



IMT-2020: 5G in the ITU-R

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3GPP and the ITU-R

3GPP: The 3rd Generation Partnership Project (3GPP) unites telecommunications standard development organizations and provides their members with a stable environment to produce the Reports and Specifications that define 3GPP technologies.

ITU-R: The International Telecommunications Union (ITU) is the United Nations specialized agency for information and communication technologies (ICTs). The ITU Radiocommunication Sector (ITU-R) allocates global radio spectrum and satellite orbits and develops radiocommunication system standards.

IMT-2020 and 5G: The evolution of IMT-Advanced and 4G (LTE) into a new generation of wireless systems providing Enhanced Mobile Broadband, Massive Machine Type Communications, and Ultra-reliable and low latency communications.

A Joint Effort: 3GPP standards specifying the technical characteristics for the 5G “new radio” are being incorporated into the ITU-R standards defining the capabilities for IMT-2020.

WRC-15 Agenda item 1.1: IMT in bands below 6 GHz

The Issue: This agenda item addresses additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-12)**.

Why is this Topic Important?: The United States generally supports identification of IMT in existing mobile bands and relevant regulatory restrictions to protect incumbent users. In addition, the United States will consider additional mobile allocations, as required, based on the outcome of studies.

Additional spectrum for IMT will help to meet the growing demand for IMT systems worldwide, provide increased capabilities to current IMT systems users, and spur global economic and social development.

The outcome of WRC-15 was that almost 700 MHz of new spectrum was identified for IMT in the 1427-1518 MHz, 3300-3700 MHz, and 4800-4990 MHz frequency bands across all or portions of Regions 1, 2, and 3. Additional spectrum in the 470-790 MHz frequency band also was identified across the regions.

WRC-19 Agenda item 1.13: IMT in bands above 24 GHz

The Issue: This agenda item addresses sharing in many frequency ranges above 24 GHz for over 32 GHz of spectrum to be studied. Several of the bands overlap with bands considered and adopted domestically by the United States in its recent Spectrum Frontiers proceeding. The remaining WRC-19 bands will likely be considered domestically in a Further Notice of Proposed Rulemaking (via the FCC).

Why is this Topic Important?: The United States generally supports identification of IMT in existing mobile bands and relevant regulatory restrictions to protect incumbent users. In addition, the United States will consider additional mobile allocations, as required, based on the outcome of studies.

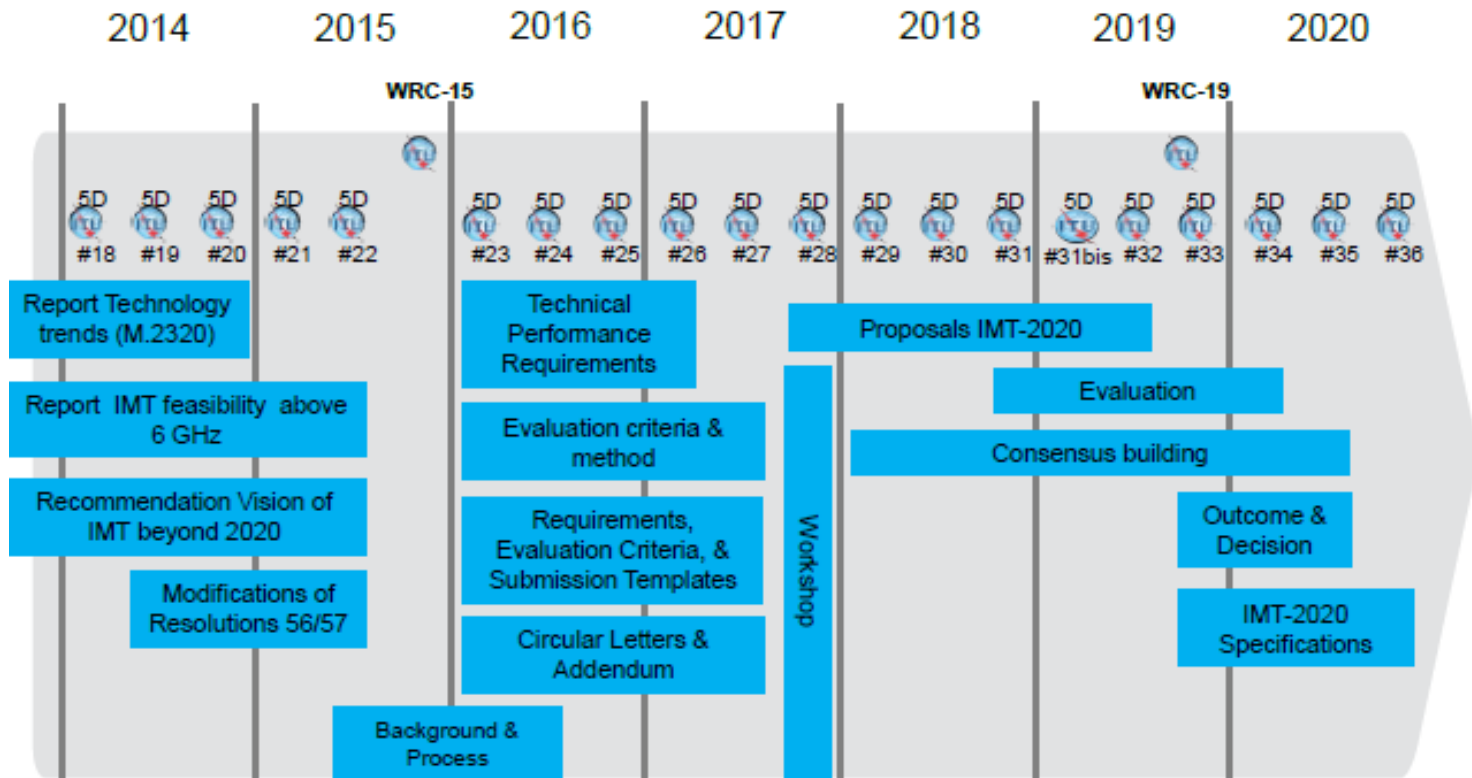
Additional spectrum for IMT will help to meet the growing demand for IMT systems worldwide as well as to provide increased capabilities to current IMT systems users.

