IEEE 802.16 IMT-Advanced
Evaluation Group Coordination Meeting

Association of Radio Industries and Businesses

Update from ARIB Evaluation Group

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Background

- Japan submitted two IMT-Advanced RIT proposals (5D/544[1] and 5D/545[2]) to ITU-R at the 6th ITU-R WP 5D meeting
- These two proposals were formally acknowledged as complete IMT-Advanced proposals
- WP 5D regarded these two proposals, 5D/544 and 5D/545, as technically identical to 5D/542[3] from IEEE (IEEE Technology) and 5D/564[4] from 3GPP Proponent (3GPP Technology), respectively
- There were no other proposals by the submission deadline (7 October, 2009)

Scope of Evaluation Group

- The ARIB Evaluation Group conducted self-evaluations of the IEEE Technology and 3GPP Technology within ARIB [5]
- Given no other proposals than the IEEE Technology and 3GPP Technology submitted to ITU-R, the ARIB Evaluation Group doesn't consider independent evaluations for these two technologies because Japan are the proponents of these technologies
- The ARIB Evaluation Group is pleased to help other Independent Evaluation Groups facilitate evaluations of these technologies so that WP 5D could meet the schedule for IMT-Advanced

Reference

[1] ITU-R 5D/544(E): “PROPOSAL FOR CANDIDATE RADIO INTERFACE TECHNOLOGIES FOR IMT-ADVANCED BASED ON IEEE 802.16” from JAPAN

[2] ITU-R 5D/545(E): “PROPOSAL FOR CANDIDATE RADIO INTERFACE TECHNOLOGIES FOR IMT-ADVANCED BASED ON LTE-ADVANCED” from JAPAN

[3] ITU-R 5D/542(E): “SUBMISSION OF A CANDIDATE IMT-ADVANCED RIT BASED ON IEEE 802.16” from IEEE

[4] ITU-R 5D/564(E): “COMPLETE SUBMISSION OF 3GPP LTE RELEASE 10 & BEYOND (LTE-ADVANCED) UNDER STEP 3 OF THE IMT-ADVANCED PROCESS” from 3GPP IMs

[5] Eiji Kito: ”Activity of ARIB Evaluation Group”, The 3rd Workshop on IMT-Advanced
(Please see Supplement)

Thanks for your attention!

ARIB Evaluation Group Web site:

