



Master Tech Standardization with ETSI

Module 6 – 3GPP



A GLOBAL INITIATIVE

- Create the standards for 3G, 4G, 5G and starting on 6G



- Specifications created by single 3GPP
- Adopted by each partner organisation to become standards
- Administration hosted by ETSI in South of France
- Technical meetings move around the world



Releases (roughly every 18 months)



A release is a consistent set of specifications

TSG CT Core Network & Terminals	TSG RAN Radio Access Network	TSG SA Service & System Aspects
CT WG1 User Equipment to Core Network protocols	RAN WG1 Radio Layer 1 (Physical layer)	SA WG1 Services
CT WG3 Interworking with External Networks & Policy and Charging Control	RAN WG2 Radio layer 2 and Radio layer 3 Radio Resource Control	SA WG2 System Architecture and Services
CT WG4 Core Network Protocols	RAN WG3 UTRAN/E-UTRAN/NG-RAN architecture and related network interfaces	SA WG3 Security and Privacy
CT WG6 Smart Card Application Aspects	RAN WG4 Radio Performance and Protocol Aspects	SA WG4 Multimedia Codecs, Systems and Services
	RAN WG5 Mobile terminal conformance testing	SA WG5 Management, Orchestration and Charging
	RAN AH1 ITU-R Ad Hoc	SA WG6 Application Enablement and Critical Communication Applications



Working Group reasonably permanent



Work Item specific task - proposed by minimum number of organisations and approved by plenary

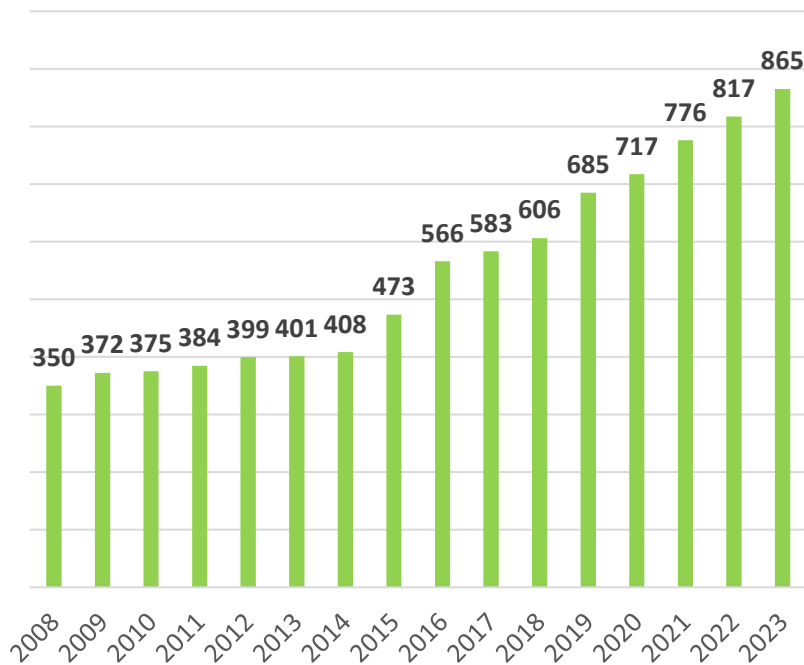


Rapporteur editor, not author

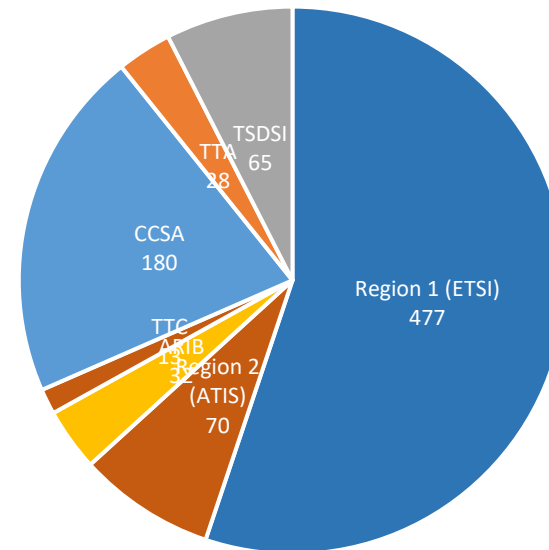


Draft tracked through version updates through to completion and approval

- These are organisations not people
- ETSI members pay an additional fee to attend face-to-face meetings



Number of Individual Members rising...



