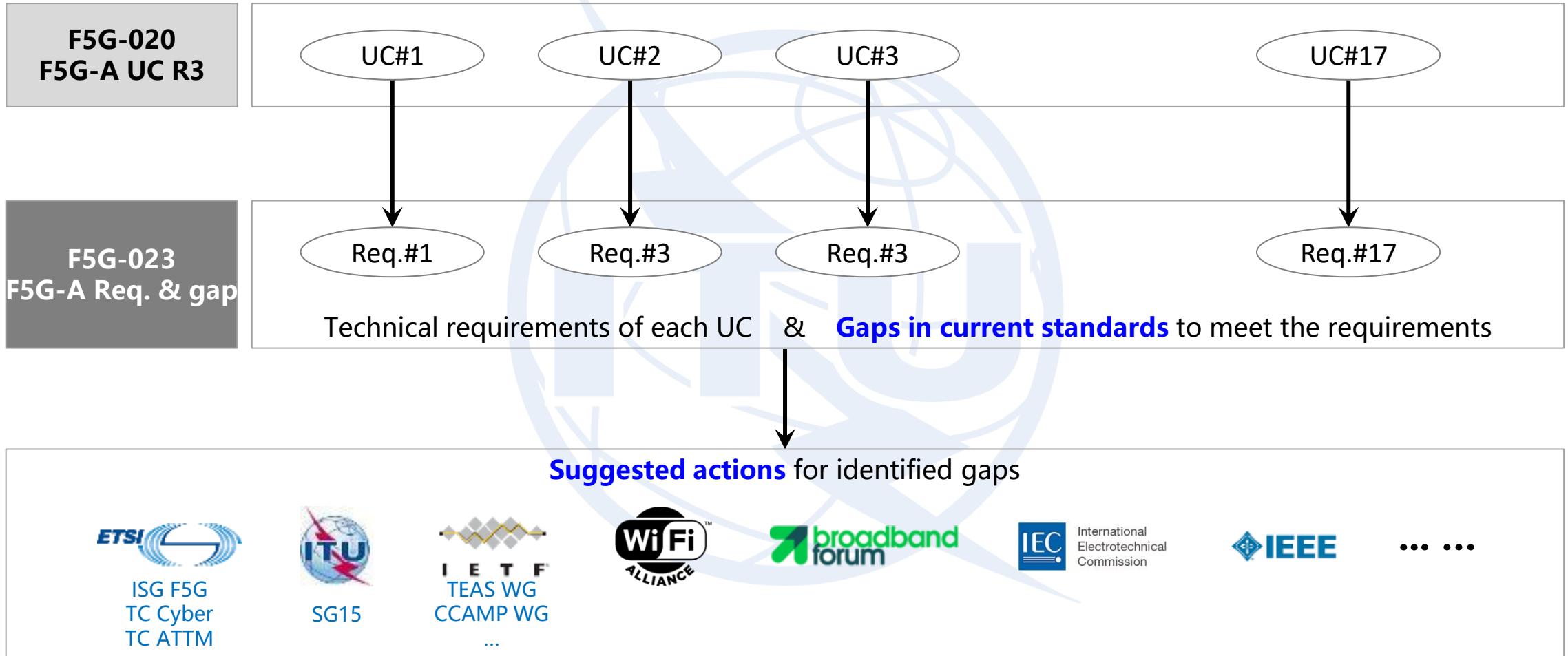
ETSI ISG F5G defines the generation of fixed networks