We have already identified several bands domestically and are looking to consider additional bands in WRC-19 agenda item 1.13. For more information see,

http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0728/FCC-16-89A1.pdf

ITU-R: IMT-2020 Timeline

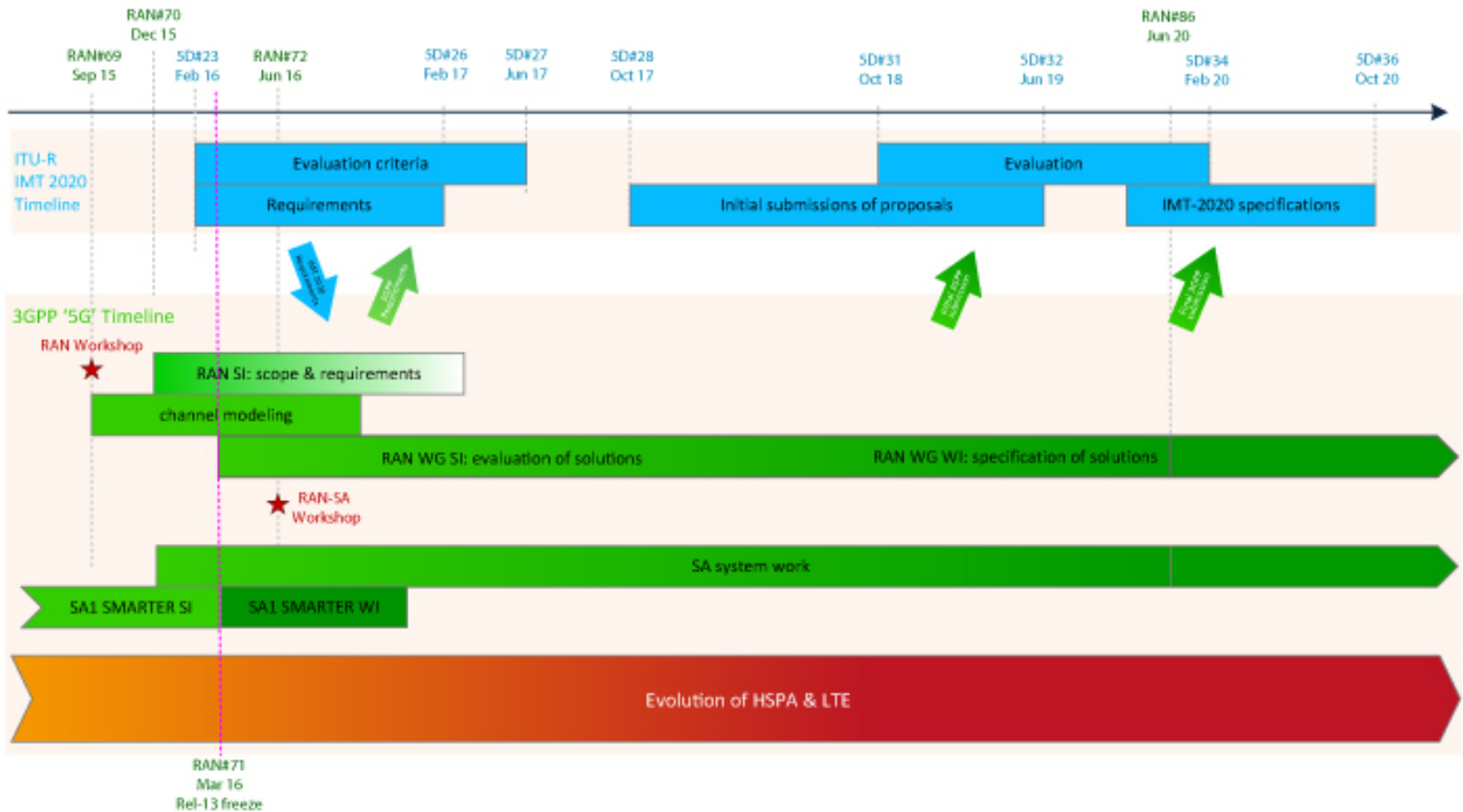
Detailed Timeline & Process for IMT-2020 in ITU-R