Guests = 27 (34)

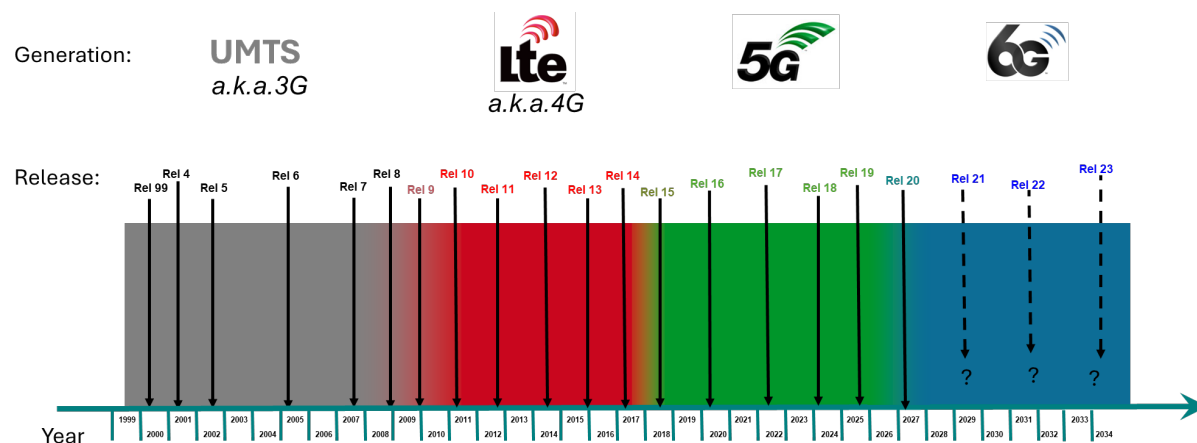
Total membership = 865 (849)