F5G together with 5G as TWO cornerstones for new digital world

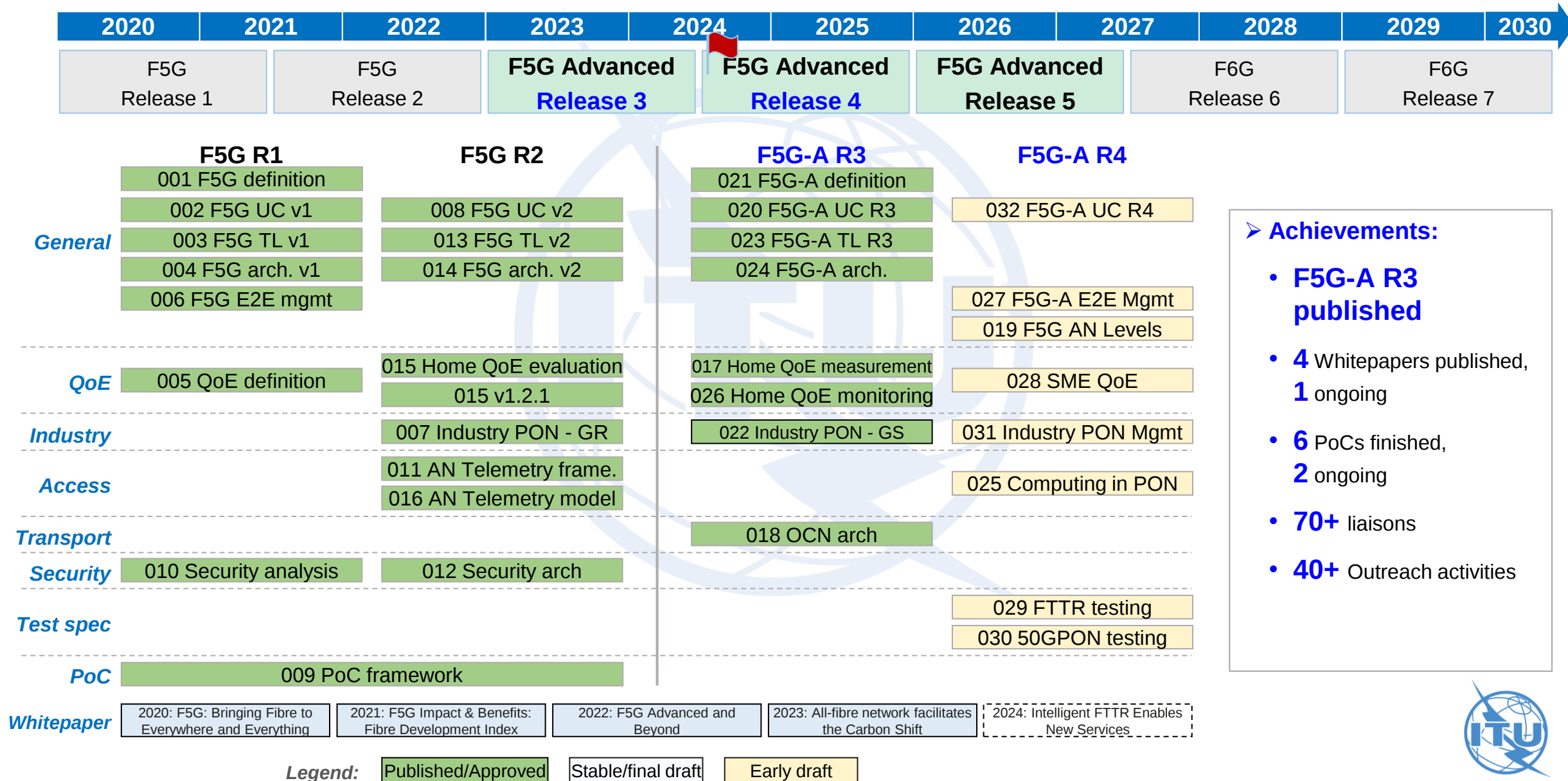


ISG F5G Methodology



Work together with other SDOs to promote the technical standards generation by generation

