



International Association of Marine Aids to Navigation and Lighthouse Authorities

3RD GENERATION PARTNERSHIP PROJECT (3GPP) 2ND 5G VERTICAL USER WORKSHOP

Rome 9-10 July 2019

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International Association of Marine Aids to Navigation and Lighthouse Authorities



The Mobile
Broadband Standard

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About 3GPP Home

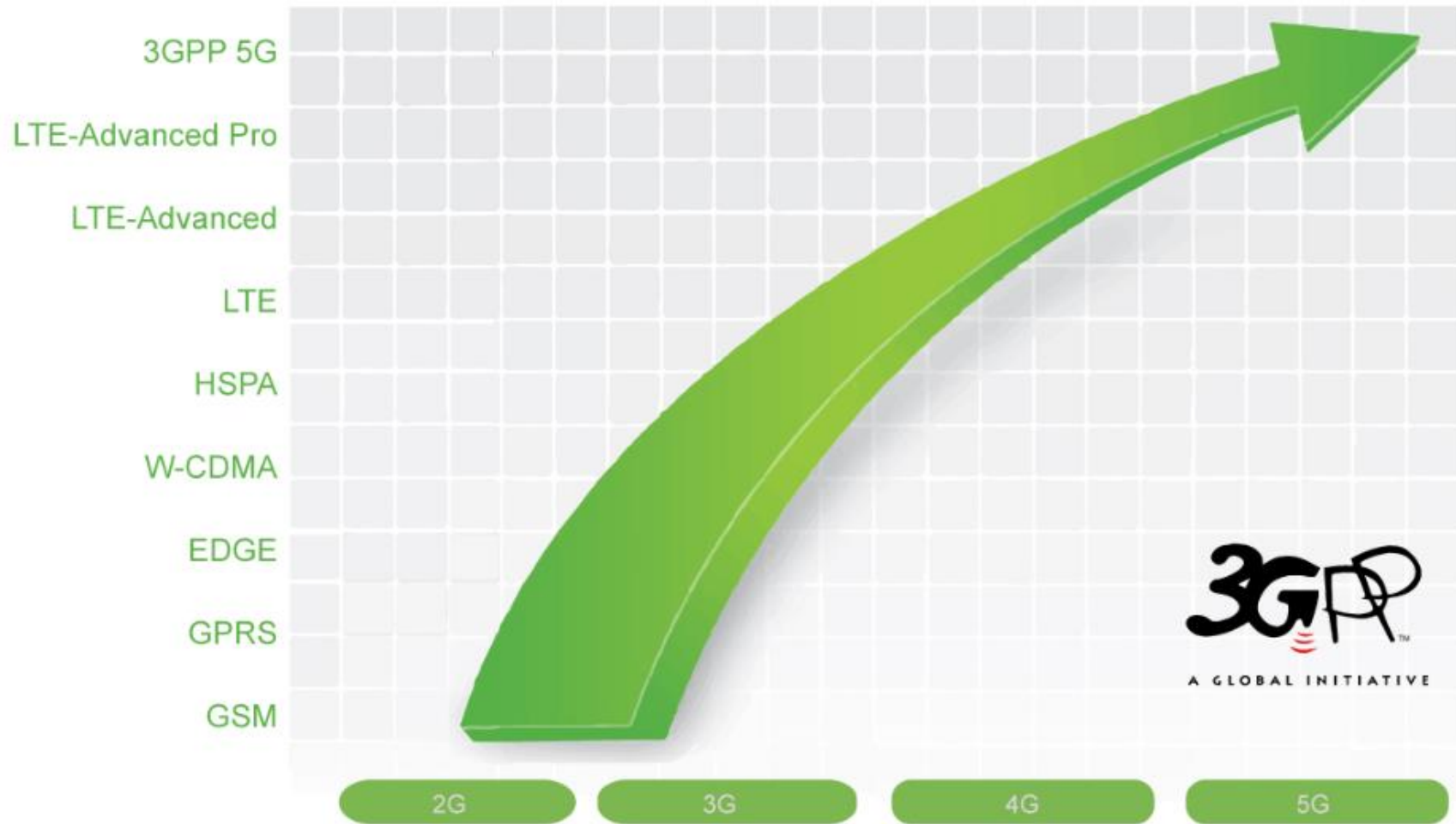
The 3rd Generation Partnership Project (3GPP) unites 7 telecommunications standard development organizations:

