

3GPP Newcomers "quick-start" guide

Puneet Jain, 3GPP SA Chair

Peter Schmitt, 3GPP CT Chair

Wanshi Chen, 3GPP RAN Chair

Alain Sultan, 3GPP Work Plan Co-ordinator

Content



- The 3GPP project
- 3GPP Outputs
- 3GPP Structure
- Practical guide to contribute
- Supporting information
- Annexes

<= start here to quickly check how to attend your first 3GPP meeting, in particular slide 13 on how to “Create an EOL account”

3GPP – How the project Works



3GPP works based on

- Participation in face-to-face meetings
- Pro-activity & Contributions – you need written proposals to get attention
- Consensus Driven – “no sustained objections”

Work organization

- Study Items (SI), Work Items (WI)
- Releases with fixed time-lines, which are partially overlapping
- [Work Plan](#) (good overview)

3 stages, often overlapping

- Stage 1: Requirements
- Stage 2: Architecture
- Stage 3: Protocols

Companies not individuals participate

- From all over the world
- All major telecommunication companies – operators, vendors, service providers
- Ministries, Regulators, and government agencies actively engaged
- More and more vertical industry representatives bring their work directly to 3GPP

Amazing Track Record

- 3GPP started in 1998, since then all major standard projects have been deployed
- Seamless migration from “old” to “new” mobile generations

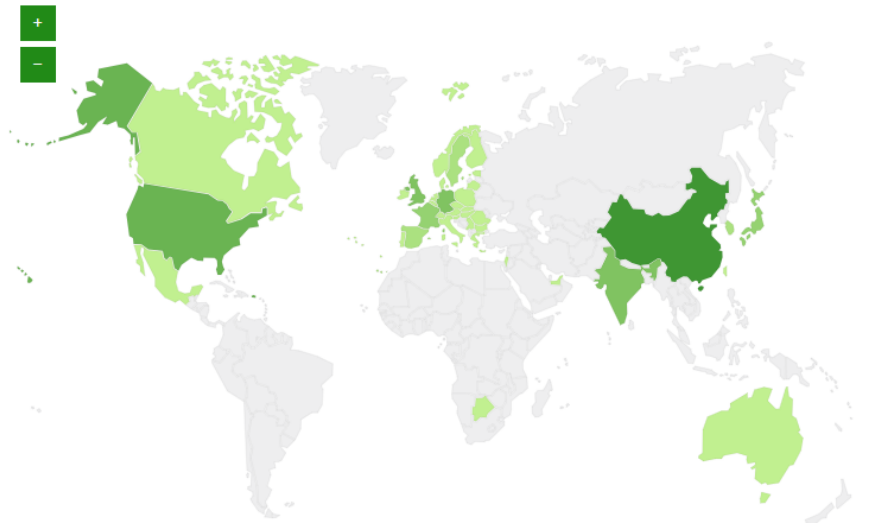
A new Release every 15 to 24 months

- Allows for reasonably fast standardization & deployment of new technologies
- Strong commitment to time-lines guarantees reliable planning

3GPP Membership



3GPP Global Membership



< 20 20 40 60 80 100 120 140 > 160

42

Countries

857

Organizational Partner Members

20550

Number delegates at meetings this year

125

3GPP Meetings per year

4152

3GPP Specifications

ARIB

atis

CCSA

ETSI

tsdsi
India's Telecom SDO

TTA

TTC Telecommunication
Technology
Committee

The 3GPP Organizational Partners – from Asia, Europe and North America – determine the general policy and strategy of 3GPP.

857 organizations have joined 3GPP via one of these seven OPs.

<https://www.3gpp.org/about-us/partners>

3GPP standards eco-system



3GPP Organizational Partners (OPs)

796 members



- The 3GPP **Organizational Partners (OP)** - 7 Standards Organizations - from China, Europe, India, Japan, Korea and the United States.
- Participation in 3GPP by companies and organizations becoming Members of one of these 7 OPs.
- Inputs on market requirements may come in to the Project via 3GPP **Market Representation Partners (MRP)**.
- There is a lot of additional **external liaison** activity...SDOs, Industry bodies, projects...

3GPP Market Representation Partners (MRPs)



Next Generation Projects

5G Projects



...

Certification Bodies



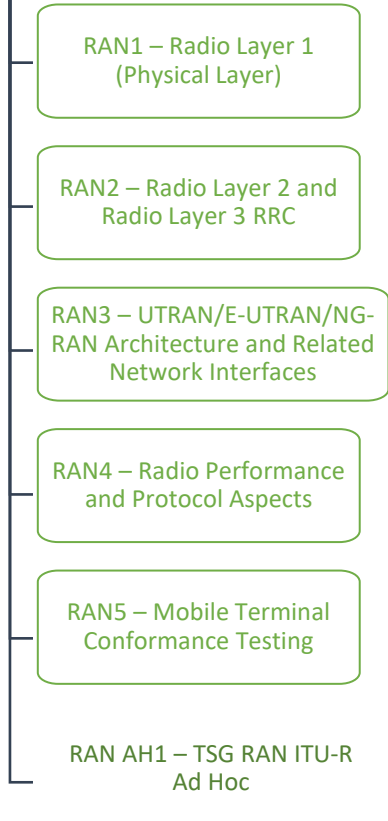
Official Liaisons on specification work:

450 MHz Alliance, AISG, Bluetooth, Broadband Forum (BBF), CableLabs, International Special Committee on Radio Interference (CISPR), CTIA, Digital Video Broadcasting (DVB) Project, Ecma, International, Expert Group for Emergency Access (EGEA), Eurescom, COST 273, European Radiocommunications Committee (ERC), Fixed Mobile Convergence Alliance (FMCA), GCF, Global TD-LTE Initiative (GTD), GPS Industry Council, GSM Association, HomeRF Forum, IDB Forum, IEEE, Internet Engineering Task Force (IETF), IrDA, International Multimedia Telecommunications Consortium (IMTC), Internet Streaming Media Alliance, ISO-ITU expert group, ISO MPEG / JPEG, ITU-T SG2, JAIN tm (Javatm APIs for Integrated Networks), The Java Community Process (JCP), Liberty Alliance Project, Metro Ethernet Forum (MEF), NENA, NGMN (Next Generation Mobile Networks), oneM2M, OMA (Open Mobile Alliance), Open Networking Foundation (ONF), Open IPTV Forum, Object Management Group (OMG), PCS Type Certification Review Board (PTCRB), Portable Computer and Communications Association (PCCA), Presence and Availability Management (PAM) Forum, RSA Laboratories, SDR Forum, Sun Micro Systems Inc., Steerco, SyncML Initiative, Trusted Computing Group (TCG), TeleManagement Forum (TMF), TCCA, TIA /TR45, TIA/TR47, ITU, TV-anytime Forum, Voice eXtensible Markup Language (VXML) Forum, Wi-Fi Alliance, Wireless Broadband Alliance (WBA), WLAN Smart Card Consortium, Wireless World Research Forum (WWRF), World Wide Web Consortium (W3C)

(Source: extract from <https://www.3gpp.org/about-3gpp/15-bodies-with-which-3gpp-has>)

3GPP groups

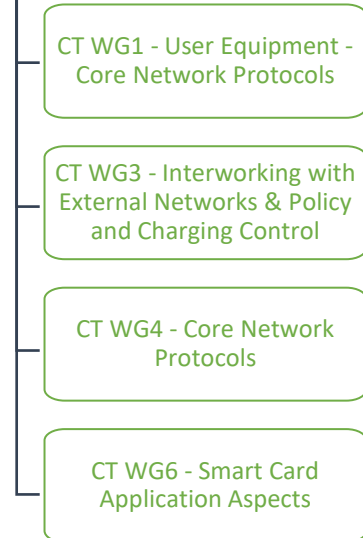
TSG RAN – Radio Access Network



TSG SA – Service and System Aspects



TSG CT – Core Network and Terminals



The Technical Specification Groups (TSGs)