http://www.arib.or.jp/ADWICS/IMT-Advanced/EVAL/eval.html

Supplement

Association of Radio Industries and Businesses

Activities of ARIB Evaluation Group

15th October 2009

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- Standardization Process in Japan
- Organization of ARIB related to IMT-Advanced
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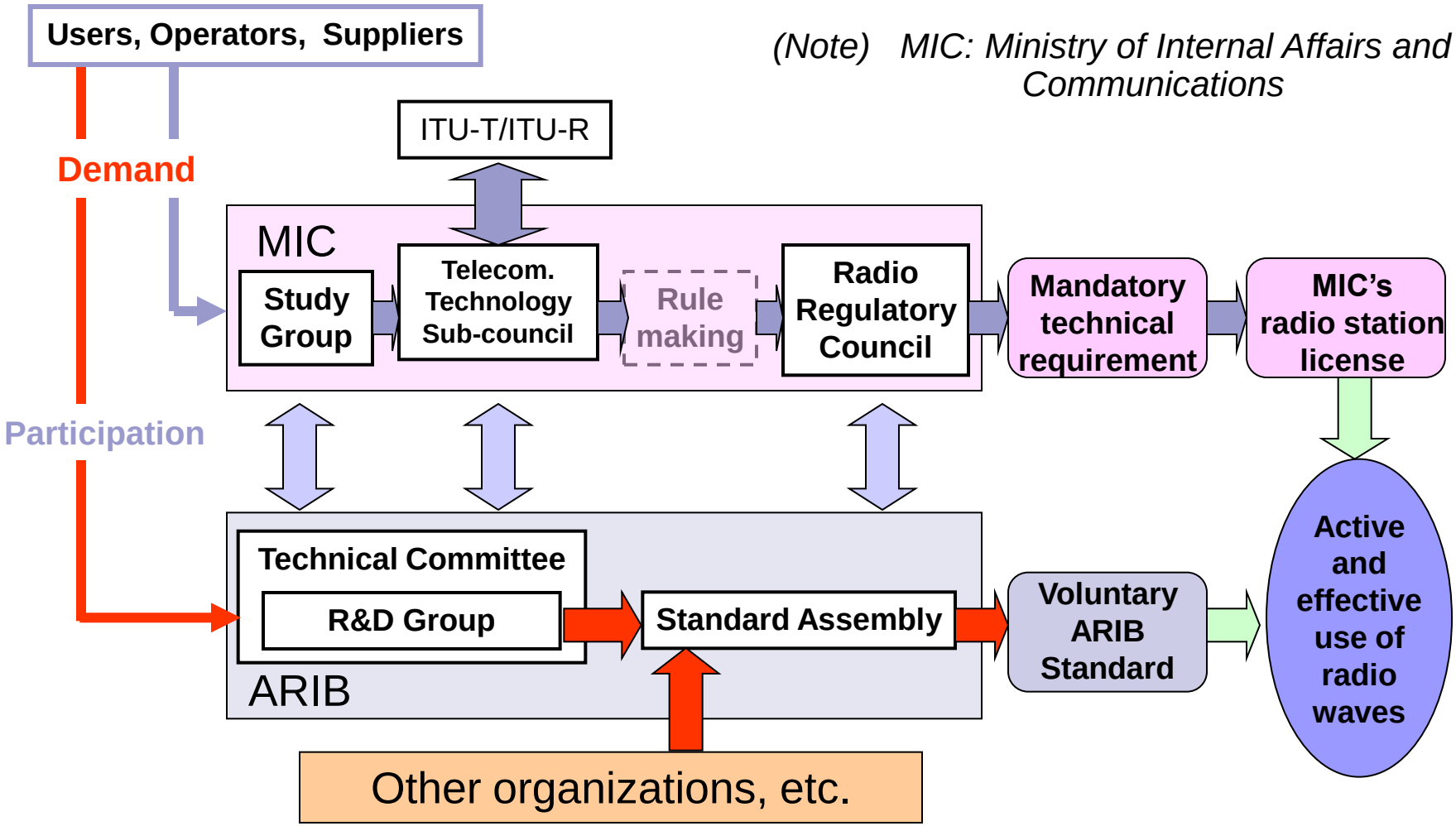
Standardization Process in Japan

Standardization Flow in Japan



Government Regulations and ARIB Standards

	Government Regulations	ARIB Standards
Nature	Mandatory	Voluntary
Purpose	♦ To promote efficient use of frequency ♦ To prevent interference occurring ♦ etc.	♦ To ensure common air interface ♦ To ensure suitable quality ♦ etc.
Technical items	♦ Frequency band ♦ Spurious emission ♦ Frequency tolerance ♦ Occupied bandwidth ♦ etc.	♦ Communication protocol ♦ Sensitivity ♦ Carrier to Noise ratio ♦ Bit error rate ♦ Measurement method ♦ etc.

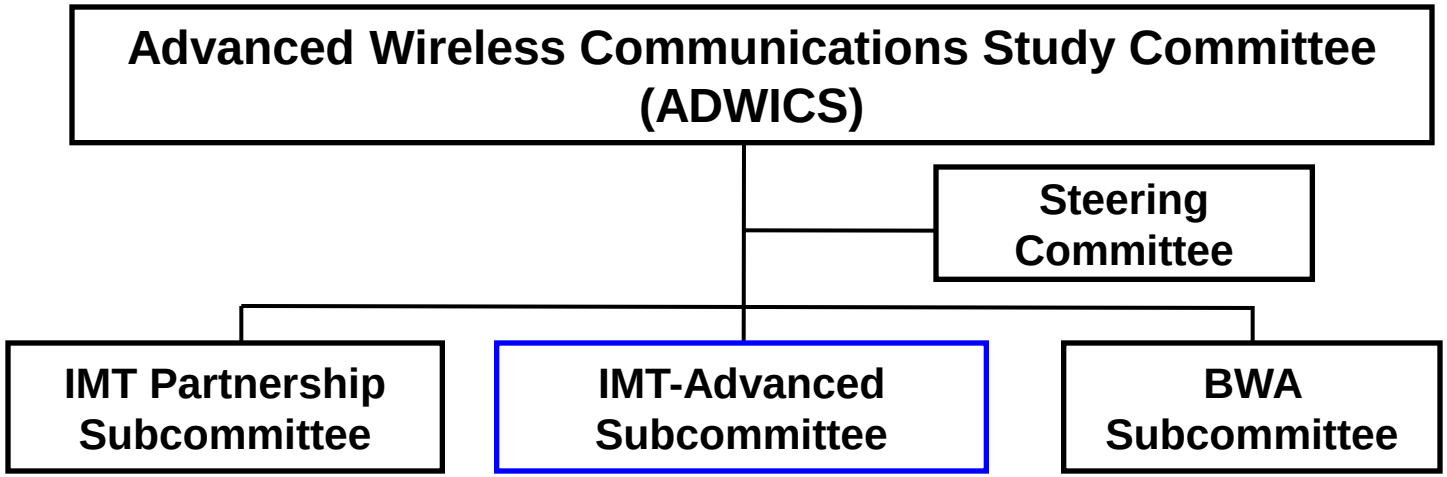
Organization of ARIB related to IMT-Advanced

