



IALA / 3GPP cooperation

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Outline

- 📶 Who is 3GPP, what is she?
- 📶 Partnership & eco-system
- 📶 The 3GPP structure and approach
- 📶 Mission-critical specifications
- 📶 Conclusions and recommendations

Who is 3GPP, what is she?



Who is 3GPP? what is she,
That all our swains commend her?
Holy, fair, and wise is she;
The heaven such grace did lend her,
That she might admirèd be.



3GPP is part of the invention, proof of concept,
standardization, trials, commercialization
...cycle.

Is she kind as she is fair?
For beauty lives with kindness.
Love doth to her eyes repair,
To help him of his blindness,
And, being helped, inhabits there.



Its role is to specify and maintain a complete
system definition for mobile
telecommunications.

Then to 3GPP let us sing,
That 3GPP is excelling;
She excels each mortal thing
Upon the dull earth dwelling:
To her let us garlands bring.



The system description is characterized by a
number of standardized interfaces, not a
description of standardized deployment.

This standardization approach enables an
interoperable, multi-vendor approach to
deployment and generates mass market
economies of scale, without stifling innovation.



(not quite) William Shakespeare



Who is 3GPP, what is she?



- 3GPP Member companies participate via one or more of the Organizational Partners (OPs). Each OP is a recognized Standards Development Organization (SDO) from its country or region.

- ARIB (Japan)
- ATIS (USA)
- CCSA (China)
- ETSI (Based in Europe, but global membership)
- TTA (Korea)
- TTC (Japan)
- TSDSI (India)



- Africa, Latin America, and Australia have no participating SDO, so companies participate through one of the above.

Who is 3GPP, what is she?



Who is 3GPP? what is she,
That all our swains commend her?
Holy, fair, and wise is she;
The heaven such grace did lend her,
That she might admirèd be.

Is she kind as she is fair?
For beauty lives with kindness.
Love doth to her eyes repair,
To help him of his blindness,
And, being helped, inhabits there.

Then to 3GPP let us sing,
That 3GPP is excelling;
She excels each mortal thing
Upon the dull earth dwelling:
To her let us garlands bring.

(not quite) William Shakespeare



The Project covers cellular telecommunications network technologies, including radio access, backhaul, sidehaul (device to device), the core transport network, and service capabilities - including work on CODECS, security, quality of service, ... - and thus provides a complete system specification. The specifications also provide hooks for non-radio access to the core network, and for interworking with Wi-Fi® networks.

3GPP provides private mobile radio functionality for “mission critical” services.

Who is 3GPP, what is she?



But is it just the same old faces?

3GPP Members now include, for example:

- **Agricultural** machinery manufacturers (e.g., John Deere, Husqvana)
- **Automotive** manufactures (e.g., Volkswagen, Volvo, Toyota)
- **Rail** (e.g., International Union of Railways)
- **Factory Automation** companies (e.g., Siemens)
- **Energy** Sector (e.g., Legrand)
- **Environment** (e.g., Veolia)
- **Broadcasting** Community (e.g., EBU, BBC, TDF)
- **Satellite** Community (e.g., ESO, Inmarsat)
- **Aerospace** (e.g., Lockheed Martin, BAE)
- **Retail** Sector (e.g., Alibaba)
- **Social Media** (e.g., Facebook)
- **Advertising** (e.g., Google)



Full listing available here:

<http://www.3gpp.org/about-3gpp/membership>

Who is 3GPP, what is she?

Who is 3GPP? what is she,
That all our swains commend her?
Holy, fair, and wise is she;
The heaven such grace did lend her,
That she might admired be.

Is she kind as she is fair?
For beauty's sake
Love doth to her eyes repair,
To see which she may prefer.
And, being helped, inhabits there.

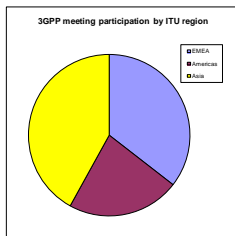
Then to 3GPP let us sing,
That 3GPP is excelling;
She excels each mortal thing
Upon the wing,
To her let us garlands bring.