- Three TSGs handle the overall planning and coordination within/between TSGs
- They meet in parallel every quarter, with multi-TSG sessions for coordination of cross-TSG topics
- Approve the work from the WGs

The Working Groups (WGs)

- Each TSG “monitors” a set of WGs
- Sixteen WGs (left) do the technical work
- Submit it to their parent TSG for official approval

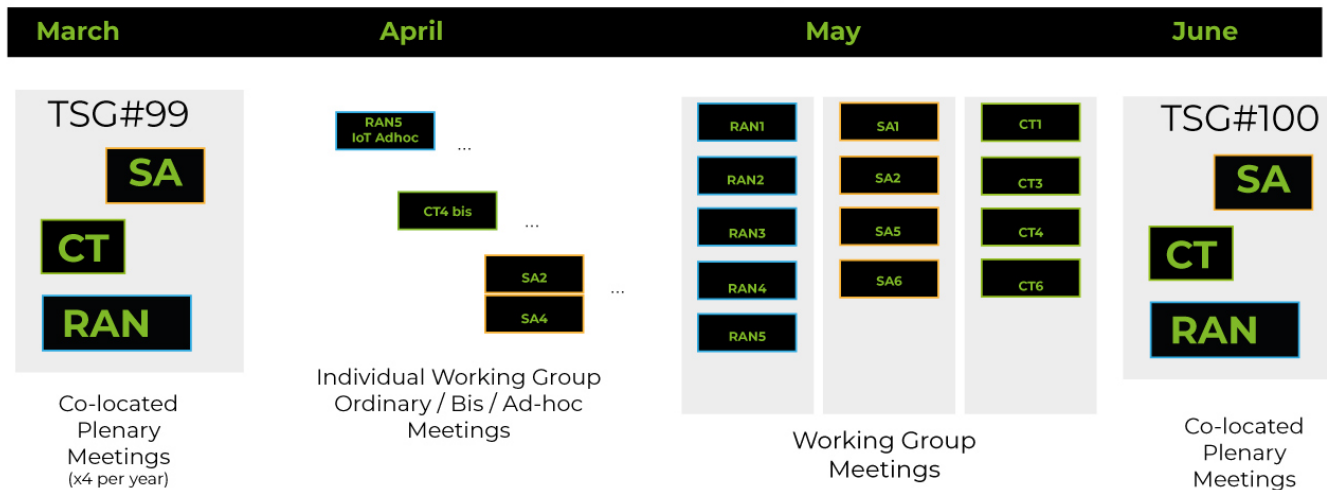
Project Coordination Group (PCG)

- Highest decision making body in 3GPP, it meets formally every six months to carry out the final adoption of 3GPP Technical Specification Group work items, to ratify election results and the resources committed to 3GPP (Not shown).

Work Items & meetings

- New work is initiated by member companies as **Work Items** => see slide 19
 - **Work Items** are prioritised and allocated time for discussion during meetings
 - 3GPP member companies may contribute to any work item
- 3GPP seeks consensus on all technical matters
 - Specific mechanisms are defined if consensus cannot be reached
- Work shall be completed by the Release deadline
 - Unfinished work is deferred to a later release – or an exception to complete the work slightly later is granted by consensus

3GPP Meeting Cycle (Q2 example)



Three-stage approach to Features



time



Stage 1

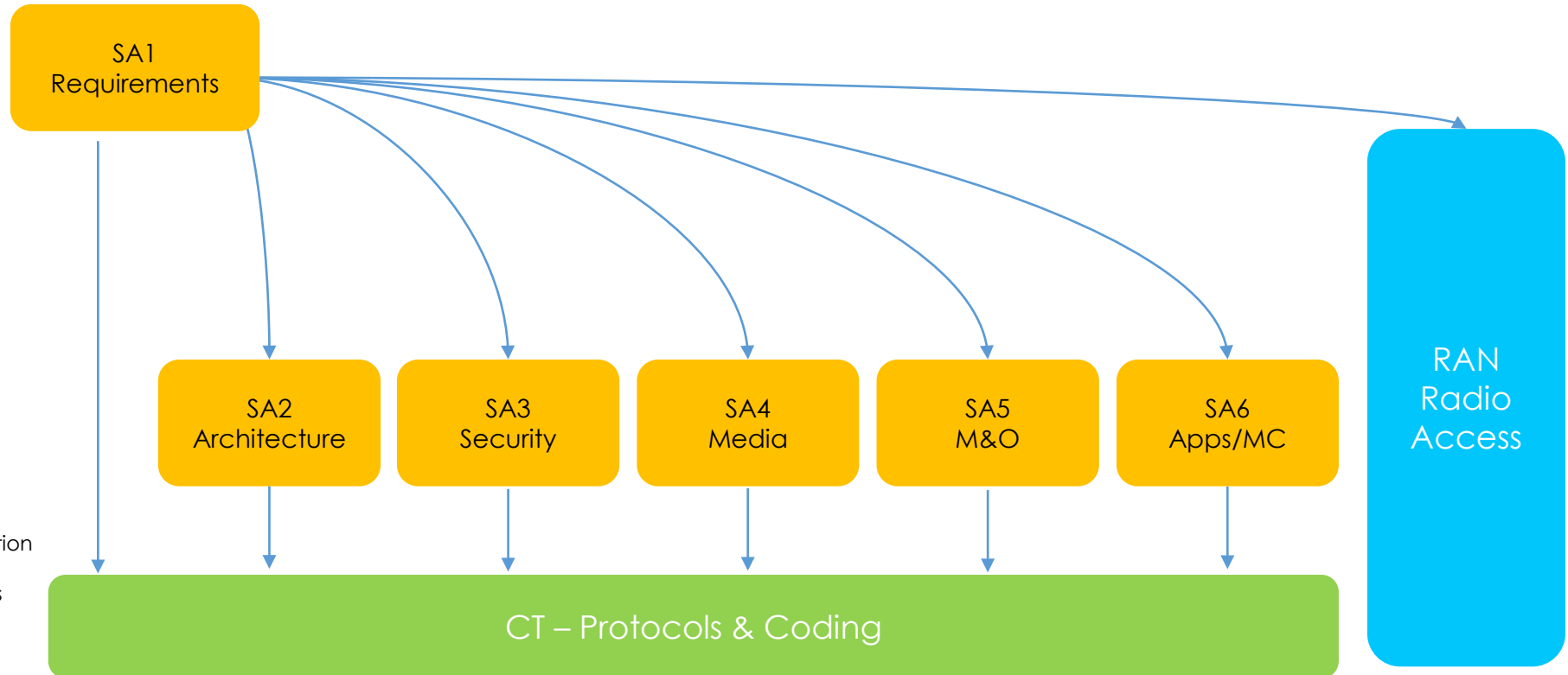
Requirements: Overall service description from the user's standpoint.

