## 6G technology development direction



Extreme Mobile Broadband

Upper-mid bandwidth tech

Coverage expansion tech



#### SW-centered network

Paradigm shift to Network Softwarization

Open-RAN

Cloud-Native

AI-Native

### Bigger role of comm. nw

Beyond Communication

Computing + Comm.

Sensing + Comm.

### **Energy saving**

Energy efficient technology

Al based low power tech

High efficient/lower power parts tech

### Enhanced supply chain

Supply Chain

Terminal/base station part tech

Optical comm. device/part tech





Pre-6G demonstrate



28~'30

Commercialize

## **IITP** (Institute of Information & Comm. Technology Planning & Evaluation)

## TECHNOLOGY and INDUSTRY PROMOTION through ICT R&D

Policy-Tech. Planning



What areas of technology development, HRD, and infrastructure development are needed?

Who can do better in technology development, HRD, and infrastructure development?



Evaluation & Mgmt.

Perform. Analysis



What are the outcomes?



## FULL CYCLE of ICT R&D: Policy / Tech. Planning, Management, Evaluation, and Implementation







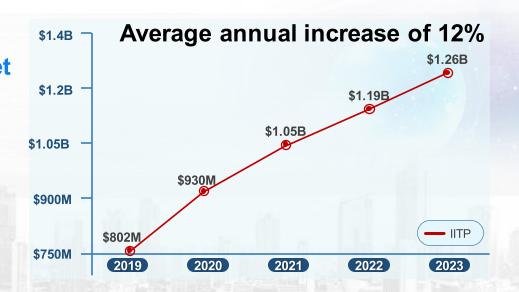


## ICT R&D Direction (1/2)

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Significant increase of the ICT budget in such areas as the Six Core Digital Technologies

Average annual increase of 12% from 2019 to 2023, for a total of USD 5.3 billion



### **Total of USD1.26 billion**

**Up USD 51.2 million** (5.6%↑) from **USD 1.196 billion in 2022** 

Technology development

66.4%
\$833M

Human Resource Development

20%
\$250M



# ICT R&D Direction (2/2)

Top10 areas: Communication-Network, Radio-Wave/Satellite, Cyber Security, Al/Data, Al Semicon., Quantum tech., ETC

