**3GPP TSG RAN Meeting #66**
**Maui, USA, Dec. 8 – 11, 2014**

***RP-141824***

Agenda Item: 14.1.1

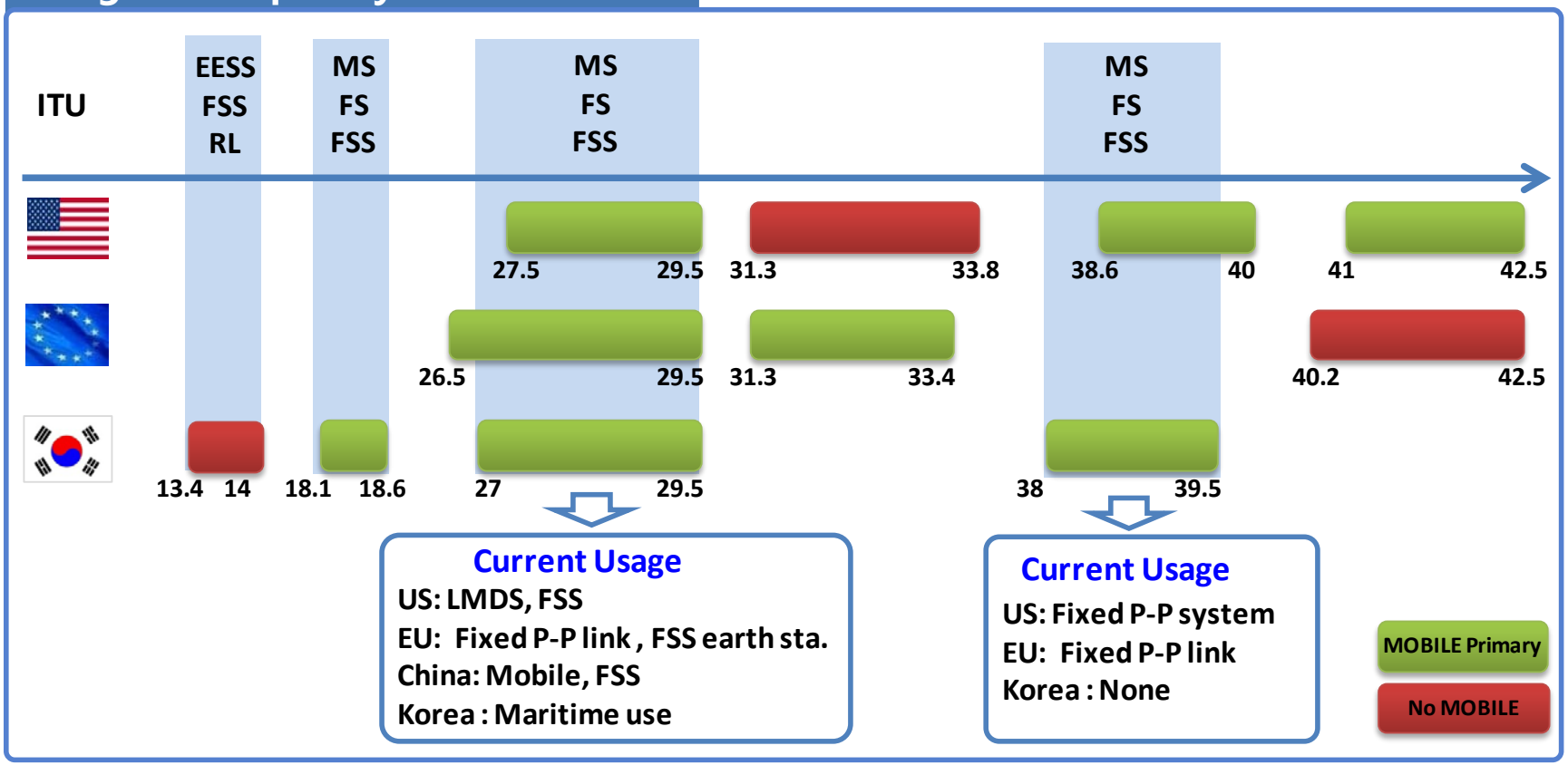
# Motivation for study on further evolution beyond LTE-Advanced using frequency spectrum above 6 GHz