Stage 2

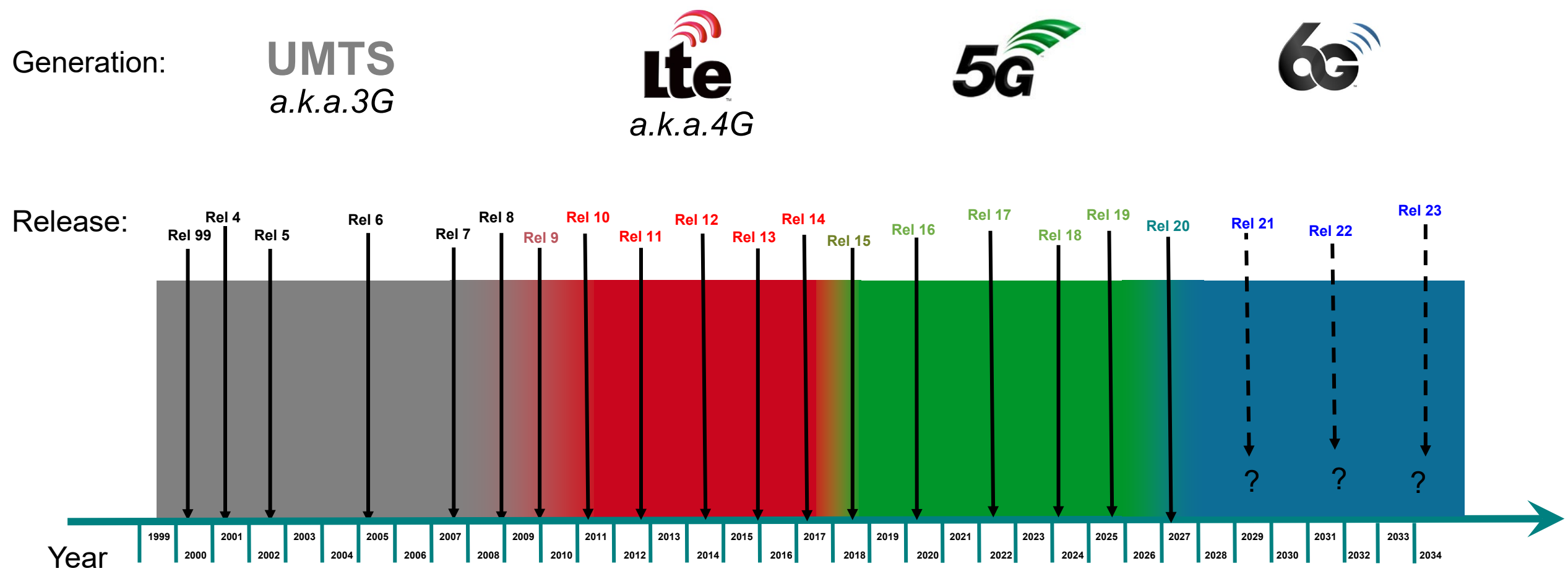
Architecture: Overall description of the organization of the network functions to map service requirements into network capabilities.

Stage 3

Protocols: The definition of switching and signalling capabilities needed to support services defined in Stage 1.



3GPP Releases and Generations



3GPP Work Planning



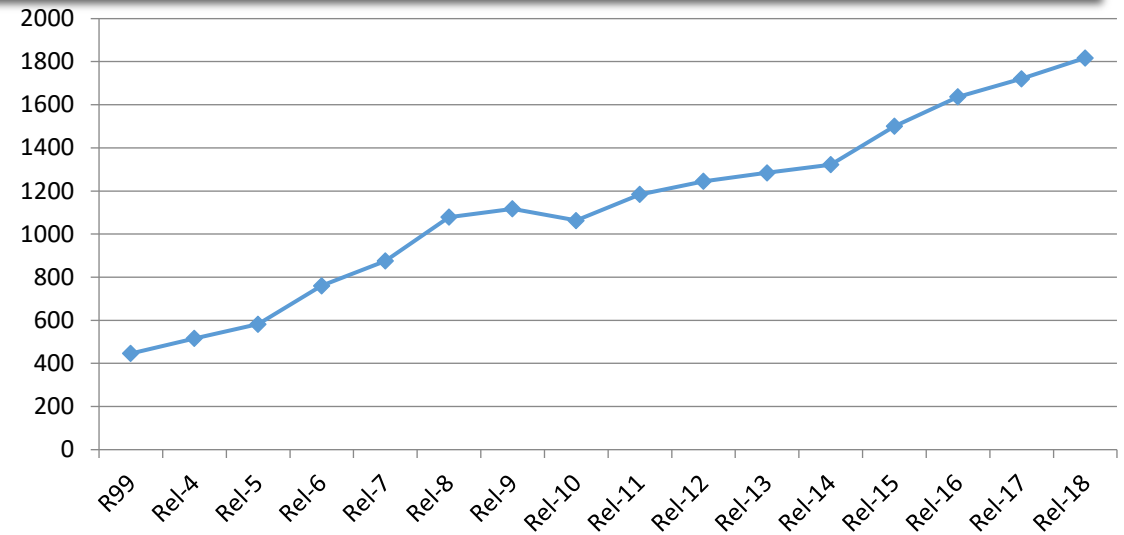
- 🌿 Release-based work
 - Releases are major packages of Features (There is a new 3GPP Release ~ every 15 – 24 months)
 - A strong commitment to time-lines guarantees reliable planning and time-to-market
 - The Work plan is built-up of Work Items that deliver the Features
 - Work Items:
 - WI may cover more than one specification
 - WI may cover more than one TSG or WG
 - WI Description document exists for each WI

🌿 Multiple releases are maintained in parallel (see slide 38)

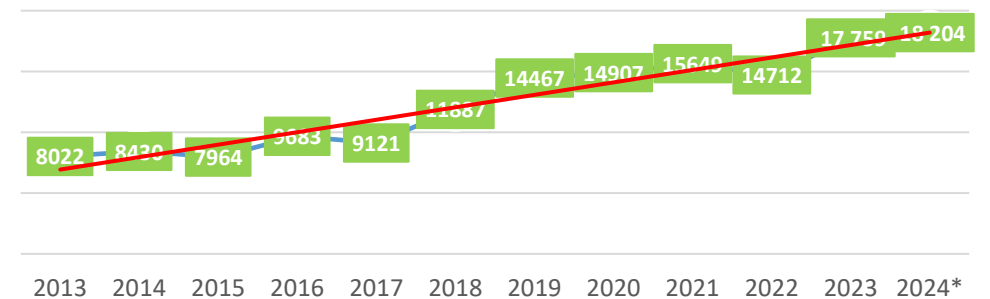
🌿 See the 3GPP Work Plan for details of features:

- <http://www.3gpp.org/Work-Plan>

Number of specifications (frozen Releases)



APPROVED CRS PER YEAR



* Current year extrapolated estimate

Content

- The 3GPP project
- 3GPP Outputs
- 3GPP Structure
- ***Practical guide to contribute***
 - *The process*
 - *The outputs*
 - *The inputs*
- Supporting information
- Annexes

Overview: Inputs and outputs of 3GPP

- Inputs: The set of “contributions” or “tdocs”
- Outputs: The set of TS/TR, describing the system for a given Release
- The 3GPP Process: the meetings & online tools, decision process





Process (1/3): First steps in 3GPP



1. Get an EOL (ETSI OnLine) account

- This is needed for most of these tools - See <https://portal.etsi.org/createaccount#/home>

2. Check which group(s) you like to follow

- E.g. as described on slide 4 or at either:
<https://www.3gpp.org/about-us/introducing-3gpp>
<https://www.3gpp.org/3gpp-groups>

3. Register to the e-mail reflector of the group(s) you want to follow

- E.g. to register to the SA1 list, send: *Subscribe*
3GPP_TSG_SA_WG1@LIST.ETSI.ORG To:
listserv@list.etsi.org

The screenshot shows the ETSI portal website. The browser address bar displays 'portal.etsi.org/createaccount#/home'. The page header includes the ETSI logo and the tagline 'The Standards People'. Below the header is a yellow login box with the text 'Please log-in with your EOL account.' and fields for 'Username:' and 'Password:'. There are buttons for 'Login', 'Sign Up', and 'Forgot your password?'. Below the login box is a navigation menu with links for 'Home', 'Resources', 'People', 'Services', 'Manage', 'IPR', 'Search', 'Events', 'Help', and 'WEBstore'. A large blue button labeled 'Create Account' is prominently displayed.

