



3GPP 5G Status Report

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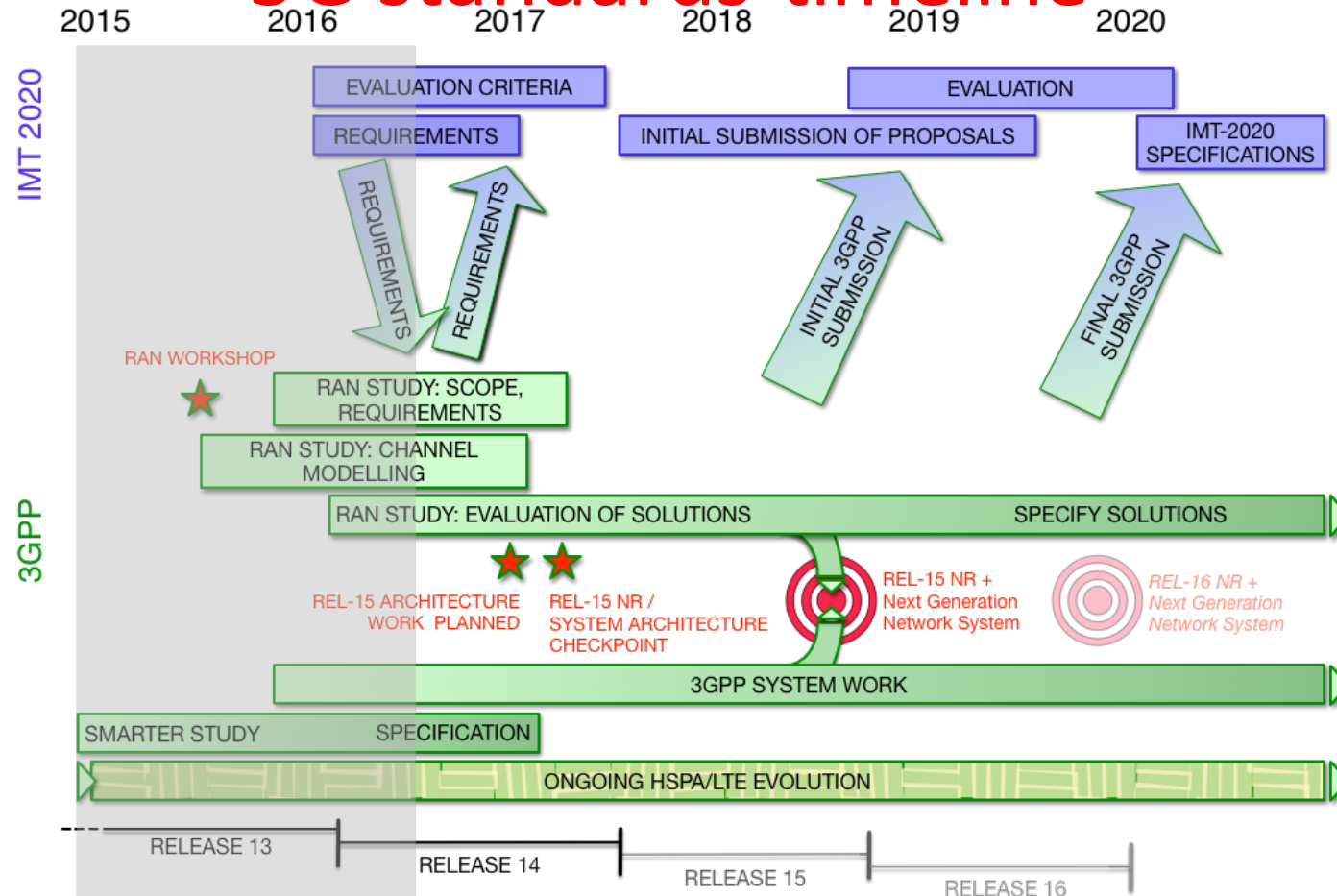
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Release 14 Features: eLAA, NB-IoT, V2X



- 📶 3GPP remains committed to evolution of 4G Radio Access Technology even as 5G "NR" is developed. The following are 3 of *many* features and studies in Rel-14.
- 📶 Enhanced License Assisted Access (LAA) for LTE
 - Adds uplink support.
 - with coexistence measures to allow efficient and fair access operation with all coexisting technologies.
- 📶 NB-IoT
 - Enhancements of NB-IOT (Radio), Extended architecture support for Cellular Internet of Things (System)
 - Adds positioning, multicast, mobility and service continuity, new power classes, paging enhancements.
- 📶 LTE V2X (Vehicle to Vehicle, to Infrastructure/Network or to Person)
 - Several studies and work items approved – Radio and System: to support use cases.
 - Enhances ProSe (device to device), multicast, provides for coexistence with IEEE 802.11p
 - V2X also studied in the 5G context.

5G standards timeline



5G studies in 3GPP SA



SMARTER (New Services and Markets Technology Enabler)

- Study concluded for use cases – June 2016
 - Massive Internet of Things
 - Critical Communications
 - Enhanced Mobile Broadband
- Some remaining study for ‘Network Operations’ use cases
- Normative stage 1 work begins – to conclude by March 2017.