F5G-A Roadmap



ETSI ISG F5G: F5G Advanced Release 3

Overview

Generation Standard

[GR F5G 021](#) F5G Advanced Generation Definition

[GR F5G 020](#) F5G Advanced Use Case

[GR F5G 023](#) F5G Advanced Technology landscape

[GR F5G 024](#) F5G Advanced Network Architecture

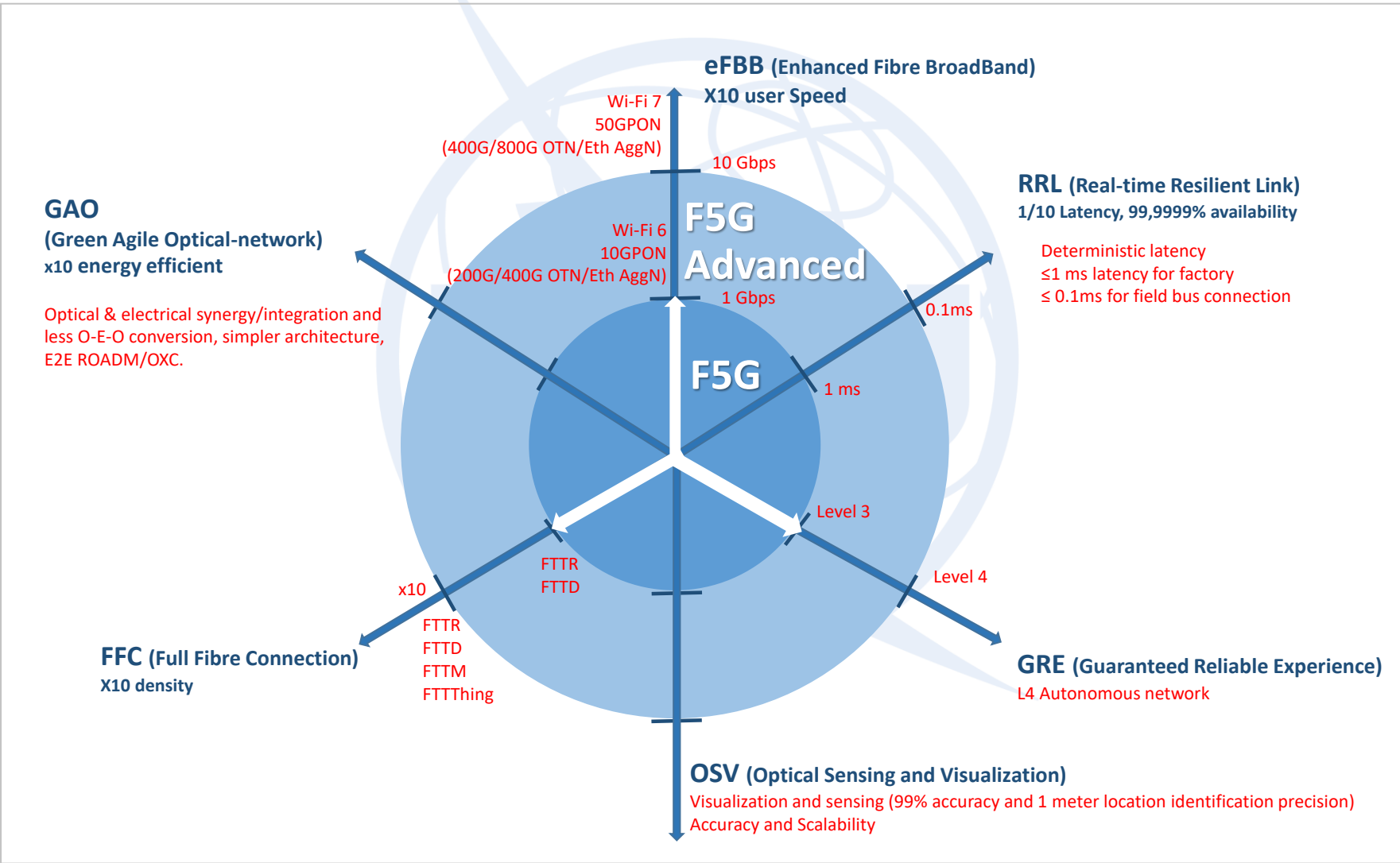
[GR F5G 017](#) Test methodology for residential QoE