An EOL account is required for:

- representatives of ETSI Full or Associate member organizations to obtain access to ETSI portal information that is not publicly available and to register for ETSI meetings;
- representatives of 3GPP Member organizations (whether or not ETSI Members) to allow easy registration for 3GPP meetings, access to some information on the 3GPP portal (<https://portal.3gpp.org>), and to allocate meeting contribution (TDoc) numbers;



Process (2/3): The 3GPP Portal



- Most 3GPP operations are made via <https://portal.3gpp.org/>.
 - Including: registering/contributing to a meeting, getting the 3GPP Specifications, etc.
- To use the 3GPP portal, you must log in
 - When logged in, your name will appear in the upper-right corner

The screenshot shows the 3GPP Portal interface. The browser address bar displays 'portal.3gpp.org/#/'. The page header includes the 3GPP logo and 'Portal'. A navigation bar contains links for 'Home', 'My account', 'Directory', 'Browse FTP', 'Voting', and 'Help'. Below this, there are tabs for 'Meetings', 'TDocs', 'Change Requests', 'Liaison statements', 'Releases', 'Work Plan', and 'Specifications'. A secondary bar has buttons for 'Upload TDoc', 'New event', 'New meeting', 'Export list', and 'Webinar participants list'. The main content area is titled 'Top 5 upcoming meetings for which I am registered (Show all)'. An arrow points from the text 'your name will appear in the upper-right corner' to the user profile area in the top right, which shows 'Welcome Sultan' and 'alain.sultan@etsi.org'.

Meeting ID	Organization	Start Date	End Date	Location	Participants	Documents	Actions
3GPP SA 1	SA1#105	2024-02-26	2024-03-01	Athens, GR	(203,24)	(24)	[Icons]
3GPP CT	CT#103	2024-03-18	2024-03-19	Maastricht, NL	(64,3)	(0)	[Icons]
3GPP RAN	RAN#103	2024-03-18	2024-03-21	Maastricht, NL	(225,73)	(0)	[Icons]
3GPP SA	SA#103	2024-03-19	2024-03-22	Maastricht, NL	(136,19)	(0)	[Icons]
3GPP	3GPP Stage 1 Workshop on IMT2030 Use C...	2024-05-08	2024-05-10	Rotterdam, NL	(117)	(0)	[Icons]

If you see only very limited functionality, you are most probably not logged in. When not logged in, the upper-right corner shows as:

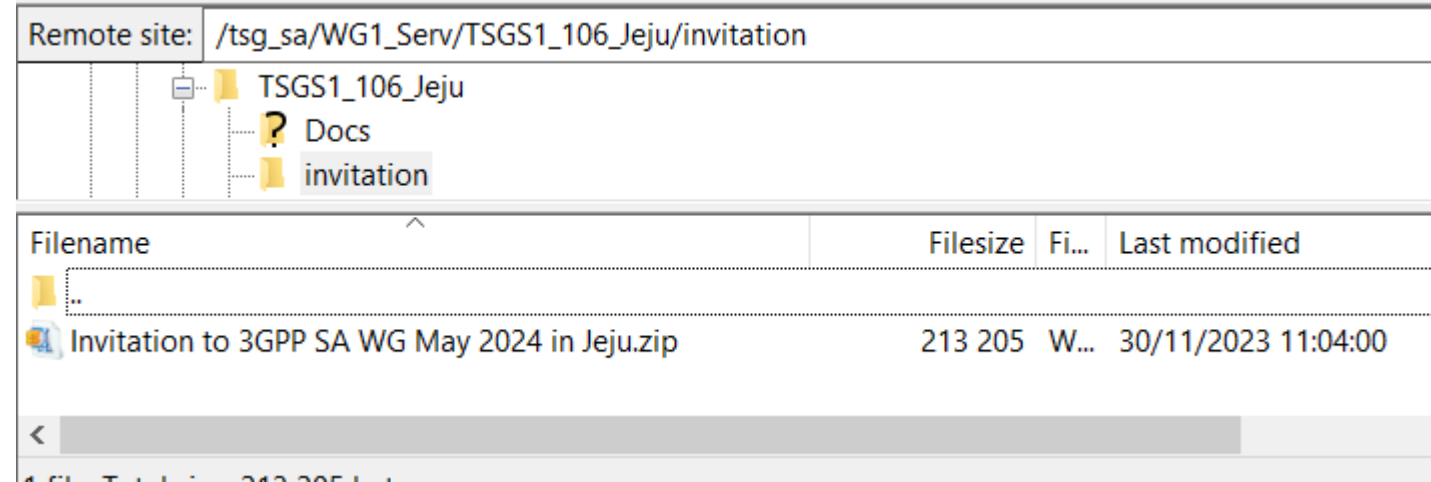
The screenshot shows the login page with the text 'Please log-in with your EOL account.' in green. It features input fields for 'Username:' and 'Password:', a 'Login' button, and links for 'Sign Up' and 'Forgot your password?'. There is also a checkbox for 'Keep me signed in (more info)'.



Process (3/3): other online tools

An FTP repository: <https://ftp.3gpp.org>

- It mostly provides: permanent information (e.g. all templates), all the 3GPP Specs, some dynamic information (e.g. the Work Plan) and a dedicated structure per group (WG and TSG).
- In the group-dedicated structure, one folder is made per meeting, allowing to retrieve all info related to that meeting, mostly: the minutes, all tdocs, **the invitation to a meeting**.



Remote site: /tsg_sa/WG1_Serv/TSGS1_106_Jeju/invitation

└─ TSGS1_106_Jeju
└─ Docs
└─ invitation

Filename	Filesize	Fi...	Last modified
Invitation to 3GPP SA WG May 2024 in Jeju.zip	213 205	W...	30/11/2023 11:04:00

Specific tools, used in certain context and/or only by certain WGs (e.g. Forge, etc.).

- Typically, the online conference calls tools (e.g. GoToMeeting™, MS Teams™, etc.).
 - The officials will inform all delegates on the e-mail reflector about any online conference: tool, agenda, registration if needed, etc.
- Be sure to follow the discussions on the reflector and/or contact the WG officials for these tools



Outputs: the TS/TR

Version R.y.z = Release R

3GPP TS **22**101 v**19.0.0** (2024-03)
Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Service aspects;
Service principles
(Release 19)**

Series	Topic
21 series	Stage 1: Requirements
22 series	Stage 1: Service aspects
23 series	Stage 2 (Technical realization)
24 and 29 series	Stage 3: Network signalling protocols
25 series	3G Radio: UTRAN; W-CDMA; HSPA
26 series	CODECs
27 series	Data
31 series	SIM, USIM
32 series	OAM&P and Charging
33 series	Security aspects
34 series	UE and (U)SIM test specifications
35 series	Security algorithms except for GERAN
36 series	4G Radio: LTE; LTE-Advanced
37 series	Multiple Radio technologies
44 and 45 series	2G Radio :GSM; EDGE; GPRS
36 series	E-UTRAN
38 series	Radio technologies beyond LTE
4x series	GERAN
55 series	Security algorithms (GERAN specific)





Inputs: the tdocs

✈️ Written by the 3GPP participants (delegates and officials)

✈️ **22 types** of tdoc, including e.g.:

- Change Request
- Work Item Description } see next slides
- Presentation
- Meeting agenda
- Etc. See full list of tdoc types in the annexes

✈️ Each tdoc get a **conclusion** at the meeting. 18 types of conclusions, including e.g.:

- “agreed”, “approved”,
- “revised”
- “noted”, “not pursued”, “postponed”



Tdoc Type – CR (Change Request)



- Once a TS/TR is stable, i.e. with R≥3 in the v.R.x.y, changes are still possible (and frequent), but every single change is closely tracked
- Every proposal for a modification is called a Change Request (CR). It shall use a specific form as its cover page, shown here ----->
- After this cover page, the rest of the CR reproduces all the TS/TR sections proposed to be modified, and the proposed modifications are shown using MS Word's revision marks (addition or deletion of text).