	TSG#102	TSG#101
ETSI	477	470
ATIS	70	64
ARIB	32	32
TTC	13	13
CCSA	180	178
TTA	28	28
TSDSI	65	64
Total	865	849

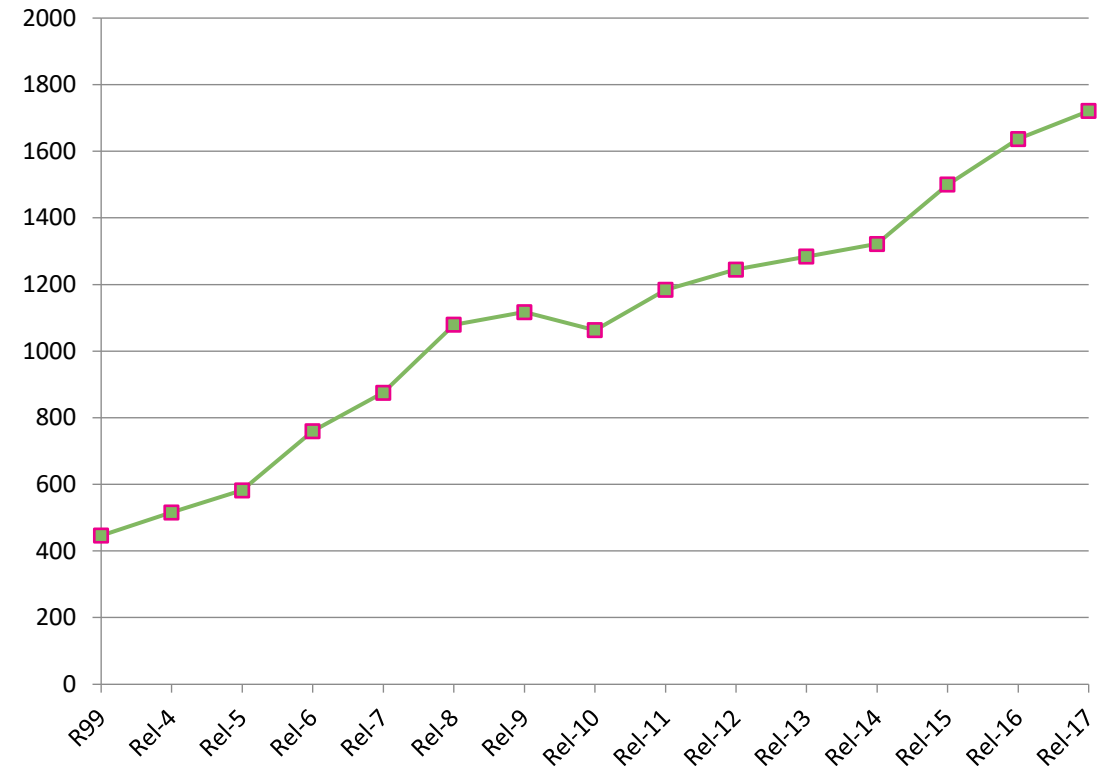
Data of 30/11/2023

Don't get frightened by the numbers

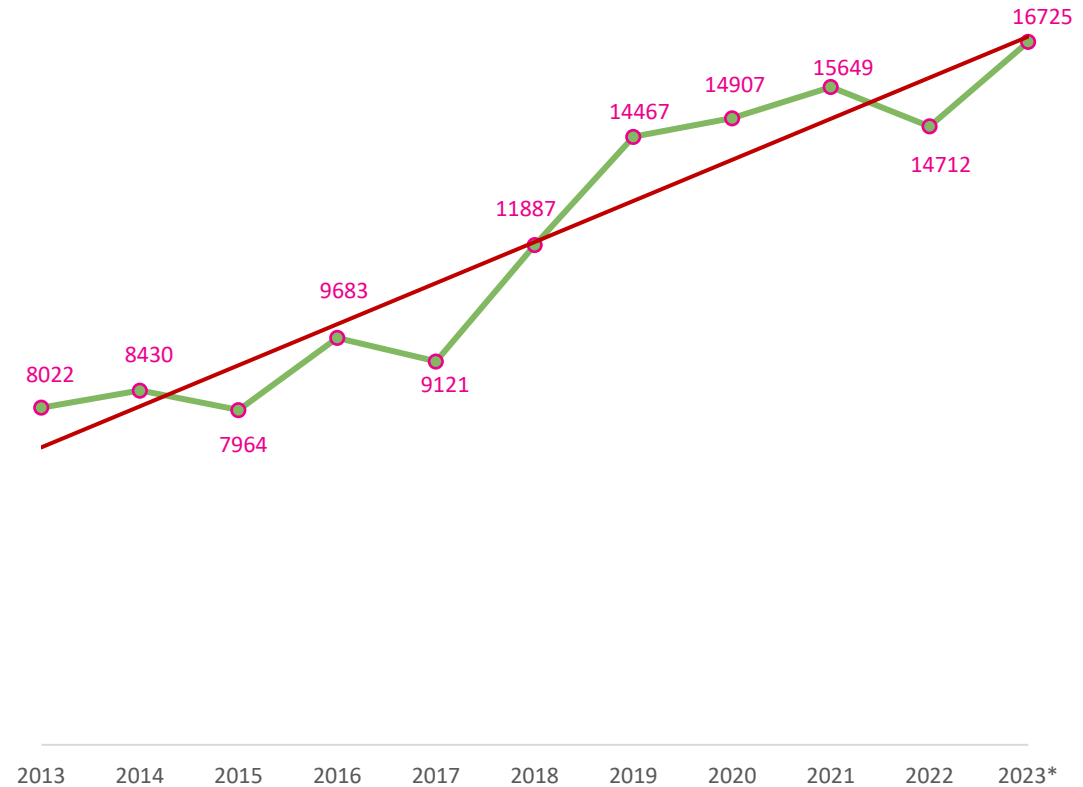
- OK they are big
- Release 16 has 165,745 pages
- They cover everything from the air interface to the core network protocol
- Easy to find on <https://www.3gpp.org/specifications-technologies/specifications-by-series>
- Open and free to download



Nbr of specs (frozen Releases)