[GR F5G 026](#) Monitoring of residential QoE

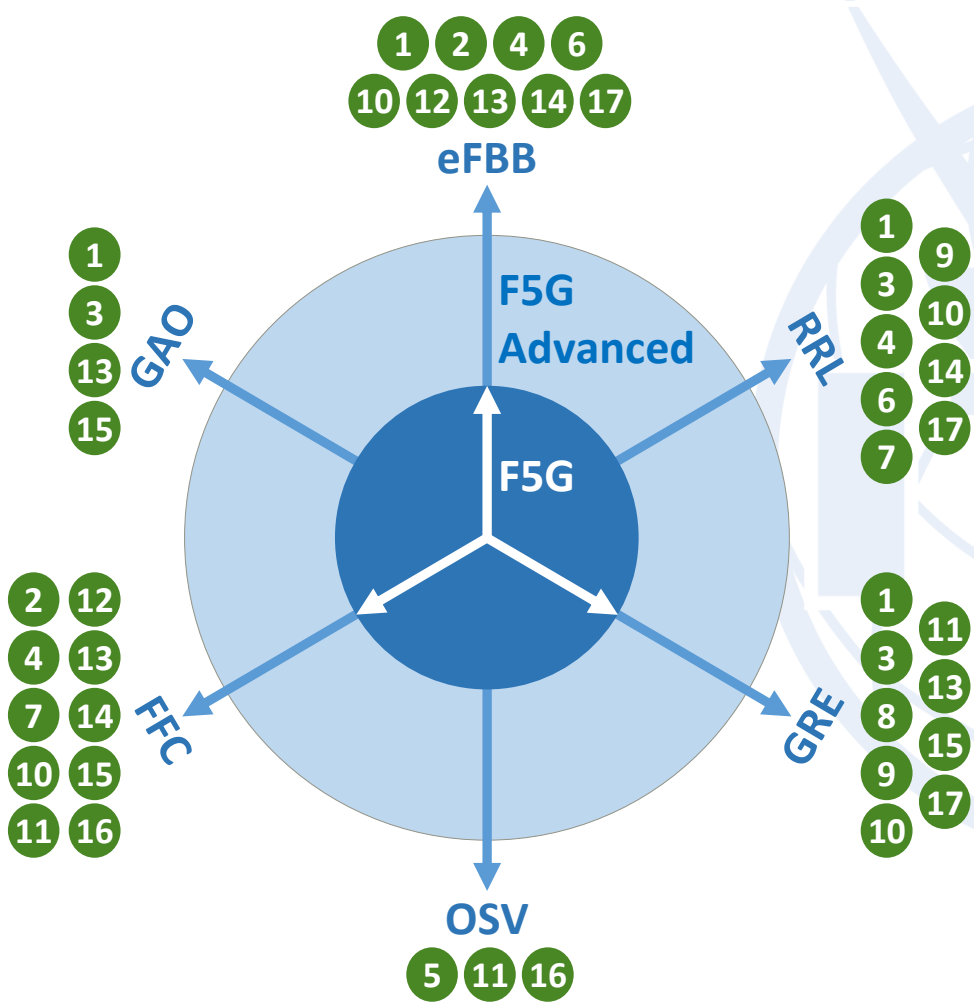
[GR F5G 022](#) Industrial PON

[GR F5G 018](#) Optical cloud network

F5G Advanced Generation Definition (GR-F5G022)