- The main fields of the form are:
 - Release:** the impacted Release. A CR is for one Release only. When different Releases are changed, different CRs shall be provided (these are called “mirror CRs”, cat. A)
 - Spec# and Version#:** indicate which spec the CR is proposed, in which version. For the impacted Release, the latest available version of the TS/TR shall be used as a basis
 - CR# and Rev#:** a set of sequential numbers provided by the Portal or MCC (unlike for tdoc number, a CR number is kept and the rev# is increased for successive revisions)
 - Category:** to specify whether the change is for an addition (cat. B), a modification of a feature (cat C), a correction (Cat. F or D), or other reasons (see figure)
 - The **Reason for change**, the **summary of change** and the **consequences if not approved**

Practical steps to write a CR are available e.g. in [S1-233007](#)

CR-Form-v12.0

CHANGE REQUEST

<Spec#> CR <CR#> rev <Rev#> Current version: <Version#>

For **HELP** on using this form: comprehensive instructions can be found at <http://www.3gpp.org/Change-Requests>.

Proposed change affects:
 UICC apps
 ME
 Radio Access Network
 Core Network

Title: <Title>	Date: <Res_date>
Source to WG: <Source_if_WG>	
Source to TSG: <Source_if_TSG>	
Work item code: <Related_WIs>	Release: <Release>
Category: <Cat>	

Use *one* of the following categories:

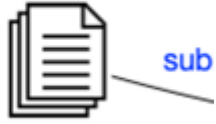
F (correction)
A (mirror corresponding to a change in an earlier release)
B (addition of feature),
C (functional modification of feature)
D (editorial modification)

 Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use *one* of the following releases:

Rel-8 (Release 8)
Rel-9 (Release 9)
Rel-10 (Release 10)
Rel-11 (Release 11)
Rel-12 (Release 12)
Rel-13 (Release 13)
Rel-14 (Release 14)
Rel-15 (Release 15)
Rel-16 (Release 16)

Reason for change: 	 															
Summary of change: 	 															
Consequences if not approved: 	 															
Clauses affected: 	 															
<table border="0" style="font-size: x-small;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> <td></td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td>Other core specifications</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td>Test specifications</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td>O&M Specifications</td> </tr> </table>	Y	N				Other core specifications			Test specifications			O&M Specifications	<table border="0" style="font-size: x-small;"> <tr><td>TS/TR ... CR ...</td></tr> <tr><td>TS/TR ... CR ...</td></tr> <tr><td>TS/TR ... CR ...</td></tr> </table>	TS/TR ... CR ...	TS/TR ... CR ...	TS/TR ... CR ...
Y	N															
		Other core specifications														
		Test specifications														
		O&M Specifications														
TS/TR ... CR ...																
TS/TR ... CR ...																
TS/TR ... CR ...																
Other specs affected: (show related CRs) 	 															
Other comments: 	 															
This CR's revision history: 																



Tdoc (contributions)

Tdoc Type - WID/SID (Work Item / Study Item Description)

WID/SID is a form to declare the start a new “area of work”

- It is either:
 - A study – in such a case, the WID is referred to as a SID (note that a SID is officially a certain type of WID)
 - Normative work – in such a case, the WID is... a WID
- It describes what is intended to be achieved, by when, and how it relates to the rest of the work
- It results in a set of CRs to modify the existing TS/TRs and/or in creating new TS/TRs
- At least four companies commit to provide the related work (the supporting companies)
- As for other tdocs, it shall be approved by a TSG (and possibly previously agreed at a WG)

By “new area of work”, it is meant either:

- New to the entire 3GPP community, or
- New to the WG where the WID/SID is submitted, but equivalent work has already been started in other WG/TSG

The WID/SID template is available at:

- https://ftp.3gpp.org/Information/All_Templates/WID_template.zip
- The template provides guidance text (to be deleted)
- The zip file also contains a PPT providing guidelines for proposing Title & Acronym (telling e.g. that, when work started elsewhere, same name and acronym shall be used as in the other group(s))

All approved WID/SIDs are recorded in the [Work Plan](#)

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:

Acronym:

Unique identifier:

Potential target Release: Rel-19

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					
No					
Don't know					

2 Classification of the Work Item and linked work items

2.1 Primary classification

This work item is a ...|

Study
Normative – Stage 1
Normative – Stage 2
Normative – Stage 3
Normative – Other*

* Other = e.g. testing

Content



- The 3GPP project
- 3GPP Outputs
- 3GPP Structure
- Practical guide to contribute
- ***Supporting information***
- Annexes

The 3GPP Work Plan and Release descriptions TRs



The Work Plan is a big table available both in MS Project and MS Excel

- The MS Project version offers a Gantt diagram
- The MS Excel version is more universal

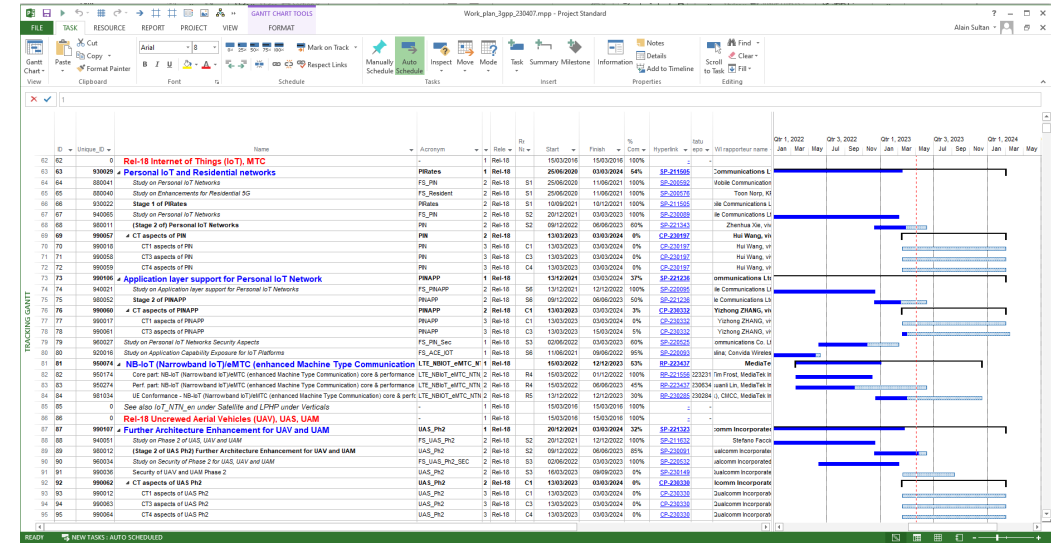
It is a powerful tool that keeps track of the past, present and (short-term) future of the entire 3GPP work

- Past: all completed items are kept in the WP, in a structured and organized way
- Present: the progress of all 3GPP WGs/TSGs is recorded, refreshed every quarter to inform the TSGs about overall progress
- Future: the Target Completion Date (together with the actual progress) is a key parameter to set the date of the next milestones, in particular for the freeze of the current Release

See dedicated presentation of the Work Plan in [SP-230737](#)

When a Release is “frozen” (i.e. it is roughly completed and no new functionality can be added), all rapporteurs are asked to contribute (via a tdoc of the type “WID summary”), to a TR summarising all what was achieved by 3GPP for this Release.