**Samsung**

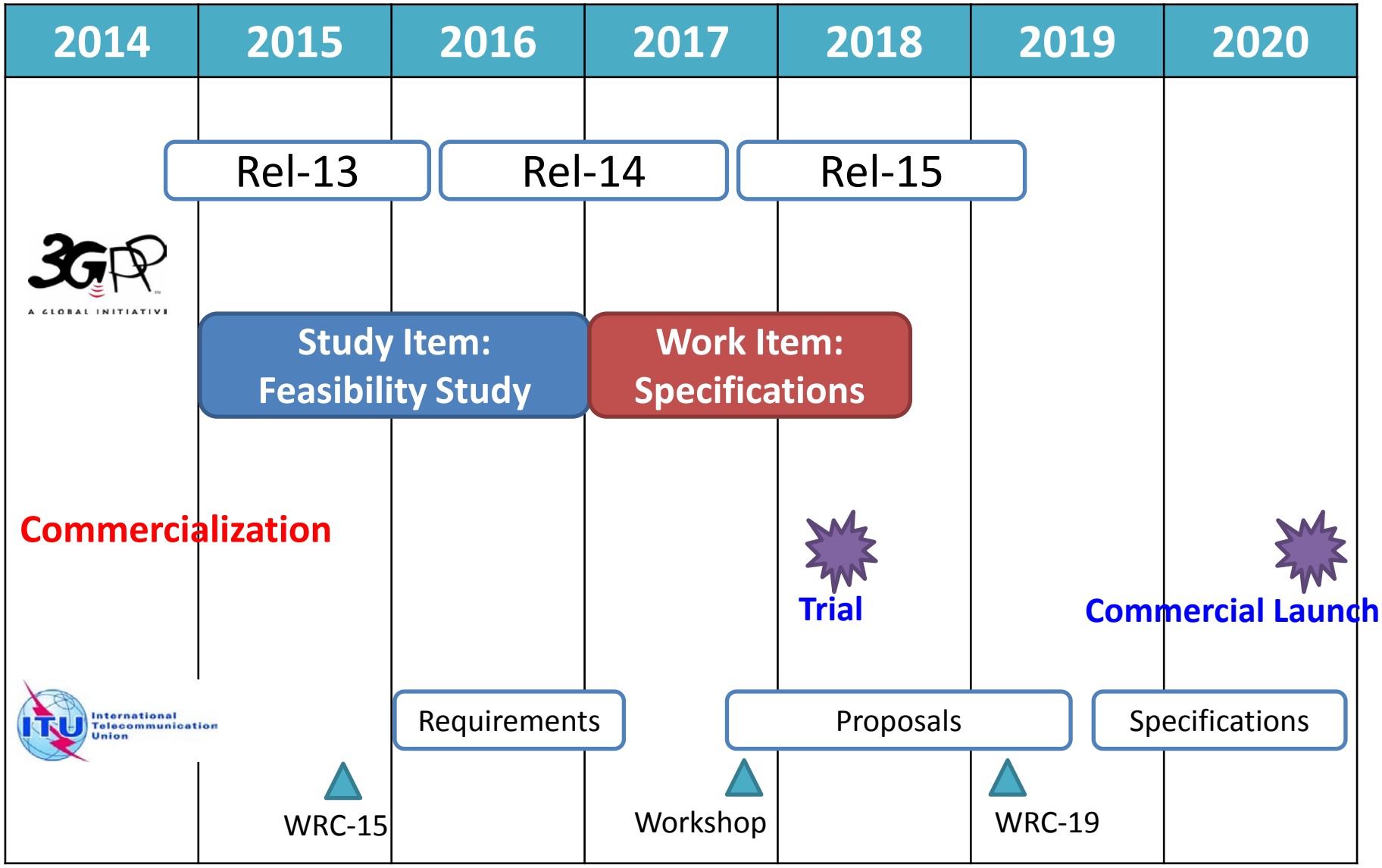
# Candidate Frequency Spectrum above 6GHz

- **Candidates for large chunks of contiguous spectrum**
  - **13.4~14 GHz, 18.1~18.6 GHz, 27~29.5 GHz, 38~39.5 GHz, etc.**

## Higher Frequency Candidates



# Time Plan for Technologies above 6GHz



# Objective of the Proposed Study Item

- Identify the status/expectation of global spectrum allocation for frequency range above 6GHz.
- Identify potential use cases and application scenarios for using high frequency spectrum above 6 GHz.
- Develop technical requirements taking into account the identified use cases and application scenarios.
- Identify frequency spectrum range and maximum bandwidth for the purpose of evaluation and feasibility study.

Dec 2014
to
June 2015

- Agree on channel models and evaluation scenarios for the frequency spectrums to be considered taking into account the activities outside 3GPP, such as COST project.
- Develop numerologies of the system for the considered frequency spectrums for the purpose of evaluation and feasibility study.
- Identify technologies required for the high frequency system and evaluate achievable performance.
  - Performance should be evaluated in terms of peak rate as well as spectrum efficiency (average and cell edge).
- Identify the relationship between the high frequency system and the LTE/LTE-Advanced, and develop technologies for overall system operation.
- Develop design principles for the identified techniques and identify potential specification impact.
- The technical report of study item should contain stage-2 level description, based on which stage-3 work can start.

June 2015
to
Dec 2016

# Detailed Time Plan for SI in 3GPP RAN WG1

| | Q1 | Q2 | | Q3 | Q4 | |
|---|---|---|---|---|---|---|
| 2015 | R1#80 | R1#80b | R1#81 | R1#82 | R1#82b | R1#83 |
| | 1TU | 1TU | 1TU | 3TU | 3TU | 3TU |
| 2016 | R1#84 | R1#84b | R1#85 | R1#86 | R1#86b | R1#87 |
| | 3TU | 4TU | 4TU | 4TU | 4TU | 4TU |

Note: 1TU is approximately 2 hours

# Thank You!