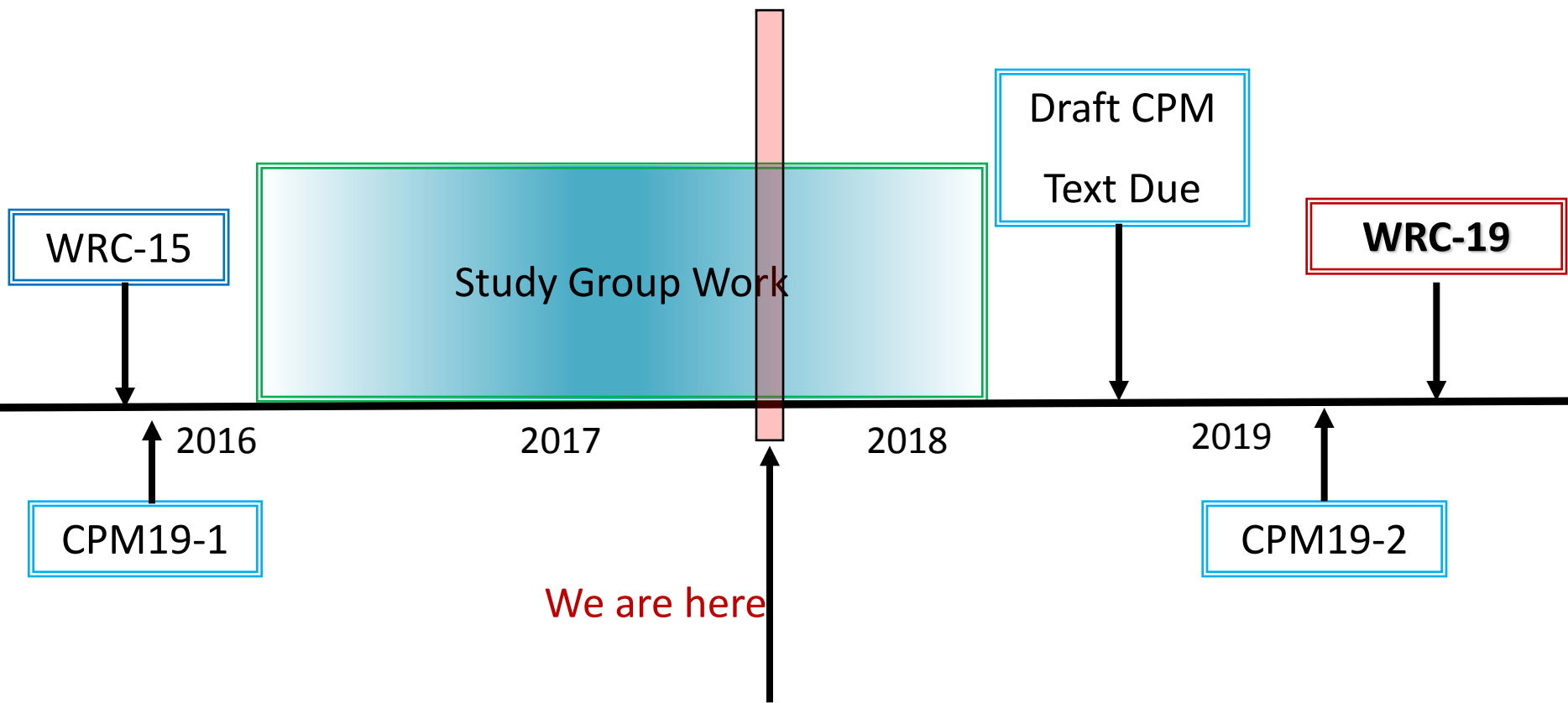
Note: Meeting #31bis – if needed focus meeting towards WRC-19 (non-Technology), Meeting #33 – focus meeting on Evaluation (Technology)

Note: While not expected to change, details may be adjusted if warranted.

3GPP: 5G Timeline



The Big Picture



We are here

Much of the work that is done to prepare for a WRC is done in a period called a *study cycle*