

5G

Preparation in Thailand

ITU-NBTC International Training Program 2019
“Regulatory Enablers for Digital Transformation” | 06.09.19

OFFICE OF
THE NBTC



OUTLINE

5G TECHNICAL PREPARATION

IMT SPECTRUM ROADMAP

5G TECHNICAL PREPARATION

THE DRIVES TOWARD CONNECTED SOCIETY

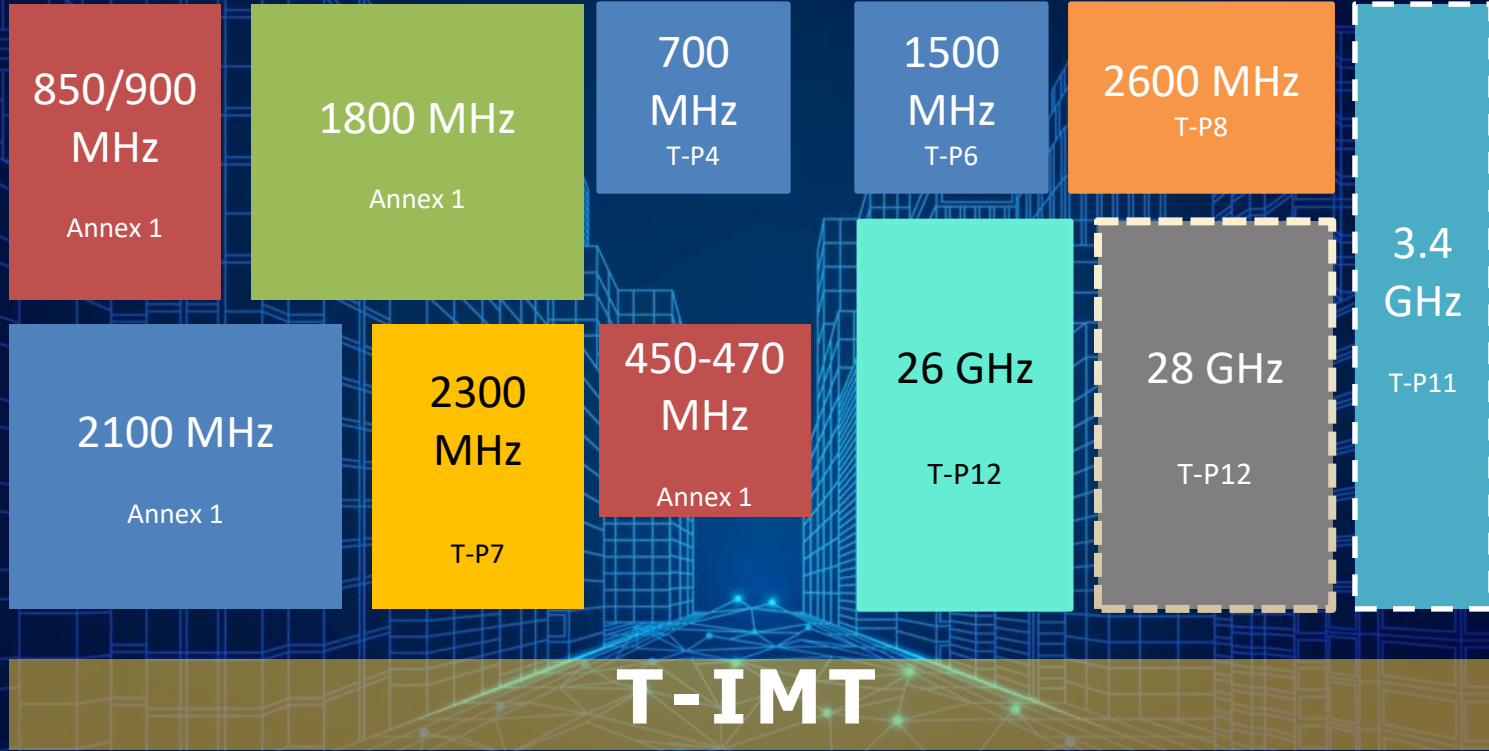
Thailand IMT Spectrum



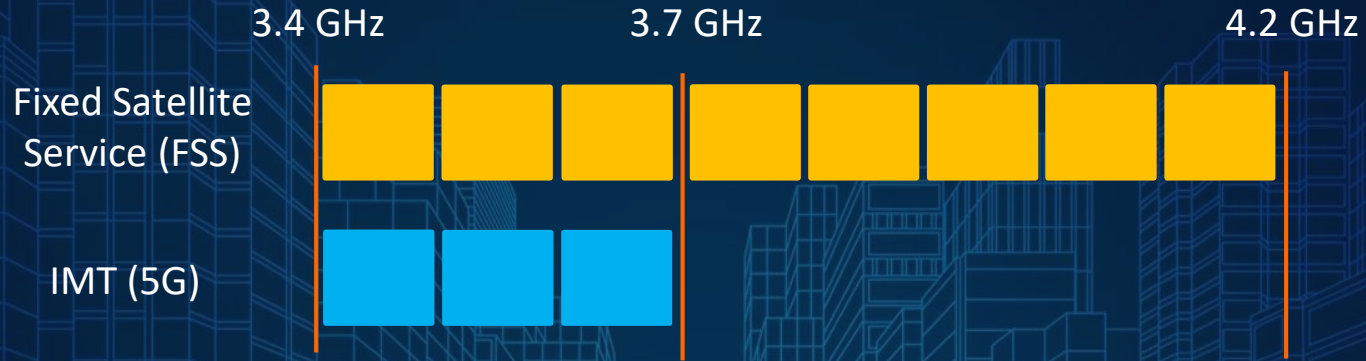
Existing IMT Bands in Thailand

Bands soon to be used for IMT

Thailand SMMP (B.E. 2562)



5G FIELD TRIALS



Objective: To find the following optimal parameters for sharing and compatibility

- 1 Separation distance between FSS and IMT stations
- 2 Possible guard band
- 3 Possible filter for interference mitigation

Field Trial Setting



Case 1: Sub-urban

Case 2: Urban

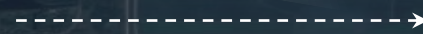
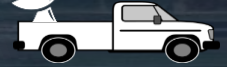


Satellite

Operating Frequencies: 3.4-4.2 GHz

Technical Parameters

- Separation Distance
- Guard band
- Applied Filter



Varied distance

5G C-Band NR

Operating Frequencies: 3.4-3.7 GHz

REGULATORY SANDBOX (enforceable)

In the sandbox

- Area based regulatory sandbox
- Loosen regulation during the phase of R&D and pre-commercial stage to allow some unexpected outcomes in confined and observed areas
- Manageable interference cases
- Maximum 2 years of license
- With privacy and security compliance