(not quite) William Shakespeare

Individual Members by Organizational Partner / Region

Total membership = 595

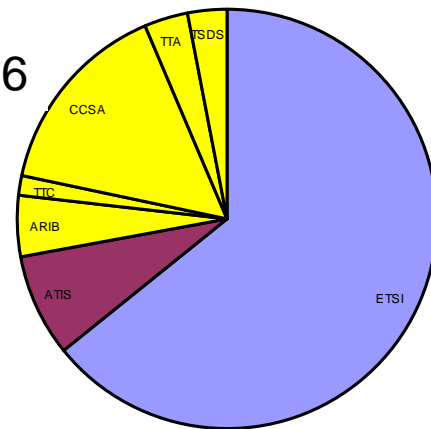
Guests = 33



Region 3 = 166

Region 2 = 47

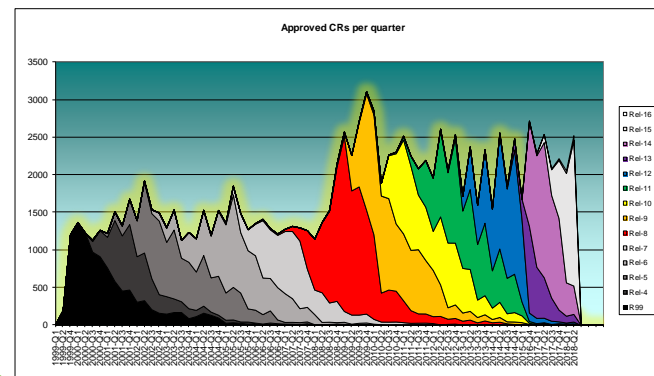
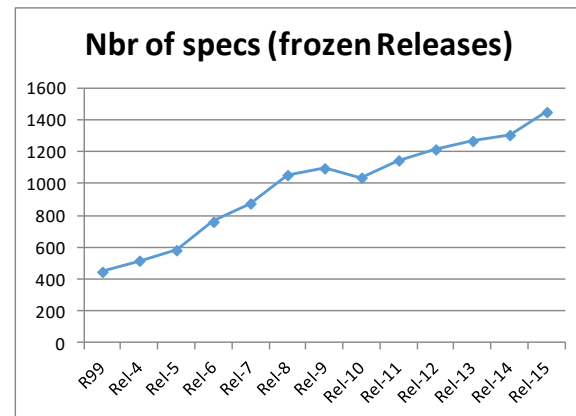
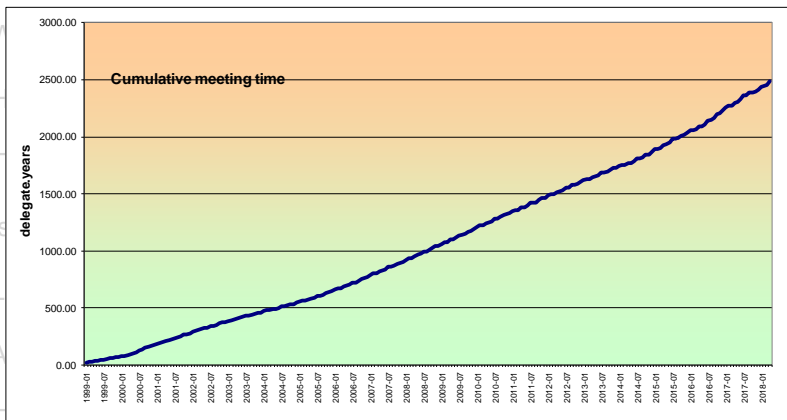
Region 1 = 382



Asia
N America
Europe

Who is 3GPP, what is she?

Some more facts and figures



- 600 Companies from 40+ countries
- 75,000 delegate days in 2017
- 100,000 contribution documents in 2017
- New Release every ~18 months

Market Representation Partners



- Market representation partners offer market advice to 3GPP and may bring into 3GPP a consensus view of market requirements (e.g. services, features and functionality) falling within the 3GPP scope.

