Strengthened connectivity and harmonization of 5G spectrum through implementation of the Asia-Pacific Information Superhighway initiative in East and Northeast Asia

Necessity of the pre-feasibility study on broadband connectivity and resilient ecosystem in East and Northeast Asia

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Disparities across countries in the in East and Northeast Asia subregion in terms of broadband expansion remain significant.
5G frequencies in Asia Pacific

Figure: Global availability and planning of the 3300-4200 MHz and 4400-5000 MHz frequency ranges
Source: Huawei
In scope of WRC-19, already allocated to Mobile Service
* In scope of WRC-19, require allocation to Mobile Service
* Not in scope of WRC-19, but allocated to Mobile Service

- Confirmed
- Likely
- TBD

**Europe’s 5G pioneer band and other bands considered for 5G**

USA has the bands 27.5-28.35, 37-38.6, 38.6-40 GHz for licensed use, the band 64-71 GHz for unlicensed use.

China has consulted on 24.75-27.5 and 37-42.5 GHz for 5G and decided these two bands for 5G trials.

Japan has identified 5G candidate bands including up to 2 GHz from 27.5-29.5 GHz.

Korea plans to allocate 26.5-29.5 GHz by 2018 when 5G systems are available, at the latest by 2021.

Figure: Frequency bands for early deployment of 5G millimetre wave systems

*Source: Huawei*
Russia to adopt China and Japan 5G frequency range
Russian Ministry of Communications adopted the 4.4-4.99 GHz bandwidth for the national 5G networks.

Huawei signed a deal with the Russian telecom company MTS, aiming to develop a 5G network in the country over the next year.

Ericsson invested 1 billion rubles in opening of center 5G of innovations in Moscow.

The first 5G commercial network in Russia is scheduled to be launched by 2020.
Disparities across countries could be eliminated by collaboration of Academic network of AP-IS

Proposed activities include:

- Launch Asia Pacific Informational Superhighway Academic Network for pre-feasibility study on broadband connectivity and resilient ecosystem in East and Northeast Asia;

- Conduct a study on enabling financing mechanisms for the implementation of AP-IS;

- Organize the AP-IS Steering Committee in 2020 and sub-regional Steering Group meetings in 2019 and online communities to disseminate findings of the above knowledge product outputs and promote common understanding.
Russian Academy of Sciences Project Support Center together with Russian Center of Presidential Projects “Kremlin” already collaborate with China-Russia Academy of Research and Training Programs UNSEPA and Hong Kong company You Tong for implementation and harmonization of 5G spectrum frequencies at countries of One Belt – one Road, Shanghai Treaty, BRICS and China-Mongolia-Russia economic corridor.

Cost of this investment project is over 1 billion US dollars.

We could expand this project in the framework of Asia Pacific Informational Superhighway Academic Network