Outside the sandbox

Typical regulation in force

PILOT SANDBOX AREAS

Chiang Mai

Khon Kaen

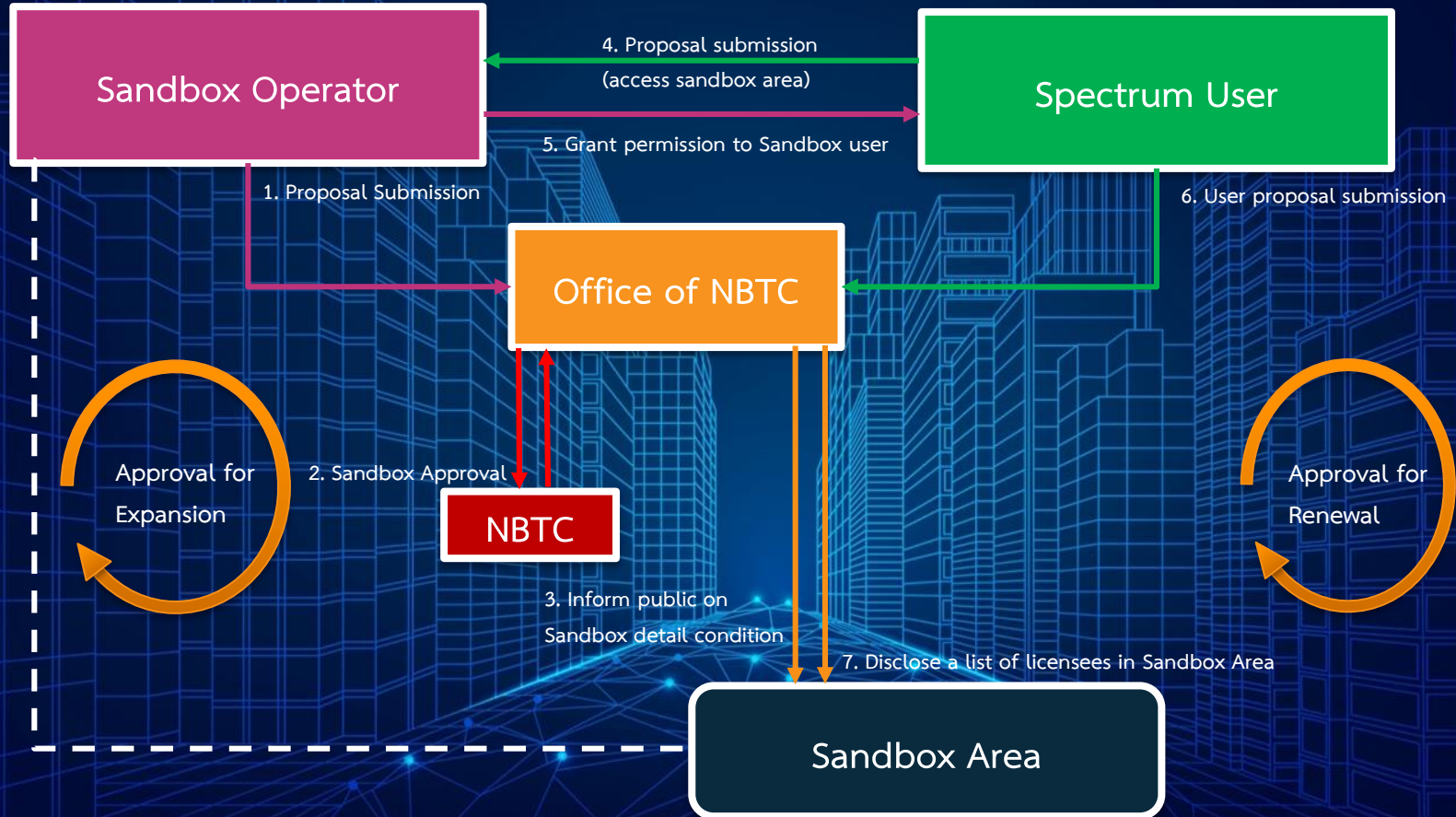
Bangkok

Eastern Economic Corridor (EEC)

Songkhla (Hat Yai)

Regulatory Sandbox Process

- For research and development
- For testing the interference
- To test the network system before commercial use