Advanced Wireless Communications Study Committee in ARIB

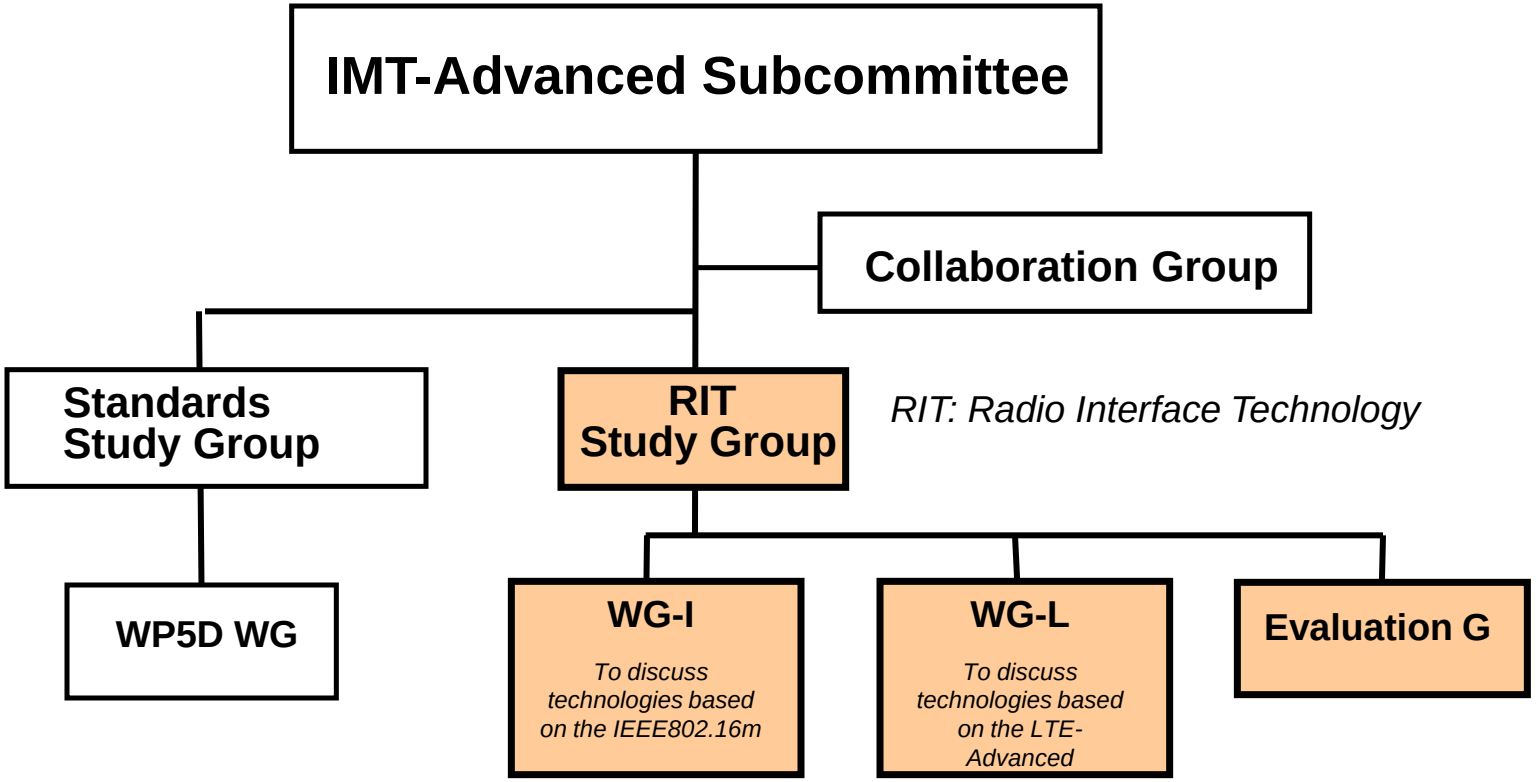
Responsibilities

- To conduct technical studies on advanced wireless communication systems in cooperation with other related international/domestic organizations
- To contribute to the global standardization

Structure of the Study Committee



IMT-Advanced Subcommittee



Scope of Related Groups in IMT-Advanced Subcommittee

- Radio Interface Technology (RIT) Study Group
  - Study Group prepares draft proposal(s) of IMT-Advanced radio interface technology
  - Proposal is submitted to ITU-R through Japan's national process
  - Study Group discussed principles for preparing the proposal
- WG-I
  - Prepares a draft submission package of IMT-Advanced RIT based on IEEE 802.16m
  - Sharing information regarding IMT-Advanced activity in IEEE 802.16 WG
- WG-L
  - Prepares a draft submission package of IMT-Advanced RIT based on LTE-Advanced in Japan
  - Sharing information regarding IMT-Advanced activity in 3GPP TSG-RAN WGs

Evaluation activities

Scope of Evaluation Group

- Self Evaluation
  - ARIB Evaluation Group develops self evaluation reports using the evaluation results by IEEE 802.16 WG / 3GPP.
- External Evaluation
  - ARIB Evaluation Group may develop external evaluation report(s) when:
    - Evaluation is needed in order to harmonize other (S)RIT(s) with the IEEE 802.16m RIT or the LTE-Advanced SRIT proposed by Japan.
    - Consensus is reached among the ARIB Evaluation Group members.
- Collaboration
  - ARIB Evaluation Group may collaborate with other evaluation groups when needed.

Principle requirements for IMT-Advanced RIT proposal in the MIC Committees

A) Comply with the minimum requirements Report ITU-R M.2134 agreed in WP5D and outperform the enhancement of IMT-2000 being discussed in Japan