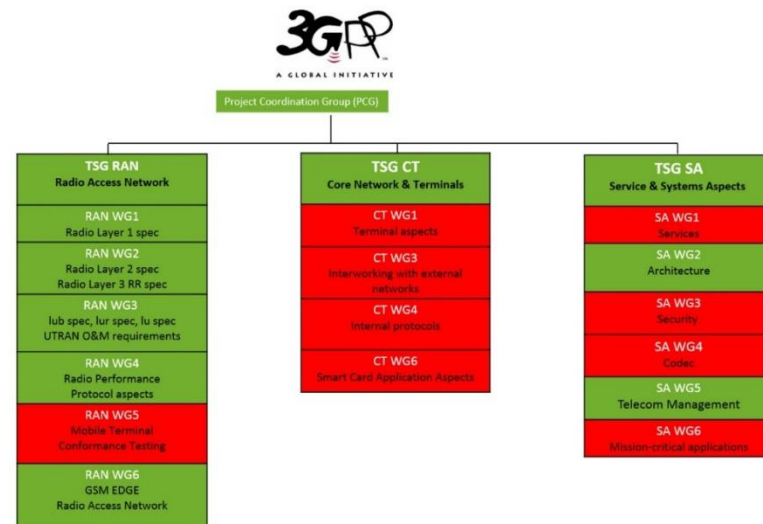
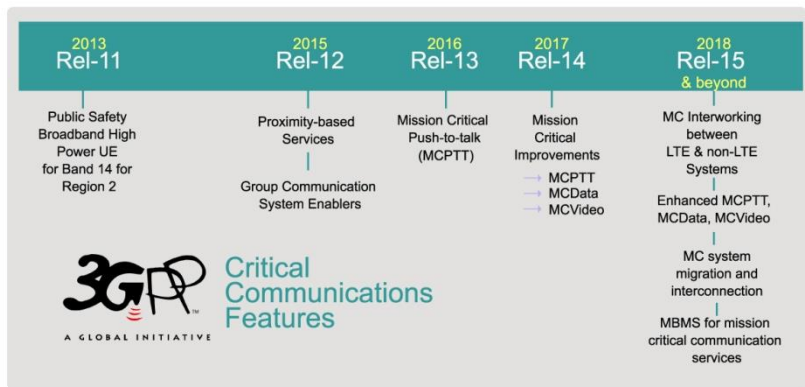
- 3GPP currently has 18 market representation partners:

- | | |
|------------------------------------------|-----------------------------|
| 5G Americas, | Mobility Development Group |
| 5G Automotive Association, | (formerly CDG), |
| 5G Infrastructure Association, | NGMN Alliance, |
| Broadband India Forum, | Public Safety Communication |
| Cellular Operators Association of India, | Europe (PSCE) Forum, |
| CTIA, | Small Cell Forum, |
| Global Certification Forum | The Critical Communications |
| Global mobile Suppliers Association, | Association (TCCA), |
| GSMA, | TD Industry Alliance, |
| IPV6 Forum, | TD-Forum, |
| | Wireless Broadband Alliance |