ARIB, ATIS, CCSA, ETSI, TSDSI, TTA & TTC,

known as “Organizational Partners” and provides their members with a stable environment to produce the Reports and Specifications that define 3GPP technologies.



Technical standards for





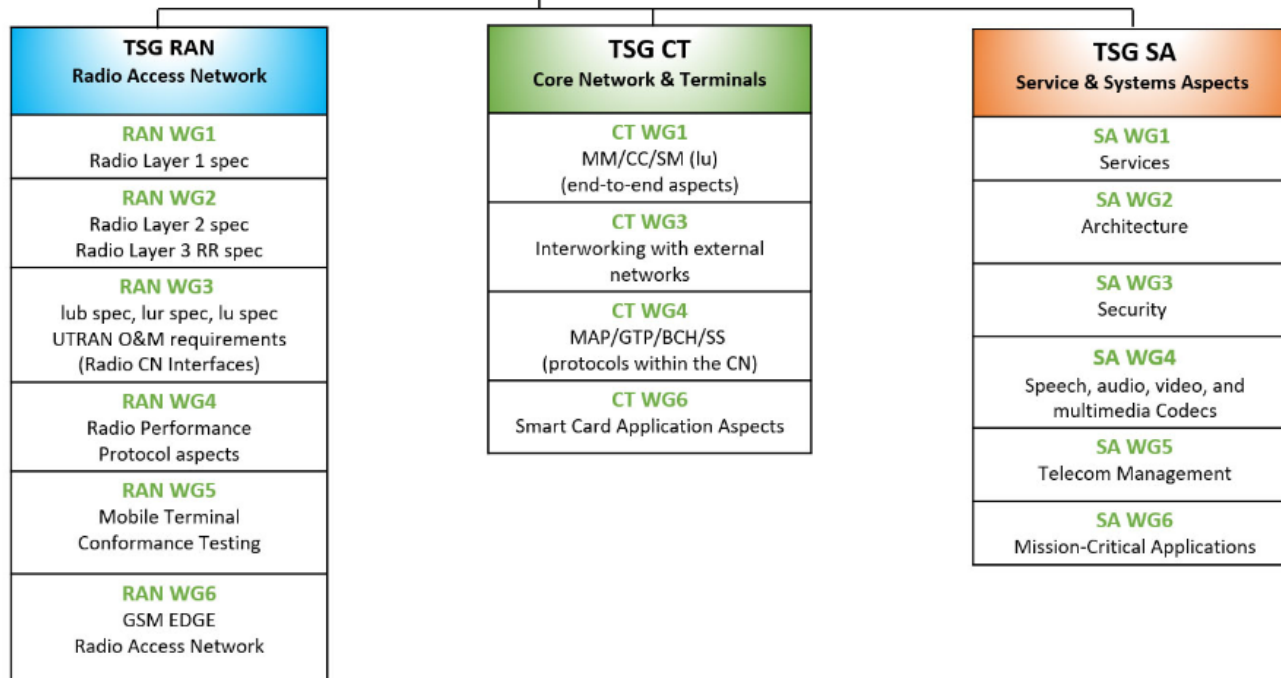
3GPP Structure

The three Technical Specification Groups (TSG) in 3GPP

- Radio Access Networks (RAN),
- Services & Systems Aspects (SA),
- Core Network & Terminals (CT)