- This is the series 21.9xx of TRs, where xx is the Release.
- See right colon of the slide “Some useful specs”



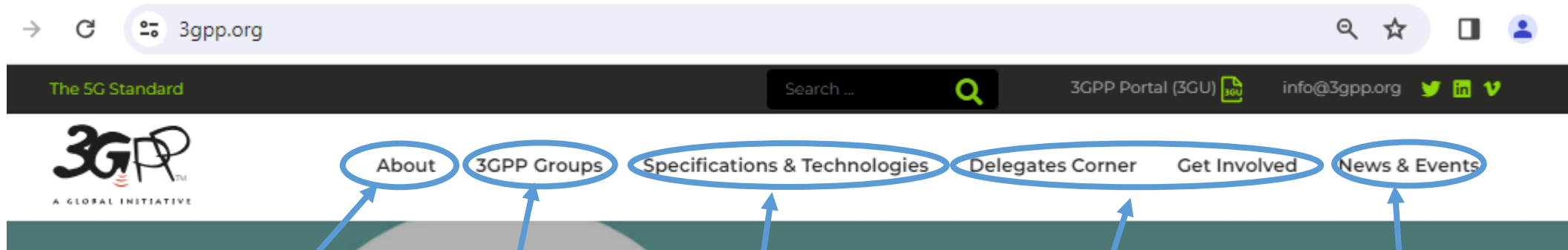
Tools: the 3GPP web site



www.3gpp.org

The 3GPP web site is the web entry point to all 3GPP activities publicly available.

It contains:



General, permanent information

A detailed description of all WG/TSG

A short description of all main technologies developed in 3GPP: 5G Intro, VoLTE, IVAS, etc.

More practical info, in the style of these slides

Latest news and events related to 3GPP technologies

The 5G Standard

Search ...

3GPP Portal (3GU) info@3gpp.org


3GPP A GLOBAL INITIATIVE

About 3GPP Groups Specifications & Technologies Delegates Corner **Get Involved** News & Events

Get Involved

This section of the site is your formal invitation to consider joining 3GPP, via one of the Partners. 3GPP has lasted the test of time and is now well placed to be at the heart of the next generation of mobile.

Here are some pages aimed at getting you involved in one of the most successful standards projects in existence.



In 2022, over 800 organizations have participated in the three Technical Specification Groups and their fifteen Working Groups. Physical meetings can be attended by as many as a thousand experts, all working towards agreement on solutions that will allow future systems and user equipment to work together.

The 3GPP groups are making key decisions on which solution is adopted at any given time. The progress of a company contribution can be delayed and even jeopardised if the work is not properly represented as consensus is sought within the group.

Is it time you were in the room?

The 3GPP Video



A Global Partnership



How We Work



Join us

Links



- 🌿 3GPP guides:
- 🌿 About 3GPP <https://www.3gpp.org/about-3gpp/about-3gpp>
- 🌿 3GPP User (3GU) Portal <http://portal.3gpp.org>
- 🌿 3GPP FAQ <https://www.3gpp.org/about-3gpp/3gpp-faqs>
- 🌿 3GPP News <http://www.3gpp.org/news-events>
- 🌿 3GPP TSG SA – Home <http://www.3gpp.org/specifications-groups/sa-plenary/sa-plenary/home>
- 🌿 3GPP Working Procedures http://www.3gpp.org/ftp/Information/Working_Procedures/3GPP_WP.pdf
- 🌿 Liaison Statements <https://www.3gpp.org/specifications-groups/liaison-statements>
- 🌿 3GPP Awards <https://www.3gpp.org/about-3gpp/3gpp-award-roll-of-honour>

🌿 ETSI guides:

- [Guide to Writing World Class Standards](#)
- [Chair's guide](#)
- [Rapporteurs' guide](#)
- [Delegates guide](#)
- [Member Official Contact's guide](#)
- [NSOs' guide](#)
- [Meeting Hosts guide](#)
- 🌿 [Use of gender-inclusive language guide](#)

Some useful specs

The essential rules of 3GPP:

- 3GPP Working Procedures
http://www.3gpp.org/ftp/Information/Working_Procedures/
- 3GPP TR 21.900 Technical Specification Group working methods
<http://www.3gpp.org/DynaReport/21900.htm>
- 3GPP TR 21.801 Specification drafting rules
<http://www.3gpp.org/DynaReport/21801.htm>

Summary of Release content:

- Releases overview:
 - Release 14 – TR 21.914
<http://www.3gpp.org/DynaReport/21914.htm>
 - Release 15 – TR 21.915
<http://www.3gpp.org/DynaReport/21915.htm>
 - Release 16 – TR 21.916
<http://www.3gpp.org/DynaReport/21916.htm>
 - Release 17 – TR 21.917
<http://www.3gpp.org/DynaReport/21917.htm>
 - Release 18 (draft) – TR 21.918
<http://www.3gpp.org/DynaReport/21918.htm>

Thank You!



Please give us your feedback & improvement proposals.

Special Thanks to all contributors to this slide set!

Presentation maintained by:
Alain Sultan
3GPP Work Plan Coordinator
alain.sultan@etsi.org

Content

- The 3GPP project
- 3GPP Outputs
- 3GPP Structure
- Practical guide to contribute
- Supporting information
- ***Annexes (not meant to be presented)***

Abbreviations



3GPP – 3rd Generation Partnership Project
CR – Change Request
EOL – ETSI OnLine
IM – Individual Member (of an OP)
MRP – Market Representation Partner (of 3GPP)
OP – Organizational Partner (of 3GPP)
PCG – 3GPP Project Coordination Group
SI – Study Item
Tdoc – temporary document
TR – Technical Report (informative, e.g. for SI)
TS – Technical Specification (normative)
TSG – Technical Specification Group (of 3GPP)
TSG RAN, or RAN – Radio Access Network
TSG SA, or SA – System and Service Architecture
TSG CT, or CT – Core network and Terminals
WG – Working Group (under a TSG)
WI – Work Item
WP – Work Plan, or Work Programme

Inputs: the full list of tdoc Types (1/2)

- The exhaustive list of different types of meeting contributions are:
- The “Change Request”, or **CR** => [see dedicated slide](#)
 - This is a correction/enhancement to a stable TS/TR
 - A “stable” TS/TR is when $R \geq 3$ in the version number v.R.x.y
 - In most groups, the CR is the most common type of tdoc
 - The “pseudo Change Request”, or **pCR**
 - This is a contribution to a draft TS/TR
 - A draft TS/TR is when $R < 3$ in the version number
 - pCR is also a very common type of tdoc
 - The **WID/SID** (new or revised) => [see dedicated slide](#)
 - This stands for Work Item Description (WID) for normative work (that will be covered by TS(s)) or Study Item Description (SID) for studies/informative work, that will be covered by TR(s)
 - It is a proposed new functionality
 - It is either “new” when it is a first proposal, or “revised”

Inputs: the full list of tdoc Types (2/2)



Types (continued):

- **“draft TS”** and **“draft TR”**
 - New version of a draft TS/TR
 - For editor only, and only when, in the version number, $R < 3$ (when $R \geq 3$, new versions are handled by ETSI staff)
- **“LS in”** and **“LS out”** (Liaison Statement)
 - These are for official “letters” sent to (LS out) or received by (LS in) another group, within or outside 3GPP
 - There is a dedicated template for this type, available in https://ftp.3gpp.org/Information/All_Templates
- The **Work Plan** => [see dedicated slide](#)
 - It is an essential document for 3GPP overall coordination: it tracks all 3GPP activities and their progress. It is available at: https://ftp.3gpp.org/Information/WORK_PLAN
- Some self-explanatory types of documents, i.e.
 - **Agenda, Report, Discussion, Other, draftCR, WI status report** (used in RAN to report the progress of a WID)
- Some specific types of documents, handled by Chair, Secretary, or Rapporteurs:
 - **CR pack** (a group of CRs in a same zip file, for TSG block approval), **ToR** (to propose to modify the Terms of Reference of a group, which is rarely used), **WI Exception Sheet** (to ask for more time to complete a WID), **WI summary** (to explain a WI, once completed)

Authority

- The Chair, assisted by vice-Chairs, is responsible for the overall management of the technical work within the TSG/working group.
- The Chair may nominate officials to assist in the work, delegate tasks to the Vice Chairs or rapporteurs and may be assisted by the Support Team

In practice, decisions are taken at scheduled meetings

- Additional authority may be arranged for decisions taken at electronic meetings (e.g. after a scheduled meeting by correspondence).