Study on Architecture and Security for Next Generation System

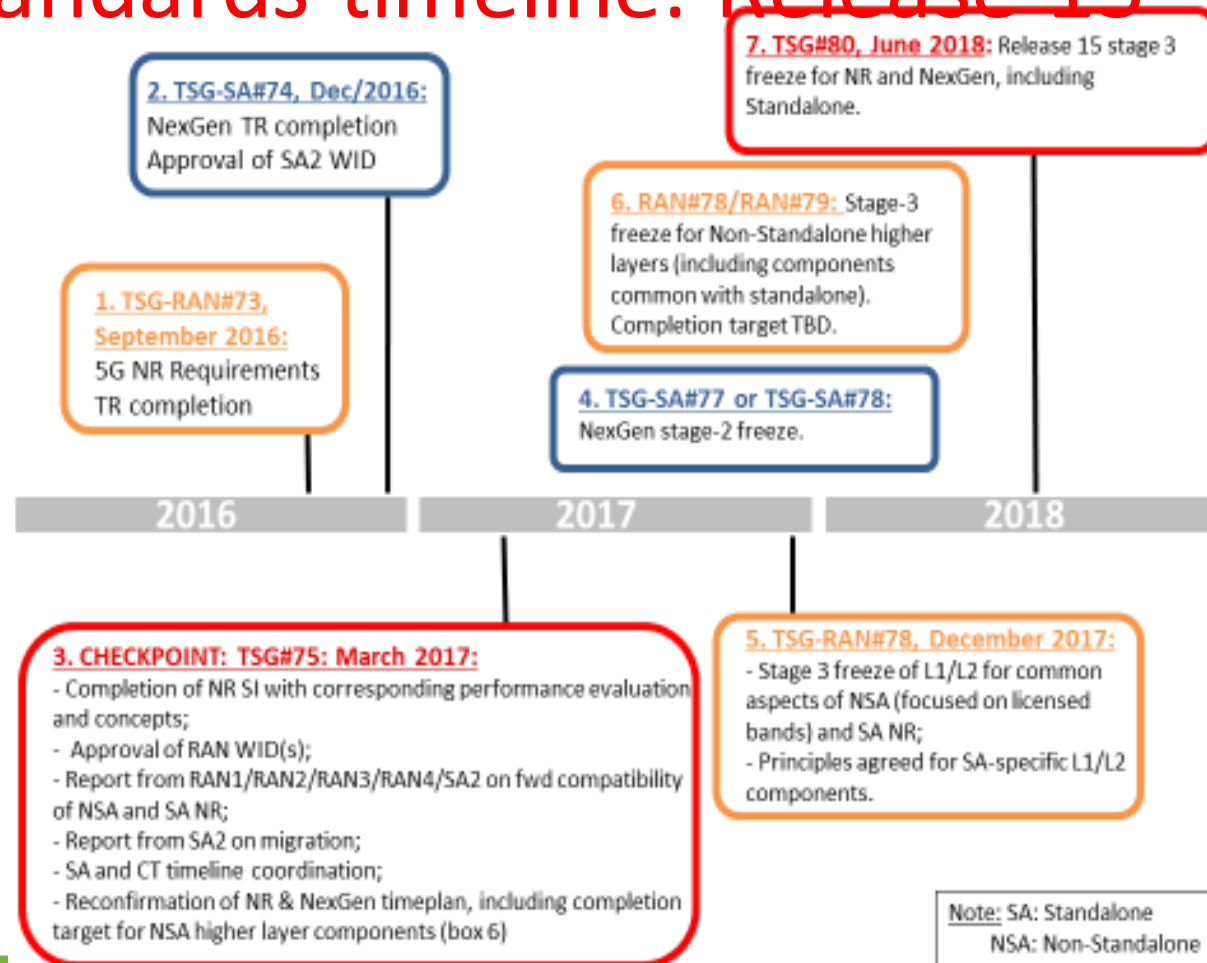
- The study is ongoing and targets conclusions for Rel-15 by Sep. 2016.
- The Next Generation system targets a Radio Access independent architecture.

5G studies in 3GPP RAN



- 📶 Study on New Radio (NR) Access Technology [🕒06.17]
- 📶 Study on Scenarios and Requirements for Next Generation Access Technologies [🕒09.16]
- 📶 Study on channel model for frequency spectrum above 6 GHz [🕒06.16 - *complete*]

5G standards timeline: Release 15



5G Target for Rel-15, agreed June 2016



Deployment scenarios:

- 'Non-Stand Alone' NR deployment
- 'Stand Alone' NR deployment
- Support of 'Non-Stand Alone' NR scenarios by means of a Next Generation core network or to EPC, or both. (Decisions as to which scenarios will be taken in Dec or March.)

Use cases:

- Enhanced Mobile Broadband
- Some Low Latency and High Reliability capabilities

Forward compatibility between scenarios, use cases



Thanks