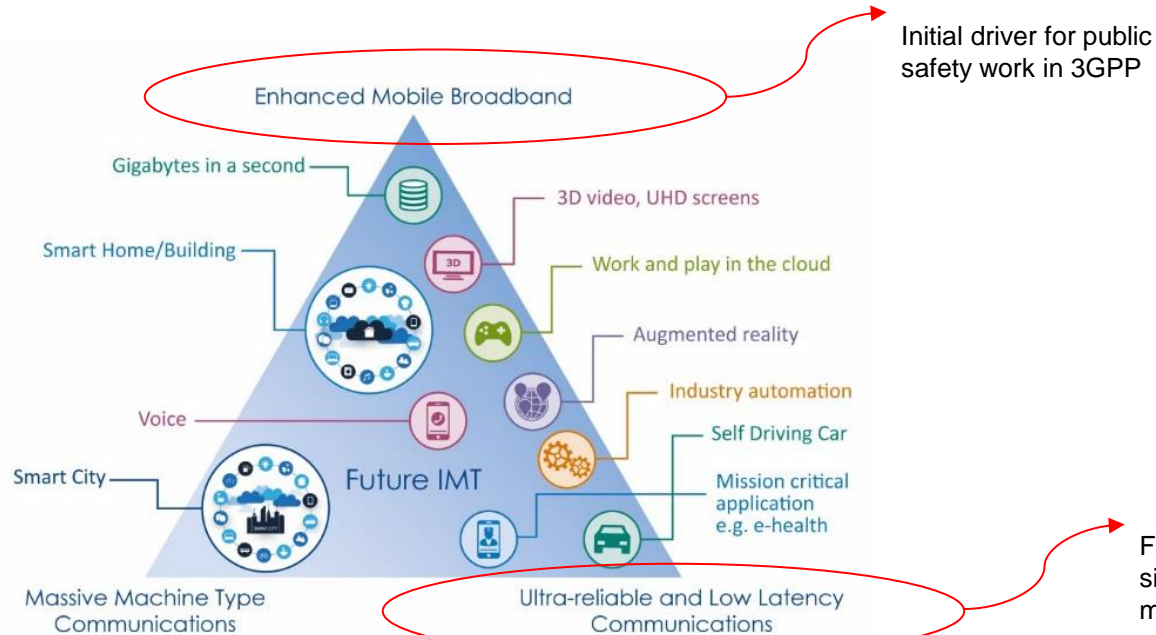


Mission Critical in 3GPP

- Clear progress across 3GPP Releases
- SA6 has the lead for mission critical applications, but other groups have significant work to do as well
- Interoperability testing on-going; example: MCPTT, data and video tests in ETSI & TCCA



Mission Critical and 5G



Market Representation Partners



Article 7: Market Representation Partnership

[...]

An invitation for Market Representation Partnership is open to any organization, irrespective of its geographical location, which:

- has the ability to offer market advice to 3GPP and to bring into 3GPP a consensus view of market requirements (e.g., services, features and functionality) falling within the 3GPP scope;
- does not have the capability and authority to define, publish and set standards within the 3GPP scope, nationally
or regionally;
- has committed itself to all or part of the 3GPP scope;
- has signed the Partnership Project Agreement.

Organizations may apply to become Market Representation Partners by writing to any of the existing Partners.

Market Representation Partners



Annex E: Guidance for MRP applicants

[...]

During the application process, the Organizational Partners will need to be assured that an Applicant:

- (a) Has a field of interest directly or indirectly related to the work being undertaken by 3GPP;
- (b) Has attained a demonstrable level of recognition within this field of interest;
- (c) Has an understanding of the market requirements relevant to 3GPP;
- (d) Is willing to actively contribute to the work of 3GPP and has sufficient resources for this purpose;
- (e) Fully supports the goals and objectives of 3GPP and does not take part in activities that conflict with these goals and objectives.

In processing an application, the Organizational Partners will peruse openly available documentation published by an Applicant, including material posted on its Website, in order to confirm that the points listed above have been satisfied.