3GPP Way of Working 2/2

- 🌿 3GPP's success: collaborative of all member companies.
 - Decisions mostly taken by consensus
 - With Exceptions: leadership election, some other specific 3GPP processes
 - Reasonable effort to meet the concerns of all participants (if any)
 - Guarantees solutions / standards which are supported by the whole industry
- 🌿 At a last resort, if consensus cannot be achieved
 - a formal vote is required
 - The decision to approve requires a 71% or greater majority
- 🌿 General constructive attitude:
 - 3GPP members are generally are willing to accept decisions taken by the group in order to make progress, even if they are not totally satisfied by a.

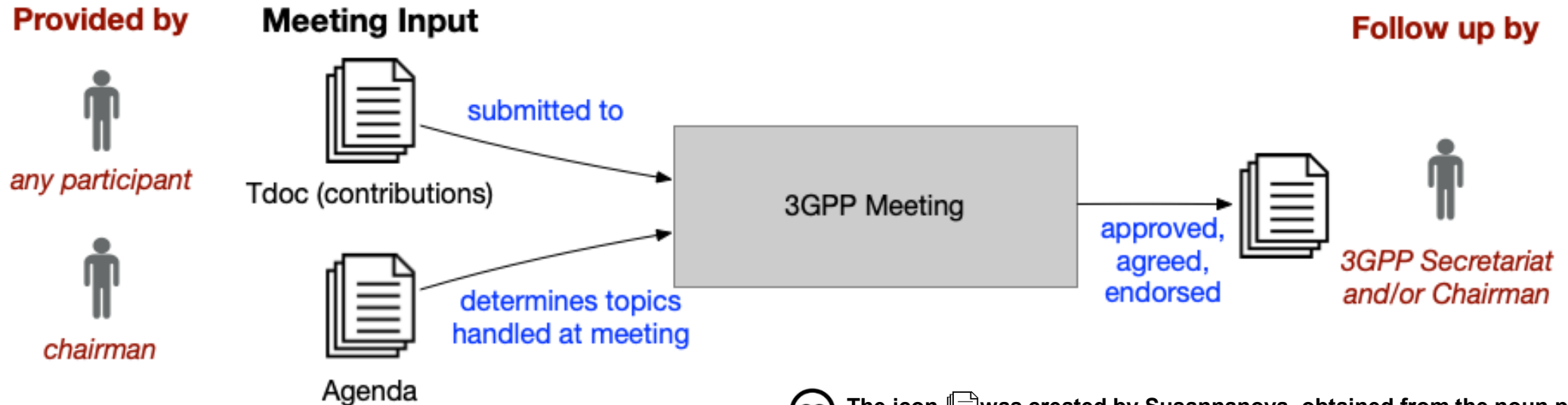
Documents in 3GPP (1/3)

Documents contain all work done in 3GPP:

- All proposals and decisions are taken using documents.
- Outputs are documents.
- Documents that are not agreeable initially may be *revised* at the meeting.

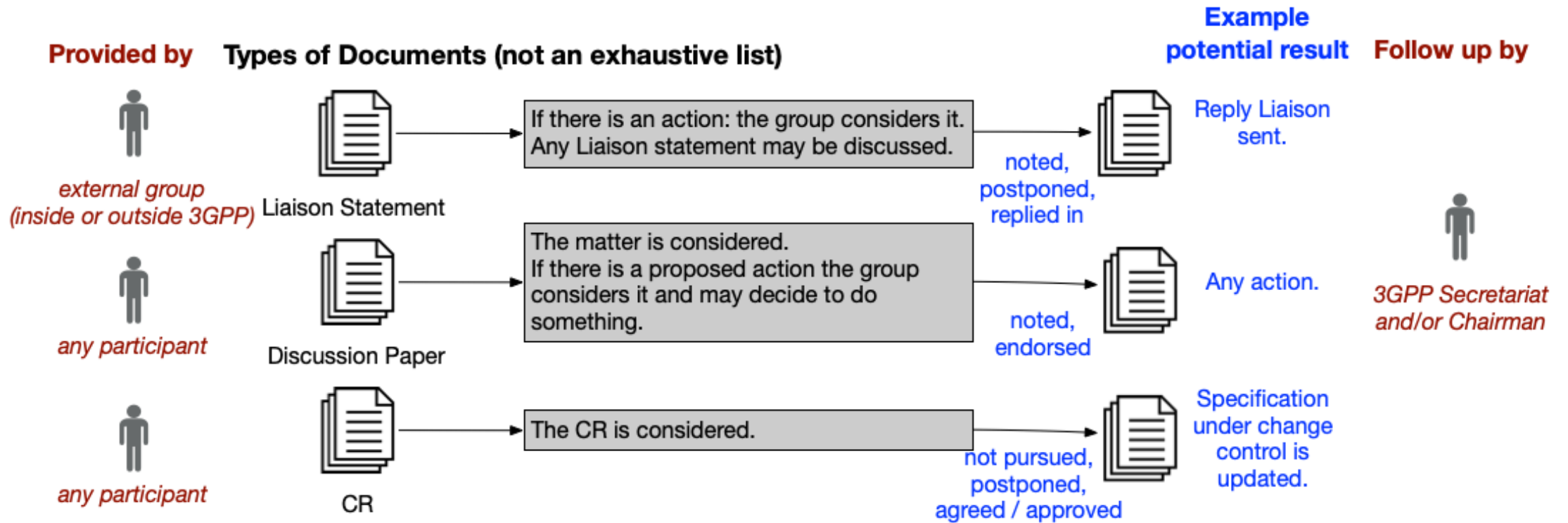
The group will *return* to these revised documents later in the meeting.

This provides interested participants to collaborate to achieve a proposal that can achieve consensus agreement.



 The icon  was created by Susannanova, obtained from the noun project 27.08.2019.

Documents in 3GPP (2/3)



© The icon  was created by Susannanova, obtained from the noun project 27.08.2019.

Documents in 3GPP (3/3)

Essential Documents for 3GPP Processes (non-exhaustive list)

- Work Planning
 - **Work Plan** – Agreed by TSGs, Approved by PCG. This captures the schedule, new or updated work and study items on the schedule and the status of all work.
 - **Work Item Description (WID)** – Contains the agreed objectives, timeline and target outcome of all features & study items.
 - **Release Summary** – A document (from Rel-14 onwards) that summarizes the normative output of each release.
 - **Exceptions** – A proposal to extend work (for particular objectives) beyond the date agreed in the schedule.
- Meetings
 - **Agenda** – The time, order and contents of a meeting (electronic or face to face.) Principally consists (normally) of entries corresponding to TSG-approved WIDs.
 - **Meeting Report** – has all formal actions of each meeting. It is provided to the next meeting by the Secretariat for approval.
- Outputs
 - **Specifications** – 2 types: Technical Reports and normative Technical Specifications. These may be updated *at each TSG meeting*.
 - **Change Request (CR)** – A specification *under change control* can only be modified by a CR approved by TSG. Normally, WGs agree to CRs before they are submitted to plenary. If approved, CRs are *implemented* by the Secretariat after the TSG meeting.
 - **Pseudo-Change Request (P-CR)** – A specification that is not under change control is maintained by the rapporteur, who implements agreed P-CRs to produce the next version of the specification. Normally, TSG approval is not needed for P-CRs.
 - **Liaison Statement (LS)** – These may be received by external groups (in or outside of 3GPP). Any group may agree to a new LS. This is then forwarded by the Secretariat.