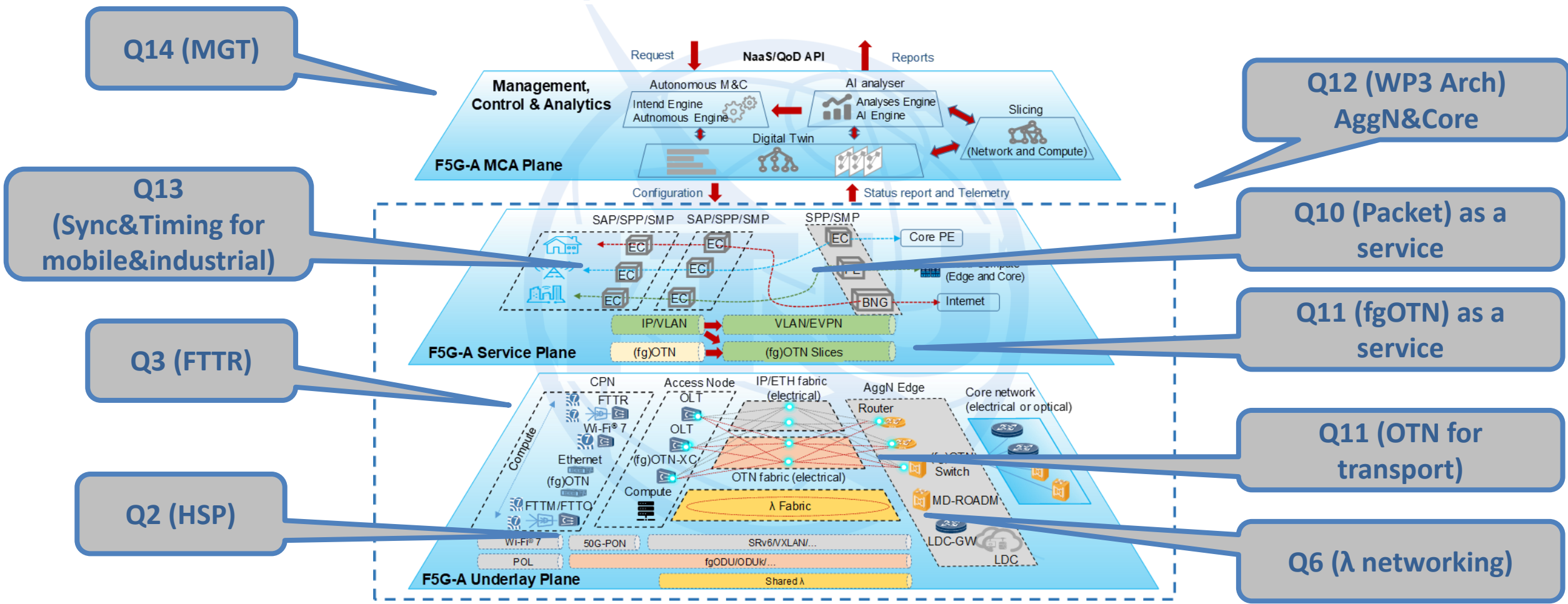
F5G Advanced Release 3: Use Cases (GR-F5G022)



F5G-A R3 UCs

1	Premium private line service automation
2	Stable & reliable Wi-Fi® connection over FTTR
3	Computing collaboration in PON network
4	Intelligent power grid
5	Railway perimeter inspection
6	Naked-eye 3D display
7	Unified access and on-premises network
8	OTN intelligent fault management
9	Evaluation and assurance of user service experience
10	Cloud Desktop
11	Dynamically digitalized ODN
12	On-premises Millimetre Wave (mmWave) WLAN
13	Wavelength-shared WDM aggregation network (AGGN)
14	Robotics as a Service
15	All-optical base for urban rail transit communication network
16	Optical Fibre Sensing for telecom operators
17	QoD App-Flow service provisioning

F5G Advanced Release 3: Architecture



Collaboration with ITU-T SG15

Initial thoughts



Facilitate global understanding upon Generation definition



- Short-term: Adoption of F5G-A core standards (Liaison sent by F5G plenary #20, reflecting the willingness of the ISG F5G group)
 1. Create peer recommendation for the F5G Advanced core standards:
 - ✓ ETSI GR F5G 020 V1.1.1 (2024-06) F5G Advanced Use Cases; Release 3
 - ✓ ETSI GR F5G 021 V1.1.1 (2023-11) F5G Advanced Generation Definition
 - ✓ ETSI GS F5G 023 V1.1.1 (2024-09) F5G Advanced Technology Requirements and Gap; Release 3
 - ✓ ETSI GS F5G 024 V1.1.1 (2024-10) F5G Advanced Network Architecture Release 3
 2. Collect input from ITU-T SG15 communities to evolve F5G-A core generation standards
- Mid-term: define the optical network generation towards 2030 together





The Standards People



Thank you for your attention