http://www.3gpp.org/ftp/Information/Working_Procedures/3GPP_WP.htm

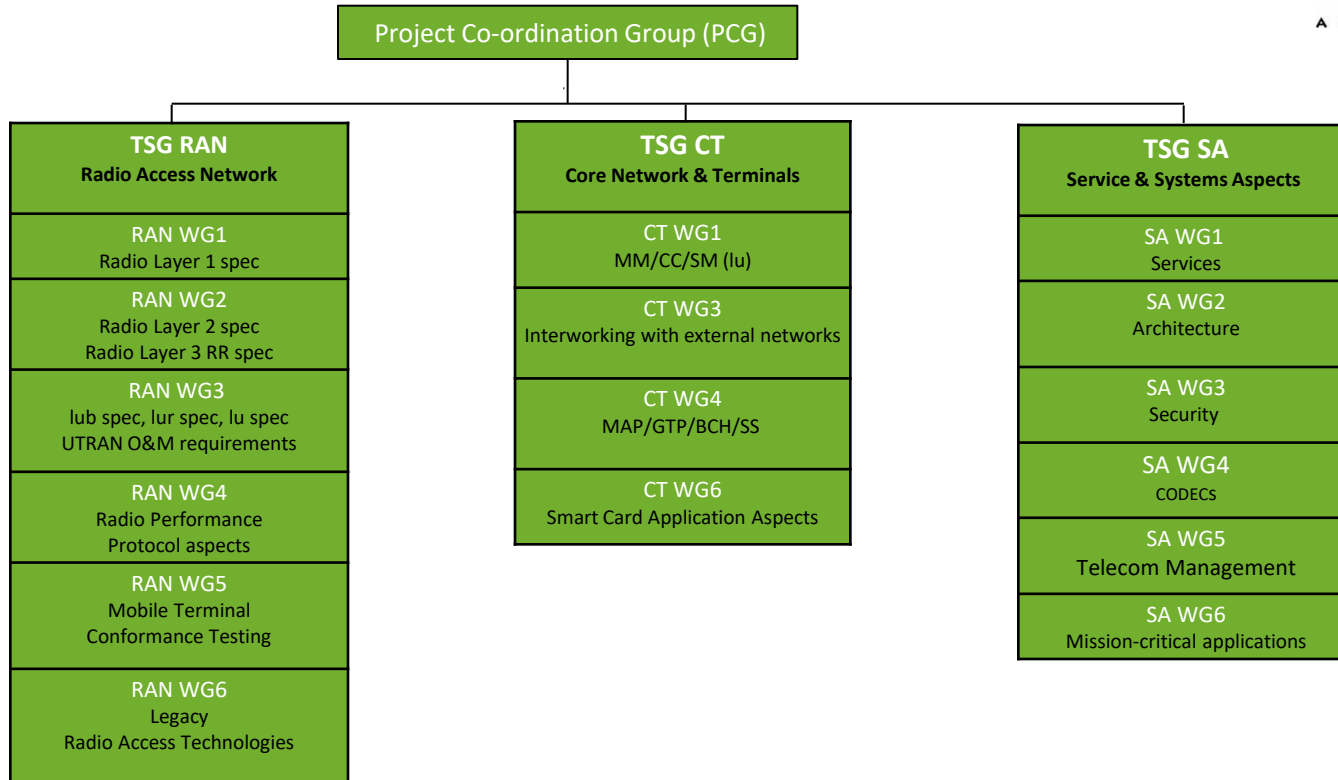
Market Representation Partners



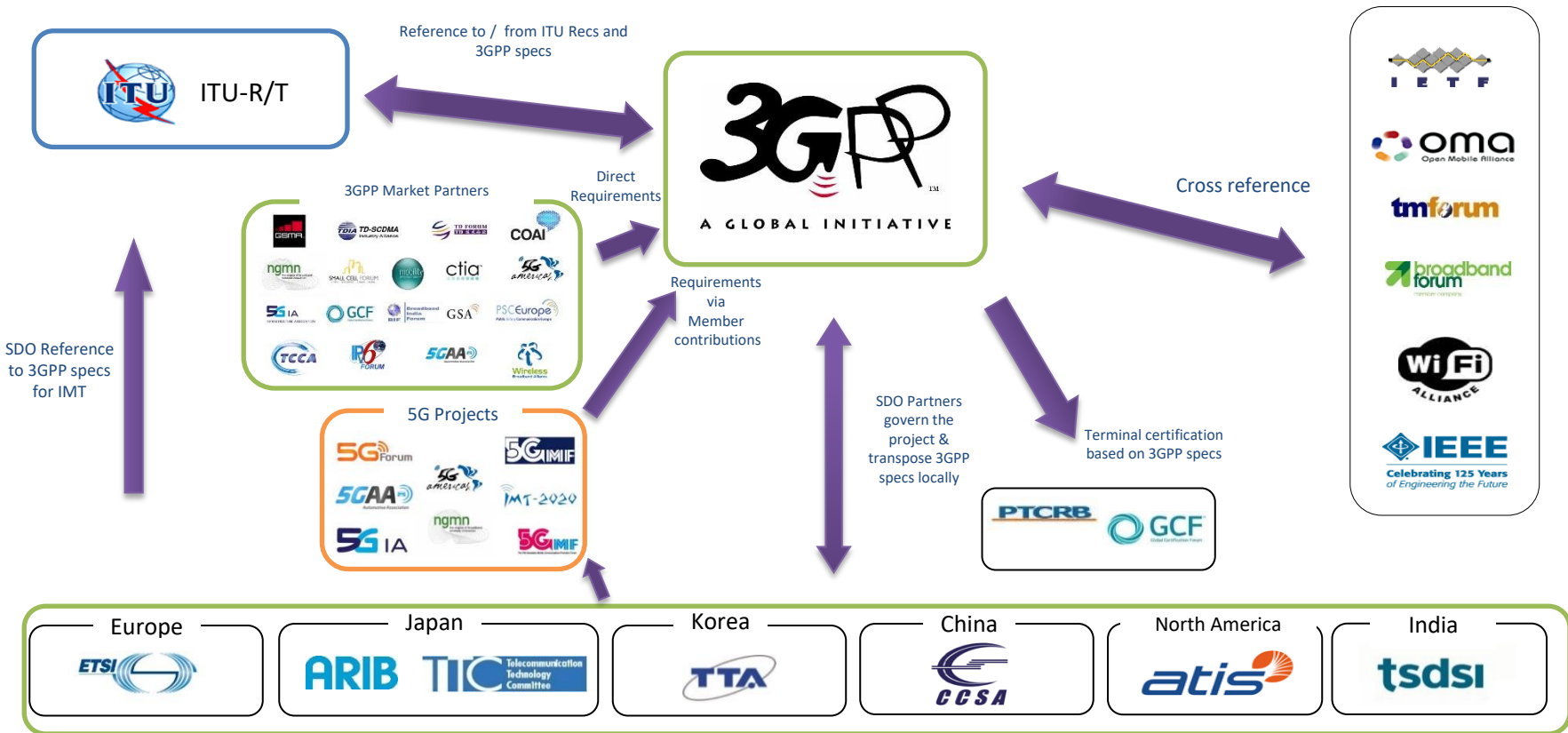
MRP rights:

- Send up to three representatives to PCG meetings
- Send representatives to Technical Specification Group meetings and Working Group meetings
(no limit on number)

PCG, TSGs and WGs



The 3GPP eco-system



Conclusions



- 📶 3GPP is an industry driven standardization activity with truly global reach.
- 📶 Standardization of interfaces enables an interoperable, multi-vendor approach to deployment and generates mass market economies of scale.
- 📶 3GPP standards are the basis for operators to serve more than 5 billion unique users. (September 2018)
- 📶 The public safety community is fully integrated into 3GPP and first 3GPP-based deployments are imminent.
- 📶 The expanded mission-critical community from different industry sectors are engaging with 3GPP.
- 📶 Work will only proceed efficiently if the end beneficiaries directly participate in the standards setting process.

Recommendations

- 📶 IALA may fit the profile of a potential 3GPP Market Representation Partner, and might consider applying for this status in order to bring into 3GPP a coordinated set of market needs for this industry sector.
- 📶 Individual companies and organizations active in IALA could join 3GPP as Individual Members and actively contribute to the work, ensuring their wishes are realized in 3GPP technology.
3GPP is entirely driven by technical contributions from such companies and organizations.

For more Information:



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