Also important (non-exhaustive list)

- **Invitations** – Face to face meetings on the calendar have a corresponding Invitation (some months before the meeting date)
- **Calendar** – This is maintained on the 3GPP website and lists the date and location of 3GPP meetings (past, present and future)
- **Discussion Papers** – Anyone may propose anything to further the work in the group.

How does a 3GPP meeting work?



📶 There are steps that are always taken in all groups:

- Disclaimers, welcome by the host, agreement of the agenda, approval of the report from the previous meeting

📶 The form and content of the agenda vary by group. It is always produced by the discretion of the Chair.

- The agenda may be a *subset* of agreed WIDs, etc.
- Some submitted temporary documents may not be treated at each meeting due to lack of time or if they do not fit properly into the agenda.
- The Chair may handle items on the agenda in any order.
 - Some groups publish a time plan to clearly establish when and where different agenda items are handled. Other groups proceed through the agenda in order. The Chair is responsible for the management of the meeting.

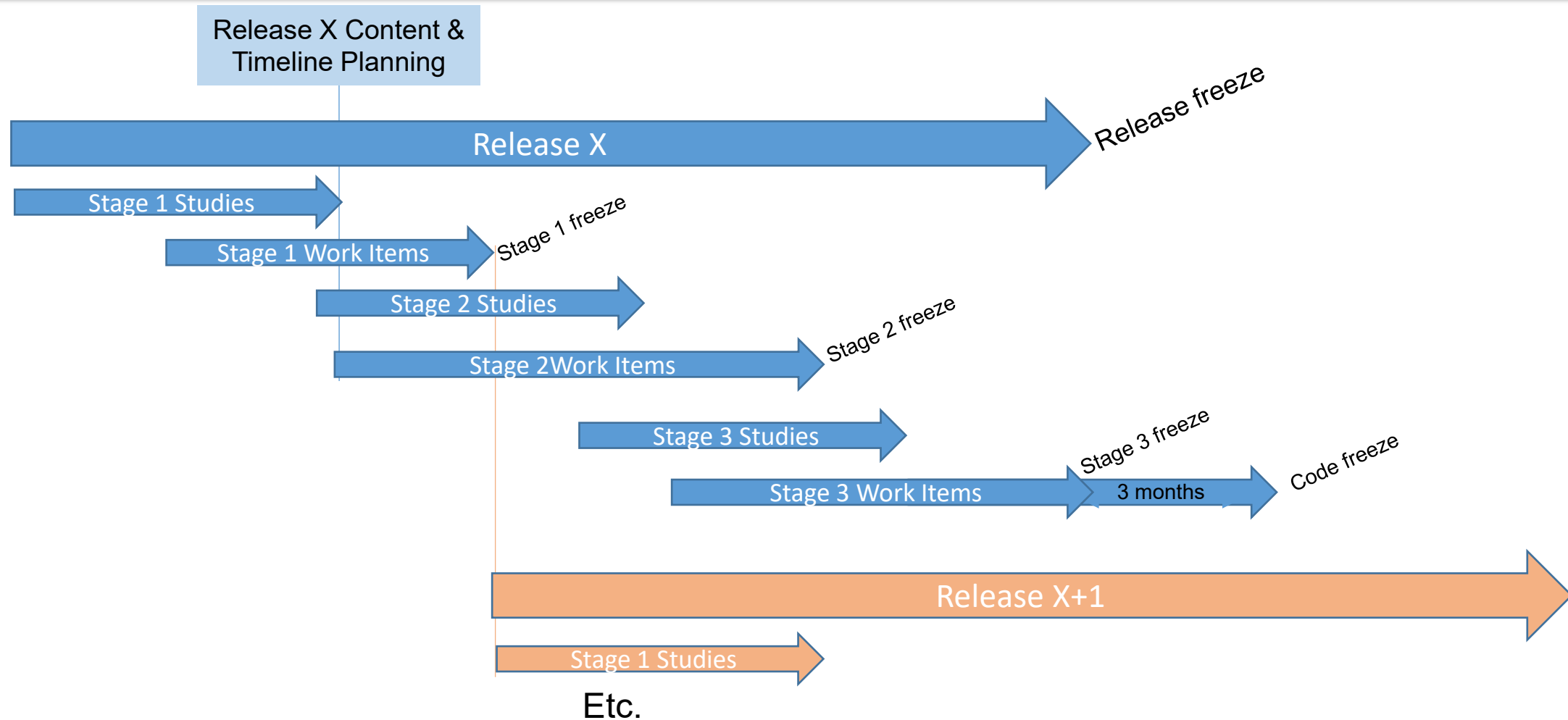
📶 Documents are presented and discussed; actions are taken by consensus.

- The Chair determines who is permitted to speak (have the floor.)
- Anyone having the floor for the first time in each meeting, should indicate the company he/she represents for that meeting
- It is the discretion of the Chair to take action documents.
 - The Chair will identify a proposed question and ask *are there any objections*.
 - Absence of objections constitutes consensus.
 - The secretary captures the action taken.
 - If there are objections, the secretary captures the objection.

How to contribute?

- For each item on the agenda, you may contribute to the relevant topic.
 - Most appropriate contributions correspond to agreed WIDs (e.g. a P-CR, CR and/or Discussion Paper) or incoming LSs (e.g. a Reply LS, CR and/or Discussion Paper)
 - New proposals (e.g. a discussion paper and a new WID proposal)
 - Maintenance proposals (a CR and optionally an accompanying discussion paper)
- To contribute to the meeting
 - Be aware of 3GPP Policies (copyright, IPR, antitrust, etc.) when preparing contributions.
 - When authoring documents for submission, use the template provided by 3GPP if possible (e.g. for Reply LSs, WIDs, etc.)
 - 3GU to register for the meeting, reserve a tdoc number and upload documents to the meeting: <http://portal.3gpp.org>
- Hint: Learn from the form and content of contributions to past meetings.

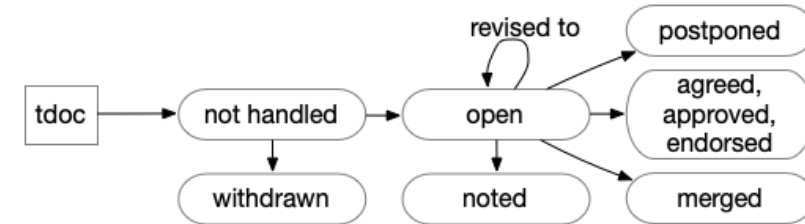
Timeline of Releases



3GPP's (most) essential processes

Tdoc handling at a meeting – each group

- An agenda is proposed in advance of the meeting to determine what can be submitted to the meeting.
- The agenda is approved at the meeting and may be revised. In practice, revision may change the *order* of the meeting but *very seldom* does it change the *scope* of the meeting.



Specification update – each responsible group and TSG

- On the basis of agreements at the WG and TSG level, specifications are updated on the 3GPP server.
- Specifications under change control are modified by TSG approved CRs, by the Secretariat



Elections – Elected officers may stand for election only for two terms.

- After the second term if opposed, an election will determine their successor.

Release planning – responsibility of the TSG, approved by PCG

- TSGs propose and agree to the Release Timeline (including freeze dates.) These are captured in the Work Plan.
- The Work Plan is approved in PCG.