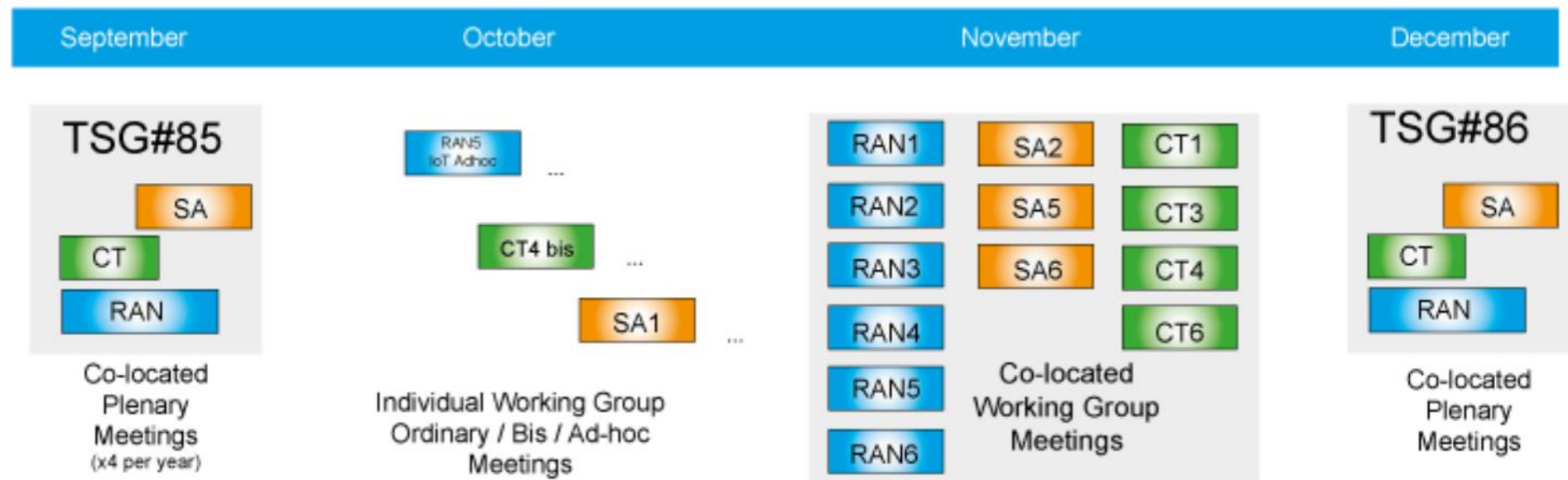
Project Coordination Group (PCG)





Technical Specification Groups meeting schedule

3GPP's Meeting Cycle (Q4 example)





Second 5G Vertical User Workshop (3GPP)

Rome, Italy, 9 & 10 July 2019

The workshop was established as an initiative of four 3GPP Market Representation Partners (MRP's):



The meeting was open to other “5G Verticals”, and IALA was invited as a representative for a section of the maritime market segment.



Example requirements

- Seamless Roaming Internationally
- Quality of Service
- High Bandwidth
- Long Range
- Device to device
- Multicast/Broadcast/groupcast (georeferenced)

- Positioning service (independant of DGNSS)
- Integrity monitoring and augmentation
- Timing (for Range-mode positioning)
- Identity management (chain of trust – unique/legal person)

- Coverage at sea (multi-hop routing)
- Encryption



The potential of 5G for maritime communication

Considering the importance of contemporary mobile systems in coastal waters, both for ordinary voice communication and general data transmission, as well as remote control and monitoring of Aids to Navigation, the potential of 5G, offering massive increase in bandwidth and functionality must be considered to be enormous.

It is therefore important that IALA takes care of the interest of its members relating to the development of the 5G standards of the future.



The way forward

Land-based markets represent billions of users.

The maritime market is relatively small, therefore it may be best to join forces with other (large) marked segments with same or similar requirements and “piggy-back” on their efforts.

We should consider to:

1. Describe our members 5G requirements
2. Identify other larger segments with similar requirements
3. Join forces with the custodians of these segments
4. Work hard, jointly, **within** 3GPP to get requirements adopted

Liaising with CIRM would also be a good idea.



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