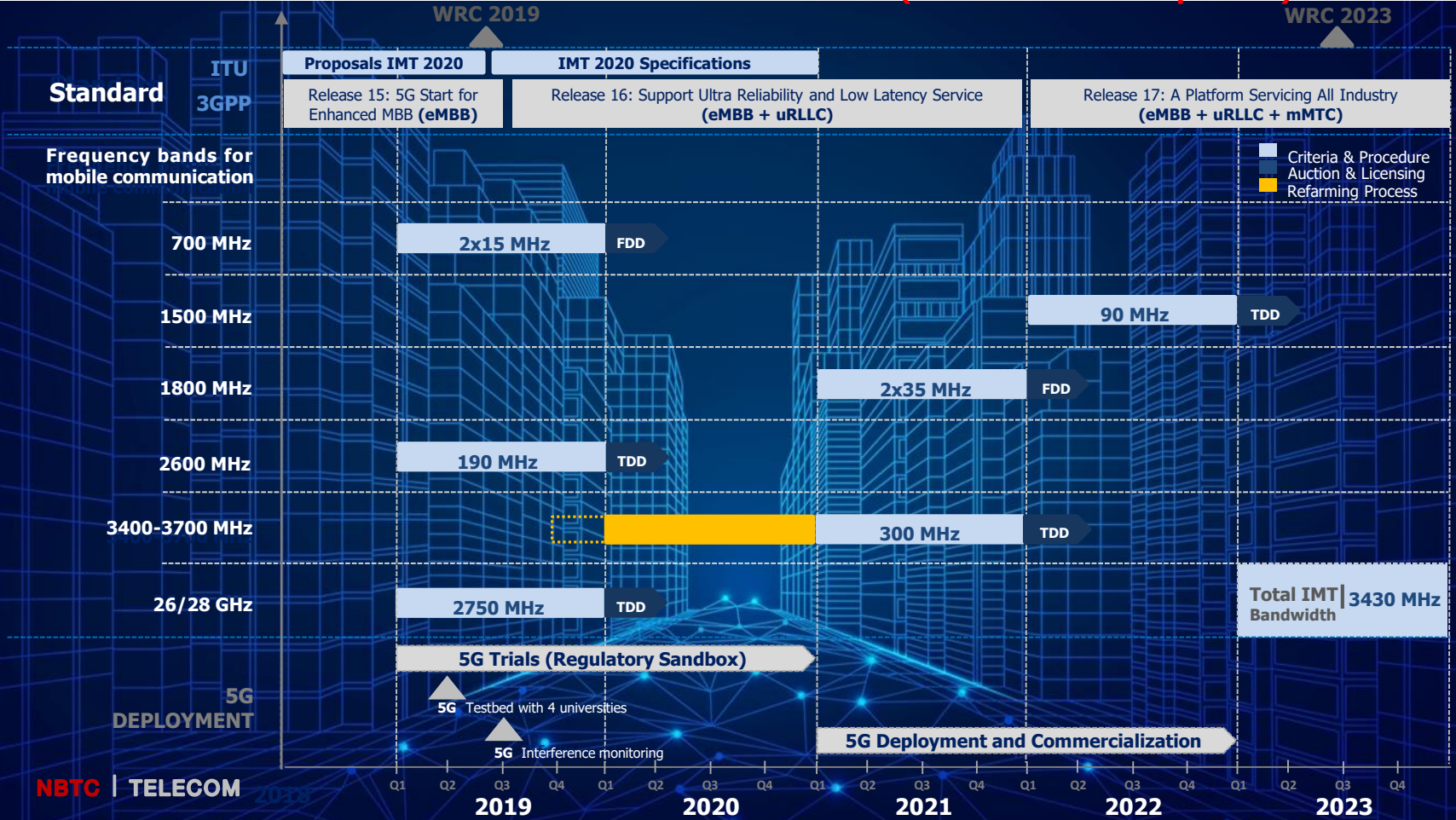


NBTC IMT Roadmap

THE DRIVES TOWARD CONNECTED SOCIETY

"Tentative" SPECTRUM ROADMAP

FOR MOBILE TELECOMMUNICATIONS IN THAILAND (under consultation process)



5G: SPECTRUM ALLOCATION

A teal-colored graphic resembling a stylized antenna or signal tower, with a central white circle containing the text "700 MHz".

700 MHz

Expected Use:
1 October 2020

"Tentative"

A purple-colored graphic resembling a stylized antenna or signal tower, with a central white circle containing the text "2.6 GHz".

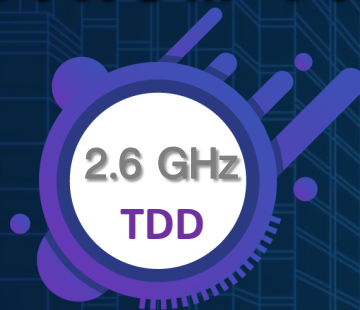
2.6 GHz

A blue-colored graphic resembling a stylized antenna or signal tower, with a central white circle containing the text "26 GHz".

26 GHz

Expected Use:
Q1 of 2020

MULTIBAND AUCTION 2.6GHz & 26/28GHz SPECTRUM PACKAGES



190 MHz
(2500 - 2690 MHz)

National licenses



1600 MHz



1100 MHz

Specific area licenses

Administrative Cluster: 18 Zones

"Tentative"

The background features a blue wireframe cityscape with various skyscrapers of different heights and widths. The floor is a glowing network of interconnected lines and dots, creating a perspective that leads towards the center. The overall color scheme is a monochromatic blue with white text.

Thank You