B) Capable to harmonize and coexist with the enhancement of IMT-2000

C) Supported by a large number of SDOs and/or IMs

D) Endorsed by solid evaluation reports (self-evaluation and other evaluation groups)

Based on the document of Terrestrial Service Committee, Telecommunications Council, MIC, Japan (January 30,2009)

Confirmation on the Principles – 802.16m

- The minimum requirements
  - Confirmed that the IEEE 802.16m RIT meets these requirements by reviewing the IEEE's compliance templates.
- Outperformance
  - Confirmed that the IEEE 802.16m RIT outperforms Mobile-WiMAX(FDD) which is studied as the 3.9-generation mobile communications system in Japan.
- Harmonize and coexist
  - Confirmed that the IEEE 802.16m RIT is an enhancement of and backward-compatible with Mobile-WiMAX(FDD).
- Support
  - Confirmed that SDOs support the IEEE 802.16m RIT and a lot of companies have submitted contribution to IEEE 802.16 WG.
- Solid evaluation
  - Confirmed by reviewing the IEEE's self-evaluation report

Confirmation on the Principles – LTE-Advanced

- The minimum requirements
  - Confirmed that the LTE-Advanced SRIT meets these requirements by reviewing the 3GPP's compliance templates.
- Outperformance
  - Confirmed that the LTE-Advanced SRIT outperforms LTE release 8 which is the 3.9-generation mobile communications system in Japan.
- Harmonize and coexist
  - Confirmed that the LTE-Advanced SRIT is an enhancement of and backward-compatible with previous LTE releases.
- Support
  - Confirmed that a lot of SDOs and companies join 3GPP.
- Solid evaluation
  - Confirmed by reviewing 3GPP's self-evaluation report

External Evaluation

- IEEE 802.16m and LTE-A are not considered for external evaluation.
  - They are considered for self evaluation.
- From now, the need of external-evaluation will be discussed.