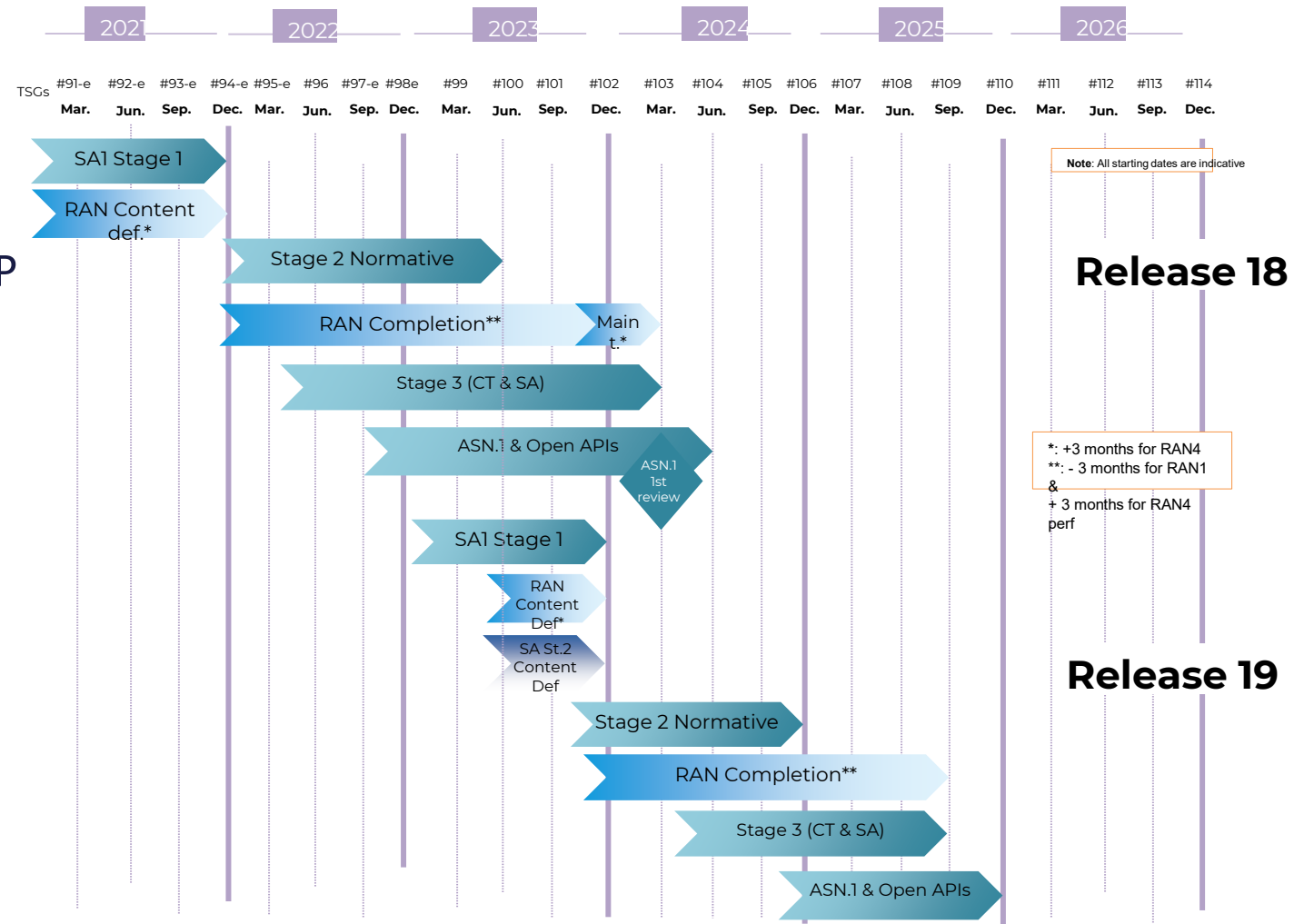


- As we saw in the last section, corrections and improvements can be made
- A Change Request (CR) is used
- These documents explain what is wrong and how it should be mended
- Again, the numbers are big



A GLOBAL INITIATIVE

- Major changes are made in releases
- 4G and 5G cover more than one release
- The definition of a G is made outside of 3GPP
- A waterfall approach used
- Stage 1 – requirements
- Stage 2 – architecture
- Stage 3 – detailed specs





- Initial talks/decisions taking place in SA1 about Rel-20:
 - The first 6G release
 - Studies:
 - All SA1 Rel-20 SIDs to be approved by Sept. 2024
 - Workshop held in May 2024
 - All documents open to all – and see the summary - <https://www.3gpp.org/component/content/article/stage-1-imt2030-uc-ws?catid=67&Itemid=101>
- *You could help write these specifications!*

- Learn more about 3GPP on 3gpp.org
- Watch the 5G introductory video - <https://vimeo.com/manage/videos/790081425>
- Read a specification
- Ask the phone salesperson which release of 5G is supported



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**Thank you for your
attention**

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